POPs

MASTER LIST OF ACTIONS
On the Reduction and/or Elimination of the Releases of Persistent Organic Pollutants

Third Edition

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UNITED NATIONS
ENVIRONMENT PROGRAMME
Chemicals

MASTER LIST OF ACTIONS
On the Reduction and/or Elimination of the Releases
of Persistent Organic Pollutants

Third Edition

Prepared by UNEP Chemicals
December 2000

IOMC
INTER-ORGANIZATION PROGRAMME FOR THE SOUND MANAGEMENT OF CHEMICALS
A cooperative agreement among UNEP, ILO, FAO, WHO, UNIDO, UNITAR and OECD
This publication is produced within the framework of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC)

The Inter-Organization Programme for the Sound Management of Chemicals (IOMC), was established in 1995 by UNEP, ILO, FAO, WHO, UNIDO and OECD (Participating Organizations), following recommendations made by the 1992 UN Conference on Environment and Development to strengthen cooperation and increase coordination in the field of chemical safety. In January 1998, UNITAR formally joined the IOMC as a Participating Organization. The purpose of the IOMC is to promote coordination of the policies and activities pursued by the Participating Organizations, jointly or separately, to achieve the sound management of chemicals in relation to human health and the environment.

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Copies of this report are available from:

UNEP Chemicals
11-13, chemin des Anémones
CH-1219 Châtelaine, GE
Switzerland

Phone: +41 22 917 1234
Fax: +41 22 797 3460

E-mail: chemicals@unep.ch
Web: http://www.chem.unep.ch

UNEP CHEMICALS

UNEP Chemicals is part of UNEP’s Technology, Industry and Economics Division
MASTER LIST OF ACTIONS

On the Reduction and/or Elimination of the Releases of Persistent Organic Pollutants

Third Edition

Issued by UNEP Chemicals
Geneva, Switzerland
December 2000
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Introduction

Background

In response to the Governing Council of the United Nations Environment Programme decision 19/13C, which requests UNEP to develop a global, legally binding instrument for POPs, UNEP has initiated a number of activities dealing with persistent organic pollutants (POPs). There are also numerous activities undertaken by Governments and Organizations at the national, regional and international levels. It has become clear that there is a need to coordinate work being done to eliminate emissions and discharges of POPs in order to help ensure effective and efficient use of resources. To facilitate such co-ordination, UNEP has developed this master list of actions that address POPs and their releases.

The first complete Master list of Actions on the Reduction and/or Elimination of Releases of POPs was distributed at the third session of Intergovernmental Negotiating Committee for an International Legally Binding Instrument for Implementing International Action on Certain POPs (POPs INC) in September 1999 (reference: UNEP/POPS/INC.3/INF/9). The second edition was distributed at the fourth POPs INC session (reference: UNEP/POPS/INC.4/INF/5). The Master List is to be updated prior to each subsequent session of the POPs INC.

To collect information for this third edition of the Master List, a letter was sent on 20-07-2000 from UNEP Chemicals to UNEP POPs Focal Points and UNEP Official Contact Points in countries that have not yet established UNEP POPs Focal Points. This letter was copied to all participants of the last INC session that was held in Bonn, Germany in March 2000. This third edition of the Master List is based on Government submissions received up until 15 October 2000. Information received after this date will be included in the next master list of actions.

This master list includes one new chapter, i.e., a section with information on activities contributing to the elimination and or reduction of releases of POPs Chemicals into the environment, received from non-government affiliated organizations, associations or institutes. NGO’s participating in the INC sessions have received a letter requesting information on their activities.

Objective

This master list consists of actions aiming at reducing and/or eliminating of releases of POPs. The master list should facilitate co-ordination and co-operation between and among activities at the national, regional and international levels in countries and organizations and thereby helping to avoid duplication of efforts and ensuring the efficient use of resources. This document is an evolving list of relevant POPs actions, including those already taken, being conducted, or planned. With the active participation of all countries and organizations, the master list can become a dynamic tool for ensuring co-ordination and complementary actions on POPs. Also this master list will form the basis for input for the Master Plan of Actions.

Countries and organizations are encouraged to use the information update forms to provide new and/or revise information already received on 1) monitoring and assessment projects (Annex 1), 2) activities aiming at the reduction and or elimination of releases of POPs Chemicals into the environment (Annex 2), and 3) the legal status of the POPs Chemicals (Annex 3).
Organization and Structure of the Tables of the Master List

The information is collected from international and regional governmental organizations, governments as well as from non-governmental organizations and is organized in a database output format in the six chapters.

- Chapter 1: Information on global actions aiming at the reduction and/or elimination of releases of POPs received from Inter Governmental Organizations (IGOs).
- Chapter 2: Information on regional and/or sub-regional actions aiming at the reduction and/or elimination of the releases of POPs received from Inter Governmental Organizations (IGOs).
- Chapter 3: Country contributions: Assessment and monitoring projects of POPs chemicals.
- Chapter 4: Country contributions: Information on POPs National Action Plans aiming at the reduction and/or elimination of the releases of POPs.
- Chapter 5: Country contributions: Information on the regulatory status of POPs; bans, restrictions, and/or other legal permitted uses.
- Chapter 6: Information on actions aiming at the reduction and/or elimination of releases of POPs received from Non-Governmental Organizations (NGOs)

The tables include information on 10 categories:

- 1. Reporting organization/ or country
- 2. Title of the project or activity
- 3. Objective of the project or activity
- 4. Timeframe
- 5. Status
- 6. Responsible organization(s)/ department(s)/ ministry(ies)
- 7. Partner(s)
- 8. Project Funder(s)
- 9. Data source
- 10. Comment(s)

The first two chapters include contributions received from Inter-Governmental Organizations (IGOs). Chapter 1 covers global actions, chapter 2 covers regional and sub-regional actions aimed at the reduction and/or elimination of the releases of POPs chemicals.

The chapters 3, 4 and 5 are country contributions, compiled from submissions received from the governmental POPs Focal Points. The chapters are organized by country in alphabetical order. Chapter 3 and 4 cover respectively Monitoring/Assessment projects and National Action Plans aiming at the reduction and or elimination of POPs Chemicals into the environment. Chapter 5 is also organized by country, and includes the following categories: banned, banned for principle use, restricted, allowed, year and as all other entries has a comment category.

Chapter 6 includes information on activities contributing to the elimination and or reduction of releases of POPs Chemicals into the environment, received from non-government affiliated organizations, associations or institutes.

Where information for a category was not provided, the category is not listed. For example, in some cases only the project title was provided so this title is all that is listed. Consequently, the tables for each country vary according to the information provided.
Chapter 1: Information on *global activities* aiming at the reduction and/or elimination of releases of POPs received from Inter Governmental Organizations.

Information received from:

1. FAO, Food and Agriculture Organization
2. GEF, Global Environment Facility
3. IPCS, The International Programme on Chemical Safety
4. SBC, Secretariat of the Basel Convention
5. UNEP, United Nations Environment Programme
6. UNITAR, United Nations Institute for Training and Research
7. WHO, World Health Organization
### FAO, UNEP, Secr. of the Basel Convention

**Title**
Unwanted stocks of pesticides and other chemicals, including POPs

**Objective(s)**
To build on the work already undertaken in Africa, inventory stockpiles of unwanted pesticides and other chemicals including POPs in other areas, including Latin America and Russia. The next step will be to develop guidance and training on the management and disposal of such stockpiles and to seek bilateral and other partners for actual management and disposal projects.

**Status**
Concurrent

**Responsible Organization(s)**
FAO, UNEP and SBC

**Partner(s)**
Bilateral and other donors of financial and technical assistance

**Data Source**
UNEP Chemicals

**Comments**
FAO will continue to serve as the lead for this work with UNEP Chemicals and SBC providing expertise and other resources in support.

### Secr. of the Basel Convention

**Title**
International Forum for the environmentally sound management of PCB’s

**Objective(s)**
To review/assess conditions of the development of national/regional action plans on the management of PCB’s

**Timeframe**
01-05 November 1999 - tentative

**Responsible Organization(s)**
Centre regional de formation et Transfert de Technologie - Dakar

**Partner(s)**
UNEP - Chemicals, UNEP - IE, Chamber of Commerce and Industry, Private sector and NGO’s

**Comments**
Field: Public Health, Occupational Health, Environmental Protection.

### Secr. of the Basel Convention

**Title**
National Programme for the environmentally sound management of PCB’s in Cote D’Ivoire

**Objective(s)**
1. To complete a national inventory.
2. To draft a national regulation.
3. To develop a national plan for the management of PCB’s.

**Timeframe**
1999 (8 months) - tentative

**Responsible Organization(s)**
Ministere de l’Environnement - Abidjan - SBC

**Partner(s)**
IAGU - Centre Regional de la Convention de Bale a Dakar

**Comments**
Field: Public Health, Occupational Health, Environmental Protection

### Secr. of the Basel Convention

**Title**
Prevention of the degredation of the quality of inland water systems and of the marine environment from the adverse effects of the generation of hazardous wastes.

**Objective(s)**
1. To assess effects of persistant organic wastes on human health and environment. 2. To prioritise action on persistant organic wastes in the Caribbean. 2. To prepare a Regional Action Programme.

**Timeframe**
To be decided further - 1999 (tentative)

**Responsible Organization(s)**
CARIRI - SBC

**Partner(s)**
UNEP - Regionally based assessment of Persistent toxic substances Project.

**Comments**
Field: Environmental Protection
Substances covered: Persistant organic substances

### Secr. of the Basel Convention

**Title**
Pilot project for the environmentally sound managedment of PCB in Cote D’Ivoire.

**Objective(s)**
To sensitishe and strengthen capacity of decision makers in developing a national programme for the managemtn of PCB’s in Cote D’Ivoire

**Timeframe**
1997-1998

**Responsible Organization(s)**
Ministere de L’Environnement - Abidjan - SBC

**Partner(s)**
Private sector

**Comments**
Field: Public Health, Occupational Health, Environmental Protection
Inventory of PCB contaminated equipment

1. To carry out a national inventory of PCB’s.
2. To collect elements for a national plan for the environmentally sound management of PCB’s.

1997-1998
University of West Indies (UWI)- SBC
Field: Occupational Health, Environmental Protection

Regional Inventory of hazardous wastes, focusing on discarded and outdated chemicals.

To complete a regional inventory according to B:C: classification.

1998
CEHI? - St. Lucia (SBC)
Field: Public Health, Environmental Protection.
Substances: discarded and outdated chemicals

Intergovernmental Negotiating Committee for an International Legally Binding Instrument for Implementing International Action on Certain POPs

To prepare an international legally binding instrument for implementing international action initially beginning with the twelve specified persistent organic pollutants, including criteria and a procedure for adding further POPs to the instrument.

1997-2001
UNEP
UNEP Chemicals

Regional and Sub-regional Awareness Raising Workshops

To alert national contact points to the key scientific and policy issues relating to POPs, to help countries and national officials prepare for the upcoming negotiations on a global POPs convention, and to assist them in determining what immediate national and/or regional actions may be appropriate to protect against the risks of POPs.

July 1997-June 1998 (Eight workshops)
UNEP and IFCS
UNEP Chemicals

Regional and Sub-regional POPs Management Workshops

To encourage countries to initiate development of national strategies and action plans for reducing/eliminating releases of POPs, to assist national officials, including POPs national focalis to UNEP, in implementing immediate national and/or regional actions determined to protect againsts the risks of POPs and to prepare countries for technical implementation of a future global convention on POPs.

Undetermined (Only two workshops held thus far in Hanoi, Vietnam for Asia and the Pacific in March 1999 and in Lusaka, Zambia for the Southern African Development Community, SADC in February 2000)
UNEP
UNEP Chemicals

Information Exchange

To facilitate information, on both POPs themselves as well as on alternatives and techniques that may represent options for replacing or reducing/eliminating releases of POPs.

Concurrent
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**UNEP Chemicals**

**Title**

Alternatives Approaches (Chemical and Non-Chemical) to POPs pesticides

**Objective(s)**

To facilitate information, on alternatives and techniques that may represent options for replacing or reducing/eliminating releases of POPs. It should be noted that not only chemical substitutes are covered but also biological, environmental and other alternative approaches, as well as experiences in using these. A number of these information products are developed in collaboration with, or based on work made by other organizations, including those with specialization in certain fields like WHO and FAO.

? To develop and implement a Training and Capacity Building Programme to assist countries to replace POPs and preventing/reducing their releases

**Timeframe**

Ongoing

Workshop held in Bangkok, Thailand March 6-10, 2000 on sustainable approaches for pest and vector management and opportunities for collaboration in replacing POPs pesticides

**Status**

Concurrent

**Responsible Organization(s)**

UNEP-Chemicals

**Partner(s)**

WHO and FAO

**Project Funder(s)**

The United States of America, The Inuit Circumpolar Conference (ICC)

**Data Source**

UNEP-Chemicals

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**UNEP Chemicals**

**Title**

PCB identification and management training

**Objective(s)**

To provide information and training on identifying and managing PCBs and materials containing PCBs

**Timeframe**

Planned:

Cameroon (Yaoundé) 17-21 APR 2000
Iran (city not yet determined) 24-28 JUN 2000
Uruguay (Montevideo or Punta del Este) 18-22 SEP 2000
Tanzania (Arusha) 9 -13 OCT 2000

**Status**

Planned

**Responsible Organization(s)**

UNEP Chemicals and the Secretariat for the Basel Convention (SBC)

**Project Funder(s)**

Germany, Norway, US

**Data Source**

UNEP Chemicals

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**UNEP Chemicals**

**Title**

Dioxins and furans information collection and management training

**Objective(s)**

To facilitate the generation and collection of information to identify and quantify sources of dioxins and furans. The activities will cover process that may generate dioxins and furans, help to identify products and residues potentially contaminated with these compounds, and give guidance on what techniques and technologies have been successfully applied to reduce release of dioxins and furans. Guidance and information documents will be produced and made available to all interested countries.

**Timeframe**

Planned:

Cameroon (Yaoundé) 17-21 APR 2000
Iran (city not yet determined) 24-28 JUN 2000
Uruguay (Montevideo or Punta del Este) 18-22 SEP 2000
Tanzania (Arusha) 9 -13 OCT 2000

**Status**

Planned

**Responsible Organization(s)**

UNEP Chemicals

**Data Source**

UNEP Chemicals

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**Title**

Persistent Toxic Substances (PTS)- Assessment of National Management Needs of PTS (PDF-B)

**Objective(s)**

The primary deliverable of the full project will be to develop widely applicable guidelines for assessing national level problems related to persistent toxic substances and the need of countries in terms of managing them and to develop a Strategic Action Plan (or strengthening of) for the management of chemicals, particularly PTS

**Timeframe**

10 months (December 1999- september 2000)
It is proposed that a limited number of country case studies be conducted to assess how developing countries might undertake an assessment of, and identify potential problems related to, persistent toxic chemicals and what actions are required to address and prevent these problems. This bottom-up approach would complement the Regionally Based Assessment and would be comparable to the country studies that were carried out in the initial phases of work under the Montreal Protocol, the Framework Convention on Climate Change, and the Convention on Biological Diversity.

The selected countries should be representative of the different regions of the world, different stages of economic development, and the extent of present use of PTS. The PDF-B will be executed with the collaboration of a number of partners including the World Bank, UNDP, FAO, and the Organisation for Economic Co-operation and Development (OECD).

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**Title**

Regionally-based Assessment of Persistent Toxic Substances

**Objective(s)**

This regionally-based assessment is being undertaken to enable policy-makers to evaluate the priorities in addressing these substances, to provide a framework for GEF interventions, to complement the negotiations on an international legal agreement on POPs and with the ultimate goal of prioritising issues and areas for future GEF interventions.

**Timeframe**

24 scheduled to begin in April 2000

**Status**

Planned

**Responsible Organization(s)**

Implementing agency: UNEP

Executing agency: UNEP

**Project Funder(s)**

GEF, UNEP, SBC

**Data Source**

Persistent Toxic Substances and UNEP, in the Global Environment Facility

**Comments**

The current data on the origins, production, use, pathways and deposition of persistent toxic substances in most regions of the world, is deficient. There is little information, particularly in developing countries, on environmental levels and trends, threats to, and exposure of, humans and the environment to these substances. This assessment is complimentary to, and supportive of, the Global International Waters Assessment, giving special in-depth consideration to the issue of persistent toxic substances, and will be conducted through a regional approach. The objectives are to: (i) demonstrate the transboundary nature of persistent toxic substances; (ii) analyze the major transport mechanisms; (iii) identify major sources and production of the concerned substances; (iv) characterize the exposure of humans and the ecological implications; (v) analyze the socio-economic implications of the problems; and (vi) identify alternatives to the use of chemicals and alternative management methods.

The project will be executed with the collaboration of a number of partners including the World Bank, the Food and Agriculture Organization of the United Nations (FAO), UNDP, the United Nations Industrial Development Organization (UNIDO), the United Nations Institute for Training and Research (UNITAR) and the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP), NGO's, donors and others.

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**Title**

UNITAR/IPCS/UNEP Chemicals/EC Training and Capacity Building Programme on Risk Assessment and Risk Management

**Objective(s)**

The programme aims to provide practical experience and build capacities in developing countries related to the development of chemical-specific risk reduction strategies. Through pilot case studies, country-based task forces will work through a systematic risk management decision-making process, starting from the risk assessment stage, to identification of possible risk reduction options and development of a proposed risk reduction strategy. The programme will make use of existing risk assessment and risk management materials and expertise available from various organizations and countries, thus the outcomes of the pilot case studies will also serve to indicate the potential utility of such approaches and tools to the needs and circumstances of developing countries.

**Timeframe**

1998-1999
UNITAR/IOMC Pilot Programme to Assist Countries in Implementing National Action Programmes for Integrated Chemicals Management.

The programme aims to support developing countries and countries in economic transition in implementing a formal national process to address priority issues and to strengthen the overall institutional infrastructure for chemicals management through a systematic process which involves all concerned parties and which builds on the results of the National Profile process. In the context of a National Action Programme, Technical Task Forces are set up to address identified priority areas of national chemicals management capacity building, and a policy-level National Coordinating Team is established to ensure coordination among the various task force activities. To test this approach, UNITAR/IOMC initiated a pilot programme in 1997 in partnership with Argentina, Ghana, Indonesia and Slovenia.

1996-1999

UNITAR

UNITAR UNEP Chemicals

Field: Development of a National Plan of Action for Addressing POPs

Objective(s)

The document is intended for a national task force or committee which has been given the mandate to develop a national strategy and action plan to address POPs. It aims to assist task force members in thinking through key issues which may be of importance in initiating a systematic national process, with involvement of all concerned parties, towards the goal of reducing emissions of POPs, with a particular focus on production, use and disposal. The document forms part of a Pilot Series of Thought Starters in Support of National Capacity Building Initiatives for the Sound Management of Chemicals.

Status

Concurrent

WHO

Title

Action Plan for the Reduction of Reliance on DDT Use for Public Health Purposes

Objective(s)

1. To support Member States (globally) in making informed decisions about reduction and/or elimination of reliance on DDT for vector control while ensuring that no adverse health consequences result from these actions. 2. To provide guidance and technical assistance on the development, implementation and evaluation of alternatives to the use of DDT for vector control. 3. To mobilize and establish effective partnerships in support of reducing reliance on DDT.

Status

Concurrent
World Health Organization: its Headquarters in Geneva and its six Regional Offices
WHO Collaborating Centers, relevant multilateral and bilateral agencies and NGOs
WHO, U.S. Government, Danish Government. Additional funds are required and are being solicited from various external support agencies.
WHO, Roll Back Malaria
The action plan involves three strategic principles: 1) involvement of all countries still using DDT for vector control, 2) early identification of funding mechanisms for alternatives, and 3) the need for advocacy. WHO will assist Member States to: a) conduct needs assessments to establish base-line data on current vector control programs as the basis for national action plans to reduce reliance on DDT without adverse public health consequences; b) ensure the safe management of DDT stockpiles in collaboration with FAO and industry; c) support research on alternatives through institutional research networks; d) monitor and evaluate disease control programs; e) mobilize resources to ensure that the necessary technical and financial support is available for strengthening disease control programs.

Environmental Health Criteria Monographs (EHCs).
- Assessment of risks to human health and the environment from exposure to chemicals. Substances covered: Aldrin and Dieldrin, DDT and derivatives, Endrin, HCB, Chlordane, Heptachlor, Mirex, and Dioxins, furans
IPCS
UNEP, ILO and IPCS Participating Institutions.
Aldrin and Dieldrin (n°91, 1989); DDT Environmental aspects (n°83, 1989); DDT and Derivatives (n°9, 1979); Endrin (n°130, 1992); Hexachlorobenzene (n°195, 1997); Chlordane (n°34, 1984); Heptachlor (n°38, 1984); Mirex (n°44, 1994); PCB (n°2, 1976/ n°140, 1993); Dioxins and Dibenzofurans (n°88, 1989/ n°205, 1998).

Joint FAO/WHO Meeting on Pesticide Residues
Assessment of risks to human health from exposure to pesticides, mostly through food. Substances covered: Aldrin; Dieldrin; Endrin; Heptachlor; Hexachlorobenzene; Mirex; DDT; Chlordane, Toxaphene.
IPCS
FAO
Chapter 2: Information on *regional and/or sub-regional activities* aiming at the reduction and/or elimination of releases of POPs received from Inter Governmental Organizations.

Information received from:

1. AMAP, Arctic Monitoring Action Plan
2. CEC-NAFTA, Commission for Environmental Cooperation of the North American Free Trade Agreement
3. GEF, Global Environment Facility
4. IPCS, The International Programme on Chemical Safety
5. OSPAR, Convention for the Protection of the Marine Environment of the North-East Atlantic
6. ROPME, Regional Organization for the Protection of the Marine Environment
7. SPREP, South Pacific Regional Environmental Programme
8. UNEP, United Nations Environment Programme
9. UN-ECE, United Nations Economic Commission for Europe
10. UNIDO, United Nations Industrial Development Organization
11. WHO, World Health Organization
### AMAP

**Title:** The Arctic Monitoring and Assessment Program  
**Objective(s):** To monitor the levels of, and assess the effects of POP’s on the Arctic ecosystems and Arctic peoples. To monitor spatial and temporal trends in the circumpolar area north of approx. 60°.  
**Timeframe:** 1991-1997 First Assessment report is presented. 1998-2003 Monitoring research and assessment is ongoing.  
**Status:** Concurrent  
**Responsible Organization(s):** Arctic Monitoring and Assessment Program (AMAP)  
**Partner(s):** UK The Netherlands and Germany. UN-ECE, UNEP, ILES, OSPAR, etc.  
**Project funder(s):** The eight Arctic countries: Canada, Denmark/Greenland, Iceland, Norway, Russia, Sweden and USA.  
**Data Source:** The data gathered is stored at thematic data centres.  
**Comments:** Ongoing and new initiated national, bilateral and international programmes. National reporting on sources.

### CEC-NAFTA

**Title:** North American Regional Action Plan on DDT, Chlordane, and PCB Regional Action Plans 1997, under the Sound Management of Chemicals Project, December 1996

### CEHI- ST. Lucia (SBC)

**Title:** Regional inventory of hazardous wastes, focusing on discarded and outdated chemicals.  
**Objective(s):** To complete a regional inventory according to Basel Convention: classification.  
**Timeframe:** 1998  
**Status:** Field: Public Health; Occupational Health; Environmental Protection.  
**Substances covered:** discarded and outdated chemicals

### OSPAR

**Title:** The 1992 OSPAR Convention, 1998: OSPAR Strategy with the regard to Hazardous Substances, 1999

### ROPME

**Title:** Pilot Study on POPs  
**Objective(s):**  
1. Carry out surveys of Land-Based activities/sources in the ROPME Sea Area (RSA).  
2. Identify POPs more specific to the RSA.  
3. Compile information on production and use of POPs by various sectors.  
4. Assess the amount of POPs unintentionally produced by different sectors.  
5. Assess inputs of POPs into the marine environment from different point and diffuse sources.  
6. Assess the spatial and temporal distribution of POPs in the RSA.  
7. Assess capabilities and constraints for compliance and trend monitoring of POPs.  
8. Review existing national policies, strategies, programmes and measures for the reduction and/or elimination or emissions and discharges of POPs.  
9. Prepare a regional plan of action for the reduction and/or elimination of emissions and discharges of POPs, as well as for the regional monitoring programme.  
10. Carry out training workshops on sampling and analyses of POPs, including a Quality Assurance Component.  
**Timeframe:** 1999-2000  
**Status:** Concurrent  
**Partner(s):** IAEA-Monaco and UNEP (Water Branch, GPA, ROWA)

### SPREP

**Title:** Persistent Organic Pollutants in Pacific Island Countries (POPs in PICs)  
**Objective(s):** To upgrade regional capacity for the management of POPs and related chemicals, in order to eliminate the threats posed by these towards the environment and human health.  
12 Countries in the South Pacific: -Cook Islands, Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu  
**Timeframe:** 1997-1999 (Phase 1 - inventories)  
2000-2002 (Phase 2 - clean-up)  
**Responsible Organization(s):** SPREP
### Management of Persistent Organic Pollutants in Pacific Islands

**Partner(s):** Governments in the target countries  
**Project funder(s):** AUSAID  
**Data Source:** SPREP  
**Comments:** The Phase 1 Report, Waste and Obsolete Chemicals and Chemical Contaminated Sites, has been published by SPREP in August 2000.

#### SPREP

**Title:** Management of persistent Organic Pollutants in Pacific Island Countries  
**Objective(s):** Identification and disposal of waste and obsolete chemicals and identification and remediation of chemicals contaminated sites.  
**Timeframe:** 1998-2001  
**Partner(s):** AUSAID  
**Comments:** Field: Environment Protection, Public Health  
Other substances: industrial chemicals, medical wastes, laboratory chemicals, bitumen oil.

### Convention on Long-range Transboundary Air Pollution, 1979

**Status:** Concurrent  
**Title:** Pilot Project Demonstrating the Environmental Clean-up of Selected Sites Polluted by Chemicals (Central and Eastern Europe)  
**Objective(s):** Seminar on POPs, Plan of Action on POPs reducing and elimination in the Russian Federation

**Comments:** Timeframe

### UN-ECE Trade Division

**Title:** Pilot Project Demonstrating the Environmental cleaning of Selected Sites Polluted by Chemicals  
**Objective(s):** By use of one pilot site by country, to demonstrate to governments the approach to cleaning chemically polluted sites as model for other sites in the country.  
**Timeframe:** 5 to 10 years  
**Comments:** Substances covered: Heavy metals, chlorinated solvents, PAH’s, mixed contaminants.

### Mediterranean Action Plan, 1975

**Status:** Concurrent

- Land-Based Sources Protocol
- Barcelona Convention, 1976
- The LBS Protocol, 1996

### Strategic Action Programme to Address Pollution from Land-based Activities (SAP)

**Status:** Concurrent  
**Title:** Strengthening National Chemicals Management in countries of the Commonwealth of Independent States  
**Objective(s):** Strengthening National Chemicals Management

### Protection of the Marine Environment from Land-based activities in the Eastern African Region (regional) component of the Programme of Action

**Status:** Concurrent

### Reducing Pesticide Runoff to the Caribbean Sea (PDF-B)

**Status:** Concurrent  
**Title:** Protection of the Marine Environment from Land-based activities in the Eastern African Region (regional) component of the Programme of Action  
**Objective(s):** The project will assist Colombia, Costa Rica, Nicaragua and Panama in developing comprehensive management practices and specific measures to control the use of pesticides in the agricultural sector. In the framework of a National Action Plan, the project will strengthen national regulatory systems and promote the use of economic instruments and alternatives including Integrated Pest Management.  
**Timeframe:** 15 months (April 1999- June 2000)
**Status**
Concurrent

**Responsible Organization(s)**
Implementing agency: UNEP
Executing agency: The Secretariat of the Cartagena Convention (CAR/RCU), Colombia, Costa Rica, Nicaragua, Panama

**Executing agency**: The Secretariat of the Cartagena Convention (CAR/RCU), Colombia, Costa Rica, Nicaragua, Panama

**Project funder(s)**
PDF-B funding (GEF, UNEP, Governments, Counterparts)

**Data Source**
Persistent Toxic Substances and UNEP, in the Global Environment Facility

**Comments**
The use of pesticides in agriculture, particularly in large scale production of export crops, poses a serious threat to both human health and the aquatic environment, and has transboundary effects through the hydrological cycle and atmospheric pathways. The objective of the project is to reduce the use of, and reliance on, pesticides in the agricultural sector of four Caribbean countries. The PDF-B is being executed in collaboration with a number of partners including the World Bank, UNDP, FAO and the Inter-American Development Bank.

### Persistent Organic Pollutants, Food Security, and Indigenous Peoples in Arctic Russia (PDF-A)

**Title**
Persistent Organic Pollutants, Food Security, and Indigenous Peoples in Arctic Russia (PDF-A)

**Objective(s)**
The objectives of the project are to ascertain the level of key POPs in “country food” and in blood and lipid tissues of selected populations and to analyze the health and dietary implications of these findings

**Timeframe**
4 months (January 1999 - April 2000)

**Status**
Finished

**Responsible Organization(s)**
Implementing agency: UNEP
Executing agency: Inuit Circumpolar Conference (ICC)

**Project funder(s)**
PDF-B funding (GEF, AMAP, ICC, Russian Association of Indigenous Peoples (RAIPON), McGill University- Centre for Indigenous People Nutrition & the Environment (CINE))

**Data Source**
Persistent Toxic Substances and UNEP, in the Global Environment Facility

**Comments**
It has been shown that, due to their reliance on fishing, hunting and herding, Arctic indigenous peoples are particularly prone to accumulate contaminants via ingestion of contaminated food. However, there is no data on the exposure to contaminants of arctic indigenous populations from the Russian Federation. Particular emphasis will be placed on exposure via aquatic pathways and on the actions necessary to reduce this route of exposure, thus contributing to an improvement in the quality of the Arctic aquatic environment. The PDF-A is being executed in partnership with RAIPON, CINE, Saami Council, AMAP and the State Committee of the Russian Federation for Environmental Protection. The PDF-A is expected to lead to a medium-size project, of 3 years duration, which will commence in the last quarter of 1999.

### Identification of priority hot-spots and conduct of pre-investment studies for remedial action in support of the National Plan of Action for the Protection of the Marine Environment from Anthropogenic Pollution in the Arctic Region of the Russian Federation. (PDF-B)

**Title**
Identification of priority hot-spots and conduct of pre-investment studies for remedial action in support of the National Plan of Action for the Protection of the Marine Environment from Anthropogenic Pollution in the Arctic Region of the Russian Federation. (PDF-B)

**Objective(s)**
The main objective of the project is to conduct pre-investment studies of the priority hot spots with significant transboundary consequences that will have been identified during the PDF-B phase.

**Timeframe**
17 Months (July 1999 – January 2001)

**Status**
Concurrent

**Responsible Organization(s)**
Implementing agency: UNEP
Executing agency: Inuit Circumpolar Conference (ICC)

**Project funder(s)**
PDF-B funding (GEF, AMAP, ICC, Russian Association of Indigenous Peoples (RAIPON), McGill University- Centre for Indigenous People Nutrition & the Environment (CINE))

**Comments**
Preliminary definition and analyses of the sources of degradation for the Arctic region of the Russian Federation have been carried out, and provided input to the preparation of the "Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-Based Activities". This, however, defines neither the priorities nor the costs of interventions of a remedial or mitigating nature.

The PDF-B is being executed in partnership with the World Bank, the Russian Inter-Agency Task Team, the Russian Duma and the International Task Team for the NPA-Arctic.

### GEF PDF-B/WIO, Preparation of Transboundary Diagnostic Analysis (TDA) of the Western Indian Ocean (WIO) and related Strategic Action Programme

**Title**
GEF PDF-B/WIO, Preparation of Transboundary Diagnostic Analysis (TDA) of the Western Indian Ocean (WIO) and related Strategic Action Programme
Comprehensive Action Program to phase out the Use of DDT and reduce the Long-term Effects of exposure in Mexico and Central America (PDF-B proposal)

The project will support the phase out of DDT in Mexico, and in Central America by relying on the Mexican experience. Alternatives to DDT will be implemented in selected sub-sets of the region. One particular component of the project will assess the relative costs and benefits of DDT and alternatives.

Timeframe
12 Months (September 1999 – August 2000)

Status
Concurrent

Responsible Organization(s)
Implementing agency: UNEP
Executing agency: Regional: Pan American Health Organization (PAHO)
National: Institutions that are Focal points of the Program on Health and Environment in the Central American Isthmus (MASICA) and the Occupational and Environmental Aspects of Pesticides in the Central American Isthmus Project (PLAGSALUD)

Project funder(s)
PDF-B funding: (GEF, PAHO, Commission for Environmental Cooperation (CEC))

Persistent Toxic Substances and UNEP, in the Global Environment Facility

At present, DDT is cheap, readily available, and thought to be an efficient way to control disease vectors, particularly the Anopheles that transmit the Plasmodium parasite causing malaria. Some chemical and non-chemical alternatives to DDT exist, but their efficiencies have not always been fully demonstrated. More importantly, a net benefit analysis of the use of DDT and its alternative has not been undertaken.

The PDF-B will assess in particular the state of the use of DDT for public health in the region and the barriers to the adoption of alternatives. The PDF-B will be executed with the collaboration of the CEC, the Organization of American States and the International Development Research Centre.
<table>
<thead>
<tr>
<th>Title</th>
<th>Assessment of levels of PCDDs, PCDFs and PCBs in mothers' milk</th>
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<tr>
<td>Objective(s)</td>
<td>Evaluation of overall exposure in various countries, and assessment of trends</td>
</tr>
<tr>
<td>Timeframe</td>
<td>Ongoing</td>
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<tr>
<td>Responsible Organization(s)</td>
<td>World Health Organization (WHO)</td>
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<tr>
<td>Partner(s)</td>
<td>Country contact points.</td>
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</tbody>
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Chapter 3: Country contributions; Assessment and Monitoring projects of POPs chemicals.

Information received from:

1. Argentina
2. Armenia
3. Australia
4. Austria
5. Barbados
6. Belgium
7. Brazil
8. Canada
9. Chad
10. Chile
11. Congo
12. Costa Rica
13. Cuba
14. Cyprus
15. Czech Republic
16. Ecuador
17. Estonia
18. Ethiopia
19. Fed. St. of Micronesia
20. Fiji
21. Finland
22. France
23. Gambia, The
24. Germany
25. Ghana
26. Ghana
27. Greenland
28. Hungary
29. Iceland
30. Indonesia
31. Ireland
32. Italy
33. Jamaica
34. Japan
35. Jordan
36. Kazakhstan
37. Kuwait
38. Laos
39. Latvia
40. Lebanon
41. Lithuania
42. Malaysia
43. Mexico
44. Moldova
45. Nepal
46. New Zealand
47. Nicaragua
48. Niger
49. Norway
50. Panama
51. Paraguay
52. Peru
53. Philippines
54. Poland
55. Portugal
56. Romania
57. Saudi Arabia
58. Singapore
59. Slovakia
60. Slovenia
61. South Africa
62. South Korea
63. Sri Lanka
64. Sudan
65. Sweden
66. Switzerland
67. Thailand
68. Togo
69. Turkey
70. Ukraine
71. United Kingdom
72. United States
73. Uruguay
74. Yemen
75. Yugoslavia
76. Zambia
Calidad de las aguas de la Franja Costera Sur del Río de la Plata

Realizar un diagnóstico actualizado de la calidad del agua, tanto en relación a los aportes costeros como al destino final de aquellas especies consideradas indicadoras de contaminación (física, química y biológica) que pudieran llegar a dificultar y/o impedir los usos legítimos del recurso agua, y en relación a los fenómenos meteorológicos, hidrológicos y mareológicos. Entre los 47 parámetros analizados se determinaron los siguientes plaguicidas organoclorados: alfa, beta y gamma-HCH, aldrin, heptacloro epoxi, dieldrin, o-p'DDE, p-p'DDE, endrin, o-p'DDT, p-p'DDD y Mirex.

El área de estudio fue la Franja Costera Sur del Río de la Plata, desde San Isidro hasta Magdalena (Pcia. De Buenos Aires).

Objective(s)  
Status  
Timeframe  
Responsible Organization(s)  
Partner(s)  
Project Funder(s)  
Data Source  
Comments

Insecticidas organoclorados en Fauna Lítica perteneciente a la cuenca del Río Paraná.

Estudiar los niveles de plaguicidas organoclorados en muestras de agua, material suspendido y tejido graso del Prochilodus lineatus (sábalo). Se analizaron heptacloro; heptacloro-epoxi; clorodano alfa y gamma; dieldrin; DDE; DDT. Zona de estudio: Cuenca del Río Paraná, kilómetro 600, áreas cercanas a las ciudades de Santa Fé (Provincia de Santa Fé) y Paraná (Provincia de Entre Ríos)

Objective(s)  
Status  
Timeframe  
Responsible Organization(s)  
Partner(s)  
Project Funder(s)  
Data Source  
Comments

Pesticidas Organoclorados y Organofosforados en el Río Paraná.

Establecer niveles, transporte, persistencia y dispersión de plaguicidas en agua y material suspendido. El área de estudio fue el Río Paraná a la altura del kilómetro 600, cercana a las ciudades de sabta Fé (pça. De Santa Fé) y Paraná (Pcia. De Entre Ríos)
**Argentina**

**Title**
Contaminación de Plaguicidas Organoclorados en muestras de Leche Materna de mujeres de Santa Fé.

**Objective(s)**
Determinar la concentración de heptacloro, aldrin, DDE, gamma-HCH, alfa-HCH, HCB, endosulfan, clordano, dieldrin, endrin, DDT en leche materna e identificar fuentes probables de contaminación. El área de estudio fue la Provincia de Santa Fé.

**Timeframe**
1994-1995

**Status**
Finished

**Partner(s)**
Lenardón A.; Maitre M.J.; Lorenzatti E.; Enrique S.

**Project Funder(s)**
UNL- Universidad del Litoral

**Data Source**

**Comments**
El 66% de las muestras presentan residuos de plaguicidas. Los más frecuentemente detectados fueron Heptacloror, Endosulfan, Clordano y gamma_HCH. Las concentraciones más elevadas fueron de DDE, Endosulfan, Clordano y gamma-HCH. Otros compuestos, tales como HCB, alfa-HCH, Heptacloro, Aldrin, Dieldrin, Endrin, y DDT fueron detectados en menos del 20% de las muestras.

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**Argentina**

**Title**
Hidrocarburos clorados en agua de mar y sedimentos de superficie de Bahía Blanca, Argentina*.

*(Chlorinated hydrocarbons in the seawater and surface sediments of Blanca Bay, Argentine).

**Objective(s)**
Medición de la concentración de hidrocarburos clorados: alfa-BHC, lindano, heptacloro, gamma-BHC, aldrin, heptacloro-epoxi, dieldrin, o-p DDD, p-p DDD, o-p DDT y p-p DDT, en agua de mar y sedimentos de superficie. Los estudios se realizaron en distintos puntos de monitoreo localizados en Bahía Blanca (Provincia de Buenos Aires)

**Timeframe**
1980-1981

**Responsible Organization(s)**
Laboratorio de Química Marina- Instituto Argentino de Oceanografía (IADO

**Partner(s)**
Sericano J. L; Pucci A. E.

**Project Funder(s)**
Consejo Nacional de Investigaciones Científicas y técnicas (CONICET

**Data Source**

**Comments**
El estudio realizado mostró que en agua de mar se detectaron: alfa-BHC, lindano, heptactilo, gamma- BHC, aldrin, o-p DDT y p-p DDT. Mientras que en sedimentos se encontraron: alfa- BHC, lindano y heptactilo. Las concentraciones de dieldrin, heptactilo-epoxi, o-p DDD y p-p DDD estuvieron por debajo de los límites de detección. En la interfase agua-aire se detectaron 18 veces más compuestos organoclorados que en la zona más profunda (aproximadamente 12m). Las concentraciones de lindano, heptactilo y gamma- BHC decrecieron en aquellas muestras conteniendo pequeña cantidad de material particulado, y alfa- BHC y aldrin no presentaron cambios. No se encontró una correlación significativa entre las concentraciones de
compuestos organoclorados y la cantidad de material orgánico particulado en las muestras de agua de mar.

**Armenia**

**Title**
Exposure and measuring of POPs sources on the Territory of the Republic of Armenia and risks of impact on health and the environment.

**Objective(s)**
Identify POPs sources in industry, agriculture, to analyse POPs residues in soil samples, surface water (in the rivers Hrazdan, Sevджur, Arpa, Kasakh), Lake Sevan, breast milk samples of rural population.

**Timeframe**
From December 1st, 1999 to April 1st, 2000.

**Status**
Finnished

**Responsible Organization(s)**
Ministry of Nature Protection of the Republic of Armenia, Department of Hazardous Substances and Waste Management

**Partner(s)**
1. Scient. Research Institute of Environment, Hygiene and Preventive Toxicology.
2. Scient. Research Institute of General Hygiene and Occupational Diseases
3. Institute of Hydroecology and Ichthyology
4. Plant Protection Research Institute
5. Soil Sciences and Agrochemistry Institute

**Project Funder(s)**
UNEP chemicals

**Data Source**
Anahit Aleksandryan. Email: analeks@freenet.am. Tel: (3742)53 88 38 / Fax: (3742) 15 19 38.

**Australia**

**Title**
Monitoring of PCBs in Australia

**Objective(s)**
To collate data that already exists (published and unpublished) on levels of PCBs in the Australian environment, and to identify gaps in current monitoring data collection. The report also makes recommendations for future monitoring reports. Coverage is of Australia, and in particular its foodstuffs and breast milk of nursing mothers; sewage treatment plants; landfills and wildlife

**Timeframe**
1998

**Status**
Finnished

**Responsible Organization(s)**
The National Advisory Body on Scheduled Wastes. That body reports to ANZECC- the Australia and New Zealand Environment and Conservation Council, which comprises representatives of the NZ, Australian federal and Australian state and territory governments. The Secretariat for the National Advisory Body is located in EA

**Project Funder(s)**
Waste Secretariat of EA

**Data Source**
Various monitoring programmes run by state and federal agencies

**Comments**
Conducted in 1998, reports data from sources generally published in 80’s and 90’s. Reports available at:

**Australia**

- Technical report relating to processes involved in the production and emission of dioxins and furans

**Status**
No info

**Data Source**
these reports are available on the Environmental Australian Homepage under “International Chemicals” (www.environment.gov.au/ic.html#pops).

**Australia**

**Title**
Report on Organo chlorine pesticide levels in Australia

**Objective(s)**
To report the data and identify gaps in data on levels of OCPs in the Australian environment. Covers air, coastal and inland waters, land, wildlife, foods, humans wastes

**Timeframe**
from the 60’s to 1999

**Status**
Finnished

**Responsible Organization(s)**
Prepared by Envirotest for EA, with some of the funding being contributed by Australian states and territories

**Project Funder(s)**
Commonwealth of Australia, and the states and territories, through the Scheduled Waste Secretariat
Data Source
Various monitoring programs which have published their results.

Comments
Includes some limited coverage of Southern Ocean/ Antarctica. This report
collates historical and recent data (from the 60’s to 1998). This report was
published November 1999. It is expected to be available on the web by the end
of 2000-relevant website:

Australia

Title
Characterization and estimation of Dioxin & Furan Emissions from Waste
Incineration & Metal Processing Facilities

Objective(s)
To characterize waste incineration and metal processing facilities and to
estimate dioxin/furan emissions, relying wherever possible on local data

Timeframe
Report on dioxins from waste incineration published July 2000, report on metals
processing intended to be completed October 2000

Status
Finished

Responsible Organization(s)
Environment Australia (EA)

Project Funder(s)
EA, Australian government

Data Source
Publicly available test data, Contact Pamela Harris at pamela.harris@ea.gov.au

Comments
Covers last decade, in particular, although some earlier data is included, due to
be completed, August 1999. Relevant website:

Australia

Title
The quantity and Quality of Run-off to Darwin Harbour

Objective(s)
To measure the volume of water flowing to the harbor from four different land
use areas, and to determine the quality of this water as measured by metals,
nutrients, suspended material, and pesticides (including Mirex)

Geographical coverage: The Darwin Harbour Catchment

Timeframe
1995-2000

Status
Concurrent

Responsible Organization(s)
Northern Territory Department of Lands, Planning and Environment, Natural
Resource Division

Partner(s)
The Commonwealth Government

Project Funder(s)
50% the Commonwealth Government
50% The NT Government

Data Source
Armando Padovan, Project leader, Personal Communication

Comments
Monitoring took place over 1995/96 and 1996/97 wet seasons, final report due
this year. Mirex has not been detected in water sediment compartments

Austria

Title
MONARPOP - Monitoring Network in the Alpine Region for Persistent Organic
Pollutants

Objective(s)
- To investigate the load of POPs in remote Alpine regions focused on forests
- To clarify the role of the Alps as sink for POPs and establish an inventory
  - Spruce needles will serve as the major monitoring tool, giving the possibility to
    identify regional and seasonal differences of the load
- Identification of altitudinal effects on the concentration of POPs
- Identify the impacts on the ecosystem
- Identify the concentration of POPs in Alpine mammals and other faunistic
  aspects at a later stage

The project should cover most of the Alpine region. The Czech Republic,
France, Germany, Italy and Switzerland are invited to participate in the
monitoring network. Austria is starting the monitoring network program this year
by collecting data from a north-south profile which extends from southern
Austria to Slovenia.

Timeframe
First monitoring north-south-profile between Slovenia and Austria will be
sampled in the year 2000 overall timeframe: 2000-2003

Responsible Organization(s)
Federal Ministry of Agriculture, Forestry, Environment and Water Management,
Unit 1/2 U Chemicals Policy, Austrian Environment Agency
contact person: Ms. Aline Berthold, e-mail: aline.berthold@bmw.gv.at

Unit Forest Ecology; contact person: Mr. P. Weiss, e-mail: weissp@ubavie.gv.at

Partner(s)
Slovenia is included in the first part of the monitoring network. Other countries
in the Alpine region are invited to participate.

Project Funder(s)
Federal Ministry of Agriculture, Forestry, Environment and Water Management
INTERREG (EU-funding)
Some data are available from prior monitoring programs:
Weiss P., Lorbeer G., Scharf S. 2000: Regional aspects and statistical characterization of the load with semivolatile organic compounds at remote Austrian forest sites. Chemosphere, 40 (9-11), 1159-1172.
English summary of an extensive previous report in http://www.ubavie.gv.at “Publikationen", "Monographien", "Monographien, Band 97"

### Austria

**Title**
Monitoring of the soil condition.

**Objective(s)**
The federal province of Upper Austria carries out a very extensive monitoring of the soil condition. Samples of 280 locations were analyzed also for aldrin. Since recently the federal environment agency is building up a nation-wide soil condition survey.

**Timeframe**
1993

**Status**
Finnished

**Data Source**
Soil condition Surveys, published by several federal provinces, basing on the provincial soil conservation regulations; upper Austrian Soil Condition Survey 1993; Landesverlag, Linz 1993.

### Austria

**Title**
Periodic checking of groundwater.

**Objective(s)**
Check for residues of pesticides. Between 1991 and 1996, 3747 samples were analyzed for Aldrin and Dieldrin, 32 of them were found to be positive, but none of them contained more than 0,1 µg/l.

**Timeframe**
1991-1996

**Status**
Finnished

**Data Source**

### Austria

**Title**
Periodic checking of food for pesticides residues

**Objective(s)**
From 1985 to 1991, 482 samples of raw milk from all over Austria were analyzed for 17 pesticides and PCB.

**Timeframe**
1985-1991

**Status**
Finnished

**Data Source**
Federal Law Gazette n°747/1995 concerning maximum values of residues of pest control agents in and on food products.
Internal compilation of food samples examinations 1996 by the Federal Ministry of Health and Consumer Protection
Federal Law Gazette n°448/1991 concerning the content of pesticides in drinking water.
K. Fuchs: Pestiziddrückstände in Fleisch (Pesticide residues in Meat), Wiener Tierärztliche Monatsschrift, annual set 81/p.33-36/94.

### Barbados

**Title**
Pops Research Proposal: the Status of Persistent Organic Pollutants (POPs) in Barbados, W.I.

**Objective(s)**
To assess the status of POPs in Barbados. This would include an island-wide inventory of POPs stockpiles, as well as monitoring of air, soil and water habitats to quantify levels of POPs in the environment.

**Timeframe**
Two years.

**Status**
No info

**Responsible Organization(s)**
Ministry of the Environment, Energy and Natural resources, in collaboration with the University of the West Indies, Cave Hill Campus.

**Partner(s)**
Ministry of the Environment, Energy and Natural resources, in collaboration with the University of the West Indies, Cave Hill Campus.
Project Funder(s)
Currently seeking GEF funding.

Data Source
Ministry of Environment, Energy and Natural Resources.

Comments
This project proposal was put together in preparation for POPs INC 2. Since that time, we have received notification of GEF PDF-B proposal “Persistent Toxic Substances- Country Case Studies” which will likely generate a generic set of assessment guidelines.

Belgium

Title
For PCBs at regional level: implementation of European directive 96/59 on the disposal of PCB-PCT.
For PCBs at the federal level: inventory of uncontrolled PCB-containing products.
For Pesticides, there is information for surface water in annex 1.
For dioxins and furans at regional level: deposition, emission (companies e.g. waste incineration, they are obliged to report (via annual emission report) when the emission is above certain level.

Objective(s)
For PCBs at regional level: phasing out on the base of two parameters: the concentration (50 PPM) and the volume (5 liters) of PCB (transformers, condensers.)
For PCBs at federal level: phasing out via action regulatory or voluntary agreements.

Responsible Organization(s)
For PCBs at regional level:
WALLOON REGION- DGRNE- Avenue Prince de Liège 15- 5100 JAMBES
FLEMISH REGION- OVAM- Kan. DE deckerstraat 22-26- 28 MECHELEN
BRUSSELS- IBGE- Guledelle 100- 1200 BRUXELLES
For PCBs at federal level: Federal Department for Environment- CAE Vesalius Building- Pachcolaan 19 box 5- 1010 BRUSSELS

Partner(s)
For PCBs at federal level: TAW CONSULTING- Leuvenesesteenweg 542- 1930 ZAVENTEM

Project Funder(s)
For PCBs at regional level: technical working groups
For PCBs at federal level: Federal Department for Environment, Service Etudes et co-ordination.

Belgium

Title
1. inventaire des déchets contenant des PCB (objectif voir b1, responsable voir c1)
2. création d’un réseau interdépartemental belge relatif aux politiques et au suivi de l’état de la situation des PCB en PCB (objectif voir b2),
3. élaboration d’un background document sur tous les PCB identifiables (objectif voir b3) 1. inventaire des déchets contenant des PCB (objectif voir b1, responsable voir c1)
2. création d’un réseau interdépartemental belge relatif aux politiques et au suivi de l’état de la situation des PCB en PCB (objectif voir b2),
3. élaboration d’un background document sur tous les PCB identifiables (objectif voir b3)

Objective(s)
b1. dresser un inventaire de tous les appareils contenant des PCB-PCT dans les trois régions que constituent la Belgique. (responsable voir c1),
b2. échanger, organiser et gérer de l’information cohérente entre les départements invités. Tant des départements régionaux que fédéraux participent au réseau. Le réseau évalue la pertinences des politiques mise en place et fait rapport au Comité de Coordination des politiques internationales environnementales de Belgique. (organisation responsable voir c2)
b3. identifier toutes les petites applications contenant des PCB et en estimer les émissions jusqu’au milieu marin pour ce qui concerne la Belgique et les pays membres d’OSPAR. Ce document est préparé avec l’Allemagne qui se charge des grandes applications. (organisation responsable voir c3)

Timeframe
Jan 1999 - Dec 2000

Responsible Organization(s)
c1. Administrations régionales de l’environnement :
   région Flamande (OVAM) (timeframe voir f1), (coordonnées comments 1)
   région Wallonne (DGRNE) (timeframe voir f2), (coordonnées comments 2)
   région Bruxelles-Capitale (IBGE) (timeframe voir f3). (coordonnées comments 3)
c2. Département fédéral des Affaires environnementales du Ministère de la Santé publique et de l’Environnement (partenaires voir d1)
c3. Département fédéral des Affaires environnementales du Ministère de la Santé publique et de l’Environnement.(partenaire voir d2)

Partner(s)
d1. les administrations régionales de l’environnement (OVAM, DGRNE, IBGE),
le département des Affaires environnementales, l’inspection des denrées alimentaires et l’inspection d’expertise vétérinaire du Ministère de la Santé publique et de l’Environnement, le Ministère de l’Agriculture et l’UGMM (unité
de gestion du modèle mathématique de la mer du nord) qui est le département « gestion de l'écosystème marin » de Institut Royal des Sciences Naturelles de Belgique.
d2. le réseau interdépartemental PCB (timeframe4).

Data Source


Comments

Timeframe:
1. tous les détenteurs d’appareils de plus d’1 litre de PCB doivent en faire la notification auprès de l’administration (OVAM) au plus tard le 1 janvier 1999. Sur base de ces informations, l’OVAM dresse un inventaire (source voir D.S.1)
2. tous les détenteurs d’appareils de plus d’1 litre de PCB doivent en faire la notification auprès de l’administration (DGRNE) au plus tard le 22 novembre 2000. Sur base de ces informations, la DGRNE dresse un inventaire (source voir D.S.2)
3. tous les détenteurs d’appareils de plus d’1 litre de PCB doivent en faire la notification auprès de l’administration (IBGE) au plus tard le 15 mai 2000. (source voir D.S.3)
4. présentation avec l’Allemagne en décembre 2000 du projet de background document pour commentaires de la part des Etats membres d’OSPAR.

Brazil

Title
Malaria Control

Objective(s)
The main objective of this activity is to control contaminants in foodstuffs for consumption. Area of action: all the country.

Responsible Organization(s)
Ministry of Health.

Partner(s)
Local Governments.

Canada

Title
Northern Contaminants Program (NCP)

Objective(s)
The Northern Contaminants Program was initiated in 1991 to examine POPs and other contaminants in northern Canada focussing upon: (i) human health; (ii) ecosystem uptake and effects; (iii) sources, pathways, and fate; and (iv) education and communications. The results of this work were assessed in 1997 and are available in the Canadian Arctic Assessments Report, Indian and Northern Affairs, Ottawa, Canada.

This work is being continued with an increased emphasis on contaminants (particularly POPs) in traditionally harvested foods, human exposure, and human health effects. Media studied include the atmospheric, marine, and freshwater abiotic environments, and key species including arctic marine mammals (e.g. ringed seals, beluga and narwhal), freshwater and anadromous fish, and terrestrial mammals. Another comprehensive assessment is planned for the Year 2002.

The geographic focus of the NCP is the Yukon, Northwest Territories and Nunavut, and in some instances Northern Quebec and Labrador.

The NCP comprises the Canadian implementation of the contaminant monitoring and assessment activities of the Arctic Monitoring and Assessment Programme (AMAP).

Timeframe

Status
Concurrent

Responsible Organization(s)
Northern Contaminants Program
(Northern Science and Contaminants Research Directorate, Department of
Title: Long term health effects of neonatal exposure to breast milk contaminants, using the female rat as animal model.

Objective(s): The objective of this research program is to test the biological plausibility that neonatal exposure to POPs present in breast milk, leads to adulthood reproductive health impairments and an increased risk of developing breast cancer. The in utero and early postnatal periods are critical phases of development during which the infant is more susceptible to the toxic effects of persistent organochlorines. During these critical stages of development, individuals receive the highest exposure levels to organochlorines. The long term reproductive/developmental health effects following neonatal exposure to low doses of breast milk organochlorine contaminants is being studied by comparing the hormone metabolism, endocrine, hepatic and reproductive effects in the 21 day old female rat to those of the aging rat. Breast cancer is the most common cancer among women, and some suggest that exposure to POPs or altered estrogen levels in utero, increases the risk of developing breast cancer later in life. These hypotheses are being tested in the methyl nitrosourea-treated rat following neonatal exposure to breast milk POPs.

Timeframe: March 2002 (end of TSRI).

Status: Concurrent

Responsible Organization(s): Health Canada, Environmental and Occupational Toxicology Division

Partner(s): 1) Health Canada  
2) University of Ottawa, The Loeb Research Institute  
3) University of Québec, INRS-Santé/IAF

Project Funder(s): 1) Health Canada  
2) Toxic Substances Research Initiative (TSRI)
their communities. In addition, the NPRI continues to support a number of environmental initiatives by providing information that assists governments and others to identify priorities for action, encourages industry to take voluntary measures to reduce releases, allows tracking of progress in reducing releases, and supports a number of regulatory initiatives across Canada.

The NPRI report currently provides information on 176 listed substances, specifically on their on-site releases to air, water, land and underground injection; off-site transfers in waste; and off-site transfers for recovery, re-use and recycling (3Rs), and energy recovery. Seventy-three additional substances have been identified for inclusion on the NPRI starting in the 1999 reporting year. The NPRI does not currently list pesticides but they have not been specifically exempted from reporting.

The NPRI initiative involves facilities from companies across Canada. Although none of the substances proposed for the global UNEP POPs Agreement are currently reported under the NPRI, the NPRI Work Group on Substances (a multistakeholder committee) has recommended that Polychlorinated dibenzo-p-dioxins and Polychlorinated dibenzofurans, Hexachlorobenzene and Polycyclic Aromatic Hydrocarbons be added at lower reporting thresholds starting in the 2000 reporting year.

**Timeframe**

**Status**
- Concurrent

**Responsible Organization(s)**
- Environment Canada

**Comments**
- The NPRI website is: www.ec.gc.ca/pdb/npri/

### Canada

**Title**
- Historical uses of PCBs in Products Made and Waste Generated in North America.

**Objective(s)**
- Objective of the project is to identify uses of PCBs in products and wastes in North America. This information will be used for several projects, the most immediate being a protocol to identify sources of demolition wastes likely to contain PCB paints. This will be completed in order to have wastes tested and managed in an environmentally sound manner.

**Timeframe**
- February, 2000. Subsequent Protocol to be completed in Fall of 2000

**Status**
- Concurrent

**Responsible Organization(s)**
- Environment Canada

**Project Funder(s)**
- Environment Canada

### Canada

**Title**
- Monitoring under the Integrated Atmospheric Deposition Network (IADN)

**Objective(s)**
- The Integrated Atmospheric Deposition Network (IADN) was established by the US and Canada for conducting air and precipitation monitoring in the Great Lakes Basin. IADN was established because it was recognized in the 1980’s that atmospheric deposition plays a large role in determining the water quality of the Great Lakes. IADN was created as part of the 1987 amendments to the Great Lakes Water Quality Agreement through the adoption of Annex 15. The first implementation plan for IADN was signed by the two governments in 1990. In the early 1990’s the Great Waters Program in the US provided further support for IADN and IADN has been written into US law [Section 112m] of the United States Clean Air Act.

- IADN consists of five Master Stations and 14 Satellite Stations designed to measure wet deposition and the air concentrations of gas and particulate organics and trace elements. IADN began operation at the Point Petre Master Station site in 1988 and full IADN operation was in place by early 1992. Many toxic substances are measured in air and precipitation at IADN sites. These include:
  - ? Banned pesticides such as DDT
  - ? Combustion products such as benzo[a]pyrene, a commonly measured polycyclic aromatic hydrocarbon (PAH)
  - ? Industrial chemicals such as PCBs
- The need for information is constantly evolving, and substances that are proposed as additions to the regular IADN roster of chemicals include:
  - ? Toxaphene, an organochlorine pesticide
  - ? Dioxins and furans
  - ? An expanded PAH list

**Timeframe**
- Ongoing,
  - First Implementation Plan of IADN - 1990-1996
  - Second Implementation Plan of IADN - 1998-2004

**Status**
- Concurrent
The Ecological Monitoring and Assessment Network (EMAN) is a national network of monitoring and research sites characterized by long term, multi-disciplinary studies. Sites within a single ecozone are loosely linked in an ecological framework. The network strives to facilitate cooperation and a holistic approach to ecological enquiry and ecosystem understanding. Ecological Science Cooperatives (ESCs) in the network promote connections among the network sites operating across the country. The network is highly decentralized and acts as a coordinating body, facilitating communications among participants and providing strategic direction.

EMAN is an inclusive network, (i.e. those who wish to participate are...
welcomed. It embraces all facets of ecological enquiry (including monitoring and research) and facilitates communication among its participants and interaction with international networks. The network promotes the use of environmental indicators and the production of issue and area-based assessments.

EMANs Operating Goal is coordinated monitoring and research activities within a network of specific sites across Canada which attempt to address federal, provincial, regional and local environmental needs.

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<thead>
<tr>
<th><strong>Timeframe</strong></th>
<th>Ongoing</th>
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<tr>
<td><strong>Status</strong></td>
<td>Concurrent</td>
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<tr>
<td><strong>Responsible Organization(s)</strong></td>
<td>In April 1994, the Ecological Monitoring Coordinating Office (EMCO) was established. It resides in the Canada Centre for Inland Waters in Burlington, Ontario and functions as the secretariat to EMAN. EMCO coordinates the organization of the Ecological Science Cooperatives, fosters new initiatives, and facilitates communication within EMAN. The Ecological Monitoring Coordinating Office, located in Burlington, Ontario, is one of two offices that make up the Indicators, Monitoring, and Assessment Branch of Environment Canada. The Indicators and Assessment Office is situated in Hull, Québec, The Branch sits within the Ecosystem Conservation Directorate of the Environmental Conservation Service of the Department.</td>
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<tr>
<td><strong>Partner(s)</strong></td>
<td>In any Ecological Science Cooperative (ESC), a number of research organizations may be involved. These include: international agencies, such as the Smithsonian Institute, UNESCO, International Long Term Ecological Research (ILTER) Network, Council for Environmental cooperation (CEC), Canada Man and the Biosphere project, and the Arctic Council federal agencies and departments, such as Agriculture and Agri-Food Canada, Canadian Heritage - Parks Canada (Breeding Bird Survey); Canadian Museum of Nature (Biological Survey of Canada), Fisheries and Oceans Canada, Environment Canada (Atlantic Coastal Action Plan, Remedial Action Plan, RAMSAR, Indian and Northern Affairs Canada, Natural Resources Canada - Canadian Forestry Service, Geological Survey of Canada, and Model Forests, and others; provincial ministries, especially environment, natural resources parks and education; regional and municipal governments, universities, hospital and school boards, industry; and non-governmental organizations (NGOs), aboriginal and local groups, and interested volunteers. See, for example, the Atlantic Maritime ESC. There are over 100 individual agencies involved in the Network.</td>
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<td><strong>Project Funder(s)</strong></td>
<td>EMAN sites are funded through their own sponsoring institutions. How does the Ecological Monitoring Coordinating Office (EMCO) fund Ecological Science Cooperative (ESC) sites? Neither EMCO nor EMAN funds research or monitoring. Each site is responsible for its own budget. EMCO has a small budget for seed activities to support network development. It sponsors things such as organizational meetings, start-up projects to demonstrate benefits, and new techniques. A major EMAN activity is the co-ordination of the National Science Meeting.</td>
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<td><strong>Comments</strong></td>
<td>The EMAN website is: <a href="http://www.cciw.ca/eman/">www.cciw.ca/eman/</a></td>
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**Assessments of Priority Substances under the Canadian Environmental Protection Act (CEPA)**

CEPA requires the Ministers of the Environment and of Health to establish a Priority Substances List (PSL) that identifies substances to be assessed on a priority basis to determine whether they pose a significant risk to the health of Canadians or to the environment. Assessments of substances placed on the PSL are the shared responsibility of Environment Canada and Health Canada. Substances to be assessed are identified primarily through the work of multi-stakeholder Expert Advisory Panels. The first Priority Substances List was published in the Canada Gazette in February 1989 and contained 44 substances. Assessments of these substances were completed by February 1994, and are documented in the Canada Gazette and in individual assessment reports. In December 1995, 25 other substances were added to the PSL for assessment, and these are currently being assessed. The assessment and management of priority substances under CEPA occurs in two distinct phases. Scientists must first determine whether a substance is "toxic" as defined under Section 11 of CEPA. Under CEPA, a substance is defined as "toxic" if it enters or may enter the environment in amounts or under conditions that may pose a risk to human health, the environment, or to the environment that supports human life. Thus, "toxic" in the context of CEPA is a function of both the inherent properties of a substance and of the amounts, concentrations, or nature of entry of the substance in the Canadian environment. For substances determined to be "toxic", management options are identified and implemented, in consultation with stakeholders, to reduce or eliminate the risks the substances pose to human health or the environment.
There are three substances proposed for the global UNEP Pops Agreement, which have been assessed as toxic under CEPA PSL including: hexachlorobenzene, polychlorinated dibenzodioxins and polychlorinated dibenzofurans.

**Timeframe**
ongoing

**Status**
Concurrent

**Responsible Organization(s)**
Environment Canada and Health Canada

**Data Source**
http://www.ec.gc.ca/cceb1/eng/psap.htm - web site for PSL assessments

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**Title**
Canada

**Objective(s)**
Monitoring activities under the Residual Discharge Information System (RDIS)

Environment Canada’s Residual Discharge Information System (RDIS) is a microcomputer-based, menu-driven software package that allows for the compilation, maintenance and reporting of air emissions data, by regions, provinces and for Canada. The system is designed to store information from all major Canadian emission sources, of man-made and natural origin. When source data on specific pollutants is not available, emission discharge factors are used to estimate the emissions. These factors indicate the rate at which a contaminant is released into the environment as the result of a given activity. Using this data, the system can summarize yearly emissions by plant, by province or nation-wide.

**Status**
No info

**Responsible Organization(s)**
Environment Canada

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**Title**
Canada

**Objective(s)**
The Great Lakes Binational Toxics Strategy (GLBTS)

In keeping with the objective of the Revised Great Lakes Water Quality Agreement of 1978, as amended by the Protocol signed November 18, 1987 (1987 GLWQA) to restore and protect the Great Lakes, the purpose of this binational strategy (the Strategy) is to set forth a collaborative process by which Environment Canada (EC) and the United States Environmental Protection Agency (USEPA), in consultation with other federal departments and agencies, Great Lakes states, the Province of Ontario, Tribes, and First Nations, will work in cooperation with their public and private partners toward the goal of virtual elimination of persistent toxic substances resulting from human activity, particularly those which bioaccumulate, from the Great Lakes Basin, so as to protect and ensure the health and integrity of the Great Lakes ecosystem. In cases where this Strategy addresses a naturally-occurring substance, it is the anthropic sources of pollution that, when warranted, will be targeted for reduction through a life-cycle management approach so as to achieve naturally-occurring levels. An underlying tenet of this Strategy is that the governments cannot by their actions alone achieve the goal of virtual elimination. This Strategy challenges all sectors of society to participate and cooperate to ensure success.

The goal of virtual elimination will be achieved through a variety of programs and actions, but the primary emphasis of this Strategy will be on pollution prevention. This Strategy reaffirms the two countries' commitment to the sound management of chemicals, as stated in Agenda 21: A Global Action Plan for the 21st Century and adopted at the 1992 United Nations Conference on Environment and Development. The Strategy will also be guided by the principles articulated by the International Joint Commission's (IJC) Virtual Elimination Task Force (VETF) in the Seventh Biennial Report on Great Lakes Quality.

This Strategy has been developed under the auspices of the Binational Executive Committee (BEC), which is charged with coordinating the implementation of the binational aspects of the 1987 GLWQA. The BEC is co-chaired by EC and USEPA, and includes members of the Great Lakes states, the Province of Ontario, and other federal departments and agencies in Canada and the United States.

The Strategy establishes specific reduction challenges for an initial list of Persistent Toxic Substances targeted for virtual elimination. A majority of the POPs proposed for the global UNEP POPs Agreement (aldrin, dieldrin, chlordane, DDT, hexachlorobenzene, mirex, PCBs, dioxins/furans and toxaphene) are Level 1 substances around which governments will concentrate actions and efforts. The remaining two POPs proposed for the UNEP Agreement (endrin and heptachlor) are Level 2 substances which are identified by one or both countries as having the potential to significantly impact the Great Lakes ecosystem through their use and/or release.
**Timeframe**

Challenge milestones to be met between 1997 and 2006 with ongoing options for assessment and renewal.

**Responsible Organization(s)**

Canada and the United States

**Partner(s)**

This is a collaborative process between Environment Canada, the United States Environmental Protection Agency in consultation with other federal departments and agencies, Great Lakes States, the province of Ontario, Tribes and First Nations as well as public and private partners.

**Data Source**

The GLBTS web-site is www.epa.gov/gltnpo/bns

The Binational Toxics Strategy's last annual progress report was issued in December 1999 and can be found at www.epa.gov/gltnpo/bns/documents.html - The Binational Toxics Strategy has Substance-specific workgroups, and they are key to the success of the BNS. Each workgroup is following a "four-step analytical process" for organizing its activities related to meeting the BNS Challenge goals. The four steps include gathering information analyzing current regulations, initiatives, and programs; identifying cost-effective options to achieve further reductions beyond those required by regulations; and implementing actions to work toward the goal of virtual elimination of the targeted substances. Some of the workgroups are still in the initial stages of gathering information regarding baseline levels and sources of the substances, while others have moved on to identifying cost-effective options to achieve reductions. Various workgroup highlights over 1999 are presented in the Binational Toxics Strategy's Annual Progress Report.

**Comments**

The GLBTS web-site is www.epa.gov/gltnpo/bns

The Binational Toxics Strategy's last annual progress report was issued in December 1999 and can be found at www.epa.gov/gltnpo/bns/documents.html - The Binational Toxics Strategy has Substance-specific workgroups, and they are key to the success of the BNS. Each workgroup is following a "four-step analytical process" for organizing its activities related to meeting the BNS Challenge goals. The four steps include gathering information analyzing current regulations, initiatives, and programs; identifying cost-effective options to achieve further reductions beyond those required by regulations; and implementing actions to work toward the goal of virtual elimination of the targeted substances. Some of the workgroups are still in the initial stages of gathering information regarding baseline levels and sources of the substances, while others have moved on to identifying cost-effective options to achieve reductions. Various workgroup highlights over 1999 are presented in the Binational Toxics Strategy's Annual Progress Report.

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| **Title** |
| Identification of POPs under the Toxic Substances Management Policy (TSMP) |

| **Objective(s)** |
| The federal Toxic Substances Management Policy puts forward a preventive and precautionary approach to deal with substances that enter the environment and could harm the environment or human health. The policy provides decision makers with direction and sets out a science-based management framework to ensure that federal programs are consistent with its objectives. It also serves to support the federal government's position on the management of toxic substances in discussions with the provinces and territories and negotiations with the world community. The key management objectives are: virtual elimination from the environment of toxic substances that result predominantly from human activity and that are persistent and bioaccumulative (referred to in the policy as Track 1 substances); and management of other toxic substances and substances of concern, throughout their entire life cycles, to prevent or minimize their release into the environment (referred to in the policy as Track 2 substances). Management of both Track 1 and Track 2 substances will address, as appropriate, entry into the environment from both domestic and foreign sources, as well as re-mediation of areas already contaminated by a substance. The federal government offered interested parties the opportunity to comment on the scientific justifications identifying 13 possible Track 1 substances that were released on March 22, 1997. After careful consideration of the submissions made in this regard, 12 substances were confirmed as meeting the criteria under Track 1 in July 1998, and as such should be virtually eliminated from the environment: aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, PCBs, polychlorinated dioxins and furans, and toxaphene. The federal government is engaging stakeholders involved in the generation or use of confirmed Track 1 substances in order to take domestic and international actions to protect the Canadian environment from these substances. |
The Pest Control Products Act (PCPA) and Regulations is the primary federal legislation for the regulation of pesticides in Canada and is intended to protect people and the environment from risks posed by pesticides. Pesticides include insecticides, herbicides, fungicides, etc. that are used in agriculture, forestry, industry, public health and domestic settings. Any pesticide imported into, sold or used in Canada must first be registered under the PCPA.

The PCPA is administered by the Pest Management Regulatory Agency (PMRA) of Health Canada. Its Executive Director reports to the Deputy Minister of Health.

A pesticide cannot be registered under the PCPA unless the PMRA determines that any associated risks to people and the environment are acceptable. The product must also serve a useful purpose. Any aspect of the pesticide, including all uses, downstream effects and disposal, may be taken into account during the pre-market assessment. The onus rests with the applicant to conduct extensive tests to demonstrate that the risks and value of the product are acceptable.

Registered products may be used only for the specific purposes listed on the approved product label. Failure to follow the directions on the pesticide label is an offence under the PCPA, which is enforced by the PMRA.

Pesticides are regulated under both federal and provincial/territorial legislation. At the provincial/territorial level, pest management and pesticide regulation are typically within the mandate of agriculture and/or environment departments. Provincial and territorial legislation, which focuses on the sale and application of products registered under the federal PCPA, may add to federal restrictions but may not relax them. For example, provinces and territories may require permits to be obtained before pesticides are sprayed via the air, establish specific buffer zones around sensitive areas, and impose posting requirements to identify areas of pesticide application. Federal and provincial/territorial regulators collaborate in various ways, including ensuring compliance with their respective pesticide legislation.

All nine pesticides proposed for the global UNEP POPs Agreement are regulated under the PCPA and are not currently registered for use in Canada.

The Sound Management of Chemicals (SMOC) initiative under the North American Agreement on Environmental Cooperation (NAAEC) - North American Regional Action Plans (NARAPs)

Title

Council Resolution #95-5, Sound Management of Chemicals is a document stating how the Governments of Canada, Mexico and the United States will cooperate to improve the sound management of chemicals in North America. The Resolution gives priority to the management and control of substances of mutual concern that are persistent, bioaccumulative and toxic, but also allows for cooperation on a broader scale for the sound management of chemicals in the three countries. Council Resolution #95-5 was developed under the authority of the North American Agreement on Environmental Cooperation (NAAEC) and advances many of the commitments and obligations set out in the NAAEC. The Council (of Ministers) is the governing body of the Commission for Environmental Cooperation (CEC), which was established as part of the NAAEC.

Council Resolution #95-5 required that three substances, in addition to PCBs, be selected from among 12 persistent organic pollutants identified in the United Nations Environment Programme (UNEP) Governing Council Decision 18/32 of May 1995, and certain heavy metals, such as cadmium, mercury and lead.

At its second meeting held in Washington on 25-26 January 1996, the Working Group decided that mercury, DDT and chlordane would be the subject of North American Regional Action Plans (NARAPs) in addition to PCBs. These selections were made after having consulted with colleagues, officials and interests from each of the respective countries. The selected substances are also the subject of discussion in other international forums primarily because they are persistent, bioaccumulative and toxic and are transported across national boundaries through air and watersheds and traded products.
All of the substances listed in the UNEP Governing Council Decision were considered by the Working Group when developing this initial group of NARAPs. Some of these substances were not chosen for NARAPs because the Parties had already banned their use (e.g., toxaphene). The Parties agreed however to work together to promote action on these substances in other international forums.

The NARAPs on PCBs, DDT, chlordane, Phase I of the NARAP on mercury and the substance selection process were all approved in 1997. The next phase of the NARAP on mercury is to be completed in June 1999. Work on NARAP implementation has started or is in the process of starting.

The Council has agreed to look at further substances for the development of NARAPs. Nomination dossiers for three substances proposed for the global UNEP POPs Agreement (dioxins/furans and hexachlorobenzene) have been submitted for consideration as candidate substances for the development of NARAPs.

**Title**
Monitoring under the Accelerated Reduction/Elimination of Toxics (ARET)

**Objective(s)**
The Accelerated Reduction and Elimination of Toxics (ARET) program is a key example of voluntary efforts to secure a safe and healthy environment while contributing to a prosperous economy. ARET seeks, through voluntary actions, the virtual elimination of 30 persistent, bioaccumulative and toxic (PBT) substances (including several POPs such as PCBs, certain species of PAHs, hexachlorobenzene and dioxins and furans), as well as significant reductions in emissions of another 87 toxic substances. Participants from nine major industry sectors and government use the ARET program to prioritize emission reductions and determine appropriate reduction and elimination methods.

The ARET goal is to achieve a 90-per-cent reduction of PBT substance emissions and a 50-per-cent emission reduction of the other 87 toxic substances by the year 2000.

Environmental Leaders 3 is the third progress report issued by the ARET Stakeholders Committee since the ARET challenge was launched in March 1994. An update to Environmental Leaders 2 was also issued in January 1998. Environmental Leaders 3 details the results of pollution prevention activities of 303 facilities from across Canada during 1997. These facilities, representing 162 companies and government organizations, are using ARET to publicly demonstrate their environmental responsibility.

The ARET initiative involves facilities from companies all across Canada. There are three substances proposed for the global UNEP POPs Agreement which are reported on the A-1 list of ARET. These include: 2,3,7,8-tetrachlorodibenzofuran, 2,3,7,8-tetrachlorodibenzo-p-dioxin and PCBs.

**Timeframe**
1994 - PRESENT

**Status**
Concurrent

**Responsible Organization(s)**
The ARET Stakeholders Committee is made of representatives from industry (Canadian Chemical Producers' Association, Canadian Electricity Association, The Alliance of Manufacturers and Exporters of Canada, Canadian Manufacturers of Chemical Specialties, Canadian Petroleum Products Institute, Canadian Pulp & Paper Association, Canadian Steel Producers Association, Mining Association of Canada, Aluminium Industry Association), health and professional associations (Chemical Institute of Canada, Comité de santé environnementale du Québec), provincial governments (Ontario, British Columbia, Nova Scotia), and the federal government (Environment Canada, Industry Canada, Health Canada).

Environment Canada chairs the Stakeholders Committee and provides the secretariat functions.

**Comments**
The ARET website is located at: www.ec.gc.ca/aret

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**Title**
Toxic Substances Research Initiative

**Objective(s)**
The Toxic Substances Research Initiative was designed to implement the commitment in Securing Our Future Together to enhance Canadian environmental and health science capacity by providing new funding for research on toxic substances for the fiscal years 1998-2002, inclusive. The objective of the TSRI is to enhance and accelerate the development of Canada’s environmental and health science capacity needed to define and reduce the ecosystem and human health effects of toxic substances in the Canadian environment.

Priority knowledge needs contributing to this result in 1999/2000 were:
1. Determining and linking the ecosystem and human health effects of known...
and emerging issue POPs such as endosulfan; pentachlorophenol and pentachloranisole; short-chain chlorinated paraffins; triazines, chlordane and toxaphene.

2. Determining the degree to which domestic and international sources are contributing to observed levels of POPs in Canada.

3. Understanding the impacts of POPs on human health outcomes (e.g. fetal development, the relationship between POPs and cancer in children and Aboriginal peoples, etc.).

4. Determining and linking the ecosystem and human health effects of known and emerging issue POPs such as endosulfan; pentachlorophenol and pentachloranisole; short-chain chlorinated paraffins; triazines, chlordane and toxaphene.

5. Determining the degree to which domestic and international sources are contributing to observed levels of POPs in Canada.

6. Understanding the impacts of POPs on human health outcomes (e.g. fetal development, the relationship between POPs and cancer in children and Aboriginal peoples, etc.).

7. Developing the data necessary to determine ecosystem and human health risks associated with known priority POPs.

8. Determining the long-range transport characteristics of known and emerging POPs.

9. Completing the research needed for the development of new human tissue guidelines, blood guidelines, acceptable daily intakes, and health based advisories especially for at-risk populations such as children, pregnant women and Aboriginal peoples.

10. Identifying mechanisms of action for toxic effects seen in ecosystems and humans exposed to POPs where policy and/or regulatory decisions are required.

11. Improving understanding of pharmacokinetic and pharmacodynamic characteristics of POPs where regulatory decisions are required.

For the upcoming funding year (2000/2001) priority knowledge needs contributing to this result are more limited but strategically fill gaps in research areas from the 1999/2000 call for proposals. They are:

12. Developing the data necessary to determine ecosystem and human health risks associated with known priority POPs from domestic and international sources, particularly in relation to the development of new human tissue guidelines, blood guidelines, acceptable daily intakes, and health based advisories especially for at-risk populations such as children, pregnant women and Aboriginal peoples.

13. Developing approaches to study the transport of POPs, particularly in relation to determining the degree to which domestic and international sources are contributing to observed levels of POPs in Canada and, in the case of international sources, their countries of origin.

Seventeen POPs projects were funded this fiscal year ($2.32 Million). The following is a short synopsis of each project:

1999/2000 Persistent Organic Pollutants (POPs) Projects

TSRI #11 Sources of Agrochemicals to the Atmosphere and Delivery to the Canadian Environment

This study will examine whether the continuing input of banned pesticides into the Canadian environment is due to recycling from existing contaminated soil and water, or due to atmospheric migration from use of these pesticides in countries other than Canada. The study will determine the source of airborne pesticides through surveying the agricultural soils in selected areas of Canada and the U.S. This project will provide a better understanding of where airborne pesticides some from and how they are transported to Canadian ecosystems.

TSRI #20 Food Chain Bioaccumulation of Phthalate Esters

Phthalate esters are widely used in the manufacture of plastics and other polymers and the information available to date is inconclusive with respect to bioaccumulation. This study will utilize a combination of field studies involving west coast marine food chains and laboratory studies to investigate the ability of phthalate esters to accumulate in ecological food chains.

TSRI #27 Characterizing the Origin and LRT Behaviour of POPs in Canada Using Passive Samplers

This study will develop and validate simple, low maintenance sampling devices for measuring the airborne concentrations of persistent organic pollutants (POPs). These devices will be validated by monitoring concentrations at 45 locations across Canada. Such samplers might be used to determine the spatial distribution of POP’s in the Canadian environment to determine the sources and transport behaviour of POPs.

TSRI #31 Modeling the Sustainable Use of Organic Chemicals in a Healthy Continental Environment

This study will develop and integrate mass balance models to describe the sources and behaviour of contaminants in the North American environment. Additional process-specific models will be developed to assess a variety of chemicals, including POPs for their potential for persistence, long-range transport, bioaccumulation tendencies, and human exposure.

TSRI #46 Validation of an Amphibian Model to Assess the Effects of Persistent Organic Pollutants on Amphibian Physiology

This study will assess the use of amphibians as bioindicators of the environmental effects of POPs. This will be measured through a combination
of field studies of native wild amphibians in the St. Lawrence River region and laboratory exposures of lab-reared amphibians and amphibian cell lines.

TSRI #:121 Multiple Stressors: Effects on Native Amphibian Species of Forested Environments
This project combines field and laboratory studies. The field studies will monitor the water quality and biological characteristics of wetlands in forested areas to determine the biology of wild native amphibians. The laboratory exposure studies will use native wetland amphibian species to determine the ecological effects of selected herbicides on these species.

TSRI #:152 Effects of In Utero Exposure to Persistent Organic Pollutants on Development and Reproduction
This study will examine the fetal, gonadal and reproductive development in the offspring of rats exposed to environmentally-relevant mixtures of POPs, which will reflect the mixtures found in some fish and game consumed by Aboriginal peoples. This study will also include an examination of the gonads and thyroid function of the exposed adult rats. The data will be used to analyze the risks of maternal exposure to a mixture of POPs on the development, reproduction, and thyroid function of humans.

TSRI #:157 Risk Assessment for Hexachlorobenzene: Mechanism of Gender Related Rat Tumour Promotion
The objective of this study is to examine why female rats exposed to this POP of emerging interest have a greater susceptibility to the development of liver tumors than exposed male rats.

TSRI #:200 Occurrence, Fate, and Effects of Fluorinated Surfactants in the Canadian Environment
The objective of this study is to examine the environmental concentrations, distribution, toxicology and fate of fluorinated surfactants. These compounds have been observed in human blood but have, to date, received limited research attention. They are used in a variety of industrial and consumer applications.

TSRI #:206 Sources, Long Range Transport and Impacts of New and Old POPs Inferred from Dated Lake Core Sediments
This study will extract information on current and past inputs of known and emerging POPs through collecting sediment cores from lakes along a north-south transect from southeastern Ontario to Ellesmere Island in the Arctic and along an east-west transect from Ontario to New Brunswick. This data will be applied to understand the extent of long range transport of POPs in North America, and their extent of degradation in water sediments, through POPs fate and distribution models.

IRST #:207 Toxaphene in the Marine Ecosystem of the Saint Lawrence River; State of Contamination, Ecotoxicology and Human Health
This study will utilize a combination of field studies to evaluate the levels of toxaphene contamination of the organisms and sediments of the St. Lawrence River system. Laboratory studies will expose the St. Lawrence estuary fish and human cell cultures to toxaphene, to allow a better evaluation of the risks to fish and human health from the presence of toxaphene in this system.

TSRI #:217 Assessment of Contaminants in Beluga Whales’ and Polar Bears’ Reproductive Systems
This study will draw on the traditional knowledge of the northern peoples including local hunters and trappers regarding the abnormalities in these important wildlife species. A comprehensive survey among the elders of the northern aboriginal communities will compile knowledge of the previous and current abnormalities occurring in this type of wildlife.

TSRI #:224 Factors Influencing Domestic and International Sources of Chlorinated Hydrocarbons to Fish and Osprey in British Columbia
This study will examine the toxin levels and accumulation in fish from high alpine lakes in British Columbia and the transfer of organochlorines to osprey, which have recently been recognized as having significant exposure to these chemicals because of their migratory patterns. Comparisons will be made to levels in lakes and fish in osprey wintering areas in Central America.

TSRI #:236 Biomagnification of POPs and Mercury in Canadian Freshwater Subsistence Fisheries and Food Webs
This study will examine the levels of new and emerging POPs and mercury in top predator fishes in lake systems with subsistence fisheries. The areas of study will span from northern Alberta to Labrador areas, which have previously received less attention than the Great Lakes and the Arctic lake systems.

TSRI #:237 Impact of Polybrominated Diphenyl Ethers on the Canadian Environment and Health of Canadians
This study will examine mother’s milk, foods, bird eggs, native fish and marine mammals for the presence of these emerging POPs. Historical trends in environmental concentrations and their potential toxic effects on growth levels in the environment and in humans will also be examined.

TSRI #:239 Follow-up of Preschool Aged Children Exposed to PCBs and MeHg Through Fish Consumption
This study will follow-up on previously conducted studies of the measurement of PCBs and MeHg in cord blood at birth among Nunavik Inuit mothers. The long-term consequences of exposure to these contaminants will be examined through a comparison of neuromotor and neurophysiological performance among children of low and high PCB exposure.

TSRI #:245 Reproductive/Developmental Effects of an Environmentally Relevant Organochlorine Mixture
The first part of this study will use pigs to examine the possible effects of these contaminants on the male reproduction system, which may be induced by exposure during pregnancy and early life to a mixture of environmental pollutants. These pollutants are similar to those found in Arctic food chains and in the blood of people consuming Arctic sea mammals. The second part of the study will involve laboratory testing of these environmentally-relevant contaminant mixtures through the use of laboratory cultures of mammalian cells, sperm, oocytes and embryos.

**Title**  
Management/control of Dioxins/Furans and Hexachlorobenzene releases, from identified priority sectors

**Objective(s)**  
1. Dioxins/Furans and Hexachlorobenzene have been identified as toxic under the Canadian Environmental Protection Act (CEPA) and have been assessed for virtual elimination under the federal Toxic Substances Management Policy (TSMP1).  
2. Toxic substances that meet specific criteria for persistence and bioaccumulation and are predominantly resulting from human activity are categorized as Track 1 substances, i.e.: those that have a long term objective of virtual elimination from the environment.  
3. The most recent inventory2 report of sources of releases of Dioxins/Furans and Hexachlorobenzene has identified priority sectors, that need to be addressed in Canada.  
4. Under a Harmonization Accord between the federal government and the provinces, Canada-Wide Standards are currently being developed for the following priority sectors for Dioxins/Furans:  
   - Teepee burners (solid waste)  
   - Residential Wood Combustion  
   - Iron sintering and Steel manufacturing sector  
   - Municipal incineration  
   - Combustion of Salt Laden Wood

**Timeframe**  
The Canada-Wide Standards are expected to be submitted to Ministers for their approval in spring 2000.

**Status**  
Planned

**Responsible Organization(s)**  
Canadian Council of Ministers of the Environment (CCME).

**Partner(s)**  
Stakeholders including industry, environmental groups and governments are participating in priority sectors working groups to develop targets for reduction and timelines for achieving these targets. This information will then be introduced as the basis for a Canada-Wide Standard for each of these sectors.

**Project Funder(s)**  
For the development of the Canada-Wide Standards, all stakeholders are contributing time and or money, with the major contribution coming from the federal government.

**Data Source**  
1. Toxic Substances Management Policy:  
   http://www.ec.gc.ca/toxics/toxic1_e.html
2. Dioxins and Furans Inventory Report:  
3. Canada-Wide Standards for Dioxins and Furans:  
   http://www.ccme.ca/3e_priorities/3ea Harmonization/3ea2_cws/3ea2e_priorities/3ea2e2_dioxins/update.html
4. Additional Information:  
   http://www.ccme.ca/3e_priorities/3ea Harmonization/3ea2_cws/3ea2e.html

**Comments**  
Hexachlorobenzene is not on the list for the development of Canada-Wide Standards, but because it is released from the same sources as Dioxins/Furans, any action that will be taken for the reduction of Dioxins/Furans will also affect the reduction of Hexachlorobenzene.
the most immediate being a protocol to identify demolition wastes likely to be coated with PCB paints. This will be completed in order to have wastes tested and managed in an environmentally sound manner.

**Timeframe**
February, 2000. Subsequent protocol to be completed later in 2000 (Fall).

**Status**
Concurrent

**Responsible Organization(s)**
Environment Canada

**Partner(s)**
Environment Canada

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### Chlorinated Substances Action Plan (CSAP)

The Chlorinated Substances Action Plan is part of an overall federal strategy to protect human health and the environment from the effects of toxic substances. This science-based action plan includes both regulatory and non-regulatory measures targeting chlorinated substances of concern. It is an important component of Canada’s domestic and international efforts to address those substances that threaten our health and the environment.

The CSAP approach is based on the scientific community’s conclusion that current evidence does not support a complete ban on all uses and releases of chlorine and chlorinated substances. However, there is scientific evidence that the use or release of certain toxic chlorinated substances should be virtually eliminated or significantly reduced.

Pollution prevention is at the core of the CSAP. The CSAP has five components:
1. Targeting critical uses and products
2. Improving scientific understanding
3. Studying public health and socio-economic effects
4. Better informing the Canadian public
5. Promoting and leading international efforts

**Timeframe**
ongoing

**Responsible Organization(s)**
Environment Canada, Health Canada

**Partner(s)**
Environment Canada, Health Canada, Industry

**Project Funder(s)**
Environment Canada, Health Canada, Industry

**Comments**
The CSAP web-site is http://199.212.18.76/csap/csap2000/csap2000_e.html

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### Traditional Environmental Monitoring Program in the First Nations’ Traditional Area for the Lesser Slave Lake Indian Bands (Driftpile, Swan River and Sucker Creek First Nations).

The overall objective of this program is to protect the Health and Safety of First Nations and the surrounding environment within the First Nations’ traditional land use area. The objective of the traditional monitoring program is to assess the effects that PCBs and PCDD/F’s produced at the Swan Hills Special Waste Treatment Plant have had on the local First Nations with respect to their traditional land uses.

**Geographical Coverage**
Regional. Swan Hills area with particular emphasis on the immediate area of the Swan Hills Treatment Plant, as well as the area to the northwest of the Plant (the area between the Plant and the Reserves).

**Timeframe**
Long term monitoring with indeterminate end date. Annual reporting is required.

**Responsible Organization(s)**
Three First Nations (Driftpile; Sucker Creek; and Swan River)

**Project Funder(s)**
Bovar, Environment Canada, Health Canada, Indian and Northern Affairs Canada, Alberta Environment

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### Ongoing evaluation of POPs and Heavy metals in Canada’s Northern Peoples

A large amount of data has been gathered on the human exposure to and human tissue levels of POPs and various heavy metals in Arctic Canada (Northwest Territories, Nunavut, Nunavik, Yukon). This data needs to be more fully evaluated and circulated in the appropriate scientific literature. Questions such as the relationship between the levels of POPs in the diet and the resulting levels of POPs in the fetus and relationship between maternal body burdens and fetal exposure levels at high and low levels of exposure can be evaluated.

**Timeframe**
ongoing

**Responsible Organization(s)**
Environment Canada, Health Canada

**Partner(s)**
Environment Canada, Health Canada, Industry

**Project Funder(s)**
Environment Canada, Health Canada, Industry

**Comments**
The CSAP web-site is http://199.212.18.76/csap/csap2000/csap2000_e.html
evaluated.

**Status**
Ongoing.

**Responsible Organization(s)**
Health Canada, Departments of Health and Social Services in the Northwest Territories, Nunavut, and Nunavik.

**Partner(s)**
Health agencies in Northwest Territories, Nunavut, Nunavik, Yukon, Centre for Indigenous Peoples Nutrition and Environment at McGill University

**Project Funder(s)**
Multiple agencies.

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**Title**
The Categorization and Screening of the Domestic Substances List under the Canadian Environmental Protection Act (CEPA)

**Objective(s)**
Environment Canada initiated the implementation of some of the new initiatives prior to CEPA 99 promulgation. One of these initiatives involves the identification of persistent (P), bioaccumulative (B) and inherently toxic (iT) substances that are in Canadian commerce. It requires the Minister of the Environment and the Minister of Health to “categorize” and then “screen” substances listed on the Domestic Substances List (DSL) to determine whether they pose a significant risk to the health of Canadians and the environment.

The DSL includes substances that were, between January 1, 1984, and December 31, 1986, in Canadian commerce, used for manufacturing purposes, or manufactured in or imported into Canada in a quantity of 100 kg or more in any calendar year. The List has been amended from time to time and currently contains approximately 23,000 substances. Types of substances on the DSL include simple organic chemicals, pigments, organometallic compounds, surfactants, polymers, metal elements, metal salts and other inorganic substances, as well as substances that are of “Unknown or Variable Composition, complex reaction products, or Biological materials” (referred to as UVCBs).

Since most of the substances on the DSL have not undergone any environmental or human health assessment, CEPA 99 provides for the systematic assessment of substances on the DSL that are to be carried out in two phases. The initial phase, the categorization of substances on the DSL requires the Minister of the Environment and Health to identify substances that are: 1) persistent or bioaccumulative, and inherently toxic to human beings or to non-human organisms, and 2) identify substances that may present, to individuals in Canada, the greatest potential for exposure. The criteria for persistence and bioaccumulation are the same as those in the Toxic Substances Management Policy (TSMP) (see Section 8A) and, as stated in CEPA, was included in regulations which took effect March 31, 2000.

When a substance is identified as meeting the criteria for categorization, it then moves to the second phase, the screening level risk assessment is required. A screening level risk assessment results in one of the following outcomes:

? no further action is taken at this time, if the screening level risk assessment indicates that the substance does not pose a risk to the environment or human health;

? the substance is added to the CEPA Priority Substances List in order to assess more comprehensively the possible risks associated with the release of the substance, if the substance is not already on the Priority Substances List (see Section 1A); or

? it is recommended that the substance be added to the List of Toxic Substances in Schedule 1 of CEPA, if the screening level risk assessment indicates clear concerns, whether these are associated or not with the persistence or bioaccumulation properties of the substance; substances on Schedule 1 can be considered for regulatory or other controls.

Environment Canada and Health Canada initiated a pilot project which identified 110 substances representative of several chemical classes of concern. One hundred substances were determined to meet the categorization criteria for P and/or B, and iT to non-human organisms and 10 substances were identified as presenting to individuals in Canada an important potential for exposure.

**Timeframe**
7 years to complete the categorization of the DSL starting September 14th, 1999

no legally mandated timelines for completing the screening level risk assessments
Assessments of Priority Substances under the Canadian Environmental Protection Act, 1999 (CEPA 1999)

CEPA 1999 requires the Ministers of the Environment and of Health to establish a Priority Substances List (PSL) that identifies substances to be assessed on a priority basis to determine whether they pose a significant risk to the health of Canadians or to the environment. Assessments of substances placed on the PSL are the shared responsibility of Environment Canada and Health Canada. Substances to be assessed were identified primarily through the work of multi-stakeholder Expert Advisory Panels. The first Priority Substances List was published in the Canada Gazette in February 1989 and contained 44 substances. Assessments of these substances were completed by February 1994, and are documented in the Canada Gazette and in individual assessment reports. In December 1995, 25 other substances were added to the PSL for assessment, and these are currently being assessed.

The assessment and management of priority substances under CEPA 1999 occurs in two distinct phases. Scientists must first determine whether a substance is "toxic" as defined under Section 64 of CEPA. Under CEPA 1999, a substance is defined as "toxic" if it enters or may enter the environment in amounts or under conditions that may pose a risk to human health, the environment, or to the environment that supports human life. Thus, "toxic" in the context of CEPA 1999 is a function of both the inherent properties of a substance and of the amounts, concentrations, or nature of entry of the substance in the Canadian environment. For substances determined to be "toxic", management options are identified and implemented, in consultation with stakeholders, to reduce or eliminate the risks the substances pose to human health or the environment.

There are three substances proposed for the global UNEP Pops Agreement, which have been assessed as toxic under CEPA PSL including: hexachlorobenzene, polychlorinated dibenzodioxins and polychlorinated dibenzofurans.CEPA 1999 requires the Ministers of the Environment and of Health to establish a Priority Substances List (PSL) that identifies substances to be assessed on a priority basis to determine whether they pose a significant risk to the health of Canadians or to the environment. Assessments of substances placed on the PSL are the shared responsibility of Environment Canada and Health Canada. Substances to be assessed were identified primarily through the work of multi-stakeholder Expert Advisory Panels. The first Priority Substances List was published in the Canada Gazette in February 1989 and contained 44 substances. Assessments of these substances were completed by February 1994, and are documented in the Canada Gazette and in individual assessment reports. In December 1995, 25 other substances were added to the PSL for assessment, and these are currently being assessed.

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There are three substances proposed for the global UNEP Pops Agreement, which have been assessed as toxic under CEPA PSL including: hexachlorobenzene, polychlorinated dibenzodioxins and polychlorinated dibenzofurans.
Canada-Wide Standards for Dioxins and Furans

Dioxins/Furans and Hexachlorobenzene have been identified as toxic under the Canadian Environmental Protection Act and have been assessed for virtual elimination under the federal Toxic Substances Management Policy (TSMP1).

? Toxic substances that meet specific criteria for persistence and bioaccumulation and are predominantly resulting from human activity are categorized as Tract 1 substances, i.e.: those that have a long term objective of virtual elimination from the environment.

? The most recent inventory report2 of sources of releases of Dioxins/Furans and Hexachlorobenzene has identified priority sectors, that need to be addressed in Canada.

? Under a Harmonization Accord between federal, provincial and territorial governments, Canada-Wide standards for Dioxins/Furans are currently being developed for the following priority sectors:

? Conical waste combustors
? Residential wood combustion
? Iron sintering
? Steel manufacturing
? Municipal incineration
? Combustion of salt laden wood

Objective(s)

Timeframe

2001-2006

Responsible Organization(s)

Canadian Council of Ministers of the Environment (CCME).

Partner(s)

? Stakeholder including industry, environmental groups and First Nations are participating in priority sector working groups and national workshops to develop targets for reduction and timelines for achieving these targets.

? This information will then be introduced as the basis for a Canada-Wide Standard for each of these sectors

Project Funder(s)

Funding for the development of the Canada-Wide Standards is provided by all Canadian jurisdictions through the CCME. The federal government has provided additional funding. Stakeholders also contribute their time and resources.

Data Source

1 Toxic Substances Management Policy : http://www.ec.gc.ca/toxics/toxic1_e.html
2 Dioxins and Furans Inventory Report: http://www.ec.gc.ca/dioxin/english/index.htm
3 Canada-Wide Standards for Dioxins and Furans: www.ccme.ca/3e_priorities/3ea_harmonization/3ea2_cws/3ea2e_priorities/3ea2e_dioxins/update.html

Comments

Hexachlorobenzene is not on the list for the development of Canada-Wide Standards, but because it is released from the same sources as Dioxins/Furans, any action that will be taken for the reduction of Dioxins/Furans will also affect the reduction of Hexachlorobenzene.

Title

Monitoring under the National Pollutant Release Inventory (NPRI)

Objective(s)

The NPRI is the only legislated, nation-wide, publicly accessible inventory of its type in Canada. One of the fundamental aspects of the NPRI is to provide Canadians with access to pollutant release information for facilities located in their communities. In addition, the NPRI continues to support a number of environmental initiatives by providing information that assists governments and others to identify priorities for action, encourages industry to take voluntary measures to reduce releases, allows tracking of progress in reducing releases, and supports a number of regulatory initiatives across Canada.

The NPRI report currently provides information on 268 listed substances, specifically on their on-site releases to air, water, land and underground injection; off-site transfers in waste; and off-site transfers for recovery, re-use and recycling (3Rs), and energy recovery.

The NPRI initiative involves facilities from companies all across Canada.

Polychlorinated dibenzo-p-dioxins and Polychlorinated dibenzofurans, Hexachlorobenzene and Polycyclic Aromatic Hydrocarbons were added at lower reporting thresholds starting in the 2000 reporting year.

Timeframe

April 1995 - Release of first summary report of the NPRI for the 1993 reporting year. Annual reporting is ongoing.

Responsible Organization(s)

Environment Canada

Comments

The NPRI website is www.ec.gc.ca/pdb/npri/
**Title**
Ecological Monitoring and Assessment Network (EMAN)

**Objective(s)**
The Ecological Monitoring and Assessment Network (EMAN) is a national network of monitoring and research sites characterized by long term, multi-disciplinary studies. Sites within a single ecozone are loosely linked in an ecological framework. The network strives to facilitate cooperation and a holistic approach to ecological enquiry and ecosystem understanding. Ecological Science Cooperatives (ESCs) in the network promote connections among the network sites operating across the country. The network is highly decentralized and acts as a coordinating body, facilitating communications among participants and providing strategic direction.

EMAN is an inclusive network, (i.e. those who wish to participate are welcomed. It embraces all facets of ecological enquiry (including monitoring and research) and facilitates communication among its participants and interaction with international networks. The network promotes the use of environmental indicators and the production of issue and area-based assessments.

EMANs Operating Goal is coordinated monitoring and research activities within a network of specific sites across Canada which attempt to address federal, provincial, regional and local environmental needs.

**Timeframe**
Ongoing

**Responsible Organization(s)**
In April 1994, the Ecological Monitoring Coordinating Office (EMCO) was established. It resides in the Canada Centre for Inland Waters in Burlington, Ontario and functions as the secretariat to EMAN. EMCO coordinates the organization of the Ecological Science Cooperatives, fosters new initiatives, and facilitates communication within EMAN.

The Ecological Monitoring Coordinating Office, located in Burlington, Ontario, is part of the Environmental Quality Branch of Environment Canada located in Hull, Quebec.

**Partner(s)**
In any Ecological Science Cooperative (ESC), a number of research organizations may be involved. These include:

- international agencies, such as the Smithsonian Institute, UNESCO, International Long Term Ecological Research (ILTER) Network, Council for Environmental cooperation (CEG), Canada Man and the Biosphere project, and the Arctic Council
- federal agencies and departments, such as Agriculture and Agri-Food Canada, Canadian Heritage - Parks Canada (Breeding Bird Survey); Canadian Museum of Nature (Biological Survey of Canada), Fisheries and Oceans Canada, Environment Canada (Atlantic Coastal Action Plan, Remedial Action Plan, RAMSAR, Indian and Northern Affairs Canada, Natural Resources Canada - Canadian Forestry Service, Geological Survey of Canada, and Model Forests, and others;
- provincial ministries, especially environment, natural resources parks and education;
- regional and municipal governments, universities, hospital and school boards, industry; and
- non-governmental organizations (NGOs), aboriginal and local groups, and interested volunteers. See, for example, the Atlantic Maritime ESC.

There are over 100 individual agencies involved in the Network.

**Project Funder(s)**
EMAN sites are funded through their own sponsoring institutions. How does the Ecological Monitoring Coordinating Office (EMCO) fund Ecological Science Cooperative (ESC) sites?

Neither EMCO nor EMAN funds research or monitoring. Each site is responsible for its own budget. EMCO has a small budget for seed activities to support network development. It sponsors things such as organizational meetings, start-up projects to demonstrate benefits, and new techniques. A major EMAN activity is the co-ordination of the National Science Meeting.

**Comments**
The EMAN website is www.cciw.ca/eman/

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**Title**
Toxic Substances Research Initiative

**Objective(s)**
The Toxic Substances Research Initiative was designed to implement the commitment in Securing Our Future Together to enhance Canadian environmental and health science capacity by providing new funding for research on toxic substances for the fiscal years 1998-2002, inclusive. The objective of the TSRI is to enhance and accelerate the development of Canada’s environmental and health science capacity needed to define and reduce the ecosystem and human health effects of toxic substances in the Canadian environment.
Priority knowledge needs contributing to this result in 1999/2000 were:

1. Determining and linking the ecosystem and human health effects of known and emerging issue POPs such as endosulfan; pentachlorophenol and pentachloranisole; short-chain chlorinated paraffins; triazines, chlordane and toxaphene.
2. Determining the degree to which domestic and international sources are contributing to observed levels of POPs in Canada.
3. Understanding the impacts of POPs on human health outcomes (e.g. fetal development, the relationship between POPs and cancer in children and Aboriginal peoples, etc.).
4. Determining and linking the ecosystem and human health effects of known and emerging issue POPs such as endosulfan; pentachlorophenol and pentachloranisole; short-chain chlorinated paraffins; triazines, chlordane and toxaphene.
5. Determining the degree to which domestic and international sources are contributing to observed levels of POPs in Canada.
6. Understanding the impacts of POPs on human health outcomes (e.g. fetal development, the relationship between POPs and cancer in children and Aboriginal peoples, etc.).
7. Developing the data necessary to determine ecosystem and human health risks associated with known priority POPs.
8. Determining the long-range transport characteristics of known and emerging POPs.
9. Completing the research needed for the development of new human tissue guidelines, blood guidelines, acceptable daily intakes, and health based advisories especially for at-risk populations such as children, pregnant women and Aboriginal peoples.
10. Identifying mechanisms of action for toxic effects seen in ecosystems and humans exposed to POPs where policy and/or regulatory decisions are required.
11. Improving understanding of pharmacokinetic and pharmacodynamic characteristics of POPs where regulatory decisions are required.

For the upcoming funding year (2000/2001) priority knowledge needs contributing to this result are more limited but strategically fill gaps in research areas from the 1999/2000 call for proposals. They are:

12. Developing the data necessary to determine ecosystem and human health risks associated with known priority POPs from domestic and international sources, particularly in relation to the development of new human tissue guidelines, blood guidelines, acceptable daily intakes, and health based advisories especially for at-risk populations such as children, pregnant women and Aboriginal peoples.
13. Developing approaches to study the transport of POPs, particularly in relation to determining the degree to which domestic and international sources are contributing to observed levels of POPs in Canada and, in the case of international sources, their countries of origin.

Seventeen POPs projects were funded in the 1999/2000 fiscal year ($2.32 Million). The following is a short synopsis of each project:

1999/2000 Persistent Organic Pollutants (POPs) Projects

**TSRI #11** Sources of Agrochemicals to the Atmosphere and Delivery to the Canadian Environment

This study will examine whether the continuing input of banned pesticides into the Canadian environment is due to recycling from existing contaminated soil and water, or due to atmospheric migration from use of these pesticides in countries other than Canada. The study will determine the source of airborne pesticides through surveying the agricultural soils in selected areas of Canada and the U.S. This project will provide a better understanding of where airborne pesticides come from and how they are transported to Canadian ecosystems.

**TSRI #31** Modeling the Sustainable Use of Organic Chemicals in a Healthy Continental Environment

This study will develop and integrate mass balance models to describe the sources and behaviour of contaminants in the North American environment. Additional process-specific models will be developed to assess a variety of chemicals, including POPs for their potential for persistence, long-range transport, bioaccumulation tendencies, and human exposure.

**TSRI #46** Validation of an Amphibian Model to Assess the Effects of Persistent Organic Pollutants on Amphibian Physiology

This study will assess the use of amphibians as bioindicators of the environmental effects of POPs. This will be measured through a combination of field studies of native wild amphibians in the St. Lawrence River region and
laboratory exposures of lab-reared amphibians and amphibian cell lines.

TSRI #:121 Multiple Stressors: Effects on Native Amphibian Species of Forested Environments

This project combines field and laboratory studies. The field studies will monitor the water quality and biological characteristics of wetlands in forested areas to determine the biology of wild native amphibians. The laboratory exposure studies will use native wetland amphibian species to determine the ecological effects of selected herbicides on these species.

TSRI #:152 Effects of In Utero Exposure to Persistent Organic Pollutants on Development and Reproduction

This study will examine the fetal, gonadal and reproductive development in the offspring of rats exposed to environmentally-relevant mixtures of POPs, which will reflect the mixtures found in some fish and game consumed by Aboriginal peoples. This study will also include an examination of the gonads and thyroid function of the exposed adult rats. The data will be used to analyze the risks of maternal exposure to a mixture of POPs on the development, reproduction, and thyroid function of humans.

TSRI #157 Risk Assessment for Hexachlorobenzene: Mechanism of Gender Related Rat Tumour Promotion

The objective of this study is to examine why female rats exposed to this POP of emerging interest have a greater susceptibility to the development of liver tumors than exposed male rats.

TSRI #200 Occurrence, Fate, and Effects of Fluorinated Surfactants in the Canadian Environment

The objective of this study is to examine the environmental concentrations, distribution, toxicity and fate of fluorinated surfactants. These compounds have been observed in human blood but have, to date, received limited research attention. They are used in a variety of industrial and consumer applications.

TSRI #206 Sources, Long Range Transport and Impacts of New and Old POPs Inferred from Dated Lake Core Sediments

This study will extract information on current and past inputs of known and emerging POPs through collecting sediment cores from lakes along a north-south transect from southeastern-Ontario to Ellesmere Island in the Arctic and along an east west transect from Ontario to New Brunswick. This data will be applied to understand the extent of long range transport of POPs in North America, and their extent of degradation in water sediments, through POPs fate and distribution models.

IRST #207 Toxaphene in the Marine Ecosystem of the Saint Lawrence River; State of Contamination, Ecotoxicology and Human Health

This study will utilize a combination of field studies to evaluate the levels of toxaphene contamination of the organisms and sediments of the St. Lawrence River system. Laboratory studies will expose the St. Lawrence estuary fish and human cell cultures to toxaphene, to allow a better evaluation of the risks to fish and human health from the presence of toxaphene in this system.

TSRI #217 Assessment of Contaminants in Beluga Whales’ and Polar Bears’ Reproductive Systems

This study will draw on the traditional knowledge of the northern peoples including local hunters and trappers regarding the abnormalities in these important wildlife species. A comprehensive survey among the elders of the northern aboriginal communities will compile knowledge of the previous and current abnormalities occurring in this type of wildlife.

TSRI #224 Factors Influencing Domestic and International Sources of Chlorinated Hydrocarbons to Fish and Osprey in British Columbia

This study will examine the toxic levels and accumulation in fish from high alpine lakes in British Columbia and the transfer of organochlorines to osprey, which have recently been recognized as having significant exposure to these chemicals because of their migratory patterns. Comparisons will be made to levels in lakes and fish in osprey wintering areas in Central America.

TSRI #236 Biomagnification of POPs and Mercury in Canadian Freshwater Subsistence Fisheries and Food Webs

This study will examine the levels of new and emerging POPs and mercury in top predator fishes in lake systems with subsistence fisheries. The areas of study will span from northern Alberta to Labrador areas, which have previously received less attention than the Great Lakes and the Arctic lake systems.
TSRI #237  Impact of Polybrominated Diphenyl Ethers on the Canadian Environment and Health of Canadians

This study will examine mother’s milk, foods, bird eggs, native fish and marine mammals for the presence of these emerging POPs. Historical trends in environmental concentrations and their potential toxic effects on growth levels in the environment and in humans will also be examined.

TSRI #239  Follow-up of Preschool Aged Children Exposed to PCBs and MeHg Through Fish Consumption

This study will follow-up on previously conducted studies of the measurement of PCBs and MeHg in cord blood at birth among Nunavik Inuit mothers. The long-term consequences of exposure to these contaminants will be examined through a comparison of neuromotor and neurophysiological performance among children of low and high PCB exposure.

TSRI #245  Reproductive/Developmental Effects of an Environmentally Relevant Organochlorine Mixture

The first part of this study will use pigs to examine the possible effects of these contaminants on the male reproduction system, which may be induced by exposure during pregnancy and early life to a mixture of environmental pollutants. These pollutants are similar to those found in Arctic food chains and in the blood of people consuming Arctic sea mammals. The second part of the study will involve laboratory testing of these environmentally-relevant contaminant mixtures through the use of laboratory cultures of mammalian cells, sperm, oocytes and embryos.

2000/2001 Persistent Organic Pollutants (POPs) Projects:

Twenty POPs projects have been approved for funding in the 2000/2001 fiscal year ($3.04 million). Sixteen projects from the previous year have been renewed for funding (which the exception of TSRI #217, which has been completed), along with four new one-year studies. The following is a short synopsis of the new one-year projects:

TSRI #285  Male Reproductive Function and DDT in Chiapas (Mexico)

This study will conduct research to determine whether exposure to DDT, a popular insecticide, is associated with male fertility problems. The research studies will involve reproductive and hormonal measurements of populations which are exposed to high levels of DDT. The data collected in this study will provide valuable information regarding the human health effects of DDT in Canada.

TSRI #299  Assessment of Neurotoxic Effects in a First Nation Community Exposed to PCBs

This study will assess the health effects of PCBs in an Aboriginal population, which is already known to be exposed to high levels of these compounds. The study will measure the neurotoxic effects of PCBs in Aboriginal peoples through neuropsychology testing. The study will provide data that may be used to update current PCB exposure guidelines on the basis of human data, rather than of extrapolation from animal models.

TSRI #306  Developmental Neurotoxicity of Environmentally-Relevant Mixtures of Persistent Organic Pollutants

The proposed research will investigate the human health effects associated with exposure to naturally occurring and man-made persistent organic pollutants (POPs). In particular, this study will investigate the neurological and systemic effects of human exposure to POPs. The data obtained from the research may be used in the development of new human tissue guidelines and provide valuable information for the development of health based advisories for at-risk populations, such as children, pregnant women and Aboriginal peoples.

TSRI #327  Endocrine-disrupting effects of persistant organochlorine pollutants in free-ranging Pacific Killer Whales

This proposal will assess the effects of persistent organic pollutants (POPs) on free-ranging killer whales. The research will also utilize chemical analysis data to measure ecosystem contamination (temporal trends, past and future; local vs open-ocean sources of POPs). This research may help address the origin of the POPs in the British Columbia coastal ecosystem, and the role of food chain biomagnification in explaining the high PCB levels observed in killer whales. The study will be essential in providing a means of assessing the movement of a complex mixture of POPs through the marine environment, and a measure of their risk to high trophic level consumers.
Monitoring under the Accelerated Reduction/Elimination of Toxics (ARET)

The Accelerated Reduction and Elimination of Toxics (ARET) program is a key example of voluntary efforts to secure a safe and healthy environment while contributing to a prosperous economy. ARET seeks, through voluntary actions, the virtual elimination of 30 persistent, bioaccumulative and toxic (PBT) substances (including several POPs such as PCBs, certain species of PAHs, hexachlorobenzene and dioxins and furans), as well as significant reductions in emissions of another 87 toxic substances. Participants from nine major industry sectors and government use the ARET program to prioritize emission reductions and determine appropriate reduction and elimination methods.

The ARET goal is to achieve a 90-per-cent reduction of PBT substance emissions and a 50-per-cent emission reduction of the other 87 toxic substances by the year 2000.

In May 2000, the ARET Secretariat released the ARET 3 Update Report, which details the results of pollution prevention activities of 316 facilities from across Canada during 1998. These facilities, representing 169 companies and government organizations, are using ARET to publicly demonstrate their environmental responsibility.

The ARET initiative involves facilities from companies all across Canada.

There are three substances proposed for the global UNEP POPs Agreement which are reported on the A-1 list of ARET. These include: 2,3,7,8-tetrachlorodibenzofuran, 2,3,7,8-tetrachlorodibenzop-dioxin and PCBs.

Objective(s)

Timeframe

1994 - PRESENT

Responsible Organization(s)

The ARET Stakeholders Committee is made of representatives from industry (Canadian Chemical Producers' Association, Canadian Electricity Association, The Alliance of Manufacturers and Exporters of Canada, Canadian Manufacturers of Chemical Specialties, Canadian Petroleum Products Institute, Canadian Pulp & Paper Association, Canadian Steel Producers Association, Mining Association of Canada, Aluminium Industry Association), health and professional associations (Chemical Institute of Canada, Comité de santé environnementale du Québec), provincial governments (Ontario, British Columbia, Nova Scotia), and the federal government (Environment Canada, Industry Canada, Health Canada).

Environment Canada chairs the Stakeholders Committee and provides the secretariat functions.

Data Source

The ARET website is www.ec.gc.ca/ARET/homee.html

Title

The Sound Management of Chemicals (SMOC) initiative under the North American Agreement on Environmental Cooperation (NAAEC) - North American Regional Action Plans (NARAPs)

Objective(s)

Objective of the Project and Geographical Coverage: B

Council Resolution #95-5, Sound Management of Chemicals is a document stating how the Governments of Canada, Mexico and the United States will cooperate to improve the sound management of chemicals in North America. The Resolution gives priority to the management and control of substances of mutual concern that are persistent, bioaccumulative and toxic, but also allows for cooperation on a broader scale for the sound management of chemicals in the three countries. Council Resolution #95-5 was developed under the authority of the North American Agreement on Environmental Cooperation (NAAEC) and advances many of the commitments and obligations set out in the NAAEC. The Council (of Ministers) is the governing body of the Commission for Environmental Cooperation (CEC), which was established as part of the NAAEC, an environmental side agreement to the NAFTA.
Council Resolution #95-5 required that three substances, in addition to PCBs, be selected from among 12 persistent organic pollutants identified in the United Nations Environment Programme (UNEP) Governing Council Decision 18/32 of May 1995, and certain heavy metals, such as cadmium, mercury and lead.

At its second meeting held in Washington on 25-26 January 1996, the Working Group decided that mercury, DDT and chlordane would be the subject of North American Regional Action Plans (NARAPs) in addition to PCBs. These selections were made after having consulted with colleagues, officials and interests from each of the respective countries. The selected substances are also the subject of discussion in other international fora primarily because they are persistent, bioaccumulative and toxic and are transported across national boundaries through air currents, watersheds and traded products.

All of the substances listed in the UNEP Governing Council Decision were considered by the Working Group when developing this initial group of NARAPs. Some of these substances were not chosen for NARAPs because the Parties had already banned their use (e.g., toxaphene). The Parties agreed however to work together to promote action on these substances in other international forums.

The NARAPs on PCBs, DDT, chlordane, Phase I of the NARAP on mercury and the substance selection process were all approved in 1997. The second phase of the NARAP on mercury was completed in June 1999. Work on NARAP implementation has started with an inventory of North American sites where mercury levels are high.

The Council has agreed to look at further substances for the development of NARAPs. Nomination dossiers for three substances proposed for the global UNEP POPs Agreement (dioxins/furans and hexachlorobenzene) have been submitted for consideration as candidate substances for the development of NARAPs. Lead is being considered for possible future NARAP development.

**Timeframe**

On going

**Responsible Organization(s)**

Canada, the United States and Mexico

**Data Source**

Data to Annex 1 were prepared in conformity with the letter of National Centre of Preventive Medicine, Chisinau, Republic of Moldova.

**Comments**

The NARAPs website is www.cec.org
**Congo**

**Title**
Projet: Inventaire de Polluants Organiques Persistants au Congo

**Objective(s)**
Mise en place d’un recueil de données statistiques des différents POPs (pesticides, fongicides, herbicides,...) utilisés au Congo.

**Timeframe**
Est assujetti à l’obtention de cette aide financière.

**Status**
Planned

**Responsible Organization(s)**
Ministère chargé de l’Environnement

**Partner(s)**
Nous sommes à la recherche de partenaires pour le financement du projet.

**Project Funder(s)**
Nous espérons obtenir l’aide financière de l’Union Européenne à travers le 8ème FED. Pour l’instant nous n’avons pas encore obtenu confirmation.

**Data Source**
Michel Kouka-Mapengo

**Comments**
Nous n’avons pas encore obtenu de financement. Nous avons néanmoins introduit une requête au sein de l’Union européenne pour obtenir un financement.

**Costa Rica**

**Title**
Desarrollo e Implementación de un Sistema de Vigilancia de las Intoxicaciones con Plaguicidas. Experiencia en Costa Rica.

**Objective(s)**
El objetivo del presente plan es evaluar y monitorear los casos de intoxicaciones por plaguicidas en Costa Rica.

**Timeframe**
Indefinido.

**Responsible Organization(s)**
Ministerio de Salud.

**Partner(s)**
MASICA (OPS).

**Project Funder(s)**
MASICA (OPS).

**Data Source**
Literatura adjunta.

**Comments**
Este proyecto cuenta con una base de datos que recoge las intoxicaciones según las boletas expuestas en la literatura adjunta. Actualmente se ha ampliado a los demás productos químicos.

**Costa Rica**

**Title**
Control de Intoxicaciones por Plaguicidas

**Objective(s)**
Costa Rica

**Timeframe**
5 años

**Responsible Organization(s)**
Dr. Rogelio Pardo Evans, Ministro de Salud

**Partner(s)**
MASICA

**Project Funder(s)**
(Dr. Roberto Castro Grobbo) Departamento de Sustancias Toxicas y Indicina del Trabajo

**Data Source**
Dirección Protección al Ambiente Humano.

**Comments**
En el oficio no se consideró este proyecto ni un proyecto de control de todo produccion chimicas

**Cuba**

**Title**
1- Estudio sobre la contaminación por plaguicidas y medidas para su control en la Ciénaga de Zapata y su zona costera.
2- Distribución, destino y efectos de plaguicidas en el biota ambiente Tropical-marino. Utilización de radiotracer.

**Objective(s)**
1- Evaluar los niveles de plaguicidas persistentes en sedimento y biota en los canales de drenaje de la arrocera de Amañadas, en la Ciénaga de Zapata, sur de la Provincia de Matanzas, Cuba.
2- Monitorear durante tres años los niveles de plaguicidaas persistentes y PCBs en sedimento y biota costeras al sur de la arrocera de los Palacios en
Pinar del Río, Cuba con vistas a restringir y manejar adecuadamente los plaguicidas mencionados, tratando de reducir el impacto ambiental.

**Timeframe**
1. 1994-1996
2. 1996-1998

**Status**
Finished

**Responsible Organization(s)**
Instituto de investigaciones de sanidad vegetal, Ministerio de la Agricultura.

**Partner(s)**
Instituto de Investigaciones del Transporte y COMARNA.

**Project Funder(s)**
1. Estudio piloto sobre plaguicidas CEPPOL, financiado por UNEP-RCU, Jamaica
2. Estudio Internacional financiado por IAEA (Vienna) y el SIDA de Suecia.

**Data Source**
G. Dierksmeier, Instituto de Sanidad Vegetal, Ministerio de la Agricultura, CUBA

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**Cyprus**

**Title**

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**Czech Republic**

**Title**
Environmental Way into common Europe

**Objective(s)**
Increase the environmental awareness

**Timeframe**

**Status**
No info

**Responsible Organization(s)**
Agentura GAIA
Lublatviska’ 18
120 00 PRAHA 2

**Partner(s)**
Schools, journalists, state institutions

**Project Funder(s)**
NROS Foundation (PHARE)
Ministry of Foreign Affairs

**Data Source**
UNEP, UNIDO, Diverse Women for Diversity, A SEED, IPEN

**Comments**
The goal of our project is to teach causes of all EARTH problems. Is DNA the solution?

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**Czech Republic**

**Title**
Monitoring of Pops Chemicals in Breast Milk & Assessment of Related Health Risk for Breast Fed Children

**Objective(s)**
In the 6 localities of the Czech Republic samples of breast milk are collected (up to 15 samples at each locality) and analysed individually to detect spatial distribution of human exposure to POPs in the Czech Republic.

**Timeframe**
3 year project 1999-2001

**Status**
Concurrent

**Responsible Organization(s)**
Institute of Hygiene & Epidemiology
First Faculty of Medicine
Charles University of Prague
CZ 12800 PRAHA2, VODICKOVA 7
CZECH REPUBLIC

**Partner(s)**
Axis Varilab s.r.o.
CZ 252 46 VRANE n/VLTAVOU, VLTAVSKA 13
CZECH REPUBLIC

**Project Funder(s)**
Ministry of Environment of the Czech Republic

**Data Source**
Principal researcher of the project.

**Comments**
Financial sources available cover analysis of breast milk samples. If there are available some additional funds we can extend the study by blood sampling or by analysis of the autopsy materials.

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**Ecuador**

**Title**
Implementación del Regimen Nacional para la Gestión de Productos químicos peligrosos.

**Objective(s)**
Ambito- Nacional
- Incrementar la seguridad química en el país sin obstaculizar el desarrollo de las actividades productivas.
- Controlar la importación, formulación, fabricación, transporte, almacenamiento, comercialización, utilización y disposición final de los productos químicos peligrosos.
- Disponer de un registro actualizado de los productos químicos (en este
régimen están incluidos los POPs)

**Timeframe**
Permanente

**Responsible Organization(s)**
Ministerio del Ambiente

**Partner(s)**
Ministerio de Salud
Ministerio de Agricultura, Ganadería.

**Project Funder(s)**
El estado a través del apoyo logístico y el trabajo de profesionales del área.

**Data Source**
Secretaría técnica del Comité nacional de Productos Químicos Peligrosos
Ministerio del Ambiente
Av. Amazonas y Eloy Alfaro
Edif. MAG, piso 8
FAX: (593-2) 565-809
Email: iba@inefan.gov.ec/ Isuarez@inefan.gov.ec

**Comments**
- El Régimen con sus actividades contempla a los POPs.
- El cumplimiento de los objetivos con el financiamiento del estado será a muy largo plazo.
- Es importante la asistencia técnica internacional para obtener un resultado eficiente.

**Estonia**

**Title**
1. European Dioxin Project 1998

**Objective(s)**
1. PCB, furans and dioxin study in oil-shale based power station. North-East Estonia.
2. The project enables us to get an overview of old transformers, condensers etc., that contain PCBs and still in use in Estonia. Estonian Republic.

**Timeframe**
1. 1998. 2. 1998

**Responsible Organization(s)**
1. Ministry of the Environment

**Partner(s)**
1. Landsumwelstampt Nordrhein-Westfalia (Germany)
2. Danish Environment Support Fund for Central and Eastern Europe

**Project Funder(s)**
1. Landsumwelstampt Nordrhein-Westfalia (Germany)
2. Danish side

**Data Source**

**Comments**
1. Estonia still has no waste incineration factories, which are substantial source of PCDD and PCDF pollution (Dioxin and Furan Inventories, 1999).
2. The project enables us to get an overview of old transformers, condensers etc. that contain PCB and are still use in Estonia.
### Ethiopia

**Title**
Preparation of National Profile on the Management of Chemicals.

**Objective(s)**
To assess national infrastructures for the management of chemicals.

**Timeframe**
12 months for preparation of national profile. The project is expected to terminate at the end of August 1999.

**Status**
Finished

**Responsible Organization(s)**
Environmental Protection Authority.

**Partner(s)**
Experts from various institutions organized under national committee.

**Project Funder(s)**
The Royal Netherlands Embassy.

### Federated States of Micronesia

**Title**
The SPREP Persistent Organic Pollutants Project helped assess the chemicals that are currently stockpiled in the four States comprising the FSM.

**Objective(s)**
The project was set out to inventory the presence of POPs in the four FSM States as well as other countries covered by the SPREP organization. Phase 1 was to assess the quantity of stockpiled chemicals. Phase 2 was to introduce appropriate training on storage and packing of these chemicals. The third phase was then to remove the chemicals on island. Unfortunately, the SPREP project is having funding difficulties.

**Timeframe**
Phase 2 was meant to start September last year.

**Status**
Planned

**Responsible Organization(s)**
The Department of Health, Education and Social Affairs is responsible for the National Implementation of the POPs Project. Each EPA is responsible at the State level.

**Partner(s)**
South Pacific Regional Environmental Programme (SPREP).

**Project Funder(s)**
AusAid.

**Data Source**
FSM POPs Survey document finalized in 1999.

**Comments**
If further funding does not eventuate to complete the SPREP project, FSM will have to source other funding donors. There is limitation on island expertise in the proper storage and disposal of these chemicals.

### Fiji

**Title**
Ozone depletion- Monitoring the amount of ODP imported and used in the country by questionnaires. Emission from plastic burning. Management of POPs- Identification and stocktaking and suitable way of disposal

**Objective(s)**
Management of chemicals in order to eliminate the threat posed by toxic chemicals (agricultural/industrial) towards the environment and human health.

**Timeframe**
4-5 years. For new projects, it depends on securing the funds.

**Status**
Planned

**Responsible Organization(s)**
Department of Environment, MAFF, Ministry of Health (Pharmacy)

**Partner(s)**
SPREP. Looking for potential partners for setting up a proper assessment and monitoring of Pesticide residues and other toxic chemicals.

**Project Funder(s)**
Government of Fiji; AUSAID

**Data Source**
Project papers submitted to donors.

**Comments**
Fiji do not have proper laboratory facilities and expertise to carry out activities such as identifying the composition of waste chemical residues analysis and emission monitoring.

### Finland

**Title**
Monitoring of PCBs in fish Northern pike (Esox lucius, L.), roach (Rutilus rutilus, L) and vendace (Coregonus albula, L.) in inland waters and from Northern pike cod (Cadus morhua, L) and Baltic herring (Clupea harengus, L) in the coastal areas since the end of the 1970's. Since the 1980's coastal monitoring has included Baltic mussel (Macoma baltica) and isoped crustacean (Mysis relicta). The reduction of the PCBs loading is generally observed as decreasing concentrations in environmental indicator species. The decreasing trend of PCB concentrations is also detected in marine environment.

**Status**
No info
### Finland

**Title** Monitoring of bioaccumulating compounds (Chlordane; HCB; DDT; PCBs) in the aquatic environment.

**Objective(s)** To study the levels and trends of bioaccumulating compounds in the aquatic environment (mainly in animals).

**Timeframe** 1978- (in every third year)

**Status** Concurrent

**Responsible Organization(s)** Finnish Environmental Institute (FEI).

**Project Funder(s)** FEI

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**Title** Effects of environmental toxicants on reproduction of Baltic salmon (the M74 syndrome)

**Objective(s)** The main goal of the project is to find out causes for the M74 syndrome. One of the subprojects (title above) is concentrated to investigate a possible role of organochlorine compounds in the syndrome. For that purpose samples for OC analyses (including e.g. DDT with metabolites, PCBs, PCDD/Fs, HCB, HCHs) have been collected in salmon mainly at stripping of eggs, but also from open sea around the Baltic. Samples for comparisons have been collected from the Arctic R. Tenojoki.

**Timeframe** 1982

**Status** Concurrent

**Responsible Organization(s)** Finnish Game and Fisheries Research Institute; P.O.Box 6; FIN-00721 Helsinki/ Finland

**Partner(s)** National Public Health Institute (in Kuopio); Department of Chemistry; University of Jyväskylä.

**Project Funder(s)** Finnish Game and Fisheries Research Institute
Ministry of Agriculture and Forestry
Academy of Finland, Nordic Council of Ministers.

**Data Source** Scientific publications.

**Comments** First sampling of OC analyses was performed in 1982 and the programme still continues. Samples have been collected yearly, but in analyses, there are gaps.

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**Title** Determination of organohalogen compounds from the foodstuffs of animal origin (meat, milk, egg, fish)

**Objective(s)** The objective is to monitor the levels of residues in food of animal origin. Samples are collected all over Finland.

**Timeframe** The national residue monitoring programme is carried out annually according to our national legislation and to the legislation of the European Community.

**Status** Concurrent

**Responsible Organization(s)** National Veterinary and Food Research Institute; P.O.Box 368 (Hämeentie 57); 00231 Helsinki, Finland.

**Project Funder(s)** Finnish government.

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**Title** Safety and nutritional quality of Finnish food (See Annex 1).

**Objective(s)** The aim of the project was to obtain the most accurate picture of the contaminant levels of various Finnish foods.

**Timeframe** Two projects under the same general topic: One project began 1990/1991 and finished in 1995 and the other began in 1995/1996 and it is still going on.

**Status** Concurrent

**Responsible Organization(s)** Agricultural Research Centre of Finland; Food Research / Chemistry Laboratory.
FIN-S1600 JOKIOINEN

**Partner(s)** Ministry of Agriculture and Forestry; Finnish Food Industry.

**Project Funder(s)** Ministry of Agriculture and Forestry; Finnish Food Industry; Agricultural Research centre of Finland.

### France

**Title** Réseau National de Bassin (RNB)
Réseaux des eaux souterraines
Réseaux des Agences de l'Eau.

Objective(s)
Connaissances générales de l'évolution spatio-temporelles de la qualité des cours d'eau et des eaux souterraines.
Evaluation de l'efficacité globale des politiques de lutte contre la pollution.
Information des gestionnaires et du public.
Suivi de la contamination des eaux par les micropolluants dont les POPs.

Timeframe
continuing investigations every 2nd year

Status
Concurrent

Responsible Organization(s)
6 Agences de l’Eau françaises.
Ministère de l’Environnement et de l’Aménagement de Territoire.

Data Source

Comments
Ces réseaux existent depuis de nombreuses années, les mesures sont réalisées périodiquement. Réseaux pérennes.

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**France**

**Title**
Etude sur les dioxines et les furanes dans le lait maternel en France.

**Objective(s)**
Mesures des concentrations de dioxines et de furanes dans le lait maternel en France.

244 échantillons de lait provenant de mères primipares, en bonne santé, âgées de moins de 35 ans et allaitant essentiellement entre la 4ème et la 8ème semaine après l’accouchement ont été analysés pour quantifier la teneur en 17 PCDD/F.

Ces mères sont réparties sur l’ensemble du territoire français. Elles ont rempli un questionnaire portant sur leurs caractéristiques personnelles, leurs expositions professionnelles et environnementales, leur lieu de résidence et leur alimentation, autant de facteurs pouvant influencer les teneurs mesurées.

**Timeframe**

**Responsible Organization(s)**
ADEME : Agence de l’Environnement et de la Maîtrise de l’Energie
INVS : Institut National de Veille Sanitaire
CAREPS : Centre Rhône-Alpes d’Épidémiologie et de Prévention Sanitaire

**Partner(s)**
Lactarium français

**Project Funder(s)**
ADEME : Agence de l’Environnement et de la Maîtrise de l’Energie
Ministère de l’Aménagement du territoire et de l’Environnement

**Data Source**
Informations et rapports disponibles aux adresses internet suivantes :
http://www.ademe.fr/htdocs/actualite/dossier/dioxines.htm
http://www.invs.sante.fr/

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**France**

**Title**
Dioxines : données de contamination et d'exposition de la population française

**Objective(s)**
Cette étude a pour but d'évaluer le niveau d'exposition aux dioxines et furanes par voie alimentaire de la population française en général, ainsi que de différentes classes d'individus présentant des régimes alimentaires spécifiques :

? les nourrissons et les enfants en bas âge (0 à 2 ans), avec 3 sous-classes d'âge dans cette population

? les enfants (2 à 9 ans),

? les adolescents (10 à 14 ans).

Les données présentées s'appliquent à la population générale française, dont l'alimentation résulte d'achats en petites et grandes surfaces ou en marchés, donc d'origines géographiques diversifiées. En conséquence, elles ne reflètent pas les niveaux d'exposition spécifiques à certaines catégories de population.

Le niveau d'exposition de la population générale française a été estimé à partir :

? de données de consommation basées sur deux études couvrant le régime alimentaire des diverses classes d'individus,

? de données de contamination en dioxines et furanes de différentes catégories d'aliments entrant dans le régime alimentaire de ces individus.
**France**

**Title**
Circulaire du 30 mai 1997: Mesures de dioxines à l’émission des usines d’incinération d’ordures ménagères de plus de 6tonnes/heure, 71 sites concernés.
Circulaire du 7 novembre 1997: Mesures des émissions de dioxines sur l’ensemble des gros émetteurs de la sidérurgie et de la métallurgie: 80 sites concernés.
Circulaire du 12 mai 1998: Mesures des émissions de dioxines dans le domaine de la papeterie, 10 sites concernés.
Aide financière pour la réduction des émissions de dioxines des usines d’incinération d’ordures ménagères existantes.

**Timeframe**
may 1997-may 1998

**Status**
Finnished

**Responsible Organization(s)**
Ministère de l’Environnement et de l’Aménagement du territoire, ADEME

**Data Source**

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**France**

**Title**
Mesure des concentrations de dioxines dans le lait maternel: campagne nationale.
Mesure des concentrations de dioxines dans les produits laitiers et produits laitiers transformés.

**Objective(s)**
Objectif: compléter les travaux déjà menés sur ce thème en France.

**Status**
No info

**Responsible Organization(s)**

**Data Source**
Site internet: www.environnement.gouv.fr

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**Gambia, The**

**Title**
1) Case Study on Inventory of PCBs
2) A mission on the Preliminary Inventory of Hazardous Wastes (including POPS) in Gambia

**Objective(s)**
1) To determine the amount and location of PCBs in the country and to devise a strategy for their destruction.
2) To conduct a preliminary review of the hazardous waste situation in the country, by covering the legal, technical and institutional aspects of their management.
Geographical coverage for both projects: Countrywide.

**Timeframe**
1) The PCB Case Study is not finalised. Technical assistance is awaited from UNEP Chemicals.
2) The mission on assessment of the hazardous waste situation was for a duration of two weeks.

**Status**
Concurrent

**Responsible Organization(s)**
National Environment Agency

**Partner(s)**
National Water and Electricity Company (NAWEC), Departments of State for Agriculture, Health, Trade, Industry and Employment; Oil companies; Technical Training Institutes; Radville Farms; Gambia Groundnut Council; Medical
Research Council.

Project Funder(s) 1) UNEP Chemicals 2) Basel Secretariat

Data Source National Environment Agency, 5 Fitzgerald St., PMB. 48, Banjul Tel: (220) 228056/224867/224868. Fax: (220) 229701. E-mail: nea@gamtel.gm

Germany

Title Monitoring Programmes of the Federal States of Germany

Objective(s) Providing information about the status of groundwaters (contamination with plant protecting agents)

Timeframe Ongoing project

Responsible Organization(s) Federal States of Germany

Partner(s) Sometimes water supplying companies

Project Funder(s) Federal States of Germany

Data Source Database at the German Federal Environmental Agency (UBA)

Comments The monitoring programmes include following POP pesticides: Aldrin, Dieldrin, Endrin, DDT and metabolites, Heptachlor, Chlordane, Mirex, Hexachlorobenzene

Germany

Title Surface water: “Emission monitoring”

Objective(s) Water Resources management in Germany- Responsible organism: Federal Ministry for the environment, Nature Conservation and Nuclear Safety (BMU), Bonn, February 1998. The following Pesticides POPs are included: Aldrin; Dieldrin; Endrin; Heptachlor; DDT (*) and Hexachlorobenzene.

(*) Due to the ban, measured concentrations of these 5 pesticides decreased significantly and the quality criteria for surface waters are fulfilled. Therefore, the substances have already been excluded from some of the monitoring programmes.

Hazard Ranking of Substances Relevant for the aquatic Environment for 1993/94- Herrchen et al., UBA-Text 41/97, Berlin 1997. The following pesticides POPs are included: Aldrin; Dieldrin; Endrin; heptachlor; DDT and Hexachlorobenzene.

Germany

Title Monitoring on Permanent Soil Monitoring Sites of the federal States of Germany

Objective(s) In the responsibility of the federal States monitoring sites are carried out to i) show the state of the soil (background values, concentration of hazardous compounds etc.), ii) show the trends in changes of deposition and soil concentrations

Timeframe ongoing project

Responsible Organization(s) Geological and environmental surveys of the federal States of Germany. Coordination of data flow, methods, and evaluation by the German Federal Environmental Agency (UBA).

Project Funder(s) Federal Environmental Agency (for methods and data assessment)

Data Source Agreement of data exchange between the fed. States and the governmental level. Data on governmental level will be held in the soil information system. Building up the system is in progress recently.

Comments Following substances are monitored: PCB congeners 28, 52, 101, 138, 153, 180, HCB, DDT, DDE, DDD, 16 PAH according to ISO 13877 Following substances are monitored: PCB congeners 28, 52, 101, 138, 153, 180, HCB, DDT, DDE, DDD, 16 PAH according to ISO 13877

Germany

Title Ambient air: “Exposure/Emission monitoring”; wet deposition measurements in the framework of the network of the Environmental Agency /FEA, two continuous Air Monitoring Sites at the coast of the Baltic Sea (Zingst) and on the North sea Island Sylt (Weterland)

Objective(s) The aim is to establish seasonal variations, maximum environmental concentrations and trends. Chlorpesticides: alpha-HCH; gamma-HCH; HCB; Heptachlor; Aldrin; Dieldrin;
Endrin; p,p'-DDE; p,p'-DDD; o,p'-DDT; p,p'-DDT. The concentrations measured are generally very low and mostly in the range of the detection limit (0.02 ng/l).

Yearly publications of the Input-Groups of HELCOM and OSPAR.

PCB congeners 18; 26; 44; 52; 101; 118; 138; 149; 153; 170; 180.

Status
yearly
Concurrent

Germany

Title
CAMP - Comprehensive Atmospheric Monitoring Programme in the frame of OSPAR/Oslo Paris Convention for the Protection of the Marine Environment of the North-East Atlantic = A

EGAP – Expert Group on Atmospheric Pollution / Atmospheric Monitoring programme in the frame of HELCOM/Baltic Marine Environment Protection Commission = B

Objective(s)
A= Quantification of air input of pollutants to the North-Sea and North-East Atlantic; at this stage only wet deposition
B= Quantification of air input of pollutants to the Baltic-Sea at this stage only wet deposition

Timeframe
A = North-Sea station - Westerland since July 1992
B = Baltic-Sea station - Zingst since July 1992

Responsible Organization(s)
Federal Environmental Agency Berlin/Germany (UBA)

Partner(s)
no partner

Project Funder(s)
Funded by the Federal Ministry of Environment, Nature Protection and Nuclear Safety

Data Source
Weekly samples /Tuesday-Tuesday/ wet only data

Comments
Comments: following chlorpesticides: ?-HCH, ???-HCH, HCB, o,p’-DDT, p,p’-DDT, o,p’-DDE, p,p’-DDE, o,p’-DDD, p,p’-DDD, Aldrin, Dieldrin, Endrin, Heptachlor,
following PCB congeners: 28, 52,101, 118, 138, 153, 180. Data are stored at the UBA and at the international database for OSPAR and HELCOM at NILU/NORWAY

Germany

Title
Monitoring Programme of the Joint Water Commission of the Federal States (LAWA)

Objective(s)
Objective: Providing Information about the status of surface waters in Germany

Timeframe
Ongoing project

Responsible Organization(s)
Joint Water Commission of the Federal States (LAWA)

Partner(s)
In case of transboundary waters the corresponding International Commissions for Protection of River Rhine, River Oder, River Danube and River Elbe

Project Funder(s)
Federal States of Germany

Data Source
Environmental Policy:

- Water Resources Management in Germany published by Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

Comments
This Monitoring Programme includes the parameters Aldrin, Dieldrin, Endrin, DDT, Heptachlor, Hexachlorobenzene, PCB and in some river basins dioxines and furanes.

Since Chlordane, Mirex and Toxaphene are banned since many years, they are no longer analyzed on a regular basis.

Ghana

Title
Evaluation of Dieldrin under treated foundation of building.

Objective(s)
To determine residual Dieldrin in the soil, about 25 years after treatment.
To determine whether there has been movement through the soil into the intermediate environment of the building.

Timeframe
One year

Status
No info

Responsible Organization(s)
Chemistry department, University of Science and Technology.

Partner(s)
Building and Road research Institute.

Project Funder(s)
Chemistry department, University of Science and Technology.
Title: Persistence of pesticides (lindane and endosulfan) and their effects on maize growth in two soil ecosystems.

Objective(s):
To determine the physical, chemical and biological properties of soil which could influence the degradation of lindane and endosulfan in the forest and savanna ecosystems.
To study the persistence of lindane and endosulfan in two soils.
To investigate the effect of rate of application on total bacterial population in soils.
To assess possible phytotoxic effects of lindane and endosulfan growth of the maize as affected by application rate.

Timeframe: Two years.
Status: No info

Responsible Organization(s): Department of Soil Sciences, Department of Chemistry and Ecological Laboratory, University of Ghana and Botany Department, University of Ghana.

Partner(s): University of Copenhagen.
Project Funder(s): Ecological Laboratory (University of Ghana/ University of Copenhagen, Danida).

Comments: The work provided a basic approach in monitoring the environmental impact of chlorinated insecticides in Ghanaian soils. The pesticides did not persist much in tropical soils as compared to what pertains in the temperate climates.

Title: Residues of Lindane and Endosulfan in water and fish samples from rivers, farms in Besease, Agogo and Akomadan in the Ashanti region of Ghana.

Objective(s):
Studies on the effects of organochlorine pesticide residues in water, fish in the forest zone of Ghana, as part of joint FAO/IAEA coordinated research programme on "adverse effects on flora and fauna from the use of organochlorine pesticides on the African continent.

Timeframe: 1990-1995
Status: Finished

Responsible Organization(s): Department of Chemistry, University of Science and Technology, Kumasi-Ghana.

Partner(s): Joint FAO/IAEA Division.
Project Funder(s): International Atomic Energy (IAEA)


Comments: Residues of Lindane and Endosulfan were found in water and fish. Lindane residues varied between the years and months in the year but were in the range of 0.3-15 ng/l (1993-94) and 87-32 ng/l (1995).

Title: Monitoring of pesticides in cocoa beans.

Objective(s):
To detect residue limits for export in cocoa from all over the country.
To determine the extent of current usage of banned pesticides in the country.

Timeframe: 1987-2001
Status: Concurrent

Responsible Organization(s): Ghana cocoa board (quality control division).

Partner(s): University of Ghana, Legon, Accra.

Project Funder(s): Ghana cocoa board.

Comments: POPs analyzed are DDT derivatives, Aldrin and Dieldrin, all the organochlorines in the "dirty dozen" have been stopped for cocoa and have been replaced by others. Of late, there have been complaints about the level of these pesticides in the exported cocoa.

Title: Validation of TLC methodology for screening pesticide residues and application of the methodology to pesticide residue analysis in some agro-ecosystems.

Objective(s):
To investigate the possibility of applying TLC detection in combination with the recently introduced micro-extraction and clean-up method for providing an alternative cost effective analytical procedure for screening pesticide residues in selected commodities and some agro-ecosystems (New Tafo and Amasaman)
<table>
<thead>
<tr>
<th><strong>Ghana</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong></td>
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</table>
| **Objective(s)** | To review current usage patterns of pesticides.  
To identify and quantify levels of organochlorines residues in environmental samples.  
Locations: Akomadan- Ashanti Region (tomato growing area), Cocoa Growing areas of Ashanti and eastern regions of Ghana, Lower Volta Basin and some lagoons in the western region. |
| **Timeframe** | 1998-2005 |
| **Status** | Concurrent |
| **Responsible Organization(s)** | Water Research Institute (CSIR)  
University of Ghana. |
| **Partner(s)** | Water Research Institute  
University of Ghana. |
| **Project Funder(s)** | Government of Ghana. |
| **Comments** | Pesticides monitored are: lindane< 5UG/g; 2,4,5-TCB<%UG/g; Dieldrin<50UG/g; Endrin<50UG/g; DDT<15UG/g; DDD<10UG/g. These were analyzed in water and sediments. Aldrin 10-30 UG/g in tomato; Heptachloreporide 5-200ng/g in sediment. |

<table>
<thead>
<tr>
<th><strong>Greenland</strong></th>
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<tbody>
<tr>
<td><strong>Title</strong></td>
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<td><strong>Objective(s)</strong></td>
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<td><strong>Timeframe</strong></td>
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<td><strong>Responsible Organization(s)</strong></td>
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<td><strong>Partner(s)</strong></td>
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<td><strong>Project Funder(s)</strong></td>
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<tr>
<td><strong>Data Source</strong></td>
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<table>
<thead>
<tr>
<th><strong>Hungary</strong></th>
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</table>
| **Title** | Environmental health risk assessment of chlorinated organic pollutants.  
Concentration of PCBs, DDT and metabolites and HCH isomers in the breast milk.  
Preparations for the International Agreements on limitation of persistent organic environmental pollutants and heavy metals in the atmosphere, 1997.  
Preparation of background documents required to the international agreements on heavy metals and POPs emission, 1997.  
Annual monitoring program of chlorinated hydrocarbons in import crops. |
| **Objective(s)** | Assessment and evaluation of the main pollution sources of selected POPs (PCBs, Dioxins, chlorinated pesticides) and contaminated sites in Hungary.  
Monitoring of environmental indicators and human exposure. Assessment of contamination in soil, ground water and water resources.  
20-50 breast milk samples/year, Hungary. |
| **Status** | Concurrent |
| **Responsible Organization(s)** | Fodor József National Center for Public health- National Institute of Environmental health, Budapest.  
Fodor József National Center for Public health- National Institute of Food Hygiene and Nutrition, Budapest.  
Plant Health and Soil Conservation Station, Budapest. |
| **Partner(s)** | WHO-ECEH, Bilthoven, The Netherlands; Environmental Protection Inspectorates, Hungary; Institute of Environmental Management, Budapest; Country Institutes of the National Public Health and Medical Officers’ Service. |
### Iceland

**Title**
Persistent organochlorines in prey species of the Icelandic gyrfalcon.

**Objective(s)**
To elucidate the route of organochlorine contaminants to the gyrfalcon in Iceland.

**Timeframe**
1996 - 1998

**Status**
Finished

**Responsible Organization(s)**

**Project Funder(s)**
University of Iceland Science fund, Icelandic Science Fund, The ministry for the environment.

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### Iceland

**Title**
Seasonal fluctuations in organochlorine levels in the eider duck in Iceland

**Objective(s)**
To assess seasonal changes in organochlorine levels in the eider duck, caught at 4 different times in 1993. Álftanes, Iceland

**Timeframe**
1993 - 1995

**Status**
Finished

**Responsible Organization(s)**

**Project Funder(s)**
University of Iceland Science fund and the Ministry for the environment

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### Iceland

**Title**
Development of organochlorine pollution in Iceland

**Objective(s)**
To assess time trends in organochlorine pollution in Black Guillemots caught between 1975 and 1995, in Breiðafjörður Iceland.

**Timeframe**
1999 - 2001

**Status**
Concurrent

**Responsible Organization(s)**

**Partner(s)**
Marine Research Institute, The Icelandic Fisheries Laboratories and industry representatives.

**Project Funder(s)**
Icelandic Science Fund

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### Iceland

**Title**
Contaminants in fish products and the marine ecosystem

**Objective(s)**
To obtain information on, and assess the levels of organic and inorganic contaminants in the marine environment with particular emphasis on the requirements of the fishery industries.

**Timeframe**
Initial phase: 1999 - 2000

**Status**
No info

**Responsible Organization(s)**
The Icelandic Ministry of Fisheries

**Partner(s)**
Marine Research Institute, The Icelandic Fisheries Laboratories and industry representatives.

**Project Funder(s)**
The Icelandic Ministry of Fisheries

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### Iceland

**Title**
Persistent organochlorines in air and precipitation

**Objective(s)**
To monitor organochlorine transport to Vestmannaeyjar, Iceland

**Timeframe**
1995 - ongoing

**Status**
Concurrent

**Responsible Organization(s)**

**Project Funder(s)**
Ministry for the environment
Title: National Assessment and Monitoring Programme

Objective(s): Baseline information about POPs in marine sediments, and time-trends of POPs in marine biota. Time-trend information about POPs in human blood. Time-trend information about POPs in air and precipitation. The marine programme is restricted to the continental shelf surrounding Iceland, but the results are reported to the ICES database in Copenhagen and thus become available for assessment of larger geographic area.

Timeframe: Ongoing monitoring with periodic assessment every three to five years.

Status: Concurrent

Responsible Organization(s): Environmental and Food Agency of Iceland

Partner(s): Marine Research Institute
University of Iceland, department of Pharmacology
The Icelandic Fisheries Laboratories
The Icelandic Meteorological office

Project Funder(s): Governmental funding

Iceland

Title: Persistent organochlorines in reindeers in Iceland.

Objective(s): To monitor organochlorine levels in reindeers. East Iceland.

Timeframe: 1998

Status: Finished

Responsible Organization(s): Dept. Pharmacol. Toxicol., Univ. Iceland

Project Funder(s): Ministry for the environment.

Iceland

Title: The effect of organochlorines on the fertility of Icelandic males

Objective(s): To find relationships between xenoestrogens and the fertility of men in Iceland.

Timeframe: 1999 -

Status: Concurrent

Responsible Organization(s): Dept. of Pharmacol. Toxicol., University of Iceland and The fertility clinic of the National Hospital, Reykjavík.

Project Funder(s): University of Iceland Science fund

Iceland

Title: PCB contamination at dumpsites in Iceland

Objective(s): To assess local PCB leakage from 4 different dumpsites in Iceland

Timeframe: 1999 - 2000

Status: Concurrent


Project Funder(s): Ministry for the environment

Indonesia

Status: No info

Comments: Residue level of POPs in the environment are occasionally detected by researchers and not by routine monitoring activities.

Indonesia

Title: Organochlorine Insecticide Bioaccumulation on Plankton in Cilacap River

Objective(s): To assist the impact of organochlorine on plankton (University research)

Timeframe: 1995

Responsible Organization(s): Pharmaceutical Faculty, Gadjah Mada University

Data Source: Muliawati, R. and DR. Noegrahadi, Gadjah Mada University

Ireland
“Dioxins in the Irish environment” an assessment based on levels in cow’s milk. This survey was carried out in 1985 and the report was published in 1996.

**Objective(s)**
A Nation-wide study on dioxins based on levels found in cow’s milk. A total of 32 samples were taken in the grazing season which was representative of the entire country.

**Timeframe**
The timeframe for the project was one month. It is intended to repeat the project at five-year intervals. As the levels found were very low, it is felt that an interval of this duration is acceptable.

**Status**
Finnished

**Responsible Organization(s)**
Environmental Protection Agency, P.O.Box 3000, Johnstown Castle, Co.Wexford.

**Project Funder(s)**
Environmental Protection Agency.

**Comments**
In addition to the national survey, a number of companies with a “Dioxin potential” have undertaken local dioxin milk surveys. While some of these surveys were undertaken on a voluntary basis, others were part of Integrated Pollution Control Licensed Conditions.

**Italy**

**Title**
Monitoring of the PCB and Dioxin levels in food stuffs.

**Objective(s)**
Characterization of the exposure of population associated to the PCB and dioxin intake.

**Timeframe**
Endless.

**Status**
Concurrent

**Responsible Organization(s)**
Instituto Superiore di Sanita (National Public Health Research Institute), Viale Regina Elena 299-00161, Rome

**Partner(s)**
Ministry of Health

**Project Funder(s)**
Instituto Superiore di Sanita, Ministry of Health

**Italy**

**Title**
Feasibility study on reduction of atmospheric emission of PCDD/F, PAH and HCB from industrial sources.

**Objective(s)**
Evaluation of emissions of Dioxins and Furans from selected metal working plants and determination of Country-specific emission factors, North-Italy

**Timeframe**
Three year project Monitoring programme starting in 2000.

**Status**
Concurrent

**Responsible Organization(s)**
ENEA (National Agency for New Technology, Energy and Environment)

**Partner(s)**
Associazione Industriali Bresciana

**Project Funder(s)**
Ministry of Environment

**Italy**

**Title**
Evaluation of the PCB and Dioxin levels in the Venice Lagoon and of the related environmental and health risk

**Objective(s)**
Monitoring of the PCB and Dioxin levels in sediments and biota of Venice Lagoon in order to assess the level of human health risk for the resident population.

**Timeframe**
Three year project

**Status**
No info

**Responsible Organization(s)**
Instituto Superiore di Sanita (National Public Health Research Institute), Viale Regina Elena 299-00161, Rome

**Partner(s)**
Ministry of Environment

**Project Funder(s)**
Instituto Superiore di Sanita, Ministry of Environment

**Jamaica**

**Title**
1. Establishing an Inventory of Obsolete Pesticides in Jamaica
2. Registration and re-registration of pesticides for use in Jamaica
3. Public Awareness Campaign

**Objective(s)**
1. To establish quantities of obsolete pesticides in stock and to dispose of such pesticides.
2. To prevent introduction and re-registration of banned pesticides.
3. To provide information to the consumers on the dos and donts of pesticides use and build public resistance to POPs.
### Jamaica

**Title**
1. Establishing an Inventory of Obsolete Pesticides in Jamaica
2. Registration and re-registration of pesticides for use in Jamaica
3. Public Awareness Campaign

**Objective(s)**
1. To establish quantities of obsolete pesticides in stock and to dispose of such pesticides.
2. To prevent introduction and re-registration of banned pesticides.
3. To provide information to the consumers on the dos and donts of pesticides use and build public resistance to POPs

**Timeframe**
The registration process is ongoing

**Responsible Organization(s)**
PCA

**Partner(s)**
Ministry of Agriculture (through RADA)
Association of Agro-chemical manufacturers and retailers

**Project Funder(s)**
German Government (GTZ)
Pesticide Control Authority (PCA)

**Data Source**
Pesticide Control Authority

**Comments**
A register of pesticides is now available to the public in both the print and electronic media. Included in the register is a list of banned pesticides which include those identified by POPs (Aldrin, Chlordane, Dieldrin, DDT, Endrin, Heptachlor, Mirex, Toxophene, Hexachlorobenzene)

### Japan

**Title**
Monitoring of hazardous air pollutants (dioxins, furans and co-planar PCBs are included)

**Objective(s)**
To grasp the state of air pollution by hazardous chemicals including dioxins, furans, co-planar PCBs, volatile organic compounds, aldehydes, heavy metal compounds and polycyclic aromatic hydrocarbons in big cities, middle-sized cities, rural areas etc. chosen from the whole country.

**Timeframe**
1986 - continuing

**Status**
Concurrent

**Responsible Organization(s)**
Environment Agency

**Partner(s)**
Local governments

**Project Funder(s)**
Environment Agency.
Title: Environment Survey and Wildlife Monitoring

Objective(s): To grasp the concentration of various chemicals including POPs in the air, surface water, sediment and some kinds of wildlife throughout the country.

Timeframe: 1974 - continuing.

Status: Concurrent

Responsible Organization(s): Environment Agency.

Partner(s): Local governments.

Project Funder(s): Environment Agency.

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Title: Urgent and Comprehensive Environmental Monitoring of Dioxins, etc.

Objective(s): To grasp the state of air, surface water, underground water, sediments, land and aquatic life pollution by dioxins, furans and co-planer PCBs throughout the country.

Timeframe: 1998-1999

Status: Finished

Responsible Organization(s): Environment Agency.

Project Funder(s): Environment Agency.

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Title: Surveillance of the amount of dioxins and furans emitted from waste incinerators.

Objective(s): To grasp the amount of Dioxins and Furans emitted from waste incinerators (geographical coverage). All waste incinerators regulated by Waste Management and Public Cleansing Law in Japan.

Timeframe: Each year from 1997.

Status: Concurrent

Responsible Organization(s): Ministry of Health and Welfare.

Project Funder(s): Ministry of Health and Welfare.

---

Title: Fishermen's Oceanic and Atmospheric Monitoring.

Objective(s): In order to conserve the marine ecosystem, a series of surveys was conducted over the world major ocean. For this purpose, Japanese fishing boats collected air and sea samples for grasping the distributions of substances like organochloride compounds, plastic particles and so on.


Status: Finished

Responsible Organization(s): Fisheries Agency of Japan.

Partner(s): Japan Marine Fishery resources Research Centre.

Project Funder(s): Fisheries Agency of Japan.

---

Title: Pollutant Release and Transfer Register (Requirement of reporting for the amount of releases to the environment of chemical substances)

Objective(s): To grasp the state of quantities of chemical substances both released to the environment and transferred in the waste in the whole country.

Timeframe: The Law was promulgated in July 1999. Report will be submitted each year from 2002.

Status: Concurrent

Responsible Organization(s): Environment Agency

Partner(s): Local governments

Other ministries / Agencies

Project Funder(s): Environment Agency

Ministry of International Trade and Industry

Comments: This program is based upon "The Law Concerning Reporting, etc. of Release to the Environment of Specific Chemical Substances and Promoting
Improvements in their Management" and designed not only for monitoring of POPs but also other chemicals which may be hazardous to human health and/or environment. PCBs and dioxins and furans are designated as target substances

### Japan

<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Preparation of an emission inventory for dioxins, furans and co-planar PCBs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective(s)</strong></td>
<td>To grasp the annual emission inventory for dioxins, furans and co-planar PCBs, from various sources</td>
</tr>
<tr>
<td><strong>Timeframe</strong></td>
<td>1999-continuing</td>
</tr>
<tr>
<td><strong>Responsible Organization(s)</strong></td>
<td>Environment Agency</td>
</tr>
<tr>
<td><strong>Partner(s)</strong></td>
<td>Ministry of Health and Welfare, Ministry of International Trade and Industry, Local governments</td>
</tr>
</tbody>
</table>

### Jordan

<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Side effect of pesticides on the Environment in Jordan</th>
</tr>
</thead>
</table>
| **Objective(s)** | 1-Determination of the pesticides level in environment (mother milk, water, soil and agricultural products)  
2-Leading to decision to solve the pesticides residual problem. The study covered all of Jordan. |
| **Timeframe** | 1-01-1992 through 31-12-1994 |
| **Responsible Organization(s)** | Ministry of Municipal and Rural Affairs and the Environment (Environment Department) |
| **Partner(s)** | -Agriculture Ministry  
-The Royal Scientific Society  
-Jordan University |
| **Project Funder(s)** | Jordan Government |
| **Data Source** | The General Corporation for Environment Protection |
| **Comments** | We determined some pesticides problem that had exceeded the WHO Guideline |

### Jordan

<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Side effect of pesticides on the environment in Jordan</th>
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<tbody>
<tr>
<td><strong>Objective(s)</strong></td>
<td>Follow up the previous study that had been conducted in 1-01-92 through 31-12-94</td>
</tr>
<tr>
<td><strong>Timeframe</strong></td>
<td>1-01-2000 through 31-12-2004</td>
</tr>
<tr>
<td><strong>Responsible Organization(s)</strong></td>
<td>The General Corporation for Environment Protection</td>
</tr>
</tbody>
</table>
| **Partner(s)** | -Ministry of Agriculture  
-The Royal Scientific Society  
-Jordan University  
-The University of Science and Technology |
| **Data Source** | The General Corporation for Environment Protection |
| **Comments** | The study is still conducted |

### Kazakhstan

<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Identification and Hygienic Assessment of Dioxins Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective(s)</strong></td>
<td>Objective of the project: Dioxins pollution control and prevention / Geographical Coverage: Territory of the Republic of Kazakhstan</td>
</tr>
<tr>
<td><strong>Timeframe</strong></td>
<td>3 Years, started in August 1997, but was stopped in October 1997 due to absence of state budget funds.</td>
</tr>
<tr>
<td><strong>Status</strong></td>
<td>No info</td>
</tr>
<tr>
<td><strong>Responsible Organization(s)</strong></td>
<td>Institute of Chemical Sciences of the Republic of the Kazakhstan</td>
</tr>
<tr>
<td><strong>Partner(s)</strong></td>
<td>Republican Station of Sanitary and Epidemic, Ministry of Natural Resources and Environmental Protection of the Republic of Kazakhstan</td>
</tr>
<tr>
<td><strong>Project Funder(s)</strong></td>
<td>State Budget funds</td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td>Work on the project was started in August 1997, but was stopped in October 1997 due to absence of state budget funds.</td>
</tr>
</tbody>
</table>
Kuwait

**Assessment and Monitoring Project of Dioxins and Furans in hospitals' incinerators**

**Objective(s)**
Assessment and Monitoring of dioxins and furans emissions from hospitals’ incinerators and evaluating the efficiencies of the incinerators to minimize or eliminate emissions.

**Timeframe**
2 years

**Responsible Organization(s)**
Environmental protection Authority (E.P.A)

**Partner(s)**
Kuwait Institute for Scientific Research (KISR)

**Project Funder(s)**
Environmental protection Authority (E.P.A)

**Data Source**
Environmental protection Authority (E.P.A)

**Comments**
The implementation of the project started in 1999 by KISR with a complete support of EPA. The project is expected to be finalized at the end of year 2001. As a result of this, five incinerators was closed down because of low efficiency.

Laos

**Development of a POPs national Action Plan and Strategy**

**Objective(s)**
- To identify the number of Persistent Organic Pollutants and its importing sources.
- To indentify the use of Persistent Organic Pollutants and its effect to human health and the environment.
- To identify ways to prevent the release of POPs into atmosphere, water and soil.
- To incorporate the finding above into a National POP Action Plan/Strategy

**Timeframe**
Duration 2 years (one year data collection and assessment for dry and raining season, one year development of Action Plan/Strategy)

**Responsible Organization(s)**
Science Technology and Environment Agency-STEAA

**Partner(s)**
- Science Technology and Environment Agency
- State Planning Committee
- Ministry of Agriculture and Forestry
- Ministry of Industry and Handicraft
- Ministry of Trade
- Ministry of Health

**Project Funder(s)**
Will be asking from UNEP Chemicals

**Comments**
- This project is the first priority of Persistent Organic Pollutants activities in Lao PDR. We would be grateful for your positive consideration in supporting this project.
- Fielding of a project identification mission (1m/m) is necessary.

Laos

**POPs chemical survey and data collection within Lao P.D.R.**

**Objective(s)**
To identify the number of Persistent Organic Pollutants and its importing sources.
To identify the use of Persistent Organic Pollutants and its effect to human health and the environment

**Timeframe**
Duration 2 months. From Beginning of May to the end of June 2000.

**Status**
Planned

**Responsible Organization(s)**
Science Technology and Environment Agency.

**Partner(s)**
- Science Technology and Environment Agency
- Ministry of Agriculture and Forestry
- Ministry of Industry and Handicraft
- Ministry of Trade
- Ministry of Health

**Project Funder(s)**
Will be asking from UNEP Chemicals

**Comments**
This project is the first priority of persistent organic pollutants activities in Lao PDR. We would be grateful for your positive consideration in supporting this project.
### Latvia

**Title**
Stable Organic Pollutants in Latvia.

**Objective(s)**
- Identification of main sources of POPs chemicals in Latvia.
- To frame plan for reduction of pollution of POPs chemicals.

**Timeframe**
01.01.99- 01.07.99

**Status**
Finished

**Responsible Organization(s)**
University of Latvia.

**Partner(s)**
Environmental State Inspectorate.

**Project Funder(s)**
Environmental Protection fund of Latvia.

### Lebanon

**Title**
Addressing Dioxins in Solid Matrices in some suspected Industries.

**Objective(s)**
- Getting statistical data to adopt future remedial actions (random sample of 10 suspected industries covering the most critical industrial areas in the country).

**Timeframe**
For technical reasons, we faced some delay in finishing the study. However, we expect to be done by the end of October 1999.

**Status**
No info

**Responsible Organization(s)**
Ministry of Environment

**Project Funder(s)**
UNEP

**Data Source**
Ministry of Environment.

### Lithuania

**Title**
State Programme for Environmental Monitoring

**Objective(s)**
- Improvement of environmental quality, systematical observation, analysis and prognosis of environmental state and to setting changes raised by anthropogenic impacts. According to the programme PCB monitoring is conducted

**Responsible Organization(s)**
Ministry of Environment

**Partner(s)**
Interinstitutional working Group

**Data Source**
Protocol of the meeting of the Government of the Republic of Lithuania of 01.07.1998 No. 27

### Malaysia

**Title**
A minor project entitled The Development of National Programme to Control POPs was initiated by the Department of Environment. The study was carried out by consultants from the National University of Malaysia and was funded by the Government. This small study was intended to assess the status of POPs in a few selected areas of the country.

**Status**
Finished

**Responsible Organization(s)**
Consultants from the National University of Malaysia

**Project Funder(s)**
Malaysian Government.

**Comments**
However, a minor project entitled The Development of National Programme to Control POPs was initiated by the Department of Environment. The study was carried out by consultants from the National University of Malaysia and was funded by the Government. This small study was intended to assess the status of POPs in a few selected areas of the country.
funded by the Government. This small study was intended to assess the status of POPs in a few selected areas of the country.

**Mexico**

**Title**
Monitoreo para determinar la presencia de dioxinas y dibenzofuranos, en la empresa Agricultura Nacional de Veracruz S.A. (ANAVERSA) y en la zona aledaña, producidas por la explotación de una planta de pesticidas de la misma empresa en 1991, en el que se perdieron las siguientes cantidades de las sustancias a continuación citadas:

- Paratión de Metilo 80%: 1,700 Kg.
- Paratión de Metilo 50%: 15,140 L.
- Acido 2,4-D: 1,525 Kg.
- 2,4-D 40%: 1,180 L.
- Paraquat: 11,000 L.

**Objective(s)**
Determinar la concentración de dioxinas y dibenzofuranos, 6 años después de la explotación de la planta de pesticidas de ANAVERSA, en Córdoba, Veracruz, México.

**Timeframe**
Del 26 al 28 de agosto de 1997. Actualmente aún se llevan a cabo monitoreos en la zona del inmueble y zona aledaña.

**Status**
Finished

**Responsible Organization(s)**
SECRETARÍA DE SALUD DEL GOBIERNO FEDERAL: Dirección General de Salud Ambiental y Dirección de Control Sanitario de Riesgos Ambientales.

**Partner(s)**
Laboratorio Midwest Research Institute realizó el monitoreo, con la posterior respectiva interpretación de la Agencia de Protección al Ambiente de Estados Unidos de Norteamérica.

**Project Funder(s)**
SECRETARÍA DE SALUD DEL GOBIERNO FEDERAL.

**Data Source**
Procuraduría Federal de Protección al Ambiente.

**Comments**
Del 26 al 28 de agosto de 1997. Actualmente aún se llevan a cabo monitoreos en la zona del inmueble y zona aledaña. NOTA: La presente solicitud de UNEP arrivó a DASSUR aproximadamente hace un mes, por lo que por falta de tiempo nos es imposible rendirles la información más actual. DASSUR está solicitando por los medios legales establecidos, información sobre los últimos monitoreos del caso ANAVERSA, por lo que dicha información nos será enviada en un mes aproximadamente. Si la información resultare de su interés, podremos proporcionárselas.

La SECRETARÍA DE SALUD DEL GOBIERNO FEDERAL determinó que el riesgo fue mínimo, ya que ninguna de las muestras, a excepción de una, rebasó los niveles de acción recomendados por la USEPA. Por lo anterior la SECRETARÍA DE SALUD DEL GOBIERNO FEDERAL declaró, que no era necesario llevar acabo medidas de remediación, sin embargo si se dictaron medidas de remediación, ya que el reporte de la muestra de suelo dentro del inmueble rebasa el máximo permisible por la USEPA para el caso de que se pretenda utilizar el predio con fines residenciales o habitacionales.

Las medidas de remediación dictadas consisten en lo siguiente:
- descontaminación de muros a base de baño a presión con arena, para remover la capa superficial de dicho sitio, aplicando posteriormente pintura base aceite con vinílica, lavado del piso del inmueble a bajo volumen de agua a presión.

A pesar de la declaración como reporte final del monitoreo por parte de la SECRETARÍA DE SALUD DEL GOBIERNO FEDERAL, sabemos que el inmueble ANAVERSA y la zona aledaña no se encuentran completamente limpios, ya que al tratarse de grandes cantidades de plaguicidas y por lo tanto gran producción de dioxinas, sabemos que permanecerán en el ambiente por varios años, por no sufrir procesos normales de degradación.

NOTA: Actualmente en DASSUR nos encontramos trabajando e investigando en materia de POPs, por lo que es de nuestro interés seguir participando con ustedes en cualquier proyecto referente al tema.

**Moldova**

**Title**
Estimation of the Impact of the runoff from pesticides dump in the Southern part of the Republic of Moldova.

**Objective(s)**
To investigate the different POPs chemicals on the territory around the pesticide dump (4 thousands tons of pesticides: DDT and other). To investigate the different POPs chemicals on the territory around the pesticide dump (4 thousands tons of pesticides: DDT and other).

**Timeframe**
2000 – 2001.(2 years)

**Responsible Organization(s)**
National Institute of Ecology

**Partner(s)**
No define.
Title

Accident Emergency Warning System and Monitoring Laboratory and Information Management for the Ukrainian and Moldavian Parts of the Danube River Basin.

Objective(s)

Sector: Water resources.
Providing the equipment, training and expert advice required for establishing AEWS and TNMN system in Ukraine and Moldova.
Monitoring of pollution of surface water in Danube River Basin, including certain POPs. Sector: Water resources.
Providing the equipment, training and expert advice required for establishing AEWS and TNMN system in Ukraine and Moldova.
Monitoring of pollution of surface water in Danube River Basin, including certain POPs.

Timeframe

1998 – 1999 (Duration: 24 month)

Responsible Organization(s)

National Institute of Ecology.

Partner(s)

Hydrometeorological Service, Chisinau, Republic of Moldova.

Project Funder(s)

EU TACIS Programme

Data Source

Prepared by Liudmila Marduhaeva, National POPs Focal Point, Consultant of the General Division for Pollution Prevention and Improvement of the Environment, Ministry of Environment and Territorial Development. Address: 9, Cosmonautilor St., MD – 2005, Chisinau, Republic of Moldova. Tel.: +(373 2) 22 68 50. Fax: +(373 2) 22 07 48. E-mail: liudmila@mediu.moldova.md or l.marduhaeva@mail.md

Data to Annex 1 were prepared in conformity with the documents:

* "National Review 1998 Moldova, Project Files, National Academy of Ecological Sciences in cooperation with the Programme Coordination Unit UNDP/GEF Assistance”;
* The letter of Hydrometeorological Service.

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Moldova

Title

Danube Regional Pesticide Study.
PHARE: ZZ9111/0106Danube Regional Pesticide Study.
PHARE: ZZ9111/0106

Objective(s)

The main objective of the project was to evaluate the risk of the pesticides application in the region for the human and aquatic life and to recommend legal, policy and management framework, which will lead to the elimination of this risk. The main objective of the project was to evaluate the risk of the pesticides application in the region for the human and aquatic life and to recommend legal, policy and management framework, which will lead to the elimination of this risk.
Moldova

**Title**
Sanitary Surveillance of Prut River, a Source of Drinking Waters for Riparian Localities.

**Objective(s)**
Assessment of drinking water quality and health related risks.

**Timeframe**

**Responsible Organization(s)**
Institute of Public Health Iasi (Romania).

**Partner(s)**
Districtual Inspectorates of Public Health (Romania)
National Centre of Preventive Medicine, Chisinau, Republic of Moldova

**Project Funder(s)**
Ministry of Health (Romania).

**Data Source**
Prepared by Liudmila Marduhaeva, National POPs Focal Point, Consultant of the General Division for Pollution Prevention and Improvement of the Environment, Ministry of Environment and Territorial Development. Address: 9, Cosmonautilor St., MD – 2005, Chisinau, Republic of Moldova. Tel.: +(373 2) 22 68 50. Fax: +(373 2) 22 07 48. E-mail: liudmila@mediu.moldova.md or l.marduhaeva@mail.md

Data to Annex 1 were prepared in conformity with the letter of the National Centre of Preventive Medicine of the Republic of Moldova.

**Comments**
The levels of DDT in Prut River show a decreasing trend; the levels of metabolites as well as levels of herbicides (Atrazin, Simazin and Propazin) show an increasing trend. The efficiency of water treatment processes at water treatment plants was improved.
works is very low for this kind of chemical contamination.

**Moldova**

**Title**
EnvReg 9705: Vulcanesti Pesticide Dump Site Investigation.

**Objective(s)**
Initial risk assessment

**Partner(s)**
Hydrometeorological Service and other organizations.

**Project Funder(s)**
TACIS

**Data Source**
Prepared by Liudmila Marduhaeva, National POPs Focal Point, Consultant of the General Division for Pollution Prevention and Improvement of the Environment, Ministry of Environment and Territorial Development. Address: 9, Cosmonautilor St., MD – 2005, Chisinau, Republic of Moldova. Tel.: +(373 2) 22 68 50. Fax: +(373 2) 22 07 48. E-mail: liudmila@mediu.moldova.md or l.marduhaeva@mail.md

Data to Annex 1 were prepared in conformity with the document “National Review 1998 Moldova, Project Files, National Academy of Ecological Sciences in cooperation with the Programme Coordination Unit UNDP/GEF Assistance” and other documents.

**Comments**
Initial risk assessment report has been prepared by Ove Arup and Partners International LTD

**Moldova**

**Title**
ENVREC 9701 Prut River Water Management.

**Objective(s)**
Monitoring of pollution of surface water in Prut River Basin, including certain POPs, and other objectives.

**Timeframe**
1998-2000

**Responsible Organization(s)**
Institute of Geography of Academy of Sciences.

**Partner(s)**
Hydrometeorological Service,
Concern “Waters of Moldova” (Moldavian version of name “Apele Moldovei”),
Concern AGEOM etc.

**Project Funder(s)**
TACIS

**Data Source**
Prepared by Liudmila Marduhaeva, National POPs Focal Point, Consultant of the General Division for Pollution Prevention and Improvement of the Environment, Ministry of Environment and Territorial Development. Address: 9, Cosmonautilor St., MD – 2005, Chisinau, Republic of Moldova. Tel.: +(373 2) 22 68 50. Fax: +(373 2) 22 07 48. E-mail: liudmila@mediu.moldova.md or l.marduhaeva@mail.md

Data to Annex 1 were prepared in conformity with the documents:
* “National Review 1998 Moldova, Project Files, National Academy of Ecological Sciences in cooperation with the Programme Coordination Unit UNDP/GEF Assistance”;
* The letter of Hydrometeorological Service.

**Nepal**

**Title**
Case study report about POPs in use in agriculture and industry in Nepal

**Objective(s)**
(a) Identify POPs in use throughout Nepal
(b) To document use patterns and quantities
(c) Evaluate needs for future works, awareness raising, health and environmental pollution evaluation, actions needed at national level for reduction and elimination of these problems

**Timeframe**
Six months from date of commencement

**Status**
Finished

**Responsible Organization(s)**
Nepal Bureau of Standards and Metrology
Balaaju, Kathmandu, Nepal.
Fax: 977-1-350-689
Email: nbsm@ccsl.com.np

**Partner(s)**
Pesticide Registrar
Pesticide Registration Office
Plant Protection Division
Dept. of Agriculture
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<td><strong>Project Funder(s)</strong></td>
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<td><strong>Comments</strong></td>
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<td><strong>Project Funder(s)</strong></td>
</tr>
</tbody>
</table>
Joint Assessment and Monitoring Programme in Norway - Contaminants

Objective(s)
Monitoring and assessment of trends and spatial distribution of contaminants in sediments and biota along the whole Norwegian coast.

Timeframe
Monitoring each year (biota), every 10 years (sediments), the Assessment biota every 5 years

Status
Concurrent

Responsible Organization(s)
Norwegian Pollution Control Authority (SFT), PO Box, 8100, N0032, Oslo, Norway

Partner(s)
Norwegian Institute for Water Research, PO Box 173, Kjelså, N0411, Oslo, Norway

Project Funder(s)
Norwegian Authorities (SFT)

Annual report on direct and riverine inputs to Norwegian coastal waters (OSPAR-RIO)

Objective(s)
Assess waterborne inputs to the maritime area of the OSPAR Convention

Timeframe
Long term monitoring - Annual reports

Status
No info

Responsible Organization(s)
Norwegian Pollution Control Authority (SFT)
P.O. Box 8100 Dep., N-0032 Oslo, Norway

Partner(s)
Norsk Vannteknologisk Senter A/S
P.O. Box 6875 Rodeløkka
N-0504, Oslo

Project Funder(s)
Norwegian Authorities (SFT)

Arctic Monitoring and Assessment Programme Norwegian Implementation Plan

Objective(s)
Providing reliable and sufficient information on the status (incl. trends) of, and threats to, the Arctic Environment, and providing scientific advice on actions to be taken in order to support Arctic governments in their efforts to take remedial and preventive actions relating to contaminants.

Timeframe

Status
Concurrent

Responsible Organization(s)
Norwegian Pollution Control Authority (SFT)
P.O. Box 8100 Dep., N-0032 OSLO, Norway

Partner(s)
Several agencies and research institutes in Norway, e.g.:
- NorMarine Research Inst., Beigen
- Directorate for Nature Management, Trondheim
- Norwegian Polar Inst., Tromsø
- Norwegian Radiation Protection Authorities, Oslo

Project Funder(s)
Norwegian Authorities -(SFT)

Determinación de la actividad eritocítica y macrofágica ocasionada por DDT.
Control de Calidad de Alimentos presumiblemente contaminados por COPs.
Evaluación de riesgo de exposición a COPs en áreas específicas.
Estudios de la actividad disruptora endocrina y su asociación a los COPs.
Establecer dos estaciones de monitoreo en Aguadulce, David, Volcán, Cerro Punta, Chitré, Santiago, Penonomé por que están lejos del mar que monitoree las concentraciones de contaminantes emitidos o descargados específicos en tiempo exacto y por lugar de ocurrencia con el equipamiento de cromatógrafos de gases específicos para la determinación de los Plaguicidas COPs con detectores Kit Fid Yipc 1HPLC otros orgánicos que tenga una bomba cuaternaria en vegetales, en alimentos, preferiblemente de las marcas acreditadas y conocidas en nuestro país.
Capacitación de los inspectores técnicos de saneamiento ambiental e inspectores antivectoriales a nivel regional con relación a la vigilancia de los COPs en 9 Regiones de Salud del país.
Auditoría de los desechos o residuos de PCBs procedentes de transformadores, interruptores y capacitadores eléctricos así como de los fluidos hidráulicos.
Equipamiento de instrumentos analíticos de monitoreo.
Equipamiento de equipo de protección personal completo para los trabajadores capacitados en el manejo y el monitoreo de PCBs en las subestaciones hidroeléctricas.
Auditoría Ambiental de la estructura de almacenamiento (Centro de Acopio del IRHE en Río Hato).
Aplicar métodos alternos de destrucción o de biodegradación controlada de PCBs.

**Objective(s)**
Crear un plan de mitigación del almacenamiento temporal, auditoría ambiental, manejo, transporte y devolución al país de origen de DDT para todo el país.
Monitoreo del espesor de la cáscara de huevos en aves en todo el país.
Actualización de un programa de capacitación en bioseguridad, manejo y uso de equipos de monitoreo ambiental de los COPs.
Tratamiento por bioremediación de transformadores eléctricos que contienen PCBs en la Caja de seguro Social.
Determinación de la Contaminación de DDT en leche materna.
Determinación de dodecacloro en río Hato en la leche materna.
Plan de mitigación del almacenamiento temporal, auditoría ambiental, manejo, transporte y devolución al país de origen de dodecacloro.

**Status**
No info

**Responsible Organization(s)**
Subdirección General de Salud Ambiental del Ministerio de Salud (MINSA); Directores Regionales de Salud.

**Partner(s)**
ANCON / ANAM / Caja de Seguro Social / MIDA / Empresas privadas hidroeléctricas / Fundación NATURA / Smith Sonians Institute / SIBUP / SENACYT.

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**Paraguay**

**Comments**
No existen ningun tipo de proyecto al respecto

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**Peru**

**Polychlorobiphenyls Source Inventory**

**Objective(s)**
Identify the products that contain PCBs; users’ locations, PCB volume, origin and final disposition - in order to establish a National Management Program for this kind of waste.

**Timeframe**
8 months

**Status**
No info

**Responsible Organization(s)**
General Direction of Environmental Health of the Health Ministry DIGESA

**Project Funder(s)**
DIGESA and others

**Data Source**
DIGESA

**Comments**
This project requires multisectorial participation of those involved with the management of the PCBs (Energy and Mine Ministry, Industry and Commerce Ministry, Private Institutions, etc.)

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**Peru**

**Title**
1. This is not a special project, it is a common activity of the plan protection Direction of SENASA:
   - Obsolete pesticides inventory.
   - Supervision and pursuit of pesticides out of technical specifications.
2. Ministry of Health is working in a polychloro biphenyl sources inventory

**Objective(s)**
1. In SENASA, this coverage is at national level and we need to know about quantities of obsolete pesticides in Peru and the POP’s specially.
2. Identify products that contain PCB’s. Their use, location, volume, origin and final disposition in order to establish a National Management Program for this wastes.

**Timeframe**
Permanent

**Status**
Concurrent

**Responsible Organization(s)**
1. Servicio Nacional de Sanidad Agraria - SENASA on pesticides for agricultural use.
2. Dirección General de Salud Ambiental - DIGESA on pesticides for domestic use.
### Peru

**Title**  
Obsolete pesticides inventory

**Objective(s)**  
To inventorize the quantities of obsolete pesticides in the country and the POPs especially.

**Timeframe**  
All year 1999.

**Status**  
No info

**Responsible Organization(s)**  
Servicio Nacional de Sanidad Agraria-SENASA. As a national organism.

**Partner(s)**  
No partner, in some cases Ministry of Health.

**Project Funder(s)**  
SENASA.

**Data Source**  
SENASA

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### Philippines

**Title**  
Pesticide Monitoring System Development Project (PMDP)

- To develop a comprehensive system for monitoring pesticide residues and pesticide formulations.

**Objective(s)**

1. To improve the method(s) of analysis of pesticide residue and pesticide formulations.
2. To improve the method(s) and technology of supervised pesticide residue trials in crop.
3. To improve the method(s) and technology of market basket research for establishing MRLs and the pesticide safe use.
4. To provide necessary information for safe handling and proper use of pesticide.

**Timeframe**  
March 1997-March 2002

**Status**  
Concurrent

**Responsible Organization(s)**  
Department of Agriculture  
Bureau of Plant Industry (BPI)  
Fertilizer and Pesticide Authority (FPA)

**Partner(s)**  
Japan International Cooperation Agency (JICA)

**Project Funder(s)**  
Philippine Government  
JICA

**Data Source**  
National Pesticide Analytical Laboratory (NPAL)  
Laboratory Services Division  
Bureau of Plant Industry

**Comments**  
The PMDP is a JICA-Project Type Technical Cooperation established for the purpose of improving the national monitoring program on pesticide residue and pesticide formulation in the country.

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### Philippines

**Title**  

**Objective(s)**  
Part of RA 696 is to develop a Priority Chemical List (PCL). The list is composed of chemicals which are highly toxic (POPs) in terms of their persistence & tendency to bio-accumulate through the food chain. The objective is to assess their presence and quantity of their imports & production, to evaluate which chemicals should be regulated, restricted or banned, strictly enforce compliance to RA 6969

**Timeframe**  
Continuing activity. The PCL and PICCS are scheduled for updating every five years.

**Status**  
Concurrent
<table>
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<th>Responsible Organization(s)</th>
<th>EMB</th>
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<tr>
<td>Partner(s)</td>
<td>DOH, PNRI, DND, DOLE, DOST, DFA</td>
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<tr>
<td>Project Funder(s)</td>
<td>RA 6969- WHO &amp; DENR (EMB)</td>
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<tr>
<td>Data Source</td>
<td>RA 6969 and DAO 38, 39, 29, 58.</td>
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<tr>
<td>Comments</td>
<td>The EMB is presently evaluating chemicals listed as PCL to be included in DAO 58 in co-ordination with EPA who is the government agency mandated for the regulation of fertilizers and pesticides. The EMB is currently evaluating industrial chemicals for the purpose.</td>
</tr>
</tbody>
</table>

**Poland**

**Title**
Elaboration of a system in Poland for preventing environmental contamination from PCB compound sources.

**Objective(s)**
An inventory of technical devices containing PCBs and their origin. A proposal for preparation of a monitoring system for PCBs. Provisions for implementing the national disposal system for PCBs, classified as a dangerous waste. Assessment of disposal techniques.

**Timeframe**
1995-1997

**Responsible Organization(s)**
Institute of Petroleum and Coal Chemistry and Technology, Wroclaw Academy of Technical Science

**Partner(s)**
none

**Project Funder(s)**
State Committee for Scientific Research

**Comments**
: The study covers also issues connected with the disposal and PCB alternatives

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<table>
<thead>
<tr>
<th>Responsible Organization(s)</th>
<th>Ministry of Environment, Department of the Environmental Protection Warsaw, 52/54 Wawelska St. Poland</th>
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<tbody>
<tr>
<td>Partner(s)</td>
<td>DHV Polska 00-182Warszawa, 9 Dubois St. Poland</td>
</tr>
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<td>Project Funder(s)</td>
<td>PHARE, Project Nr. PL 9608.01.03</td>
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<td>Data Source</td>
<td>reports available at the Ministry of Environment</td>
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</tbody>
</table>

**Poland**

**Title**
Preparation of an approximation programme for implementing European Union law on PCB/PCT disposal in Poland

**Objective(s)**
Preparation of a programme for the implementation of the European law and its inclusion into the Polish legislation on PCB/PCT waste management. The study resulted in an inventory of PCB in Poland.
<table>
<thead>
<tr>
<th>Title</th>
<th>Report on compliance of provisions, by the Ministry of Economy, related to the Convention on the Protection of the Marine Environment of the Baltic Sea Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective(s)</td>
<td>In frame of the project a report has been developed including information on implementing the recommendations of HELCOM by the industry of Poland. It concerns in particular the elimination of PCBs in use and reduction of emissions to water bodies to the atmosphere of all the substances generated by the production and formulation of pesticides</td>
</tr>
<tr>
<td>Timeframe</td>
<td>1998</td>
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<tr>
<td>Responsible Organization(s)</td>
<td>PROMASZ – Bureau for Studies and Economy Consulting 00-686 Warsaw, 1 Barbary str. Poland tel. (48 22) 628 31 59</td>
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<td>Partner(s)</td>
<td>none</td>
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<td>Objective(s)</td>
<td>An inventory of technical devices containing PCBs and their origin. A proposal for preparation of a monitoring system for PCBs. Provisions for implementing the national disposal system for PCBs, classified as a dangerous waste. Assessment of disposal techniques. Geographical Coverage: Southern and Northern Poland.</td>
</tr>
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<td>Responsible Organization(s)</td>
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<td>State Committee for Scientific Research</td>
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<tr>
<td>Comments</td>
<td>The study covers also issues connected with the disposal and PCB alternatives</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Title</th>
<th>Development of underlying assumptions for a project to limit inflow, to water bodies, of dangerous substances produced or in use in the economy sector.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective(s)</td>
<td>As the first stage of the project implementation, a questionnaire was developed, to identify sources of industrial sewage, containing dangerous substances, in particular aldrin, dieldrin, endrin, and hexachlorobenzene. In the second stage of project a plan of actions was designated to decrease the pollution of water bodies, by dangerous substances, to the level compliant with the requirements of the UE regulations. Estimations of necessary financial resources for implementing by the economy sector of Poland the requirements of EU in this area were also carried out.</td>
</tr>
<tr>
<td>Timeframe</td>
<td>2000 year</td>
</tr>
<tr>
<td>Responsible Organization(s)</td>
<td>Ministry of Environment, Department of the Environmental Protection Warsaw, 52/54 Wawelska St. Poland</td>
</tr>
<tr>
<td>Partner(s)</td>
<td>DHV Polska 00-182 Warszawa, 9 Dubois St. Poland</td>
</tr>
</tbody>
</table>
### Poland

#### Title
Report on compliance of provisions, by the Ministry of Economy, related to the Convention on the Protection of the Marine Environment of the Baltic Sea Area

#### Objective(s)
In frame of the project a report has been developed including information on implementing the recommendations of HELCOM by the industry of Poland. It concerns in particular the elimination of PCBs in use and reduction of emissions to water bodies to the atmosphere of all the substances generated by the production and formulation of pesticides.

#### Timeframe
1998 year

#### Responsible Organization(s)
PROMASZ-Bureau for Studies and Economy Consulting  
00-686 Warsaw, 1 Barbary Str.  
Poland  
Tel.: (48 22) 628 31 59

#### Partner(s)
none

#### Project Funder(s)
Ministry of Economy

### Poland

#### Title
Organochlorine pesticide concentrations in the drinking water from a region of extensive agriculture in Poland

#### Objective(s)
Detection of organochlorine pesticides (DDT, heptachlor, lindane, metoxychlor) in drinking water samples collected from water intakes (deep wells and dug wells) in Warka-Grojec and Lublin rural regions of Poland. Geographical Coverage: Warka-Grojec and Lublin regions of Poland

#### Timeframe
1994-2000

#### Responsible Organization(s)
Department of Clinical Toxicology, Institute of Agricultural Medicine

#### Partner(s)
none

#### Project Funder(s)
Institute of Agricultural Medicine

### Poland

#### Title
Development of underlying assumptions for a project to limit inflow, to water bodies, of dangerous substances produced or in use in the economy sector. 

#### Objective(s)
As the first stage of the project implementation, a questionnaire was developed, to identify sources of industrial sewage, containing dangerous substances, in particular aldrin, deldrin, endrin and hexachlorobenzene. In the second stage of project a plan of actions was designed to decrease the pollution of water bodies, by dangerous substances, to the level compliant with the requirements of the UE regulations. Estimations of necessary financial resources for implementing by the economy sector of Poland the requirements of EU in this area were also carried out.

#### Timeframe
2000

#### Responsible Organization(s)
Ministry of Environment, Department of the Environmental Protection  
Warsaw, 52/54 Wawelska St.  
Poland

#### Partner(s)
DHV Polska  
00-182Warszawa, 9 Dubois St.  
Poland

#### Project Funder(s)
PHARE, Project Nr. PL 9608.01.03

#### Data Source
reports available at the Ministry of Environment

### Poland

#### Title
Organochlorine pesticide concentrations in the drinking water from a region of extensive agriculture in Poland

#### Objective(s)
Detection of organochlorine pesticides (DDT, heptachlor, lindane, metoxychlor)
in drinking water samples collected from water intakes (deep wells and dug wells) in Warka-Grójec and Lublin rural regions of Poland

**Timeframe**
1994-2000

**Responsible Organization(s)**
Department of Clinical Toxicology, Institute of Agricultural Medicine

**Partner(s)**
none

**Project Funder(s)**
Department of Clinical Toxicology, Institute of Agricultural Medicine

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**Poland**

**Title**
The project of unifying the scope of data concerning air protection and collected for supplying the national statistics system and the public.

**Objective(s)**
The project presents proposals for the changes in the list of pollutants that are registered and considered in the Polish statistics reporting system. The changes would comply with the provisions of the protocol on POPs to the Convention on Long-range Transboundary Air Pollution.

**Geographical Coverage:** Poland

**Timeframe**
1999

**Responsible Organization(s)**
On request of the Ministry of Environmental Protection, Natural Resources and Forestry prepared by the Institute of Environmental Protection

**Partner(s)**
Energy Market Agency

**Project Funder(s)**
National Fund for Environmental Protection and Water Management

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**Poland**

**Title**
The analysis of the possibility of signature by Poland the protocols on heavy metals and persistent organic pollutants to the Convention on Long-range Transboundary Air Pollution.

**Objective(s)**
The analysis of national emission of POPs, identification of emission trends and the prognosis for emission in future (until 2010). It was the basis for assessing the possibility of performing by Poland the basic obligations of the protocols, as well as a study of compliance.

**Timeframe**
Emission analysis for the years 1988-1996
Emission prognosis until 2010.

**Responsible Organization(s)**
On request of the Ministry of Environmental Protection, Natural Resources and Forestry prepared by the Institute of Environmental Protection

**Partner(s)**
none

**Project Funder(s)**
National Fund for Environmental Protection and Water Management

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**Poland**

**Title**
The project of unifying the scope of data concerning air protection and collected for supplying the national statistics system and the public.

**Objective(s)**
The project presents proposals for the changes in the list of pollutants that are registered and considered in the Polish statistics reporting system. The changes would comply with the provisions of the protocol on POPs to the Convention on Long-range Transboundary Air Pollution.

**Geographical Coverage:** Poland

**Timeframe**
1999

**Responsible Organization(s)**
On request of the Ministry of Environmental Protection, Natural Resources and
Poland

Title
Preparation of an approximation programme for implementing European Union law on PCB/PCT disposal in Poland.

Objective(s)
Preparation of a programme for the implementation of the European law and its inclusion into the Polish legislation on PCB/PCT waste management. The study resulted in an inventory of PCB in Poland.

Timeframe
1999

 Responsible Organization(s)
Ministry of Environment

Partner(s)
Agroconsulting Europe

Project Funder(s)
PHARE DISAE-Pol 112

Data Source

Poland

Title
The analysis of the possibility of signature by Poland the protocols on heavy metals and persistent organic pollutants to the Convention on Long-range Transboundary Air Pollution

Objective(s)
The analysis of national emission of POPs, identification of emission trends and the prognosis for emission in future (until 2010). It was the basis for assessing the possibility of performing by Poland the basic obligations of the protocols, as well as a study of compliance.

Geographic Coverage: Poland

Timeframe
Emission analysis for the the years 1988-1996

 Responsible Organization(s)
On request of the Ministry of Environment Protection, Natural Resources and Forestry prepared by the Institute of Environmental Protection

Partner(s)
none

Project Funder(s)
National Fund for Environmental Protection and Water Management

Portugal

Title
External Monitoring Programme of LIPOR II

Objective(s)
To assess the environmental impact of a municipal waste incinerator

Timeframe
1998-2002

 Responsible Organization(s)
IDAD – Instituto do Ambiente e Desenvolvimento [2]

Partner(s)
University of Aveiro

Project Funder(s)
LIPOR

Comments
This program focuses in the monitoring of dioxin / furan levels in ambient air, soil, sediments and food.

Portugal

Title
Measurement of Atmospheric Emissions of Dioxins and Furans in Selected Sources in Portugal

Objective(s)
Measurement of stack emissions of dioxins and furans

Characterisation of major sources
Romania

Title
Assessment of pollution levels of soil, water and vegetables by nitrates and pesticides, in Moldavia.

Objective(s)
To measure the concentrations of nitrates and organochlorine pesticides in soil, water and vegetables. 8 Districts located in the region of Moldavia.

Timeframe

Status
Concurrent

Responsible Organization(s)
Institute of Public Health Iasi.

Partner(s)
Districtual Inspectorates of Public Health

Project Funder(s)
Ministry of Health

Data Source
Environmental Chemistry Laboratory, Environmental Health Department, Institute of Public Health Iasi
Str. V. Babes nr. 14, 6600 Iasi, Romania, Tel: 40-32-141520, Fax: 40-32-210399.

Comments
Nitrates and organochlorine pesticides were found in all investigated samples, sometimes at concentrations exceeding the Maximum Admissible Concentrations.

Romania

Title
Surveillance and assessment of pesticides residues in food in Timis County; development of HPLC method of analysis of pesticides residues in food.

Objective(s)
To identify the most used pesticides (first 10 formulated compounds) in Timis County, during the last 5 years; To identify the pattern of food consumption in Timis County (first 5 categories of food products) and their contamination (types and level of pesticides residues present in these food products); To display this information on the county’s map.

Timeframe
2000-2010

Responsible Organization(s)
Institute of Public Health – “Prof. Dr. Leonida Georgescu” Timisoara

Project Funder(s)
Ministry of Health

Data Source
Data Source: Food Hygiene Compartment, Institute of Public Health Timisoara
Bd. Dr. V. Babes nr. 16-18, Tel/fax: 40 056 192101; e-mail: irlupsa@yahoo.com

Comments
The aim of the project is to substantiate the sanitary norms

Romania

Title
Assessment of organochlorine pesticides’ levels, in the soil of water catchment areas of the main towns in Moldavia region.

Objective(s)
To identify the levels of soil contamination in relation with the pesticides migration into the ground waters, used as sources for drinking water.

Timeframe
2001-2005

Responsible Organization(s)
Institute of Public Health - Iasi

Partner(s)
8 Districtual Directorates of Public Health from the region of Moldavia

Project Funder(s)
Ministry of Health

Data Source
Environmental Chemistry laboratory, Environmental health department, institute of Public Health Iasi
Str. V. Babes nr. 14, 6600 Iasi, Romania, Tel: 40 032 141520; Fax: 40 032 210399
E-mail: huracarmen@usa.net
Title | Organochlorine insecticides levels in Danube River - Source of Drinking Water
--- | ---
Objective(s) | Study regarding genotoxicity and carcinogenicity of organic burden of drinking water.
* investigation of organochlorine insecticides (alfa, beta, gamma - HCH, Aldrin, DDE, Dieldrin, DDT) levels at Water Works of riparian localities;
* inventory and location of the main pollution sources.

Timeframe | 1988-1996
Status | Finished

**Responsible Organization(s)** | Institute of Public Health Bucharest
**Partner(s)** | Inspectorates of Sanitary Police and Preventive Medicine of Riparian Districts: Braila, Calarasi, Constanta, Dolj, Galati, Mehedinti, Teleorman, Tulcea.

**Project Funder(s)** | Ministry of Health
**Data Source** | Drinking Water Laboratory, Environmental Health Department, Institute of Public Health Bucharest
Str. Dr. Leonte 1-3, 76256 Bucharest, Romania, Tel: 40-1-6384010 ext. 206, Fax: 40-1-3123426, e-mail: iacobi@mail.sdnp.ro

**Comments** | Danube River is polluted by organochlorine insecticides and their presence influences the quality of drinking water. The levels of insecticides exceeded Maximum Admissible Concentration (MAC = 0.5 g/l) in 86% of samples: The concentrations are similar for row water and drinking water, due to the low efficiency of water treatment processes. The main sources of pollution are: agricultural practices and obsolite stockpiles.

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**Romania**

Title | 1. Investigation regarding the presence of dioxins in environment, in impact area of Yugoslav conflict.
2. Researches concerning transboundary pollution with persistent organic pollutants (POPs) produced by the industrial activities from the West area of Romania.

Objective(s) | 1. - Elaboration of analysis procedures using a study regarding the presence of dioxins in various types of samples: water, sediments, fish, vegetation
2. - Identification of industrial stationary emission sources;
- Elaboration / adaptation of analyse methods;
- Pollution assessment on environment factors - air/water;
- Elaboration of depolluting solutions;

Timeframe | 1. 1999 - 2000
2. 1999 - 2001
Status | Concurrent

**Responsible Organization(s)** | 1. Ministry of Waters, Forests and Environment Protection
2. Ministry of Industry and Trade - Directorate for Products Quality Improvement and Environmental Protection

**Partner(s)** | 1. Institute for Chemical Researches - Bucharest
2. National Research - Developing Institute for Industrial Ecology - Bucharest

**Project Funder(s)** | 1. Ministry of Waters, Forest and Environment Protection
2. National Agency for Science, Technology and Innovation

**Comments** | 2. It is taken into consideration:
- a. Identification of industrial polluting sources and assessment of transboundary pollution;
- b. To establish the monitoring program for the hot industrial sources and for the environment factors potential affected;
- c. To establish the opportunity to stop the production or to replace fabrications;
- d. To establish possibilities for pollution reduction by revamping, clean production and/or implementation of some depolluting procedures.

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**Romania**

Title | Surveillance of environmental and food quality in Transilvania County.

Objective(s) | Assessment of health risk.

Timeframe | 1987-1999
Status | Finished

**Responsible Organization(s)** | Institute of Public Health Cluj-Napoca Transilvania County

**Partner(s)** | Districtual Inspectorates of Public Health

**Project Funder(s)** | Ministry of Health

**Data Source** | Environmental Health Department, Institute of Public Health Cluj-Napoca Str. Pasteur nr. 6, 3400 Cluj-Napoca, Romania, Tel: 40-64-194252, Fax: 40-64-
Sanitary surveillance of River Prut, a source of drinking water for riparian localities.

Objective(s)
Assessment of drinking water quality and health related risks.

Timeframe

Status
Concurrent

Responsible Organization(s)
Institute of Public Health Iasi

Partner(s)
Districtual Inspectorates of Public Health

Project Funder(s)
Ministry of Health

Data Source
Environmental Chemistry Laboratory, Environmental Health Department,
Institute of Public Health Iasi
Str. V. Babes nr. 14, 6600 Iasi, Romania, Tel: 40-32-141520, Fax: 40-32-210399.

Comments
The levels of DDT in Prut River show a decreasing trend; the levels of metabolites as well as levels of herbicides (Atrazin, Simazin, Propazin) show an increasing trend. The efficiency of water treatment processes at water works is very low for this kind of chemical contamination.

Romania

Monitoring of food chemical contaminants.

Objective(s)
Identification, measuring and surveillance of chemical contamination of environment (water and soil) and food by organochlorine pesticides (DDT, HCH and metabolites), herbicides (Atrazin, Simazin, Propazin) and PCBs.

Timeframe

Status
Concurrent

Responsible Organization(s)
Institute of Public Health Iasi

Partner(s)
Districtual Inspectorates of Public Health (5 districts - Bacau, Vaslui, Vrancea, Neamt, Galati).

Project Funder(s)
Ministry of Health

Data Source
Environmental Chemistry Laboratory, Environmental Health Department,
Institute of Public Health Iasi
Str. V. Babes nr. 14, 6600 Iasi, Romania, Tel: 40-32-141520, Fax: 40-32-210399

Comments
Food (vegetables, milk, meat, fish and cooked meal) is contaminated by chemical pollutants. Human body is also burden with these substances. The levels of contamination seem to remain constant in time.

Romania

Danube Regional Pesticide Study

Objective(s)
The main objective of the project was to evaluate the risk of the pesticides application in the region for the human and aquatic life and to recommend legal, policy and management framework which will lead to the elimination of this risk.
3 phases; 14 tasks.

Timeframe
1990 - 1995

Status
Finished

Responsible Organization(s)
Centre of Hygiene, Sofia, Bulgaria Bul. Dim. Nestorov 15, Sofia 1431, Bulgaria
Project Manager: Ass. Prof. M. Tasheva
Principal Coordinator: Prof. F. Kaloyanova

Partner(s)
11 Danube Countries

Project Funder(s)
PHARE

Data Source
Drinking Water Laboratory, Environmental Health Department, Institute of Public Health Bucharest
Str. Dr. Leonte 1-3, 76256 Bucharest, Romania, Tel: 40-1-6384010 ext. 206, Fax: 40-1-3123426,
e-mail: iacobi@mail.sdnp.ro

Comments
Institute of Public Health Bucharest provided the following data:
Pesticides concentrations in water
Water Quality Standards
List of pesticides for use in Romania.

**Romania**

**Title**
Drinking water supply, water quality and sanitation in rural areas.

**Objective(s)**
To establish the national sample size and methodology for the nationwide study.

* To evaluate the condition of wells’ hygiene and sanitation;
* To measure the levels of nitrates, organochlorine insecticides (alfa, beta, gamma - HCH, Aldrin, DDE, Dieldrin, DDT), triazinic herbicides (Atrazine, Simazine, Propazine), Faecal coliforms and helmints eggs in well water;
* To describe the quality of aquifer used for drinking purpose;
* To describe the risk for health.

**Timeframe**
1995

**Status**
Finned

**Responsible Organization(s)**
Institute of Public Health Bucharest

**Partner(s)**
European Centre for Environment and Health Bilthoven, The Netherlands.
European Centre for Environment and Health Rome, Italy.

**Project Funder(s)**
Ministry of Health
Ministry of Environment, Health, Housing and Welfare of Netherlands

**Data Source**
Drinking Water Laboratory, Environmental Health Department, Institute of Public Health Bucharest
Str. Dr. Leonte 1-3, 76256 Bucharest, Romania, Tel: 40-1-6384010 ext. 206,
Fax: 40-1-3123426,
e-mail: iacobi@mail.sdnp.ro

**Comments**
Freatic stratum used for drinking purposes (11 - 25 m depth) is heavy chemically polluted, due to improper agricultural practices and location of kitchen garden.

**Romania**

**Title**
Quality of drinking water supplied by public network, in rural areas.

**Objective(s)**
Identification of health risks.
8 districts located in the region of Moldavia.

**Timeframe**
1999-2001

**Status**
Concurrent

**Responsible Organization(s)**
Institute of Public Health Iasi

**Partner(s)**
Districtual Inspectorates of Public Health (8 districts)

**Project Funder(s)**
Ministry of Health

**Data Source**
Environmental Chemistry Laboratory, Environmental Health Department, Institute of Public Health Iasi
Str. V. Babes nr. 14, 6600 Iasi, Romania, Tel: 40-32-141520, Fax: 40-32-210399

**Comments**
Preliminary results showed that water supplied to population from rural areas has a low but constant contamination by organic pollutants: organochlorine pesticides (DDT, HCH and metabolites), herbicides (Atrazin, Simazin, Propazin) and PCBs.

**Romania**

**Title**
Levels of pesticides in tap water of towns located in Southern Romania

**Objective(s)**
* To establish the levels of organochlorine pesticides (alfa, beta, gamma - HCH, Aldrin, DDE, Dieldrin, DDT) in tap water samples from all towns of Southern Romania.
* To identify risk areas in order to estimate health risks.

**Timeframe**
1991

**Status**
Finnished

**Responsible Organization(s)**
Institute of Public Health Bucharest

**Partner(s)**
Districtual Inspectorates of Public Health (18 districts)

**Project Funder(s)**
Ministry of Health

**Data Source**
Drinking Water Laboratory, Environmental Health Department, Institute of Public Health Bucharest
Str. Dr. Leonte 1-3, 76256 Bucharest, Romania, Tel: 40-1-6384010 ext. 206,
Fax: 40-1-3123426,
e-mail: iacobi@mail.sdnp.ro
Organochlorine pesticides’ levels in sources of drinking water and tap water, exceeded Maximum Admissible Concentration (MAC = 0.5??g/l) in 73% of the samples.

Romania
Title
Assessment of organochlorine pesticides and PCBs levels in sources of water and in drinking water of the main towns in Moldavia region.
Objective(s)
To identify the level of water contamination
Timeframe
2002-2005
Responsible Organization(s)
Institute of Public Health - Iasi
Partner(s)
8 Districtual Directorates of Public Health from the region of Moldavia
Project Funder(s)
Ministry of Health
Data Source
Environmental Chemistry laboratory, Environmental health department, institute of Public Health Iasi
Str. V. Babes nr. 14, 6600 Iasi, Romania, Tel: 40 032 141520; Fax: 40 032 210399
e-mail: huracarmen@usa.net
Comments
a previous descriptive epidemiologic study suggested a causal link between chemical water contamination and the incidence of some chronic diseases (including cancer).

Romania
Title
Elaboration, at the national level, of the emissions inventory for 1998, 1999 concerning the atmospheric pollutants (including heavy metals and persistent organic pollutants) using the EEA/EMEP/CORINAIR/2000 methodology”.
Objective(s)
1. Elaboration of the emissions inventory for 1998 and 1999, including heavy metals and POPs;
2. Implementation at national level of EEA/EMEP/CORINAIR/2000 methodology Romanian territory
Timeframe
2000-2001
Responsible Organization(s)
Research&Development National Institute for Environmental Protection
Project Funder(s)
Ministry of Waters, Forests and Environmental Protection
Data Source
Ministry of Waters, Forests and Environmental Protection
Environmental Monitoring Directorate
Elena Popovici – director, e-mail: popovic@mappm.ro

Romania
Title
The impact characterization and forecast of long-term and average-term environmental consequences of the persistent organic pollutants in the Danube river”
Objective(s)
2. Characterization of affection degree of aquatic ecosystem through final links of accumulation and concentration of POPs – histological modification at fish
3. Initiate of complex tests regarding long-term ecotoxicological potential of contaminate sediments.
Timeframe
2000-2001
Responsible Organization(s)
Research&Development National Institute for Environmental Protection
Project Funder(s)
Ministry of Waters, Forests and Environmental Protection
Data Source
Ministry of Waters, Forests and Environmental Protection
Environmental Monitoring Directorate
Elena Popovici – director, e-mail: popovic@mappm.ro
Dioxins monitoring in the environment

**Timeframe**
2000-2001

**Responsible Organization(s)**
Chemical Research Institute - Bucharest

**Project Funder(s)**
Ministry of Waters, Forests and Environmental Protection

**Data Source**
Ministry of Waters, Forests and Environmental Protection
Environmental Monitoring Directorate
Elena Popovici – director, e-mail: popovic@mappm.ro

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**Romania**

**Title**
Researches concerning transboundary pollution with persistent organic pollutants (POPs) produced by industrial activities from the West Area of Romania

**Objective(s)**
- identification of industrial stationary emission sources;
- elaboration/adaptation of analyze method;
- pollution assessment on environment factors – air/water;
- elaboration of depolluting solutions;
- geographical area: West Area of Romania (Half West Area)

**Timeframe**
1999-2001

**Responsible Organization(s)**
Ministry of Industry and Trade – Directorate for Environmental Protection and Industrial Products Quality

**Partner(s)**
National Research – Development Institute for Industrial Ecology "ECOIND" - Bucharest

**Project Funder(s)**
National Agency for Science, Technology and Innovations.

**Data Source**
Ministry of Industry and Trade –
Directorate for Environmental Protection and Industrial Products Quality
Cristiana ION - director

**Comments**
It is taken into consideration:
a) Identification of industrial polluting sources and assessment of transboundary pollution;
b) To establish the monitoring program for the hot industrial sources and for the environment factors potential affected;
c) To establish the opportunity to stop the production or to replace fabrications;
d) To establish possibilities for pollution reduction by revamping, clean production and/or implementation of some pollution decreasing procedures.

Updated information regarding the state of the project:
Were realized the following aspects:
- identification, with the Territorial Protection Agencies support from 17 counties (Alba, Arad, Bihor, Caras – Severin, Cluj, Dolj, Gorj, Hunedoara, Maramures, Mehedinți, Mures, Olt, Salaj, Satu-Mare, Sibiu, Timiș, Vâlcea) of all the industrial potential pollutants from the west half side of Romania working in the following field of activity: power plant, ferrous metallurgy, non ferrous metallurgy, organic and inorganic chemical industry, wood processing;
- selection taking into account the activity profile and productive capacity of the representative units with environmental potential impact;
- elaboration of a questionnare for the selected units containing the following data: activity profile (raw materials used and products obtained), technologies applied, theoretical productive capacity and productive capacity in 1999, number of the stationary sources/technology/installation generating emission into the atmosphere and the geometrical parameters of the stationary sources);
- sending of the questionnaire to the selected representative units;
- collecting and analyze of the data received;
- assessment of the POPs atmospheric emission level in 1999 using the received data and emission factors recommended by US EPA AIR CHIEF program and EPA CORINAIR – EMEP program.

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**Romania**

**Title**
Monitoring of chemical contaminants in food products

**Objective(s)**
- Identification, measuring and surveillance of chemical contamination of food with organochlorine pesticides (HCH, HCB, DDT and metabolites) and PCBs;
- 8 districts located in the region of Moldavia
- Development of the national surveillance methodology for food chemical contaminants.

**Timeframe**
- a) 2002 –2005
- b) 2001 - 2005

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<table>
<thead>
<tr>
<th>Title</th>
<th>Romania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective(s)</td>
<td>Assessment of body burden with organochlorine pesticides residues.</td>
</tr>
<tr>
<td>Timeframe</td>
<td>2000-2004</td>
</tr>
<tr>
<td>Responsible Organization(s)</td>
<td>To establish the body burden with organochlorine pesticides residues in order to investigate the link between environmental contamination and the most likely health effects.</td>
</tr>
<tr>
<td>Partner(s)</td>
<td>Area to be investigated - Iasi</td>
</tr>
<tr>
<td>Project Funder(s)</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>Data Source</td>
<td>Environmental Chemistry laboratory, Environmental health department, Institute of Public Health Iasi Str. V. Babes nr. 14, 6600 Iasi, Romania, Tel: 40 032 141520; Fax: 40 032 210399 e-mail: <a href="mailto:huracarmen@usa.net">huracarmen@usa.net</a></td>
</tr>
<tr>
<td>Comments</td>
<td>Preliminary results regarding chemical contaminants in vegetables, diary, meet, fish, mushroom, cooked meal, showed different sub-regional concentrations, some of them being higher than maximum admissible concentrations, according with national norms.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Title</th>
<th>Romania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective(s)</td>
<td>Monitoring of obsolete and banned Agrochemicals in the Kingdom of Saudi Arabia Project</td>
</tr>
<tr>
<td>Timeframe</td>
<td>1995</td>
</tr>
<tr>
<td>Status</td>
<td>Finished</td>
</tr>
<tr>
<td>Responsible Organization(s)</td>
<td>Institute of Public Health Bucharest</td>
</tr>
<tr>
<td>Partner(s)</td>
<td>Inspectorate of Public Health Bucharest Water Company Bucharest</td>
</tr>
<tr>
<td>Project Funder(s)</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>Data Source</td>
<td>Drinking Water Laboratory, Environmental Health Department, Institute of Public Health Bucharest Str. Dr. Leonte 1-3, 76256 Bucharest, Romania, Tel: 40-1-6384010 ext. 206, Fax: 40-1-3123426, e-mail: <a href="mailto:iacobi@mail.sdnpr.ro">iacobi@mail.sdnpr.ro</a></td>
</tr>
<tr>
<td>Comments</td>
<td>According to the values and frequency of occurrence in tap water, the organic pollution by naturally and/or synthetic compounds is on the first place, as a risk factor for human health and, disinfection by products on the second place.</td>
</tr>
</tbody>
</table>
**Singapore**

**Title**

a) Programme to phase out import and use of PCB.
b) Programme to phase out PCB-contaminated transformers.

**Objective(s)**

Transformers which contain PCBs have already been banned for use in Singapore since 1980. However, there are still some existing PCB-contaminated transformers.

**Timeframe**

Programme (a) completed in 1980
Programme (b) scheduled to be completed by Apr 2001

**Status**

Vacant

**Responsible Organization(s)**

Ministry of Agriculture and Water, Research Department

**Partner(s)**

Ministry of Commerce, "SACO"

**Project Funder(s)**

Saudi Arabia

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**Slovakia**

**Title**

The burden of the environment and human population in an area contaminated by polychlorinated biphenyls.

**Objective(s)**

To estimate an amount of PCB manufactured, used, in use, disposed and released into the environment in Slovakia. To summarise all data available on PCB levels in environmental, food and human samples taken in Slovakia.

To know environmental (ambient air, surface water, sediment, soil, biota), food and human levels of PCBs in a polluted area (Michalovce District) in comparison with a control one (Stropkov District).

To evaluate the exposure of the general human population to PCBs in those two districts.

To assess the influence of the PCB exposure on the health of the human population.

**Timeframe**

01/1999-12/1997: See comments

**Status**

Vacant

**Responsible Organization(s)**

Institute of Preventive and Clinical Medicine, Department of Toxic Organic Pollutants, Limbova 14, 833 01 Bratislava, Slovakia

**Project Funder(s)**

Ministry of the Environment of the Slovak Republic, Ministry of Health of the Slovak Republic

**Data Source**


**Comments**

01/1999-12/1997: PCB inventory estimation in Slovakia; Summarising data on PCB levels. 01/1998-12/1998: PCB monitoring in environmental, food and human samples collected in eastern Slovakia; Monitoring of some health markers in the human population.

The project has been planned for years 1997-1999 (stage I) and 2000-2002 (stage II, assessing trends). There have been no funds available from the project funders for continuation in 1999. A prognosis for next years is also gloomy.

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**Slovakia**

**Title**

Evaluation of the exposure of the selected population sub-group to POPs.

**Objective(s)**

Study on nutritional exposure to chlorinated pesticides: DDT, hexachlorocyclohexane, hexachlorobenzene, their degradation products and/or metabolites (chlorinated benzene, chlorinated phenols) as well as polychlorinated biphenyl’s. Matrices included: total diet, food chain items, human biological samples: mother milk, blood, urine, placenta. Nutritional risk assessment. Geographical coverage: Slovak Republic.

**Timeframe**

01-01-1997/ 12-31-2000

**Status**

Vacant

**Responsible Organization(s)**

Institute of Preventive and Clinical Medicine, National Reference Centre for Pesticide Residues, Limbová 14, 833 01 Bratislava- Slovak Republic.
<table>
<thead>
<tr>
<th>Partner(s)</th>
<th>Bilateral co-operation: Institute for Ecological Chemistry, GSF, Neuherberg, Germany.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Funder(s)</td>
<td>Health Ministry of the Slovak Republic.</td>
</tr>
<tr>
<td>Comments</td>
<td>Detailed information and data sources on POPs in the Slovak republic available in the original POPs Profile Information Reporting forms sent in UNEP Chemicals in 1998.</td>
</tr>
</tbody>
</table>

### Slovenia

| Title | - PHARE program 1999  
- Twinning component: Chemical Safety  
- Monitoring of certain POPs pesticides (e.g. aldrin, endrin, dieldrin, DDT, heptachlor) in food |
| Objective(s) | Scope of twinning assignment:  
* Development and implementation of integrated and harmonised chemicals management legislation.  
* Monitoring of chemicals pollution.  
Project covers Republic of Slovenia. |
| Timeframe | 4/1999 - 2002  
Monitoring for pesticide residues is in continuously monitoring |
| Status | Concurrent |
| Responsible Organization(s) | Ministry of the Health  
? Ministry of the Environment and Spatial Planning  
? Ministry of the Agriculture, Food and Forestry |
| Partner(s) | Germany and Belgium  
Austria |
| Project Funder(s) | Republic of Slovenia, PHARE |
| Data Source | Standard TwinningProject Fiche, Twinning Proposal (Germany Belgium) |
| Comments | New legislation in Republic of Slovenia:  
Law on Chemicals (1999); Monitoring of pesticides in food and agricultural products OJ No. 13/99  
On the way: Monitoring of pesticides in drinking water and drinking water springs |

### South Africa

| Title | Investigation into the possibility of establishing a national or regional analytical facility for POPs |
| Objective(s) | To allow analysis of POPs in environment samples to be undertaken in South Africa and the region |
| Responsible Organization(s) | University of Pretoria |
| Partner(s) | Range of research institutions an analytical institutions |
| Project Funder(s) | Funding being sought |
| Data Source | 1-Department of Environmental Affairs and Tourism  
2-Chemical and Allied Industries Association  
3-University of Pretoria |

### South Africa

| Title | Investigation into the possibility of establishing a National or Regional analytical facility for POPs |
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| Responsible Organization(s) | University of Pretoria |
| Partner(s) | Range of research institutions and analytical institutions |
| Project Funder(s) | Funding being sought |
| Data Source | Department of Environmental Affairs and Tourism  
Chemical and ALLIED Industries Association  
University of Pretoria |

### South Korea

| Title | National Research Project on Endocrine Disrupters including POPs (1999-2008) |
| Objective(s) | Objectives: To establish risk management scheme for endocrine disrupters (EDs) by conducting health and the environmental risk assessment, involving various research activities on risk identification, establishment of monitoring |
and assessment system, consumption patterns, residual levels in the environmental media, etc.

**Timeframe**
The detailed timeframe will be finalized in 1999.

**Status**
Concurrent

**Responsible Organization(s)**
Ministry of Environment and the National Institute of Environmental Research

**Partner(s)**
Korea Food and Drug Administration, Korea Institute of Science and Technology, National Institute of Agricultural Science and Technology and the Provincial Health and Environment Research Institute

**Project Funder(s)**
Government

**Data Source**
The draft medium and long term plan on EDs (1999-2008) (prepared by Ministry of Environment.)

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**South Korea**

**Title**
Preliminary Environmental survey on POPs (1998) monitoring of POPs in the coastal area of Korea.

**Objective(s)**
Objectives:
- To establish a national database using state-of-the-art sampling, preservation, and analysis methodologies which are consistently applied.
- To use the information in the database to estimate coastal environmental quality.
- To establish a statistical basis for detecting spatial and temporal change.
- To identify coastal areas of Korea that might benefit from more intensive study.

**Timeframe**
1999-2001 see comments

**Responsible Organization(s)**
Korea Ocean Research and Development Institute (KORDI)

**Partner(s)**
Cheju National University and the Seoul National University

**Project Funder(s)**
Ministry of Maritime Affairs and Fisheries (MOMAF) and the Republic of Korea

**Data Source**
Report will be published at the end of each year by KORDI.

**Comments**
April-December 1999 (1st Year). Monitoring of POPs in bivalves and sediment.

Target POPs are UNEP designated 12 POPs, PAHs, other organochlorine pesticides and organotins.

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**Title**
National Marine Environment Monitoring

**Objective(s)**
Objectives:
- To establish a national database network for assessment and identification of environmental quality.
- To establish the national standard analysis method for production of data with high quality.

**Timeframe**
- Annual survey for POPs (1997~)
- February – April: Field survey
- May – September: Analysis
- October – December: Preparation of Report

**Status**
Concurrent

**Responsible Organization(s)**
National Fisheries Research & Development Institute

**Partner(s)**
- East Sea Regional Fisheries Research Institute
- West Sea Regional Fisheries Research Institute
- South Sea Regional Fisheries Research Institute

**Project Funder(s)**
- Ministry of Maritime Affairs & Fisheries (MOMAF)
- Republic of Korea

**Comments**
PCB is being studied. Additionally, PAHs and organochlorine pesticides will be studied starting in 2000. (Korean coastal areas: 20 sites.)

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**Title**
Preliminary Environmental survey on POPs (1998).

**Objective(s)**
Objectives: To establish analytical techniques that can be employed in future monitoring of POPs residual levels in various environmental media. To conduct case study on POPs residues in water, soil, food, sediment and fish.
**Status**

Finnished

**Timeframe**

Concluded in 1998

**Responsible Organization(s)**

Ministry of Environment, National Institute of Environmental Research

**Partner(s)**

Korea Food and Drug Administration, Korea Institute of Science and Technology, National Institute of Agricultural Science and Technology, Korea Ocean Research and Development Institute, Korea Research Institute of Chemical Technology, Jeonbuk National University and the Yosu University

**Project Funder(s)**

National Institute of Environmental Research

**Comments**

The final report will be available in 1999

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**Sri Lanka**

**Title**

Monitoring of Organochlorines and Pesticides in water bodies including PCBs.

**Objective(s)**

To obtain baseline data to ascertain the extent of contamination.

**Timeframe**

Continuous.

**Responsible Organization(s)**

Chemical & Environmental Technology Division, Industrial Technology Institute (ITI).

**Project Funder(s)**

Clients who are involved in infrastructure development project.

**Data Source**

Print media

**Comments**

Monitoring is carried out at the request of clients to obtain baseline data for EIA studies. Regular programme could be initiated if funding could be arranged.

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**Sudan**

**Title**

Disposal of obsolete pesticides

**Objective(s)**

- Safe disposal of obsolete pesticides
- Integrated schemes- Central Sudan and the rural & seasonal camps of PDD all over Sudan.

**Timeframe**

Twelve months

**Status**

No info

**Responsible Organization(s)**

Federal Ministry of Agriculture & Forestry- Khartoum
National Pesticide Council (NPC)- Khartoum North PO Box 14
Federal Plant Protection Directorate (PPD)- Khartoum North PO Box 14
Agricultural Research Corporation (ARC) Wad/Medani PO Box 126
Sudanese Agrochemicals Association (SAGA)

**Project Funder(s)**

Not determined yet

**Data Source**


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**Sweden**

**Title**

National Environmental Monitoring Programme. Programme area: POPs chemicals.

**Objective(s)**

National area: the aim is to cover the whole country. Time trends for selected POPs and metals in different media. Inventory of "new chemicals".

**Timeframe**

Measurements on a yearly basis. No limit set for the monitoring programme.

**Status**

Concurrent

**Responsible Organization(s)**

Swedish Environmental Protection Agency.

**Project Funder(s)**

The Swedish Government.

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**Switzerland**

**Title**

Monitoring of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans in cow’s milk from Switzerland.

**Objective(s)**


Geographical coverage: whole of Switzerland

Monitoring sites: pooled milk from industrial dairies, milk from producer cooperatives in areas with PCDD/F emitting plants, milk from producer cooperatives in rural and/or alpines areas without industry.
Switzerland

Title Persistent Organic Pollutants in Switzerland: Bio-monitoring with lichens.
Objective(s) Bio-monitoring of airborne POPs with lichens at different polluted sites. Geographical coverage: whole of Switzerland. Monitoring sites: urban, sub-urban, traffic, industrialized and rural. Substances covered: most of the UN-ECE POPs list.
Status Concurrent
Responsible Organization(s) Swiss Agency for the Environment, Forests and Landscape, Substances, Soil and Biotechnology Division, 3003 Bern.
Partner(s)
Project Funder(s) Swiss Agency for the Environment, Forests and Landscape (SAEFL)
Data Source P. Schmid, Ch. Schlatter (1992). Polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) in cow’s milk from Switzerland, Chemosphere, 24.8.1093-1030.
Comments The data from 1990/91 are already published.

Thailand

Title National Inventory of Sources of Dioxins and Furans Emissions in Thailand
Objective(s) * to establish a national inventory of dioxins and furans emission sources and releases 
* to identify and estimate potential sources of dioxins and furans from national activities 
* to gain a better understanding of the types of sources that form and emit dioxins and furans
Status Concurrent
Responsible Organization(s) Pollution Control Department (PCD), Ministry of Science, Technology and Environment (MOSTE) 
* Department of Agriculture, Ministry of Agriculture and Cooperatives 
* Department of Medical Sciences, Ministry of Public Health 
* Environmental Research and Training Center, MOSTE
Project Funder(s) Pollution Control Department (PCD), Ministry of Science, Technology and Environment (MOSTE) 
* Department of Agriculture, Ministry of Agriculture and Cooperatives 
* Department of Medical Sciences, Ministry of Public Health 
* Environmental Research and Training Center, MOSTE
Data Source Pollution Control Department (PCD), Ministry of Science, Technology and Environment (MOSTE) 
Department of Agriculture, Ministry of Agriculture and Cooperatives 
Department of Medical Sciences, Ministry of Public Health 
Environmental Research and Training Center, MOSTE
**Thailand**

- **Title**: National Inventory of Sources of Dioxins and Furans Emissions in Thailand, Project on Chemicals Management.
- **Status**: No info

**Thailand**

- **Title**: Monitoring Programme for Polychlorinated Dibenzodioxins and Dibenzofurans (PCDD/PCDF)
- **Status**: No info

**Togo**

- **Title**: Information on the Risk of Exposure to Some POP Pesticides in Togo by the Routes of Food and Drinking Water
- **Objective(s)**: Concentrations of pesticide residues: Cultivated Vegetables, Grain, Drinking water
- **Status**: No info
- **Responsible Organization(s)**: Université du Bénin
- **Data Source**: DJANEYE-BOUNDJOU et al. University of Benin, (Lome - Togo).
- **Comments**: This literature report clearly shows that in Togo the populations either in urban or in rural areas are dangerously exposed to the risk of contamination by pesticides of the POPs type through miscellaneous foodstuff or drinking water. In many cases the residual pesticide concentrations are much higher than the CODEX reference values. The main local source of release of the POPs pesticides is Agriculture. There is a strong need for technical and financial assistance for inventory, regulation and national action plan.

Identification of major sources of PCB emission. Investigation in 1998 on the utilization of PCB transformers by the National Electric Power Service. This inquiry showed that only one PCB containing transformer is being used in Togo by the national phone company.

Remark: The lack of funding prevents from doing more research. The preparation of a questionnaire is underway in order to collect information from the Togolese Services or companies that use electrical transformers and capacitors.

**Turkey**

- **Title**: Monitoring of organochlorine pesticides and PCBs in biological and environmental material.
- **Objective(s)**: Objective of the project is to assess human exposure to organochlorine pesticides and PCBs and compare the levels with previous studies. Population groups from different parts of the country are selected.
- **Timeframe**: 1998 - 2001
- **Status**: Concurrent
- **Responsible Organization(s)**: Refik Saydam Hygiene Center, Poisons Research Directorate
### Ukraine

**Title**

**Objective(s)**
1. Identification of main POPs (to be included in the future POPs Convention) emission's stationary and mobile sources in Ukraine.
2. Making the inventory of POPs (to be included in the future POPs Convention) production, use and stockpiles in Ukraine.
3. Making the inventory of POPs emissions according to the EMEP/CORINAIR Atmospheric Emission Inventory Guidebook in Ukraine.

**Timeframe**
2000-2001

**Responsible Organization(s)**
Ministry of Environment and Natural Resources of Ukraine

**Partner(s)**

**Project Funder(s)**
State Budget

**Data Source**
Ministry of Environment and Natural Resources of Ukraine

### United Kingdom

#### Working Party on Pesticide Residues

**Objective(s)**
Purpose of monitoring is threefold:
1) to back up statutory approvals process by checking no unexpected residues are occurring
2) to check that residues do not exceed statutory maximum residue levels
3) check human dietary intakes of residues are at acceptable levels

**Status**
Concurrent

**Timeframe**
Monitoring is an annual rolling programme. Results published on an annual basis, approximately 8 months after year-end.

**Responsible Organization(s)**
Pesticides Safety Directorate, Agency of the Ministry of Agriculture, Fisheries and Food.

**Partner(s)**
Health and Safety Executive, Department of Health

**Project Funder(s)**
PSD, Industry levy

### United Kingdom

**Title**
Environment Agency Pesticide Monitoring Programme

**Objective(s)**
Monitoring covers England and Wales. The monitoring programme is strongly governed by statutory requirements, e.g., dangerous substance directives, surface water abstraction directive, groundwater directive, North Sea Conference. The Agency is also required to undertake non-statutory monitoring tailored to known or predicted local problems.

**Status**
No info

**Responsible Organization(s)**
Environment Agency

### United Kingdom

**Title**
Passive sampling of persistent organic pollutants

**Objective(s)**
To establish the performances of semi-permeable membrane devices in the field based on sampling rates, exposure periods, equilibrium aspects, particulate effects and spatial differences. Sampling at Lancaster University field station

**Timeframe**
18 months, commencing February 1999

**Responsible Organization(s)**
Environment Agency

**Partner(s)**
Lancaster University

**Comments**
Final report about to be issued
UK soil and herbage pollutant survey

Objective(s)
To carry out a widespread survey of dioxins, PCBs, PAHs and metals in surface soils and herbage in England, Wales, Northern Ireland. The survey may be extended to include Scotland. The survey will include rural background locations on the basis of a 50 km. Grid and will also include sampling in the vicinity of significant sources and urban areas. Levels of pollutants will be compared with the results of previous studies in order to establish trends. Data will be cross-referenced to the UK toxic organic micropollutants programme. Levels of pollutants will be evaluated in terms of potential risk to humans.

Timeframe
27 months commence November 20000

Status
Concurrent

Responsible Organization(s)
Environment Agency

Partner(s)
DETR
MAFF
Food Standards Agency
Northern Ireland Environment and Heritage Service
National Assembly of Wales

Project Funder(s)
DETR
MAFF
Food Standards Agency
Northern Ireland Environment and Heritage Service
National Assembly of Wales

Various surveys for dioxins and PCB’s in food, and dietary exposure of UK consumers to these chemicals, as part of programme of food chemical surveillance. Also statutory monitoring of PCB’s to meet requirements of EC Directives.

Objective(s)
Joint Food Safety and Standards Group (JFSSG) surveys are primarily carried out to estimate the dietary exposure to dioxins and PCB’s of UK consumers of various age groups and other critical groups. Current projects cover free range eggs, shellfish, infant formulae, cow’s milk fats and oils used in food manufacture and samples representing the UK diet. Some surveys for PCB’s are also carried out by the Northern Ireland, Scottish and Welsh Offices in those areas. Statutory monitoring covers a number of foodstuffs such as farmed fish and shellfish. A survey of dioxins and PCBs in fed binders and feed. In fish oil dietary supplements, with products, and fruit and vegetables. Statutory monitoring for chemicals, such as PCBs, in shellfish from shellfish production areas classified under Directive 91/492/EEC. The VMD also monitors a range of animal products from retail outlets and other sources for PCBs.

Status
No info

Responsible Organization(s)
Joint Food Safety Agency and Standards Group (JFSSG), MAFF, Veterinary Medicines Directorate (VMD; a MAFF agency); ADAS (feed only) and Food Standards Agency (FSA)

Project Funder(s)
FSA

Comments
The costs of statutory surveillance undertaken by VMD is recovered in full by a levy on industry.

The FSA/JFSSG surveillance programme includes a number of surveys of various duration. Statutory monitoring is also of variable timescales, e.g. Monitoring by VMD is annual, with summary updates published quarterly and detailed reports published annually. Feed binders and survey started in November 1999. FSA carries out periodic monitoring of a range of contaminants.

The UK Atmospheric POPs Monitoring Programme

Objective(s)
Programme to monitor POPs (and potential new POPs) in air in the UK, the chemicals include, alfa + beta HCH; Pentachloronitrobenzene; Endosulfan; polybrominated diphenyl ethers (PBDEs); Polychlorinated Alkanes; DDT; Heptachlor; Chlordane; Cyclodiene.

Timeframe
Began in 1997- ongoing

Status
Concurrent

Responsible Organization(s)
AEA Technology Ltd., Harwell UK

Partner(s)
Lancaster University

Project Funder(s)
Department of the Environment, Transport + Regions

Comments
First report due soon.
Prevention and management of obsolete pesticides in developing countries.

Objective(s)
To support activities which deal with the current problems of obsolete stocks of pesticides; to increase awareness of the problems in order to help prevent future stockpiles and to apply appropriate solutions to existing stocks. Focus on Africa.

Timeframe
Part of our current Programme and on-going while the problem exists.

Status
Concurrent

Responsible Organization(s)
The Pesticides Trust, Eurolink Center, 49 Effra Road-, London SW 1BZ, Tel:+44 171 274 8895 / Fax: +41 171 274 9084 / Email: pestrust@gn.apc.org/pesticidestrust

Partner(s)
We are part of the NGO networks, Pesticides Action Network and International POPs Elimination Network, and we work closely with FAO and other National and International organizations active in this area.

Project Funder(s)
United Kingdom Foundations.

Comments
There is an important role for NGOs in raising awareness and monitoring the quality of activities in this area to ensure clean up actions for existing POPs stocks meet appropriate international standards.

United States

Title
Binational Strategy:

Objective(s)
Virtual elimination of Persistent Toxic substances resulting from human activity so as to protect and ensure the health and integrity of the Great Lakes ecosystem

Status
No info

Responsible Organization(s)
USEPA, EC (Environment Canada)

Partner(s)
Great Lakes States, Province of Ontario, Tribes, First Nations, public and private partners

Data Source

Uruguay

Title
Bifenilos policlorados en Uruguay.

Objective(s)
Conformar un baco de datos que reúna toda la información pertinente respecto a los PCB existentes en el país. Elaboración de un plan de gestión de PCB en operación y en forma de residuos. Este plan servirá de base para las recomendaciones que la Unidad Sustancias Peligrosas de la Dirección Nacional de Medio Ambiente hará a las industrias. Establecer un mecanismo de comunicación con las industrias reveladas que tengan PCB para la actualización permanente del banco de datos formulado.

Timeframe
El proyecto tiene una duración de dos meses, habiéndose iniciado el mismo en mayo del presente año.

Status
No info

Responsible Organization(s)
Unidad Sustancias Peligrosas- Dirección Nacional de Medio Ambiente (DINAMA)- Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente (MVOTMA)
Zabala 1427 CEP 11000 Montevideo, UNPUGUAY
Tel: 598 2 916 8287 / FAX: 598 2 916 8288 / email: suspel@adinet.com.uy

Partner(s)
Centro Internacional de Investigaciones para el Desarollo (CIID/IDRC)
Plaza Caganchal 1335 Piso 9 Casilla de correo 6379 Montevideo, Uruguay
Tel: 598 2 902 2037/44 / Fax: 598 2 9020223

Project Funder(s)
Unidad Sustancias Peligrosas
Dirección Nacional de Medio Ambiente
Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente (MVOTMA)
Zabala 1427 CEP 11000 Montevideo, UNPUGUAY
Tel: 598 2 916 8287 / FAX: 598 2 916 8288 / email: suspel@adinet.com.uy

Data Source
Ng. Quim. Silvia Aguinaga- Unidad Sustancias Peligrosas- Dirección Nacional
<table>
<thead>
<tr>
<th>Yemen</th>
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<tbody>
<tr>
<td><strong>Title</strong></td>
</tr>
<tr>
<td>UTF/YEM/025/YEM, “Disposal of Old Pesticides” Yemen</td>
</tr>
<tr>
<td><strong>Objective(s)</strong></td>
</tr>
<tr>
<td>* Destroying of obsolete pesticides stock disposal in Yemen</td>
</tr>
<tr>
<td>* The governorates where these pesticides existed</td>
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<tr>
<td><strong>Timeframe</strong></td>
</tr>
<tr>
<td>1990 - 1996</td>
</tr>
<tr>
<td><strong>Status</strong></td>
</tr>
<tr>
<td>Finished</td>
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<tr>
<td><strong>Responsible Organization(s)</strong></td>
</tr>
<tr>
<td>1) Ministry of Agriculture and Irrigation</td>
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<tr>
<td>2) Environment Protection Council</td>
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<tr>
<td><strong>Partner(s)</strong></td>
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<tr>
<td>Food and Agriculture Organisation (FAO)</td>
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<td><strong>Project Funder(s)</strong></td>
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<tr>
<td>Food and Agriculture Organisation (FAO)</td>
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<tr>
<td><strong>Data Source</strong></td>
</tr>
<tr>
<td>1) Dr. Mohamed Y. Al-Ghashm</td>
</tr>
<tr>
<td>DGI/ General Department of Plant Protection</td>
</tr>
<tr>
<td>P.O. Box 26</td>
</tr>
<tr>
<td>Sana’a - Yemen</td>
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<tr>
<td>2) Salem Baquhezel</td>
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<tr>
<td>DGI/ Directorate of Protection</td>
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<tr>
<td>Environment Protection Council</td>
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<tr>
<td>Sana’a P.O. Box 19719</td>
</tr>
<tr>
<td>Yemen</td>
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<tr>
<td><strong>Comments</strong></td>
</tr>
<tr>
<td>The entire quantity of pesticides found has been destroyed in England (please refer to the documents attached).</td>
</tr>
</tbody>
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<tr>
<th>Yugoslavia</th>
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<tbody>
<tr>
<td><strong>Title</strong></td>
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<tr>
<td><strong>Objective(s)</strong></td>
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<td>Develop Management tools for regulatory authorities.</td>
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</tr>
<tr>
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<tr>
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<tr>
<td>Finished</td>
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<tr>
<td><strong>Responsible Organization(s)</strong></td>
</tr>
<tr>
<td>Environmental Council of Zambia.</td>
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<tr>
<td><strong>Partner(s)</strong></td>
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<tr>
<td>Zambia Electricity Supply Cooperation.</td>
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<td><strong>Project Funder(s)</strong></td>
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<tr>
<td>Canadian International Development Agency.</td>
</tr>
<tr>
<td><strong>Data Source</strong></td>
</tr>
<tr>
<td>Nelson MANDA- PCB Project Manager</td>
</tr>
<tr>
<td>Environmental Council of Zambia- PO Box 35131, LUSAKA. Fax: 260 1 25 41 64/ Tel: 25 41 30/1/ Email: <a href="mailto:necz@zamnet.zm">necz@zamnet.zm</a></td>
</tr>
<tr>
<td><strong>Comments</strong></td>
</tr>
<tr>
<td>Not having any ongoing assessment and/or monitoring projects.</td>
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</tbody>
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<thead>
<tr>
<th>Zambia</th>
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<tbody>
<tr>
<td><strong>Title</strong></td>
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<tr>
<td>PCB Management Project.</td>
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<tr>
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</tr>
<tr>
<td><strong>Comments</strong></td>
</tr>
<tr>
<td>The inventory of PCBs in Zambia has been completed. Construction work on an interim storage facility has been initiated by Zambia Electricity Supply Corporation.</td>
</tr>
</tbody>
</table>
Chapter 4: Country contributions; Information on POPs

*National Action Plans* aiming at the reduction and/or elimination of the releases of POPs.

Information received from:

1. Albania 33. Moldova
2. Australia 34. Monaco
3. Barbados 35. Mongolia
5. Belgium 37. Netherlands
6. Benin 38. New Zealand
8. Brunei 40. Norway
9. Canada 41. Panama
10. Chad 42. Paraguay
11. Chile 43. Peru
12. Congo 44. Peru
13. Croatia 45. Philippines
14. Djibouti 46. Poland
15. Ecuador 47. Portugal
17. Ethiopia 49. Russia
18. Federated States of Micronesia 50. Saudi Arabia
19. Fiji 51. Slovenia
20. Gambia, The 52. South Africa
21. Germany 53. South Korea
22. Ghana 54. St. Kitts and Nevis
23. Hungary 55. Sudan
24. Indonesia 56. Sweden
25. Ireland 57. Syria
26. Ivory Coast 58. Togo
27. Japan 59. Ukraine
28. Kuwait 60. United Kingdom
29. Laos 61. United States of America
30. Latvia 62. Uzbekistan
31. Lebanon 63. Vietnam
32. Mexico 64. Yugoslavia

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Albania

Status
No info

Comments
Have reported not having National Action Plans to reduce and/or eliminate POPs.

Australia

Title
The Management and control of Mastotermes in Horticultural Situations

Objectives(s)
Protection of the environment, public and occupational health, and to facilitate the development of horticulture, particularly tree crops.
To replace the use of Mirex to control Mastotermes colonies in the Top End of the Northern Territory and northern Western Australia.
To develop efficient control procedures against Mastotermes in horticulture crops. Studies of the biology of the pest so that the effectiveness of treatment can be assessed.
Communication with horticulturist on control techniques.

Timeframe
A three year programme completed in 1998. The most effective bait is being further trialed by the DPIF in order to establish data and proceed to registration.

Status
Finnished

Responsible Organization(s)
Lead Agency: The CSIRO Division of Entomology
Researcher: Mr. Leigh Miller

Partner(s)
The Northern Territory Department of Primary Industry and Fisheries (DPIF) and The Western Australia Department of Agriculture (WADA)

Project Funder(s)
Funded under Rural Industry Research and Development Corporation (RIRDC) Project No. CSE-59A.

Data source
RIRDC Report RIRDC Project No. CSE-59A

Comments
A promising bait was trialed and since the completion of the RIRDC project testing is being continued by DPIF. The biology and relationship with other termite species is active and dynamic.
A series of large scale, long term field trials were established to monitor termite activity in the undisturbed areas. After three years continuous observation some of the plots were used to assess the effect of treatment with varied bait formulations.

Barbados

Status
Concurrent

Comments
No info

Belarus

Status
No info

Comments
Have reported not having National Action Plans to reduce and/or eliminate POPs.

Belgium

Title
1. plan d’élimination des appareils aux PCB et/ou contenant des PCB
(responsables c1, c2, c3); (objectifs voir b.1, b.2, b.3)

Objective(s)
b.1. décontaminer et/ou éliminer tous les appareils aux PCB en région Flamande au plus tard le 31 décembre 2005 (responsable c.1) (timeframe voir f1)
b.2. décontaminer et/ou éliminer tous les appareils aux PCB en région Wallonne au plus tard le 31 décembre 2005 (responsable c.2) (timeframe voir f2)
b.3. décontaminer et/ou éliminer tous les appareils aux PCB en région Bruxelles-Capitale au plus tard le 2 juin 2005 (responsable c.3) (timeframe voir f3)

Timeframe
See comments

Partner(s)
d.1. AMINAL (division de l’inspection et division des permis d’environnement)
d.2. DGRNE (division de la police de l’environnement + division des permis et autorisations)
d.3. IBGE (division de l’inspectorat et logistique)

Data source
D.S.1. arrêté du Gouvernement Flamand du 17 mars 2000 concernant l’établissement de plans d’élimination d’appareils aux PCB et contenant des PCB.
D.S.3. arrêté du Gouvernement du 20 décembre 1999 concernant l'établissement un plan régional d'élimination et de décontamination des PCB-PCT.

Comments
Responsible Org.: c.1. OVAM: région Flamande (partenaire voir d.1)
c.2. DGRNE: région Wallonne (partenaire voir d.2)
c.3. IBGE: région Bruxelles-Capitale (partenaire voir d.3)
Timeframe:
f.1. les appareils aux PCB devant être inventoriés, doivent en fonction de leur année de fabrication être décontaminés et/ou éliminés pour:
? 31-12-2000 si l’année de fabrication est inconnue ou antérieure à 1971
? 31-12-2001 si l’année de fabrication est antérieure à 1972
? 31-12-2002 si l’année de fabrication est antérieure à 1973
? 31-12-2003 si l’année de fabrication est antérieure à 1974
? 31-12-2004 si l’année de fabrication est antérieure à 1975
? 31-12-2005 pour tous les autres appareils
f.2. les appareils aux PCB devant être inventoriés, doivent en fonction de leur année de fabrication être décontaminés et/ou éliminés pour:
? 31-12-2001 si l’année de fabrication est inconnue ou antérieure à 1972
? 31-12-2005 si l’année de fabrication est postérieure ou égale à 1972
f.3. les appareils aux PCB devant être inventoriés, doivent en fonction de leur année de fabrication être décontaminés et/ou éliminés pour:
? 31-12-2000 si l’année de fabrication est inconnue ou antérieure à 1970
? 30-06-2001 si l’année de fabrication est antérieure à 1971
? 30-06-2002 si l’année de fabrication est antérieure à 1972
? 30-06-2003 si l’année de fabrication est antérieure à 1973
? 30-06-2004 si l’année de fabrication est antérieure à 1974
? 30-06-2005 si l’année de fabrication est antérieure à 1975
? 31-12-2005 si l’année de fabrication est postérieure à 1975

Comments:
1. Région Flamande OVAM
Personne de contact : Madame Gwen DONS Kan. De Deckerstraat, 22-26
2800 MECHELEN BELGIE
2. Région Wallonne DGRNE
Personne de contact : Madame Christine Nemegeer Avenue Prince de Liège, 15
5000 NAMUR BELGIQUE
3. Région Bruxelles-Capitale (IBGE)
Personne de contact : Madame Barbara Dewulf Gulledelle 100
1040 BRUXELLES BELGIQUE

Belgium

Title
The POPs chemicals are banned for agricultural use and for non-agricultural use.
All kinds of insecticides are used as alternatives e.g.: organophosphorus, carbamates, pyrethroids (see attached list of authorized active ingredients)
For PCBs at federal level: two studies with the title “Compte-rendu des risques causés par le remplacement des PCB-PCT dans les équipements électriques”.
Objective(s)
For PCBs at federal level: Risk assessment of the substitutes of PCBs in the electric equipment and in the environment.
Timeframe
Status
Finished
Responsible Organization(s)
For PCBs at federal level: Federal Department for Environment- CAE Vesalius Building- Pachcolaan 19 box 5- 1010 BRUSSELS.
Partner(s)
For PCBs at federal level: University of LIEGE- Faculté des Sciences- Laboratoire de Chimie Industrielle- Prof. Germain

Benin

Title
National Action Plan Against Persistent Organic Pollutants in Benin.
Status
No info

Benin

Title
Status
No info

Brazil

Title
The use of DDT in Malaria Control Programs in Brazil.
Status
No info

Brunei

Status
No info
Data source
Department of Agriculture
Comments
Department of Agriculture, Ministry of Industry and Primary Resources, Brunei Darussalam had pursued during the last two years several programmes on the introduction of alternative/safer chemicals. The department also introduced the
concept of integrated pest management. Integrated pest management programme was conducted especially on the introduction of biological control agents. The project was financed by the government although chemical/biological agents was the courtesy of the agro-chemical dealers.

Canada

Title
The Sound Management of Chemicals (SMOC) initiative under the North American Agreement on Environmental Cooperation (NAAEC) - North American Regional Action Plans (NARAPs)

Objective(s)
Council Resolution #95-5, Sound Management of Chemicals commits the Governments of Canada, Mexico and the United States to cooperate on improving the sound management of chemicals in North America. The Resolution gives priority to the management and control of substances of mutual concern that are persistent, bioaccumulative and toxic, but also allows for cooperation on a broader scale for the sound management of chemicals in the three countries. Council Resolution #95-5 was developed under the authority of the North American Agreement on Environmental Cooperation (NAAEC) and advances many of the commitments and obligations set out in the NAAEC. The Council (of Ministers) is the governing body of the Commission for Environmental Cooperation (CEC), which was established as part of the NAAEC.

Council Resolution #95-5 required that three substances, in addition to PCBs, be selected for development of North American Regional Action Plans (NARAPs) from among 12 persistent organic pollutants identified in the United Nations Environment Programme (UNEP) Governing Council Decision 18/32 of May 1995. In 1997, mercury, DDT and chlordane were selected after consultations with stakeholders from each of the respective countries. The selected substances are also the subject of discussion in other international forums primarily because they are persistent, bioaccumulative and toxic and are transported across national boundaries through air and watersheds and traded products.

All the substances listed in the UNEP Governing Council Decision were considered by the Working Group when developing this initial group of NARAPs. Several were not chosen for NARAPs because the Parties had already banned their manufacture and use (i.e., toxaphene, aldrin, dieldrin, endrin, mirex, and heptachlor). The Parties agreed however to work together to promote action on these substances in other international forums.

The chlordane NARAP is essentially complete and was successful in that chlordane is no longer manufactured or registered for use in Canada, the U.S. and Mexico. It is anticipated that work on the development and testing of alternatives along with information sharing, training and technical assistance will continue. A report describing how the recommended actions were implemented is in preparation after which the Chlordane Implementation Task Force, having completed its work, will be disbanded.

The DDT Implementation Task Force in cooperation with the CEC has successfully negotiated external funding to support capacity building projects to assist Mexico in developing safe and effective measures to control malaria while at the same time reducing/eliminating the use of DDT. Since 1997, the amount of DDT used on an annual basis has declined by approximately 50%.

In June 1999, the Council approved the development of two new NARAPs - one for Dioxins/Furans and Hexachlorobenzene and one on environmental monitoring and assessment. Consideration is being given to two additional candidates, one of which is Lindane.

Ongoing

Status
Concurrent

Responsible Organization(s)
Canada, the United States and Mexico

Comments
The NARAPs website is: www.cec.org
Council Resolution #95-5 required that three substances, in addition to PCBs, be selected for development of North American Regional Action Plans (NARAPs) from among 12 persistent organic pollutants identified in the United Nations Environment Programme (UNEP) Governing Council Decision 18/32 of May 1995. In 1997, mercury, DDT and chlordane were selected after consultations with stakeholders from each of the respective countries. The selected substances are also the subject of discussion in other international forums primarily because they are persistent, bioaccumulative and toxic and are transported across national boundaries through air and watersheds and traded products.

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In June 1999, the Council approved the development of two new NARAPs - one for Dioxins/Furans and Hexachlorobenzene and one on environmental monitoring and assessment. Consideration is being given to two additional candidates, one of which is Lindane. A decision on whether to proceed with a NARAP on Lindane will be made at the September 2000 SMOC meeting.

Canada

**Title**

**Status**
No info

**Canada POPs Fund**
The objective for the Canada POPs Fund is to significantly reduce and/or eliminate foreign sources of POPs that are impacting health and environment world-wide, and particularly in the Canadian Arctic. The POPs Fund will be used to assist developing countries and countries with economies in transition to build their own capacities to address POPs issues. The Fund is administered by the World Bank and will be available for a variety of projects, tailored to the needs of specific countries, such as: developing POPs inventories; establishing the regulatory mechanisms and building the institutional framework needed to control POPs releases; and finding alternatives chemicals or strategies to the use of POPs.

- **Timeframe**: ongoing
- **Partner(s)**: Canada, the United States of America and Mexico
- **Project Funder(s)**: Canada, the United States of America and Mexico
- **Comments**: Responsible Orgs: Canada, the United States of America and Mexico; The NARAPs website is: www.cec.org

Chad

**Title**
Projet pilote d'appui à la recherche - Développement sur la Lutte Intégrée (IPM) dans le bassin du Lac-Tchad

**Objective(s)**
Réduire les pertes dûes au fléau grâce à la mise en oeuvre des techniques de Lutte Intégrée (IPM).

**Timeframe**: Deux (2) ans à partir de Juillet 2000

**Status**: No info
**Chile**

**Status**
Concurrent

**Data source**
Comisión Nacional del Medio Ambiente (CONAMA).
Servicio Agrícola y Ganadero (SAG), Ministerio de Agricultura.
Asociación Nacional de Fabricantes e Importadores de Productos Fitosanitarios Agrícolas A.G. (AFIPA A.G.)
Asociación Gremial de Industriales Químicos de Chile (ASIQUM)

**Comments**
La Asociación Gremial de Industriales Químicos de Chile (ASIQUM) ha programado iniciar, en coordinación con las autoridades pertinentes, algunas actividades relacionadas con la evaluación y el monitoreo de Dioxinas, Furanos y Bifenilos Policlorados, durante el segundo semestre del presente año.

No hay actividades enfocadas al reemplazo o reducción de los liberadores de Contaminantes Orgánicos Persistentes (CONAMA)

**Congo**

**Title**
Nous n’avons pas programmé d’activités sur le remplacement et la réduction des POPs au cours de l’année 1999.

**Status**
Finnished

**Data source**
Michel Kouka-Mapengo- Conseiller juridique du Ministre de l’Industrie Minière et de l’Environnement

**Comments**
Compte-tenu du retard enregistré par notre département dans l’élaboration d’une politique sur la gestion des POPs, nous n’avons pas été en mesure d’organiser les activités pour l’année 1999.

**Croatia**

**Title**
Action plan for exporting PCB condensers and PCB transformers.

**Status**
No info

**Data source**

**Djibouti**

**Status**
No info

**Data source**
Health Ministry.

**Comments**
Only a substitution product has replaced DDT.

**Ecuador**

**Title**
No existe proyecto peo en forma general se esta utilizando otro dieléctrico en lugar de los PCBs en transformadores (no se conoce la cobertura)

**Status**
No info

**Responsibility Organization(s)**
Fue el organismo rector en la coordinación de generación y distribución de energía eléctrica.

**Estonia**

**Title**
Mise au point d’un programme prioritaire de substitution d’équipements électriques àAskarels par d’autres types de transformateurs.

**Objective(s)**
Objectifs:
1- Créer un centre d’ergroupement des déchets d’Askarels.
2- Engager une opération prioritaire de remplacement des équipements électriques àAskarel qui se rouvrent dans des lieux recevant du public.
3- Eliminer définitivement les déchets de PCB, la seule solution réside dans l’incinération à haute température.

Rendre systématique l’identification des conteneurs de PCB et la nature de décontamination et/ou de la destruction des équipements contenant des PCB.

**Status**
No info

**Estonia**

**Title**
Procedure of Managing Wastes containing Polychlorinated biphenyls and Polychlorinated terphenyls

**Objective(s)**
Owners of equipment containing PCBs must remove them from use of clear
from pollution and eliminate PCBs from equipment as soon as possible but not later than December 31, 2010. Estonian Republic

**Estonia**

**Title**
Procedure of Managing Wastes containing polychlorinated biphenyls and polychlorinated terphenyls

**Objective(s)**
Owners of equipment containing PCBs must remove them from use or clear from pollution and eliminate PCBs from equipment as soon as possible but not later than December 31, 2010. Estonian Republic

**Timeframe**
July 1, 2000

**Partner(s)**
Environmental Information Centre

**Project Funder(s)**
Ministry of the Environment

**Data source**
Regulation of Minister of Environment No. 71, July 19, 1999

**Comments**
Responsible Organization(s):
Ministry of the Environment of Estonia

**Ethiopia**

**Title**
National Profile for the Management of Chemicals, including POPs.

**Status**
No info

**Federated States of Micronesia**

**Status**
No info

**Comments**
Have reported not having National Action Plans to reduce and/or eliminate POPs.

**Fiji**

**Title**
Development of alternative quarantine desinfestation treatment (using hot temperature forced air).
Use of Oxygen in place of chlorine as bleaching agent.
Control the use of pesticides and application machinery in order to safeguard human, livestock and plant health and the environment.
Provide safe quarantine desinfestation treatment without chemical use.

**Timeframe**

**Responsible Organization(s)**
MAFF; Ministry of Labour

**Partner(s)**
MAFF; FAO/AUSAID. Private sector.

**Data source**
Project papers submitted to various donor agencies.

**Comments**
MAFF together with other governmental departments and with international organizations and agencies is initiating. Other projects look at controlling insect pests and acquiring equipment not containing toxic chemicals.

**Gambia, The**

**Title**
Roll back Malaria Program

**Objective(s)**
To reduce cases of malaria through the use of bed nets dipped in permethrin, or other pyrethroids

**Status**
No info

**Responsible Organization(s)**
Department of State for Health

**Partner(s)**
The Medical Research Council, World Health Organisation

**Data source**
National Environment Agency, 5 Fitzgerald St., PMB. 48, Banjul
Tel: (220) 228056/224867/224868. Fax: (220) 229701. E-mail: nea@gamtel.gm

**Comments**
DDT was banned for both agricultural and health use in 1994. The Ministry of Health had to resort to other forms of alternatives to combat malaria.

**Germany**
Replacement of POP pesticides
Provide users with appropriate alternatives to pesticide POPs
Ongoing activity
Industry association for agriculture (Industrieverband Agrar, IVA)
Federal Biological Agency for Agriculture and Forestry (Biologische Bundesanstalt, BBA), Braunschweig Germany. Comments:

1. chemical alternatives
Synthetic chemicals such as organophosphates have been employed as chemical alternatives to the severely restricted/banned pesticide POPs. Their persistence in the environment is quite short, usually in the order of hours to days. Some examples of organophosphates include parathion, malathion, dichlorvos, dimethyldichlorovinylphosphate and tetraethylpyrophosphate. However, these chemicals are 10 to 100 times more acutely toxic than chlorinated hydrocarbons to animals larger than insects. Because of their potentially harmful effects on the non-target fauna these chemicals should, in general, not be used where populations of non-target organisms may be adversely affected. Chemical alternatives are to be chosen on a case by case basis depending on the intended use type.

2. biological alternatives
Various natural predators or pathogens, such as fungi, viruses and bacteria are used for pest management. E.g. the insect pathogen Bacillus thuringiensis, a naturally-occurring bacteria, has been formulated into environmentally sound insecticides for control of many lepidopteran pests.

3. integrated pest management (IPM)
IPM is generally accepted as an effective approach to protection from insects, mites, disease, weeds and other pests. The aim of IPM is to prevent economic loss resulting from pests as well as to avoid harm to people, non-target organisms (plants and animals) and the environment. However, the objective of IPM is not to control 100% of the pests in an area. One treatment or a combination of several treatments are co-ordinated into a program to control the pest organism. This may include the combination of biological controls, cultural controls, physical or mechanical controls, or use of a low level of chemical controls.
Ghana

**Title**  
Persistence and fate of 14C- Lindane applied to soil in maize ecosystem.

**Objective(s)**  
Studies on Persistence and fate of radio-labeled Lindane in maize ecosystem.

**Timeframe**  
1993-1995

**Status**  
Finished

**Responsible Organization(s)**  
Department of Chemistry- Ghana Atomic Energy Commission- Ghana

**Partner(s)**  
FAO/IAE Joint Division

**Data source**  

**Comments**  
Radio-labeled 14C- Lindane applied to the soil surface in a maize ecosystem (1 month after planting) was found to be taken up by the plant.

Ghana

**Title**  
Disposal of transformer oil.

**Objective(s)**  
To protect human health and the environment.

**Timeframe**  
5-10 years.

**Status**  
No info

**Responsible Organization(s)**  
Electricity Company of Ghana.

**Partner(s)**  
Environmental Protection Agency (Ghana).

**Comments**  
Expensive undertaking that requires external assistance.

Hungary

**Title**  
PIC procedure. All pesticides have been replaced. No further activity is required.

**Objective(s)**  
Replacement of Pesticides. Chlorinated hydrocarbons (ban), Replacement: organophosphorous esters, carbamates (insecticides), pyrethroids were permitted.

**Status**  
No info

**Responsible Organization(s)**  
Ministry of Health, Ministry of Agriculture and Regional Development.

**Partner(s)**  
National Institutes and regional organizations of Public Health and Environmental Protection. NGOs

**Data source**  
Recommendations of the PIC Committee, Permission documents of the Ministry of Agriculture and regional Development.

**Comments**  
Hungary has been dealing with the replacement of POPs since 1996 (see measures in Annex 3). Reason: Health protection, environmental protection.

Indonesia

**Title**  
National Program of the Integrated Pest Management.

**Objective(s)**  
To reduce and limit the application of hazardous pesticides for agricultural pest control.
To use natural pest regulation mechanism for pest management.
To educate and train farmers in applying Integrated Pest Management in their own fields.

**Timeframe**  

**Status**  
Finished

**Responsible Organization(s)**  
Directorate General Food Crops and Horticulture, Department of Agriculture.

**Partner(s)**  
World Bank and FAO.

**Comments**  
Efforts to replace the agricultural POPs have been carried out seriously since 1970’s but for industrial (PCB’s, dioxins and furans), the effort has been limited.

Indonesia

**Title**  
National Program of the Integrated Pest Management

**Objective(s)**  
To reduce and limit the application of toxic pesticide for agriculture pest control

**Timeframe**  
1989-1999

**Partner(s)**  
World Bank and FAO

**Data source**  
Directorate General Food Crops and Horticulture
Department of Agriculture and Forestry

**Comments**  
Responsible Organization(s):
Directorate General Food Crops and Horticulture
Department of Agriculture

Ireland

**Status**  
No info

**Comments**  
Have reported not having National Action Plans to reduce and/or eliminate POPs.

Ivory Coast

**Title**  
National Pilot Project for Ecological Management of PCBs.

**Status**  
No info
### Japan

**Title**
Basic guidelines of Japan for the Promotion of Measures against Dioxins

**Objective(s)**
To show concrete guidelines for comprehensive and systematic measures of the national government to tackle issues related to dioxins.

**Status**
No info

**Partner(s)**
Ministries and Agencies that are members of the Ministerial Council on Dioxin Policy

### Kuwait

**Title**
There is no specific project, but some actions have been taken to reduce or eliminate the emissions of POPs.

**Data source**
Environmental Protection Authority (EPA)

**Comments**
All POPs chemicals have been banned in Kuwait (except dioxins and furans) which release from hospitals’ incinerators. PCBs have been replaced in Ministry of electricity.

### Laos

**Title**
Awareness Workshop on Persistent Organic Pollutants for Government Staffs and Private Sectors

**Objective(s)**
To encourage Lao People to understand the danger and risk of Persistent Organic Pollutants.

**Timeframe**
Middle September of 2000

**Status**
Planned

**Responsible Organization(s)**
Science Technology and Environment Agency

**Partner(s)**
Ministry of Agriculture and Forestry, Ministry of Industry and Handicraft and other line Ministries concerned.

**Project Funder(s)**
Will be asking from UNEP chemicals

**Data source**
Ministry of Agriculture and Forestry, Ministry of Industry and Handicraft, Ministry of Trade, Ministry of Health.

**Comments**
It is necessary to encourage the Government staff at the policy making levels to understand the danger and risk of POPs

### Latvia

**Title**
PCBs in the power industry of Latvia.

**Objective(s)**
Identification of sources.

**Timeframe**

**Status**
Finnished

**Responsible Organization(s)**
Latvenergo of Latvia.

**Partner(s)**
Swedish Environmental protection Agency, Swedish Vattenfall AB.

### Lebanon

**Status**
No info

**Comments**
Have reported not having National Action Plans to reduce and/or eliminate POPs.
Mexico

Title: Experience in reducing use of DDT
Status: No info

Moldova

Title: Draft National Strategy on reducing and Eliminating of POPs releases.
Status: No info
Timeframe: 2000-2001
Partner(s): Ministry of Health, Ministry of Agriculture and Food, Ministry of Industry and Energy, Ministry of Transport and Communications and other organizations.

Project Funder(s): Will be determined.
Data source: Prepared by Liudmila Marduhaeva, National POPs Focal Point, Consultant of the General Division for Pollution Prevention and Improvement of the Environment, Ministry of Environment and Territorial Development. Address: 9, Cosmonautilor St., MD – 2005, Chisinau, Republic of Moldova. Tel.: +(373 2) 22 68 50. Fax: +(373 2) 22 07 48. E-mail: liudmila@mediu.moldova.md or l.marduhaeva@mail.md

Data to Annex 2 were prepared in conformity with Work Plan of the Ministry of Environment and Territorial Development.

Comments: Ministry of Environment and Territorial Development.

Monaco

Title: L’ensemble des établissements industriels et des activités artisanales de la Principauté est visité annuellement par la Commission Technique pour la lutte contre la pollution et pour la sauvegarde de la sécurité, de l’hygiène, de la salubrité et de la tranquillité publique.

Lors de cette visite le contrôleur de la Direction de l’Environnement, de l’Urbanisme et de la Construction enquête sur l’éventuelle utilisation de POPs et sur les mesures envisagées pour réduire leur utilisation. Il assure le suivi de l’application de ces mesures.

Mongolia

Status: No info
Comments: Have reported not having National Action Plans to reduce and/or eliminate POPs.

Nepal

Title: Management of PCBs in waste and in other forms in Nepal.
Objective(s):
1. Identify PCBs in waste inventories
2. To collect information on PCBs and PCB containing equipment.
3. To assess the knowledge and practices of the PCBs use, storage, disposal and destruction.
4. To create awareness among stakeholders/users.
Timeframe: November 1999 to March 2000
### Nepal Bureau of Standards and Metrology

**Pesticide Registration Office**

**Department of Plant Protection**

**Ministry of Agriculture**

**NBSM’s Survey Report.**

Awareness Programme has to be launched throughout Nepal among the stakeholders.

### Netherlands

**Title**: The Dioxins Step Plan

**Status**: No info

### New Zealand

**Title**: - Reporting on Persistent Organochlorines in New Zealand, September 1998  
- Phasing out Small PCB Holdings, 1995  
- A Strategy for Managing PCBs, 1998

**Status**: No info

### Niger

**Title**: Coordination technique interministérielle chargée des POPs au Niger.

**Objective(s)**: Service de Législation et de Réglementation Phyto sanitaire. Direction de la Protection des Végétaux.  
Prise de décisions sur la réglementation des produits chimiques et des POPs (remplacement des POPs, destruction, re-exportation, interdiction)  
Former et informer les utilisateurs des produits chimiques

**Timeframe**: 5 ans

**Status**: Concurrent

**Responsible Organization(s)**: DPV Direction de la Protection de l’Environnement, Direction de la Santé Publique, Direction Hygiène et Assainissement, Université A.M., Distributeurs Agrées de Pesticides, Direction du commerce (I et E), Direction du Plan.

**Partner(s)**: - Santé publique (populations rurales et citadines)  
- Environnement (Forêts, faune, Eau et Sol)  
- Agriculture (cultures)  
- Distributeurs agréés et utilisateurs de produits chimiques

**Data source**: Niamy, le 19/10/1999.

**Comments**: Instituer et organiser la coordination, mener des activités programmées et assister aux réunions et conférences.

### Norway

**Title**: Norwegian Action Plan for PCB- Summary and Conclusions

**Status**: No info

### Norway

**Title**: Comprehensive Atmospheric Monitoring Programme

**Objective(s)**: Assess airborne inputs to the maritime area of the Ospar-Convention

**Timeframe**: Long term monitoring - Annual report

**Partner(s)**: Norwegian Institute for Air Research  
Responsible Organization(s): Norwegian Pollution Control Authority (SFT)  
Norwegian Authorities (SFT)

### Norway

**Title**: Multilateral co-operative project for phase-out of Polychlorinated biphenyls (PCB) in the Russian Federation

**Objective(s)**: Phasing out of PCB, handling of PCB-containing waste and alternatives to PCB in the Russian Federation.  
Phase 1: Inventory concerning use of PCB, management of PCB-contaminated waste and proposals for priority of Remedial Actions concerning PCB in the Russian Federation. Report will be available in October 2000.  
Phase 2: Evaluation of actions concerning regulations, collecting, storing and destruction of PCB-containing liquids and equipment, alternatives to PCB for electricity production and PCB-contaminated land. Focus on 5 regions near the Arctic.
**Panama**

**Title**

Creación de un Grupo Técnico de Trabajo sobre Plaguicidas que ha elaborado un manual de procedimiento de fiscalización de los aditivos, fertilizantes, plaguicidas y material técnico de uso en la agricultura y sobre el inventario de los COPs, que realiza un intercambio de información para fortalecer la vigilancia de la importación, fabricación, almacenamiento, transporte, maquila, reenvase, envases, comercialización, uso, inventario y disposición de desechos de plaguicidas fitosanitarios.

**Objective(s)**

- Disminuir el riesgo de exposición a los COPs
- Determinar el grado de avance en el so- nes nuevos insecticidas menos contaminantes
- Determinar el grado de avance en la sustitución de las tecnologías tradicionales de utilización de COPs y de las fuentes de COPs.

**Timeframe**

3 años

**Status**

Concurrent

** Responsible Organization(s)**

Grupo técnico de Trabajo sobre Plaguicidas conformado por Representantes del Departamento de Agroquímicos: Ministerio de Desarrollo Agropecuario y de las secciones de Sustancias y desechos Peligrosos, centro de Estudios en Salud y Ambiente, Control de Vectores y Zoonosis, Departamento de Farmacia y Drogas, Departamento de Calidad Sanitarias del Ambiente, departamento de Protección de Alimentos, sección de Ambientes de Trabajo, Departamento de Calidad de agua del Ministerio de Salud. Sección de Sustancias y Desechos Peligrosos.

**Partner(s)**

MIDA/ANAM/CLICAC/MICI/Empresas Hidroeléctricas privadas/ONGs ambientalistas.

**Comments**

Actualmente no existen acciones al respecto

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**Peru**

**Title**

Activities to replace the POPs (no projects)

**Objective(s)**

Protect human health from exposure to the POPs, prevention and control of the effects from environmental contamination by the use of these substances.

**Timeframe**

Permanent

**Status**

No info

** Responsible Organization(s)**

DIGESA

**Data source**

DIGESA

**Comments**

These actions are within the normal functions of the Health Ministry.

**Philippines**

**Title**

The management of chemicals and toxic substances (RA 6969); Pre-manufacturing and Pre-importation Notification (PMPIN) of chemicals and substances.

**Objective(s)**

To ensure that new chemicals that would pose an unreasonable risk to human health and the environment either be denied to be manufactured or imported into the country, or be placed under the control and restrictions to limit potential releases.

**Timeframe**

Continuing
### Poland

**Title**

Construction of the installation for recovery of hydrogen chloride from waste containing chlorinated organic compounds.

**Objective(s)**

An installation for recovery of hydrogen chloride from waste containing chlorinated organic compounds was designed and commissioned in the chemical works "ANWIL S.A." in Wloclawek. The recovered HCl is returned to the processes run in the chemical works. This installation can be used also for destruction of wastes containing PCBs. The range of temperatures used for that purpose prevent from generation of dioxins. The installation is compliant with the standards of EU concerning waste generation and emissions to water bodies and to the atmosphere. The capacity of the installation is sufficient to treat the organic waste containing chlorinated organic compounds from other economic entities from Poland and from abroad, if necessary.

**Timeframe**

1999 year – completion of the installation construction.

**Partner(s)**

VICHEM (France)

**Project Funder(s)**

ANWIL S.A., financially assisted by the National Fund for Environmental Protection and Water Management.

**Data source**

unpublished information provided by ANWIL S.A.

**Comments**

Responsible Org: ANWIL S.A.
87 805 Wloclawek
222 Torunska St.
Poland.

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**Title**

The project of the national strategy for the reduction of persistent organic pollutants emission.

**Objective(s)**

The analysis of the emissions of POPs from different sources (industrial, mobile) and proposals for directions of activities focused on emissions reduction and control (changes in legal regulations, economic mechanism etc.)

**Timeframe**

1999-2000

**Partner(s)**

none

**Project Funder(s)**

National Fund for Environmental Protection and Water Management

**Comments**

Responsible Organization(s): Institute of Environment Protection on request of the Ministry of Environment.
sufficient to treat the organic waste containing chlorinated organic compounds form other economic entities from Poland and from abroad, if necessary.

**Timeframe**
1999 year - completion of the installation construction

**Partner(s)**
VICHEM (France)

**Project Funder(s)**
ANWIL S.A., financially assisted by the National Fund for Environmental Protection and Water Management

**Data source**
unpublished information provided by ANWIL S.A.

**Comments**
Responsible Organization(s):
ANWIL S.A.
87 805 Wloclawek
222 Torunska St.
Poland

### Poland

**Title**
Development of underlying assumptions for a project to limit inflow, to water bodies, of dangerous substances produced or in use in the economy sector (second stage).

**Objective(s)**
In the second stage of project a plan of actions was designed to decrease the pollution of water bodies, by dangerous substances, to the level compliant with the requirements of the UE regulations. The plan also includes propositions of actions for elimination of use and replacements for some dangerous substances.

**Timeframe**
2000 year

**Project Funder(s)**
PHARE, Project Nr. 9608.01.03

**Data source**
Reports available at the Ministry of Environment

**Comments**
Responsible Organization(s):
Ministry of Environment, Department of the Environmental Protection
Warsaw, 52/54 Wawelska St.
Poland

### Portugal

**Title**
Emission Inventory of Dioxins and Furans in the region of Porto

**Objective(s)**
Identify major atmospheric sources of dioxins and furans
Quantification of emissions

**Timeframe**
1998-2000

**Partner(s)**
LIPOR

**Comments**
Responsible Org.:
IDAD – Instituto do Ambiente e Desenvolvimento

### Romania

**Status**
No info

**Comments**
- We don’t have yet such a project.

### Russia

**Title**
Multilateral Cooperative Pilot Project for phase-out of PCB use, and management of PCB-contaminated wastes in the Russian Federation

**Objective(s)**
- prevention of resuming of PCB production and use;
- Development and construction/retrofit of facilities for production of alternatives to PCB;
- Environmentally sound decommissioning of PCB stocks and contaminated equipment and containers;
- Rehabilitation of PCB-contaminated territories.

**Status**
No info

**Partner(s)**
Swedish EPA.
Multilateral Co-operative Project on Phase-out of PCB use and Management of PCB contaminated wastes in the Russian Federation.

**Objective(s)**
To assist Russia to develop and implement a special Federal Programme to introduce alternatives to PCB, environmental sound decommissioning of PCB stocks and contaminated equipment and containers and to rehabilitate PCB contaminated territories. This multilateral Project has three phases.

**Timeframe**
1999 - >2000 see comments

**Status**
Concurrent

**Responsible Organization(s)**
AMAP and State Committee of the Russian Federation for Environmental Protection.

**Partner(s)**
The Eight Arctic countries: Canada, Denmark/Greenland/ Iceland, Finland, Norway, Russia, Sweden and the USA.

**Data source**
Existing information from Russia and AMAP assessment

**Comments**
>2000: Phase II, Feasibility study
>2000: Phase III, Implementation of demonstration projects, e.g. non PCB alternatives, destruction of PCB and PCB contaminated equipment, rehabilitation of PCB contaminated areas.

### Russia

**Title**

**Status**
No info

**Title**
Federal Target Programme for "Protection of the Environment and Population from Dioxins and Dioxin-like toxic substances".

**Status**
No info

**Title**

**Objective(s)**
Public monitoring of the state of the environment (chemical safety), Objective: raising awareness of public (via mass media), NGOs, governmental structures.

**Timeframe**
April - December 2000 (made applications for grants to European Commission and ROLL)

**Status**
Concurrent

**Responsible Organization(s)**
Eccocenter Dront: works for 10 years. Initiator of many public ecological projects on regional national and international levels.

**Partner(s)**
"Union for Chemical Safety", Greenpeace (Russian), independent experts (Sergey Yufit, Veniamin Khudoley, Valentina Chenkasova, Alexey Yablokov), network of interested NGOs.

**Project Funder(s)**
German Ministry of International Economical cooperation (via Heinrich Böll Stiftung).

**Data source**
30.11.99 Natalya Pchelina AVS-info office 145 Kostina street 2 Hizhniy Novgorod Russia 603134
Phone: 8312-343142. Fax: 8312-302890
Email: pchelina@aveinfo.sci-nnov.ru

**Comments**
We'd like to use our capacities (network) for deepening the work on POPs, look for sources of financial support.

**Title**
Multilateral Cooperative Project on Phase-out of PCB use, and management of PCB-contaminated wastes in the Russian Federation.

**Objective(s)**
To assist Russia to develop and implement a special Federal Programme to introduce alternatives to PCB, environmental sound decommissioning of PCB stocks and contaminated equipment and containers, and to rehabilitate PCB contaminated territories. This multilateral project has 3 phases.

**Timeframe**

**Partner(s)**
The eight Arctic countries: Canada, Denmark/Greenland, Iceland, Finland, Norway, Russia, Sweden and USA.

**Data source**
Existing information from Russia and AMAP assessment.

**Comments**
destruction of PCB and PCB contaminated equipment, rehabilitation of contaminated areas.

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| **Data source** | 1-Department of Environmental Affairs and Tourism  
2-Department of Trade and Industry  
3-Chemical Allied Industries Association |

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<th>South Africa</th>
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</table>
| **Data source** | 1-Department of Environmental Affairs and Tourism  
2-Department of Trade and Industry  
3-Chemical Allied Industries Association |
| **Comments** | Industry through Responsible Care initiatives are involved in reduction programmes. |

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<th>Sudan</th>
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</table>
| **Objective(s)** | - Safe disposal of the obsolete stocks, by incineration  
- Irrigated schemes in Central Sudan & PPD Seasonal Camps all over the Sudan |
| **Timeframe** | Twelve months |
| **Status** | No info |
| **Responsible Organization(s)** | Federal Ministry of Agriculture & Forestry- Khartoum  
National Council for pesticides (NPC) - Khartoum North PO Box 14  
Federal Plant Protection Directorate- Khartoum North PO Box 14 |
| **Partner(s)** | Agricultural Research Corporation (ARC)- Wad/Medani PO Box 126  
Sudanese Agrochemicals Association (SAGA) |
| **Project Funder(s)** | Not determined yet |
| **Data source** | Pesticides Registrations of Sudan- ARC |

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<th>Sweden</th>
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| Syria |
Have reported not having National Action Plans to reduce and/or eliminate POPs.

**Togo**

**Title**
Impregnated Bednet

**Objective(s)**
Restrict the use of indoor chemical pesticides
Avoid the exposure to Mosquito bites.

**Status**
No info

**Responsible Organization(s)**
Service National de Lutte contre le Paludisme (National Service of Preservation against Malaria)

**Partner(s)**
Togolese Government and WHO.

**Comments**
A review of the strategies ever implemented in Togo for preservation against malaria is being prepared with the collaboration of Dr. Gayibor, who is the manager of the National Service of Preservation against Malaria.

**Ukraine**

**Title**
no project

**Comments**
The activities to replace and/or reduce the releases of POPs chemicals can be started after the elaboration of the National Action Plan on POPs Emissions Reduce

**United Kingdom**

**Title**
Agriculture, trade and food security.

**Objective(s)**
To create awareness of the benefits of sustainable alternatives to POPs and other pesticides which cause problems to health and the environment, and in particular to promote Integrated Pest Management (IPM) strategies which are based on participatory approaches with farmers and which reduce use and dependence on pesticides.

**Timeframe**
Part of our current programme and on-going while the problem exists.

**Status**
Concurrent

**Responsible Organization(s)**
The Pesticides Trust, Eurolink Centre, 49 Effra Road-London SW 1BZ
Tel.:+44 171 274 8895 / Fax:+ 41 171 274 9084 / Email: pestrustrn@gn.apc.org/pesticidestrust

**Partner(s)**
NGOs and the Pesticides Action Network.

**Comments**
There is important role for NGOs in participating in the analysis of problems which arise from POPs, potential POPs and potential replacement pesticides which may cause additional, but different problems.

**United States**

**Title**

**Status**
No info
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<th>Vietnam</th>
<th>Have reported not having National Action Plans to reduce and/or eliminate POPs.</th>
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<td>Comments</td>
<td>Have reported not having National Action Plans to reduce and/or eliminate POPs.</td>
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<tr>
<th>Yugoslavia</th>
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<tr>
<th>Zambia</th>
<th>PCB Management</th>
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<tbody>
<tr>
<td>Title</td>
<td>PCB Management</td>
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<tr>
<td>Objective(s)</td>
<td>Capacity building</td>
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<td>Timeframe</td>
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<td>Status</td>
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<td>Responsible Organization(s)</td>
<td>Environmental Council of Zambia.</td>
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<td>Partner(s)</td>
<td>Zambia Electricity Supply Corporation.</td>
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<td>Data source</td>
<td>PCB Management Project. Manager.</td>
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<tr>
<td>Comments</td>
<td>The project aims are capacity building and securing of PCBs in Zambia, however, the disposal aspect is not included.</td>
</tr>
</tbody>
</table>
Chapter 5: Country contributions; Information on the regulatory status of POPs; bans, restrictions, and/or other legal permitted uses.

Information received from:

1. Albania
2. Algeria
3. Argentina
4. Armenia
5. Austria
6. Barbados
7. Belarus
8. Belgium
9. Benin
10. Brazil
11. Brunei
12. Burkina Faso
13. Burundi
14. Canada
15. Chad
16. Chile
17. China
18. Colombia
19. Congo
20. Costa Rica
21. Croatia
22. Cuba
23. Cyprus
24. Czech Republic
25. Denmark
26. Djibouti
27. Dominican Republic
28. Ecuador
29. El Salvador
30. Estonia
31. Ethiopia
32. Fiji
33. Finland
34. France
35. Gambia, The
36. Germany
37. Ghana
38. Greece
39. Guinea
40. Hungary
41. Iceland
42. Indonesia
43. Ireland
44. Italy
45. Jamaica
46. Japan
47. Jordan
48. Kazakhstan
49. Kuwait
50. Kyrgyzstan
51. Lao PDR
52. Latvia
53. Lebanon
54. Lithuania
55. Macedonia
56. Madagascar
57. Malaysia
58. Mauritius
59. Mexico
60. Micronesia
61. Moldova
62. Monaco
63. Mongolia
64. Morocco
65. Nepal
66. Netherlands
67. New Zealand
68. Nicaragua
69. Niger
70. Norway
71. Panama
72. Paraguay
73. Peru
74. Philippines
75. Poland
76. Portugal
77. Romania
78. Rwanda
79. Saudi Arabia
80. Singapore
81. Slovakia
82. Slovenia
83. South Africa
84. South Korea
85. Sri Lanka
86. St. Kitts and Nevis
87. Sudan
88. Sweden
89. Switzerland
90. Syria
91. Thailand
92. Togo
93. Turkey
94. Ukraine
95. United Kingdom
96. United States
97. Uruguay
98. Uzbekistan
99. Venezuela
100. Vietnam
101. Yemen
102. Yugoslavia
103. Zambia
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<th>Aldrin</th>
<th>Chlordane</th>
<th>DDT</th>
<th>Dieldrin</th>
<th>Endrin</th>
<th>Heptachlor</th>
<th>Hexachlorobenzene</th>
<th>Mirex</th>
<th>PCB</th>
<th>Toxaphene</th>
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Barbados Light and Power, the island’s largest distributor of electrical transformers, has only ever used 2 PCB transformers. They have always used mineral oil transformers. There has been no inventory done, however, on the island’s largest industrial plants, who bring in their own transformers.
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- PCB: Banned in France in 1976.
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In Canada, dioxins and furans have been regulated in pulp and paper effluents since 1992. The implementation of these regulations resulted in a reduction of dioxins releases in the effluents of more than 99%.

Currently, and as a result of adopting the Toxic Substances Management Policy (TSMP), dioxins and furans are managed with the view of achieving the long term objective of virtual elimination.

As a result of the publication of the inventory of sources in January 1999, a number of priority sectors have been identified for the development of Canada-Wide-Standards (CWS):

Limits and timelines have been developed and accepted in principle for two of the six priority sectors that have identified for the development of CWS:

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Incineration:

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Limits and timelines under development for:

- Conical Combustors
- Iron Sintering
- Steel Production (Electric arc furnaces)
- Residential wood combustion

Data Source: All material related to dioxins and furans is posted on the webpages of the Canadian Council of the Ministers of the Environment at [http://www.mnet.mb.ca/ccme/3e_priorities/3ea_harmonization/3ea2_cws/3ea2e_priorities/3ea2e.html](http://www.mnet.mb.ca/ccme/3e_priorities/3ea_harmonization/3ea2_cws/3ea2e_priorities/3ea2e.html)
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Decontamination and disposal of pre-existing equipment containing PCBs in a time depending on size and concentration. D. Leg. 22 May 1999 – No. 209, enforcement of Directive 96/59/CE
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**Moldova**

Aldrin

Banned 02.02.1972: According to the National Centre of Preventive Medicine data the maximum permissible concentration for Aldrin in air of the working zone (vapour or aerosol) is 0.01 mg/m³; for water used potable purposes is 0.002 mg/l. The allowable residual concentration in food is 0.

The indicative safe exposure level for Aldrin in air of residential areas is 0.0005 mg/m³.

**Dieldrin**

According to the National Centre of Preventive Medicine data the maximum permissible concentration for Dieldrin in air of the working zone (vapour or aerosol) is 0.01 mg/m³, for water used potable purposes is 0.002 mg/l. The allowable residual concentration in food is 0.

**Endrin**

**Heptachlor**

According to the National Centre of Preventive Medicine data the maximum permissible concentration for Heptachlor in air of the working zone (vapour) is 0.01 mg/m³; for water used potable purposes is 0.05 mg/l. The allowable residual concentration in food is 0.

**Toxaphene**

Banned 1991. According to the National Centre of Preventive Medicine data the maximum permissible concentration for Toxaphene in air of the working zone is 4.0 mg/m³; for water used potable purposes is 0.004 mg/l; in soil is 0.5 mg/kg. No was permitted in sugar, milk, meat, eggs and etc. The allowable residual concentration in potatoes and sugar beet is 0.1 mg/kg. The indicative safe exposure level for Toxaphene in air of residential areas is 0.007 mg/m³.

**Monaco**

Aldrin

Un projet de réglementation a été établi qui interdit le rejet de ce produit dans le réseau d'assainissement.

Chlordane

Un projet de réglementation a été établi qui interdit le rejet de ce produit dans le réseau d'assainissement.

DDT

Un projet de réglementation a été établi qui interdit le rejet de ce produit dans le réseau d'assainissement.

Dieldrin

Un projet de réglementation a été établi qui interdit le rejet de ce produit dans le réseau d'assainissement.

Dioxín_Furan

Emission control measures:

Un projet de réglementation a été établi qui interdit le rejet de ce produit dans le réseau d'assainissement.

La seule source identifiée est l'usine d'incineration des ordures ménagères qui a fait l'objet d'une évaluation de ses émissions avant et après mise en place d'un dispositif de lavage des fumées de type humide.

Endrin

Un projet de réglementation a été établi qui interdit le rejet de ce produit dans le réseau d'assainissement.

Heptachlor

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Control measures (for HCB as a by-product):
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We have no industry for transformers, which include PCBs, but there are some of them in the country.
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</table>
Chapter 6: Information on *activities* aiming at the reduction and/or elimination of releases of POPs received from Non Governmental Organizations.

Information received from:

1. AWHHE, Armenian Women for Health and Healthy Environment
2. CIP, Center for International Projects, Russian Federation
3. Commonweal
4. GCPF, Global Crop Protection Federation
5. IDEA
6. Leefmilieu
7. Oekometric GmbH
8. RAIPON, Russian Association Indigenous People of the North
AWHHE

Title: TOXIC CHEMICALS RISK ASSESSMENT AND CREATION OF POPs INFORMATION NETWORK

Objective(s): TO PROVIDE INFORMATION ON POPs IN COMMUNITY; TO RAISE AWARENESS IN WOMEN AND OTHER GROUPS OF COMMUNITY ON POPs; TO PROTECT THE HEALTH THROUGH AWARENESS RAISING ON POPs; TO INVOLVE AND WORK WITH ACTIVE WOMEN ON LOBBING LOCAL OFFICIALS ABOUT ELIMINATION TOXIC CHEMICALS AND POPs; TO DEVELOP ADEQUATE RESPONSES OF COMMUNITY IN ASSESSING HAZARD AND RISK OF POPs FOR REPRODUCTIVE HEALTH

Timeframe: 01.08.00 - 01.02.01

Status: Concurrent

Responsible Organisation(s): ARMENIAN WOMEN FOR HEALTH AND HEALTHY ENVIRONMENT (AWHHE)

Partner(s): AS CONSULTANTS IPEN, WECF

Project funder(s): JENIFER ALTMAN FOUNDATION-MITCHELL KAPOR FOUNDATION-STARFIRE FUND

Data Source: The First step of this project - to conduct questionnaire interviews regarding the using pesticides and dealing with chemicals (chloropren) was conduct earlier with the financial support by mini grant from IPEN.

Comments: Elena Manvelian the head of AWHHE
Yerevan 375022
Arav-Anindg 1/14 apt.7
Armenia
Phone (3741) 62 66 20

CIP

Title: Seminar on POPs. Plan of action on POPs reducing and eliminating in the Russian Federation

Objective(s): Awareness-raising Implementation Support

Timeframe: undecided

Partner(s): UN/ECE, Center for International Projects, State Committee of the Russian Federation for Environment Protection

Comments: Field: Public Health, Environmental Protection

Commonweal

Title: Commonweal Health and Environment Program

Objective(s): Commonweal is an active member of the International Persistent Organic Pollutants Network (IPEN), helping to disseminate information and resources about POPs chemicals to NGOs worldwide who are committed to ending POPs contamination. Commonweal is responsible for raising levels of awareness of health effects related to POPs chemicals by sponsoring panels at the UNEP INC meetings on POPs. Commonweal is a founding member of the international campaign Health Care Without Harm (HCWH), a coalition of 290 organizations in 25 countries. The campaign works in collaboration with the healthcare industry to eliminate the use of toxic products and practices such as mercury and dioxin-producing polyvinyl chloride (PVC) plastics. Health Care Without Harm is premised on the idea that hospitals, which exist to promote health and healing, should not be contributing to an avoidable public health threat by relying on unsustainable practices concerning materials procurement and waste disposal. HCWH works to achieve this by encouraging alternatives to incineration, recycling, reusing, and alternative materials procurement

Timeframe: ongoing

Project funder(s): Commonweal is funded by various US foundations.

GCPF

Title: Disposal of government and farmer owned obsolete crop protection products.

Objective(s): Collection and disposal of 1 050 MT of obsolete crop protection products, including about 400 MT of POPs, from South Africa, Namibia and Swaziland.
<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Disposal of government owned obsolete crop protection products.</th>
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<tbody>
<tr>
<td><strong>Objective(s)</strong></td>
<td>Collection and disposal of obsolete crop protection products, including an estimated 2 MT of POPs in Canada.</td>
</tr>
<tr>
<td><strong>Timeframe</strong></td>
<td>Started 1999, this program is being phased in across the provinces over a number of years. Estimated completion 2003.</td>
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<td><strong>Status</strong></td>
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<td><strong>Responsible Organisation(s)</strong></td>
<td>Federal and Provincial Governments of Canada.</td>
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<tr>
<td><strong>Partner(s)(s)</strong></td>
<td>Managed and supported by the National Association for Crop Protection CPI, (a member association of the Global Crop Protection Federation, GCPF) and its member companies. Contact Lorne Hepworth at <a href="mailto:hepworth@cropro.org">hepworth@cropro.org</a> wwwcropro.org</td>
</tr>
<tr>
<td><strong>Data Source</strong></td>
<td>The GCPF member companies are willing to help find appropriate solutions for products they originally manufactured or supplied. For further information please consult the GCPF website under „industry positions“ obsolete stocks.</td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td>GCPF. The GCPF member companies are: Aventis CropScience, BASF AG, Bayer AG, Dow AgroSciences, E.I. DuPont de Nemours &amp; Co., FMC, Monsanto, Sumitomo, Syngenta. This program</td>
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<thead>
<tr>
<th><strong>Title</strong></th>
<th>Disposal of government owned obsolete crop protection products.</th>
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<tr>
<td><strong>Objective(s)</strong></td>
<td>Disposal of &gt;1500 MT of obsolete crop protection products, including an estimated 144 MT POPs from Ethiopia.</td>
</tr>
<tr>
<td><strong>Timeframe</strong></td>
<td>Started in 2000, estimated completion in 2001 (?)</td>
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<td><strong>Status</strong></td>
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<tr>
<td><strong>Responsible Organisation(s)</strong></td>
<td>Federal and State Governments of Ethiopia.</td>
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<tr>
<td><strong>Partner(s)(s)</strong></td>
<td>USAID, Sweden, The Netherlands, FAO, Supported by the National Association for Crop Protection (a member association of the Global Crop Protection Federation, GCPF) and its member companies.</td>
</tr>
<tr>
<td><strong>Data Source</strong></td>
<td>Obsolete Stocks disposal operations of government owned stocks are multistakeholder projects as this examples shows. The GCPF member companies are willing to help find appropriate solutions for products they originally manufactured or supplied. For further information please consult the website under „industry positions“ obsolete stocks.</td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td>GCPF. The GCPF member companies are: Aventis CropScience, BASF AG, Bayer AG, Dow AgroSciences, E.I. DuPont de Nemours &amp; Co., FMC, Monsanto, Sumitomo, Syngenta, Shell Chemicals Limited (a GCPF associated company).</td>
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<th><strong>Title</strong></th>
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<tr>
<td><strong>Objective(s)</strong></td>
<td>Collection and disposal of 56 MT of obsolete dieldrin locust control stocks from Madagascar. (Note: The 56 MT of dieldrin locust control product was a formulation which contained around 11 MT of POPs (dieldrin active ingredient)</td>
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<tr>
<td><strong>Timeframe</strong></td>
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<td><strong>Status</strong></td>
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<tr>
<td><strong>Responsible Organisation(s)</strong></td>
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<tr>
<td><strong>Partner(s)(s)</strong></td>
<td>GTZ, Germany Shell Chemicals Limited, London (a GCPF associated company).</td>
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</table>
GCPF, The GCPF member companies are: Aventis CropScience, BASF AG, Bayer AG, Dow AgroSciences, E.I. DuPont de Nemours & Co., FMC, Monsanto, Sumitomo, Syngenta, Shell Chemicals Limited (a GCPF associated company).

This is an example of a multi-stakeholder project involving a public and private sector partnership. The GCPF member companies are willing to help find appropriate solutions for products they originally manufactured or supplied. For further information please consult the GCPF website under „industry positions“ obsolete stocks.

Data Source

Comments

GCPF

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<td>Objective(s)</td>
<td>Collection and disposal of 90 MT of obsolete crop protection products, including 9.5 MT of POPs from Madagascar.</td>
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<tr>
<td>Partner(s)(s)</td>
<td>Supported by member companies of GCPF, GTZ, Germany, Switzerland</td>
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<td>Objective(s)</td>
<td>Collection and disposal of 187 MT of obsolete dieldrin locust control stocks from Mauritania. (Note: The 187 MT of dieldrin locust control product was a formulation which contained around 37 MT of POPs (dieldrin active ingredient))</td>
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<tr>
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Data Source

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<td>Objective(s)</td>
<td>Collection and disposal of 72 MT of obsolete monocrotophos/DDT stocks in Mozambique. (Note: The 72 MT of monocrotophos/DDT product was a formulation which contained around 22 MT of POPs (DDT active ingredient))</td>
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<td>Partner(s)(s)</td>
<td>GTZ, Germany, Shell Chemicals Limited, London (a GCPF associated company).</td>
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Data Source

Comments
German funding, GTZ undertook the disposal project, which involved further repacking, and oversaw the removal of the product from Mozambique and its safe incineration in the UK. The GCPF member companies are willing to help find appropriate solutions for products they originally manufactured or supplied. For further information please consult the GCPF website under „industry positions“ obsolete stocks.

Comments
GCCPF. The GCPF member companies are: Aventis CropScience, BASF AG, Bayer AG, Dow AgroSciences, E.I. DuPont de Nemours & Co., FMC, Monsanto, Sumitomo, Syngenta, Shell Chemicals Limited (a GCPF associated company).

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<th>GCPF</th>
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<td><strong>Objective(s)</strong></td>
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</table>
GCPF, The GCPF member companies are: Aventis CropScience, BASF AG, Bayer AG, Dow AgroSciences, E.I. DuPont de Nemours & Co., FMC, Monsanto, Sumitomo, Syngenta.

Comments

GCPF, The GCPF member companies are: Aventis CropScience, BASF AG, Bayer AG, Dow AgroSciences, E.I. DuPont de Nemours & Co., FMC, Monsanto, Sumitomo, Syngenta.

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Disposal of government owned obsolete crop protection products.

Objective(s)

Collection and disposal of 1200 MT of obsolete crop protection products, including an estimated 32 MT of POPs in Brazil, Parana state only.

Timeframe

1998 - 2000

Status

Concurrent

Responsible Organisation(s)

Federal State Governments of Parana, Brazil

Partner(s)(s)

Supported by the National Association for Crop Protection ANDEF (a member association of the Global Crop Protection Federation, GCPF) and its member companies

Data Source

The products were incinerated at local industry plant. The GCPF member companies are willing to help find appropriate solutions for products they originally manufactured or supplied. For further information please consult the GCPF website under „industry positions“ obsolete stocks.

Comments

GCPF, The GCPF member companies are: Aventis CropScience, BASF AG, Bayer AG, Dow AgroSciences, E.I. DuPont de Nemours & Co., FMC, Monsanto, Sumitomo, Syngenta.

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Disposal of government owned obsolete crop protection products.

Objective(s)

Collection and disposal of 54 MT of obsolete dieldrin locust control stocks from Niger. (Note: The 54 MT of dieldrin locust control product was a formulation which contained around 10 MT of POPs (dieldrin active ingredient)

Timeframe

1991

Status

Finnished

Responsible Organisation(s)

Government of Niger (Department of Agriculture)

Partner(s)(s)

Shell Chemicals Limited, London (a GCPF associated company). USAID GTZ, Germany

Data Source

This was the first project for the disposal of obsolete government owned pesticide stocks using the multistakeholder approach and involving a public and private sector partnership. As a pioneering project, Shell (the original manufacturer of the dieldrin) undertook much of the technical work, USAID did most of the logistical and organisational work, and provided the funds for materials, shipping and incineration, and GTZ provided analytical support. The project showed how such work could be undertaken and many lessons were learnt, one of which was to facilitate the training and use of professional hazardous waste collection and disposal companies for doing this type of project more economically in future. The GCPF member companies are willing to help find appropriate solutions for products they originally manufactured or supplied. For further information please consult the GCPF website under „industry positions“ obsolete stocks.

Comments

GCPF, The GCPF member companies are: Aventis CropScience, BASF AG, Bayer AG, Dow AgroSciences, E.I. DuPont de Nemours & Co., FMC, Monsanto, Sumitomo, Syngenta.

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We did not have a specific title as such, our objective, as outlined in B below, was one of several environmental objectives that our organization adopted.

Objective(s)

The objective was to inform the Irish government of our concerns regarding POPs and to ask them to support the objectives of POPs INC4

Timeframe

Jan 2000, continuing

Status

Concurrent

Partner(s)(s)

International Society of Doctor's for the Environment.

Project funder(s)

Our funding comes mainly form our members, we receive a small amount of money from concerned pharmaceutical company.
Our campaign consists of writing to both the medical and lay press, and government departments outlining our concerns regarding the adverse health effects of POPs both before and after the meeting in Bonn. We were successful in passing the following motion at the Annual General Meeting of the Irish Medical Organization in April of this year: "This organization fully supports and endorses the attempts currently being made by the international community under the auspices of WHO and the UN to minimize and ultimately to eliminate Persistent Organic Pollutants (POPs) in the environment globally and demands that the Irish government do likewise".

**Comments**

### Leefmilieu

**Title**
Dioxine reduction project

**Objective(s)**
To reduce the dioxin emissions of industry in the region by evaluating permits and where necessary legal procedures.

**Timeframe**
Uncertain, probably more than five years.

**Status**
Concurrent

**Responsible Organisation(s)**
Leefmilieu (This is a Dutch Environmental association)

**Partner(s)(s)**
Community groups: Association Dorpsbelang Hees, Foundation Weurt+; Foundation Frisse Lucht Lindenholt; Association Ons Waterkwartier

Technical assistance by an organisation: Mobilization for the Environment, environmental assistance by the Foundation Gelderse Milieufederatie.

### Oekometric GmbH

**Title**
Development of a quality criteria guideline for POPs-Monitoring (e.g. dioxin, PCB’s) in international POPs-management

**Objective(s)**
Definition of quality criteria for monitoring (sampling and analysis) activities within POPs management.

Publication of a “Quality Criteria Guideline” including minimum standards for such activities to be considered as valid, comparable etc.

**Timeframe**
1.5 to 2 years

**Responsible Organisation(s)**
Oekometric GmbH-the Bayreuth Institute of Environmental Research

**Partner(s)(s)**
World-wide experts on POPs ("Expert Forum").
(at present: compilation of a list of experts)

**Project funder(s)**
Application for project in preparation

**Data Source**
Preparatory work: Presentation criteria for an international POPs management: necessity and strategies for realization *and further presentations of selected experts to the topic at DIOXIN 2000 symposia, August 13-17, I2000, Monterey, USA

**Comments**
Session: “Global POPs treaty and quality criteria for international POPs management” at DIOXIN 2000. (Organochlorine compounds, Volume 47, 415-428)

### RAIPON

**Title**
Persistent Toxic Substances (PTS), Food Security and Indigenous Peoples of the Russian North

**Objective(s)**
The overall objective of this project is to reduce the contamination of the Arctic environment by PTS. The project will include detailed dietary surveys, sampling and analyses of water, traditional food and humans living in Northern Russia. The application to GEF covers four regions of the Russian North: Kola Peninsula, Pechora Basin, Taimyr Peninsula/Lower Yenisey and Chukotka Peninsula.

**Timeframe**
2000-2003

**Status**
Concurrent

**Responsible Organisation(s)**
Russian Association Indigenous Peoples of the North (RAIPON)

**Partner(s)(s)**
AMAP

**Project funder(s)**
The project will be financed by the Global Environmental Facilities (GEF) and other international, national and private sources.
Annex 1
Assessment and Monitoring

This Annex update form can be found on the POPs Homepage at:
http://www.chem.unep.ch/pops/mastlist/mastlistupd.htm

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### Assessment and Monitoring Projects of POPs chemicals

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<td><strong>B</strong></td>
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<td>Timeframe of the Assessment /Monitoring project</td>
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# Annex 2

Activities to replace and/or reduce the releases of POPs Chemicals

This Annex update form can be found on the POPs Homepage at:  
http://www.chem.unep.ch/pops/mastlist/mastlistupd.htm

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## Activities focussing on the replacement and/or the reduction of the releases of POPs chemicals

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Annex 3
Regulatory Actions

This Annex update form can be found on the POPs Homepage at:
http://www.chem.unep.ch/pops/mastlist/mastlistupd.htm

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### Regulatory Actions Taken To Control the Use, Production and Releases of the POPs Chemical

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