



**UNITED NATIONS  
ENVIRONMENT PROGRAMME  
CHEMICALS**



**PROCEEDINGS**

**Subregional Workshop on Support for the Implementation  
of the Stockholm Convention on Persistent Organic  
Pollutants (POPs)**

**Bratislava, Slovak Republic  
8-12 April 2002**



**Global Environment Facility**

**IOMC**

**INTER-ORGANIZATION PROGRAMME FOR THE SOUND MANAGEMENT OF CHEMICALS**  
A cooperative agreement among UNEP, ILO, FAO, WHO, UNIDO, UNITAR and OECD



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The workshop was financed by the Global Environmental Facility (GEF) through a Medium Sized Project (MSP) with co-financing from the Government of Sweden.

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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## TABLE OF CONTENTS

1. INTRODUCTION .....	3
2. WORKSHOP PROGRAMME .....	4
3. LIST OF PARTICIPANTS .....	9
4. SIGNATORY COUNTRIES AND PARTIES .....	16
5. WORKING GROUPS .....	17
Issues and Questions on Intentionally Produced POPs.....	17
WORKING GROUP I. Industrial chemicals and pesticides .....	20
Issues and Questions on Unintentionally Produced by-products.....	23
WORKING GROUP II. Unintentionally Produced POPs .....	25
Financial mechanism for the Stockholm Convention on POPs Working Group discussion.....	27
Working Group I. Financial mechanism for the Stockholm Convention on POPs .	28
Working Group II Financial Mechanism For The Stockholm POPs .....	30
6. PRESENTATIONS.....	32
Overview of Programme and discussion of Goals and Output <i>by Dr. Bo Wahlstrom</i> .....	32
Workshop Expectations from UNEP presented <i>by Dr Bo Wahlstrom</i> .....	36
Expectations from the Global Environment Facility <i>by Ms. Bahar Zorofi</i> .....	42
Overview of the Stockholm Convention on POPs <i>by Dr. John Buccini</i> .....	50
Overview of the Rotterdam Convention <i>by Dr. Katarina Magulova</i> .....	60
Overview of the Basel Convention <i>by Dr. Katarina Magulova</i> .....	75
Stockholm Convention Provision for Intentionally Produced POPs <i>by Dr. John     Buccini</i> .....	85
Stockholm Convention Provision for Unintentionally Produced POPs <i>by Dr. John     Buiccini</i> .....	99
Stockholm Convention Provision for Stockpiles and Wastes <i>by Dr John Buccini</i>	107
Relationship of the Stockholm Convention to the Basel and Rotterdam Convention <i>by Dr. Katarina Magulova</i> .....	117
Issues and Problems of Obsolete and Banned Pesticides <i>by Dr. Alemayehu     Wodageneh</i> .....	127
Basel Convention regional Centre <i>by Miss, Dana Lapesova</i> .....	134

Stockholm Convention General Obligation Presented .....	142
<i>by Dr. John Buccini</i> .....	142
Interim Activities and INC-6 <i>by Dr. Bo Wahlström</i> .....	150
Chemicals Control <i>by Mr. Bengt Bucht</i> .....	162
Legislating Chemicals <i>by Mr Masa Nagai</i> .....	175
Chemicals Legislation: A Model <i>by Mr Masa Nagai</i> .....	182
UNITAR; Preparation of National Profiles <i>by Dr Bo Wahlström</i> .....	190
Introduction to the Global Environment Facility <i>by Ms Sarah Sanders</i> .....	197
Initial Guidelines for Enabling Activities on POPs <i>by Ms Bahar Zorofi</i> .....	219
7. THE GEF IMPLEMENTING AND EXECUTING AGENCIES .....	231
UNDP <i>by Ms Sarah Sanders</i> .....	231
The World Bank <i>by Mr Steve Gorman</i> .....	235
FAO <i>by Dr Alemayehu Wodageneh</i> .....	247
UNIDO <i>by Ms Claudia Linke-Heep</i> .....	260
POPs – UNEP and GEF <i>presented by Dr. Bo Wahlström</i> .....	267
8. COUNTRY REPORTS .....	273
BULGARIA.....	273
CROATIA .....	281
CYPRUS .....	295
CZECH REPUBLIC .....	301
HUNGARY.....	309
LATVIA.....	314
REPUBLIC OF LITHUANIA .....	319
MALTA .....	324
POLAND .....	330
REPUBLIC OF MACEDONIA.....	339
ROMANIAN.....	344
SLOVAK REPUBLIC .....	351
REPUBLIC OF SLOVENIA .....	355
The Implementation of the Stockholm convention in the European Community <i>by Mrs Leena Ylä-Mononen</i> .....	357
Persistent Organic Pollutants in Human Milk in Poland <i>by Mr Pawel Glusznski</i> . 365	

## 1. INTRODUCTION

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The Stockholm Convention on Persistent Organic Pollutants was adopted and opened for signature at the Diplomatic Conference held 22 to 23 May 2001 in Stockholm, Sweden. Countries will need to determine whether they will ratify the Convention and if so begin taking the legal, administrative and other steps necessary to ratify. The early development of national implementation plans (NIP) as required by Article 7 of the Convention will help them in this process, and will enable countries to meet their obligations under the Convention.

It is highly desirable that the Convention becomes operational quickly. Early ratification by countries is the key. It is thus essential that all countries become familiar with the Convention, its benefits, and sources of support for its implementation as quickly as is possible. Early coverage of all regions is also necessary to ensure equitable access to the interim financial mechanism and other funding sources.

UNEP Chemicals, together with the Global Environmental Facility (GEF) secretariat is organizing a series of sub-regional workshops to Support the Implementation of the Stockholm Convention on POPs. The workshops are funded through a GEF Medium Sized Project with co-funding from the Government of Sweden. The fifth workshop, organized in collaboration with the Basel Regional Training and Transfer of Technology Centre and the Slovak Ministry of Environment, Bratislava, Slovak Republic, was held at the Hotel Baronka, Bratislava, Slovak Republic, 8-12 April 2002. The meeting was organized within the framework of the UNEP Chemicals capacity building program and primarily aimed at providing assistance to developing countries in strengthening their national chemicals management programs with regard to their implementation and ratification of the Stockholm convention on POPs and related instruments, e.g. the Rotterdam convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Basle Convention on the Control of Transboundary Movement of Hazardous Wastes.

The participants were senior government managers and decision-makers from environment and other government authorities from 14 countries from Central and Eastern Europe and representatives from international organizations, industry, academia and environmental NGOs.

The purpose of the workshop was to inform countries on the obligations and the steps needed for ratification and implementation of the Stockholm Convention on POPs, and the Rotterdam Convention on Prior Informed Consent (PIC) and to advise them on how to consider approaches for obtaining support for implementation related activities, e.g. development of National Implementation Plans (NIPs). In addition, countries were informed on how to develop adequate and effective policies and legislation as part of their national strategies, action plans and programs for the sound management of chemicals and to assist national officials in implementing national and regional or sub-regional actions to reduce and/or eliminate releases of persistent organic pollutants (POPs).

The present report contains the programme and the presentations given by countries and lecturers during the workshop. In addition, it presents the outcome of working group discussions on the obligations of the Stockholm Convention and its interim financial mechanism.

## 2. WORKSHOP PROGRAMME

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### 7 April (Sunday)

Arrival of participants, hotel accommodation

### 8 April (Monday)

09:00-09:30 Registration of participants

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#### I. OPENING SESSION

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Session chair: Dr. Mr. Ivan Mojik, Slovak Republic

09:30-10:30

Official opening of the meeting

- Welcoming remarks by hosts and organizers

HE Mr. Laszlo Miklos,  
Minister for  
Environment, Slovak  
Republic;  
Dr. Mr. Ivan Mojik,  
Director, Air  
Protection Department,  
Ministry of  
Environment;  
Dr. Bo Wahlström,  
UNEP Chemicals,  
Geneva, Switzerland  
and Ms. Bahar Zorofi,  
UNEP GEFCO  
All

- Introduction of participants
- Overview of programme
- Expectations from UNEP Chemicals
- Expectations from the Global Environmental Facility (GEF)

Dr. Bo Wahlström,  
UNEP  
Dr. Bo Wahlström,  
UNEP  
Ms. Bahar Zorofi,  
UNEP GEFCO

10:30-11:00

**Coffee break**

#### II. THE CONVENTIONS

11:00-12:30

Overview of Stockholm Convention on POPs

Dr. John Buccini,  
Chair, POPs INC

Overview of Rotterdam Convention on Prior Informed  
Consent Procedure for Certain Hazardous Chemicals and

Dr. Katarina  
Magulova, UNEP

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 Pesticides in International Trade

 Overview of the Basel Convention on the Control of  
 Transboundary Movement of Hazardous Waste

 Dr. Katarina  
 Magulova, UNEP

 12:30-13:30 **Lunch break**
**III. CURRENT STATUS OF TOXICS  
 LEGISLATION IN THE SUBREGION**

Session chair: Ms. Vesna Ternifi, Slovenia

 13:30-15:30 Country presentations, focusing on legislative and  
 regulatory action on toxic substances, pesticides, industrial  
 chemicals and by-product POPs.

 15:30-16:00 **Coffee break**

16:00-18:00 Country presentations (continued)

Industry and public interest NGO presentations

**9 April (Tuesday)**
**IV. STOCKHOLM CONVENTION OBLIGATIONS  
 FOR POPS AND RELATED INSTRUMENTS**

Session Chair: Ms. Maria Klokočka, Poland

**A. Intentionally Produced POPs**

09:00-10:30 Pesticides and Industrial Chemicals

Dr. John Buccini

 10:30-11:00 **Coffee break**
**B. Unintentionally Produced POPs**

11:00-12:30 By-products

Dr. John Buccini

**C. Stockpile and Waste Issues**

12:30-13:30 Stockholm Convention requirements

Dr. John Buccini

 Relations between the Stockholm and the Rotterdam and  
 Basel Conventions

 Dr. Katarina  
 Magulova,  
 UNEP

 13:30-14:30 **Lunch break**

 Session chair: Mr. Alfred Aquilina, Malta
 

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14.30-15.30	Obsolete pesticides issues	Dr.Alemayehu Wodageneh, FAO
	Activities of the Basel Regional Training and Technology Transfer Centre	Ms. Dana Lapesova, BRTTTC, Bratislava
15:30-16:00	<b>Coffee break</b>	
	<b>D. General obligations</b>	
16.00-16.30	Implementation plans, reporting, research, information exchange etc.	Dr. John Buccini
	<b>E. Interim activities and INC-6</b>	
16.30-17.00	Final Act of the Stockholm Convention and preparations for INC-6	Dr. Bo Wahlström, UNEP
	<b>10 April (Wednesday)</b>	
	<b>V. BASIC FEATURES OF CHEMICALS LEGISLATION AND MANAGEMENT</b>	
	Session chair: Mr. Gabor Kovacs, Hungary	
09.00-10.00	Chemicals Control, responsibilities, management, institutions	Mr. Bengt Bucht, KemI, Sweden
10.00-10.30	General features of chemicals legislation and regulation, principles, legislative hierarchies etc.	Mr. Masa Nagai, UNEP
10.30-11.00	<b>Coffee break</b>	
11.00-11.30	Model legislation	Mr. Masa Nagai, UNEP
11.30-11.45	National Profiles	Dr. Bo Wahlström, UNEP
11.45-12.30	Questions on chemicals management and legislation	All
	<b>VI. FUTURE NATIONAL ACTION AND REGIONAL CO-OPERATION</b>	
12.30-13.00	Introduction to Working Groups, tasks and expected outcome	Dr. Bo Wahlström, UNEP
	Formation of working groups on: (1) intentionally produced POPs (pesticides and industrial chemicals), stockpiles and	

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wastes, and (2) unintentionally produced POPs (by-products) and wastes.

Working Group discussions:

Development of national strategies, action plans, programmes and projects for implementing legislation to meet obligations in the Stockholm Convention on POPs and related instruments.

- 13.00-14:00 **Lunch break**
- 14:00-15:30 Continued group discussions.
- 15:30-16:00 **Coffee break**
- 16:00-19:00 Continued group discussions

### **11 April (Thursday)**

Session chair: Ms. Marija Teriosina, Lithuania

- 9:00-10:00 Working Group presentations in plenary
- 10:00-11:00 General discussion  
Follow up on working group discussions
- 11:00-11:30 **Coffee break**

### **VII. FINANCIAL MECHANISM FOR THE STOCKHOLM CONVENTION ON POPs**

- |             |  |                                 |
|-------------|--|---------------------------------|
| 11.30-12.30 | Introduction to the Global Environmental Facility (GEF)  | Ms. Sarah Sanders,<br>UNDP      |
| 12.30-13.30 | <b>Lunch break</b>   |                                 |
| 13.30-15.00 | GEF Initial Guidelines for Enabling Activities   | Ms. Bahar Zorofi,<br>UNEP GEFCO |
| 15.00-15.30 | Country roundtable; situation regarding National Implementation Plans (NIPs)                           | Mr. Steve Gorman,<br>World Bank |
| 15.30-16.00 | <b>Coffee break</b>  |                                 |
| 16.00-16.30 | Questions and answers  | Mr. Steve Gorman,<br>World Bank |
| 16.30-17.00 | Introduction to Working Group discussions on GEF enabling activities and national implementation plans | Ms. Bahar Zorofi,<br>UNEP GEFCO |
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17.00-18.00	Working Group discussions	All
	<b>12 April (Friday)</b>	
9.00-12.00	Working groups discussions (continued)	
12.00-13.00	<b>Lunch break</b>	
	Afternoon session chair: Ms. Gabriela Fischerova, Slovak Republic	
13.00-14.00	Working Group presentations in plenary followed by general discussion on NIPs	
14.00-15.00	The GEF implementing and executing agencies <ul style="list-style-type: none"><li>• UNDP</li><li>• WB</li><li>• FAO</li><li>• UNIDO</li><li>• UNEP</li></ul>	
15.00-15.30	<b>Closing remarks</b>	Ms. Gabriela Fischerova, Air Protection Department, MOE Mr. Steve Gorman, World Bank Dr. Bo Wahlström, UNEP
15.30	<b>Closure of the meeting</b>	

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#### 4. SIGNATORY COUNTRIES AND PARTIES

Countries	Signatory	Not signatory	Party
Albania	X		
Bosnia-Herzegovina	X		
Bulgaria	X		
Croatia	X		
Cyprus		X	
Czech Republic	X		
Estonia		X	
Hungary	X		
Latvia	X		
Lithuania	X		
Malta	X		
Poland	X		
Republic of Moldova	X		
Romania	X		
Slovak Republic	X		
Slovenia	X		
Republic of Macedonia	X		
Yugoslavia	X		

## 5. WORKING GROUPS

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### Issues and Questions on Intentionally Produced POPs Stockholm Convention

1. Legal and/or administrative measures to control intentionally produced POPs:
  - legal or administrative means to restrict and/or eliminate POPs
  - control of production and use
  - addressing pesticides
  - addressing industrial chemicals
2. Exemptions:
  - Specific exemptions needed for any of the (8) POPs in Annex A and B
    - mechanism to notify the secretariat
    - means to control/minimize releases to environment and exposure to humans
  - Site-limited exemptions needed for HCB or DDT
    - reporting measures, etc.
3. Implementation of trade measures:
  - Measures for Parties
  - Non-parties
    - reporting requirements
4. Implementation of PCB regime to achieve the main goals:
  - Cessation of production (immediately/entry-into-force)
  - Phase out of existing equipment by 2025
  - ESM of wastes by 2028
5. Implementation of DDT regime to achieve the main goals:
  - Need to produce or use for the acceptable purpose (disease control programs)
  - Ability to develop national action plan
  - Ability to inventory existing/produced DDT
  - Research and development plans/needs
6. Assessment of new and existing chemicals and pesticides:
  - Planned or existing programs
  - Ability to use Annex D criteria into existing/planned programs
7. Provisions for stockpiles and wastes:
  - Strategies for stockpiles and wastes
    - for identification

- for ESM collection, transport, handling and transport
- for meeting requirements for transboundary movement (N.B. PCB regime)
- for ESM disposal
- Strategies for identifying contaminated sites

**General Provisions:**

1. Information exchange
  - establish Designated National Authority
2. Public information, awareness and education
3. Research, development and monitoring
4. Reporting requirements
5. Development of national implementation plan (NIP).
  - How would the above link into the development of a NIP?
  - Steps to take
  - Assistance needed
  - Funding required

**Points to stimulate discussion (not meant to be a limiting list!):**

- How does present legislation handle intentionally produced POPs identified under the Stockholm convention?
  - Is there legislation for their generation and release?
  - Is there legislation for stockpiles and wastes containing these?
  - What changes are needed to implement and ratify the Stockholm convention?
  - What are the needs in developing national legislation that UNEP/other IGOs can help meeting?
  - Needs for infrastructure changes?
- How would enforcement of legislation and other regulatory measures, adopted in implementation of the Stockholm convention, be carried out?
- What are the needs and possibilities for co-operation on implementing the Stockholm convention?
  - Sub/regional
  - Bilateral
- What would be the necessary steps for countries to take to ratify the Stockholm convention?

## **Rotterdam Convention**

Legal and or administrative measures to implement the Rotterdam Convention.

- Nomination of Designated National Authority (DNA)
- Notification of Ban or Severe Reduction
- Proposal of Severely Hazardous Pesticide Formulations
- Import decisions
- Import and export control

## WORKING GROUP I. Industrial chemicals and pesticides

Chair: Ms. Emilia Cupeva, Macedonia

Rapporteur: Ms. Maro Christodoulidou, Cyprus

1. Legal and/or administrative measures to control intentionally produced POPs:
  - legal or administrative means to restrict and/or eliminate POPs
  - control of production and use
  - addressing pesticides
  - addressing industrial chemicals

14 countries were represented in the working group session. Most of the countries have existing national legislation and administrative measure to control intentionally produced POPs (pesticides/industrial chemicals).

Existing legislation for pesticides and industrial chemicals, including POPs:

COUNTRY	Pesticides		Industrial chemicals	
	Yes	No	Yes	No
Bulgaria	Ö		Ö	
Croatia	Ö		Ö	
Cyprus	Ö		Ö	
Czech Rep.	Ö		Ö	
Hungary	Ö		Ö	
Latvia	Ö		Ö	
Lithuania	Ö		Ö	
Malta	Ö		Ö	
Poland	Ö		Ö	
Macedonia	Ö		Ö	
Romania	Ö		Ö	
Slovakia	Ö		Ö	
Slovenia	Ö		Ö	
Yugoslavia	Ö		Ö	

In case of the pesticides there is no production in the region. The use of existing (obsolete) pesticides – if there are any in a given country – is mostly banned or severely restricted.

2. Exemptions:
  - Specific exemptions needed for any of the (8) POPs in Annex A and B
    - mechanism to notify the secretariat
    - means to control/minimize releases to environment and exposure to humans
  - Site-limited exemptions needed for HCB or DDT
    - reporting measures, etc.

None of the countries needed specific exemptions.

3. Implementation of trade measures:



- Measures for Parties
- Non-parties
  - reporting requirements

Trade measures are mostly implemented by CEE countries.

4. Implementation of PCB regime to achieve the main goals:
  - Cessation of production (immediately/entry-into-force)
  - Phase out of existing equipment by 2025
  - ESM of wastes by 2028

According to the statements by the participants the deadlines for phase out are acceptable.

5. Implementation of DDT regime to achieve the main goals:
  - Need to produce or use for the acceptable purpose (disease control programs)
  - Ability to develop national action plan
  - Ability to inventory existing/produced DDT
  - Research and development plans/needs

The existing DDT stockpiles – if there are any– are obsolete pesticide stocks to be destroyed as hazardous wastes.

The other questions are not applicable for the region.

6. Assessment of new and existing chemicals and pesticides:
  - Planned or existing programs
  - Ability to use Annex D criteria into existing/planned programs

Most of the countries already have registration procedures and/or legislation, as a horizontal type regulation, on risk assessment and risk reduction of dangerous chemicals, which will be harmonized with Annex D of the Convention.

7. Provisions for stockpiles and wastes:
  - Strategies for stockpiles and wastes
    - for identification
    - for ESM collection, transport, handling and transport
    - for meeting requirements for transboundary movement (N.B. PCB regime)
    - for ESM disposal
  - Strategies for identifying contaminated sites

In few countries existing stockpiles are defined as obsolete pesticide stocks, which has to be managed as hazardous wastes.

In most of the countries there are provisions for wastes in general, but not especially for POP contaminated wastes. Therefore action plans and strategies are needed for ESM on collection, transport, handling and disposal, as well on identifying contaminated sites.

**General Provisions:**

## 1. Information exchange

- establish National Focal Point

As there is no information exchange center established in the countries of the region, designated authorities currently can be used as sources of POPs related information.

In most of the countries the National Focal Point is the Ministry of Environment in cooperation with Ministries for Health, Agriculture, Economy and Defence.

## 2. Public information, awareness and education

Although in most of the NIP it is required to raise public awareness there are still no ongoing activities. There is strong need for development of a training process. For instance, in Slovak Republic there was a gathering on alternatives for POPs for the companies. It was financed by the Government and a leaflet for dissemination was prepared by an NGO (Green project).

## 3. Research, development and monitoring

After the Enabling Activities projects, a comprehensive research has to be carried out in the field of alternatives (substitutes) and their implementation. The governments in the sub-region are lacking finances for specific research that still have to be identified and quantified. Research has to be carried out also on candidate chemicals for the POPs list.

Monitoring is partially carried out as a part of the regulatory procedure for air, soil and water quality testing. Dioxins and furans are more difficult to be monitored.

## 4. Reporting requirements

Not applicable at this stage, until the Convention comes into force.

## 5. Development of national implementation plan (NIP)

Most of the countries have already started with activities to implement the Stockholm convention through GEF projects and the NIP is included in this activity.

## Issues and Questions on Unintentionally Produced by-products

### Stockholm Convention

#### Provisions for unintentionally produced POPs:

1. Legal and/or administrative measures to control unintentionally produced POPs:
  - Legal or administrative means to restrict and/or eliminate generation and release of these POPs
    - Ability to develop action plan within 2 years
    - Ability to implement action plan
    - Existing or planned inventories/estimates of releases
    - Release reduction vs source elimination
    - Substitution or modification of materials, products and processes
2. Provisions for identified sources:
  - New vs. existing
  - BAT requirements for new sources
  - Promotion of BAT for existing and some new sources
  - Promotion of BEP for new and existing sources
3. Provisions for wastes:
  - Strategies for wastes
    - for identification
    - for ESM collection, transport, handling and transport
    - for meeting requirements for transboundary movement (N.B. PCB regime)
    - for ESM disposal
  - Strategies for identifying contaminated sites

#### General Provisions:

1. Information exchange
  - establish Stockholm Focal Point
2. Public information, awareness and education
3. Research, development and monitoring
4. Reporting requirements
5. Development of implementation plan.
  - How would the above link into the development of a NIP?
  - Steps to take
  - Assistance needed
  - Funding required

**Points to stimulate discussion (not meant to be a limiting list!):**

- How does present legislation handle unintentionally produced POPs identified under the Stockholm convention?
  - Is there legislation for their generation and release?
  - Is there legislation for wastes containing these?
  - What changes are needed to implement and ratify the Stockholm convention?
  - What are the needs in developing national legislation that UNEP/other IGOs can help meeting?
  - Needs for infrastructure changes?
- How would enforcement of legislation and other regulatory measures, adopted in implementation of the Stockholm convention, be carried out?
- What are the needs and possibilities for co-operation on implementing the Stockholm convention?
  - Sub/regional
  - Bilateral
- What would be the necessary steps for countries to take to ratify the Stockholm convention?

## WORKING GROUP II. Unintentionally Produced POPs

Madam Chair: Ms. Gabriela Fischerova, Slovak Republic  
Rapporteur: Ms. Hrvojka Sunjic, Croatia

WG consisted of the representatives from the following countries: Bulgaria, Croatia, Hungary, Latvia, Lithuania, Macedonia, Romania, Slovenia, Slovak Republic, and the Czech Republic.

- Most of the countries are signatories to the Stockholm Convention

### 1. LEGAL AND/OR ADMINISTRATIVE MEASURES TO CONTROL UNINTENTIONALLY PRODUCED POPs

- Unintentionally produced POPs are covered by the legislative provisions **in the most of the countries** and **emission values** exist
- The majority of the legislative provisions are harmonized with the EU regulations
- In some countries, there are undergoing activities regarding the revision of the legislation
- One country is at the very beginning

### PROBLEMS

- Lack of data and methodology
- Existing data are old, not reliable, and not centralised
- Quality of inventory
- No regular monitoring system
- No emission limit value for PCB into the air
- Emissions into water are not covered properly by existing regulations
- Evaluation of existing emission limits needed
- Differentiation in the D/F measurements methods
- Measurements and equipment for D/F are expensive
- Availability of analytical facilities is limited- need for a list of accredited laboratories for measurement of PCDD, PCDF
- Source categories are regulated under various legislative provisions

### ACTION PLAN

- To develop an action plan (AP) within two years is a realistic approach
- NIP will include APs
- The co-operation between the relevant authorities should be strengthened
- Use of existing capacity is a priority
- Involving national experts as much as possible
- Concentrate on release reduction
- Source elimination probably will not be recommend as priority
- Take into consideration the authorizing procedure for Integrated Pollution Prevention Control (IPPC)
- Identification of availability of financial and technical sources

## **2. PROVISIONS FOR IDENTIFIED SOURCES**

- BAT requirements
- General considerations
- Expensive
- Waiting for COP decision on what is considered to be BAT, until then, rely on existing practice (IPPC approach)

## **3. PROVISIONS FOR WASTE**

- All countries in the sub-region are Parties to the Basel Convention
- Waste is regulated by the national laws and regulations
- National waste management strategies, programmes or plans define collection, transport, processing and disposal of waste on landfill, landfill maintenance in ESM, and traffic in waste
  
- Strategies for contaminated sites should be developed, putting in the first place identification and assessment. Remedial measures deserve further discussion.

## **4. GENERAL PROVISIONS**

- Strong support for the idea of establishing POPs Regional Centre
- Basel regional training centre can serve as interim POPs RC
- NIP should address action plan to promote education and public awareness
- National Information Centre for POPs (Art. 10) for public information, education and training programmes, resources needed
- To establish international mechanism to promote research activities and exchange of data

## **5. NIP**

- GEF project POPs Enabling activities
- Opportunity to involve all stakeholders
- Will define action plans for sectors: pesticides, PCB, etc.
- Related to the assessments and inventory reports

**THERE WAS CONSENSUS AMONG COUNTRIES THAT THE WORK ON RATIFICATION SHOULD START AS SOON AS POSSIBLE, AND NOT LATER THAN THE YEAR 2003.**

## **Financial mechanism for the Stockholm Convention on POPs Working Group discussion**

### **Scope & Objective**

This WG discussion is concerned i) with the steps that countries need to take to access GEF funding for preparation of their NIP; and ii) the additional type of assistance that may be required from the GEF (in addition to funding for NIP; at the sub-regional level for example).

Participants should discuss and understand the process of developing proposals for a NIP, and make recommendations to the GEF (and its Agencies) on how best to assist countries in this interim period in the first years of the implementation of the Convention.

### **Some leads for discussion**

#### 1. The GEF guidelines for enabling activities

Adequacy of the guidelines  
Suggestions for improvements

#### 2. The process of accessing GEF funding for NIP

Steps required to access funding  
Need for assistance in developing a proposal / what type?

#### 3. The GEF

Questions about the GEF. Are they mostly covered by the workshop?  
What other type of information would you like to see?

#### 4. Assistance other than NIP at the regional/sub-regional level

Need for training / courses, regional centres of excellence, etc?

In this first phase of initial assistance, GEF's assistance will be focused on NIPs, which will serve as a basis for addressing priority issues in a further phase. However, the GEF guidelines recognise that there might be a need for some additional activities at the regional/sub-regional level. This workshop is an example of such activities.

#### 5. Other efforts at the sub-regional level?

Preparation of action plans at the Subregional level  
Support needed for what type of regional actions? (Laboratory facilities? Disposal facilities? Etc?).

## **Working Group I. Financial mechanism for the Stockholm Convention on POPs**

### **1. The GEF guidelines for enabling activities**

*Adequacy of the guidelines:*

#### **Clear and comprehensive**

*Suggestions for improvements:*

- More specific explanation about the documents that should be included in the project proposal.
- Clearer recommendations for economical assessment of the alternatives e.g. incremental operating costs.

### **2. The process of accessing GEF funding for NIP**

#### **Steps required to access funding**

Based on the experience of the countries that already have Enabling activities projects approved, the following steps are required:

1. Eligibility of the Country to apply (signatory of the Stockholm convention)
2. Nomination of Focal point for the Stockholm Convention in the Country
3. Preparation of the draft project proposal
4. Collecting relevant information about the implementing agencies (references)
5. Choice of implementation agency (UNEP, WB, UNDP, UNIDO, FAO etc)
6. Choice of national executive agency
7. Finalization of the project proposal (one to two months)
8. Endorsement by the national GEF focal point for submission

#### **Need for assistance in developing a proposal / what type?**

- Collecting local information for the project proposal (financial assistance)
- Preparation of the proposal (technical assistance)
- Project from other countries can be used as a model

The countries that have used the assistance of the implementing agencies during the preparation of the project proposal are satisfied with the results (projects approved).

### **3. The GEF**

#### **Questions about the GEF. Are they mostly covered by the workshop?**

- Most of the questions have been covered.

#### **What other type of information would you like to see?**



#### **4. Assistance other than NIP at the regional/sub-regional level**

##### **Need for training /courses, regional centres of excellence, etc?**

- There is need for training of the stakeholders (people involved in industry, hospitals, agriculture and all other POPs related sectors)
- Regional training centres

#### **5. Other efforts needed at the sub-regional level?**

##### **Preparation of action plans at the Subregional level**

Support needed for what type of regional actions? (Laboratory facilities? Disposal facilities? Etc?).

- More information needed on authorized laboratories for the screening activities.
- Capacity building on institutional and technical level.
- Multilateral collaboration between countries in the sub region
- Standard sampling and analysing procedures.
- Exchange of information between countries that are more advanced in the project procedure.
- Web page with results and information about the current situation of the given projects.

## **Working Group II Financial Mechanism For The Stockholm POPs**

Rapporteur: Mr. Andreas Patsias Cyprus

### **SUMMARY OF DISCUSSION**

WG consisted of the representatives from the following countries: Bulgaria, Croatia, Hungary, Latvia, Lithuania, Macedonia, Malta, Poland, Romania, Slovenia, and Slovak Republic.

#### **1. THE GEF GUIDELINES FOR ENABLING ACTIVITIES**

- A general remark is that the GUIDELINES are adequate in general terms but also complex and includes various activities
- They should be more precise in specific sectors or topics, e.g. more detailed instructions, in particular with regard to the implementation of the national plan.

#### **2. THE PROCESS OF ACCESSING GEF FUNDING FOR NIP**

- Most of the countries in the sub-region have signed the Stockholm convention
- For those countries that have not signed the Convention there is a need to meet the May 22, 2002 deadline
- Assistance from the EAs and IAs has been very useful and necessary in preparing the project proposal
- It is preferred to have a project that includes one country rather than a project that includes a large number of countries, shorter lead times.

#### **3. THE GEF**

- GEF plays an important role in countries

#### *QUESTIONS:*

- For EU candidate countries, which are now in the transition period and expect to join the EU, is there a possibility to receive funds from GEF as a member state in transitional period?
- Is there a possibility for GEF to fund projects, which are identified as priorities in the NIP or how will these projects be financed?

**4. ASSISTANCE OTHER THAN NIP AT THE REGIONAL-SUBREGIONAL LEVEL**

- Establishment of POPs Regional Centre
- Capacity building - National Information Centre for POPs (Art. 10) for public information, education and training programmes
- Establishment of international mechanism to promote research activities and exchange of data
- Production of public awareness materials and booklet on good practice/successful stories
- Training on specific issues
- Capacity building for starting/improving inventories
- Strategies for contaminated sites
- Assistance in promotion and use of alternatives

**5. OTHER EFFORTS NEEDED AT THE SUBREGIONAL LEVEL**

- Elaboration of an action plan based on the synergy of the 3 Conventions (POPs, Basel and PIC)
- Strengthening co-operation and sharing existing facilities in the short term between countries
- A database or list of laboratories and disposal facilities in the sub-region
- Information exchange between countries
- Experts exchange between countries
- Facilitation of technology transfer


## 6. PRESENTATIONS

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**Overview of Programme and discussion of Goals and Output by Dr. Bo Wahlstrom**

***Programme overview***

***Goals and Outputs***




UNEP

MSP Workshops

***Purpose***

To make country officials familiar with the Stockholm Convention, its benefits and sources of support for its implementation in order for their countries to ratify the convention and take early action on POPs.



UNEP

MSP Workshops

### *Objectives*

Improve Government understanding of the Stockholm Convention, and the benefits of and the need to become a Party;

- Improve Government understanding of the nature of the problems caused by POPs;
- Help countries understand what their obligations are under the Stockholm Convention;
- Encourage and facilitate early ratification of the Convention;



MSP Workshops

### *Objectives, continued*

- Identify some of the legislative, capacity building, investment and other infrastructural measures needed to support the implementation of the Stockholm Convention and related instruments (Basel and Rotterdam Conventions, regional agreements);
- Facilitate eligible countries' access to GEF resources for enabling activities, National Implementation Plan (NIP) development and the implementation of the Convention;



MSP Workshops

### *Objectives, continued*

- Help Governments to begin the process of developing a NIP and other implementation/enabling activities under the Convention;
- Encourage co-operative partnerships among different sectors and stakeholders for the implementation of the Convention; and



MSP Workshops

### *Objectives, continued*

Report on the current situation in countries of the subregion with regard to existing and planned measures for control and management of toxic substances, including plans to implement action on POPs and other toxic chemicals and to ratify the Stockholm Convention and related instruments.



MSP Workshops

## General structure of the workshop

- I. Opening Session
- II. The Conventions
- III. Current status of legislation in the region
- IV. Stockholm Convention obligations for POPs and related instruments



UNEP

MSP Workshops

V. Basic features of chemicals legislation and management

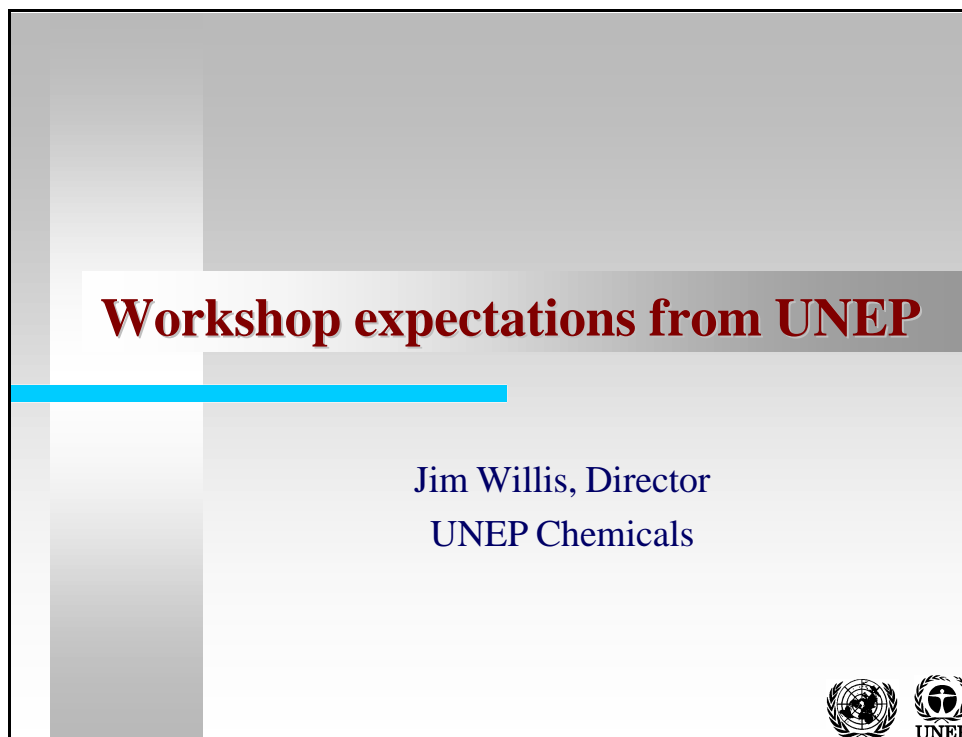
VI. Future national action and regional cooperation (Working groups)

VII. Financial mechanism for the Stockholm Convention (including Working Groups)



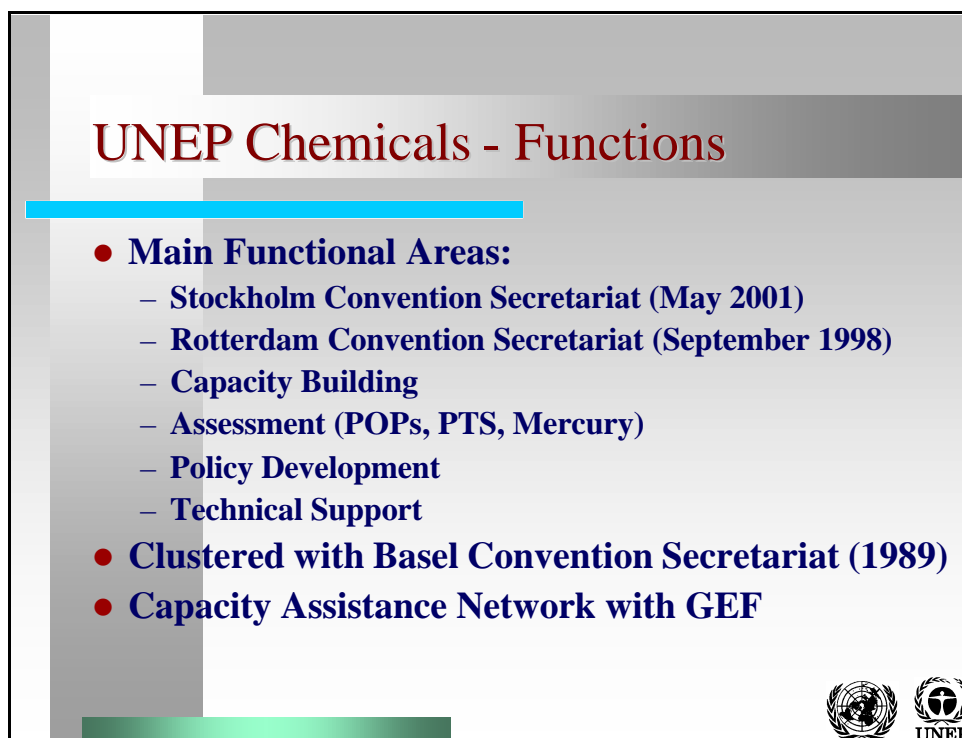


UNEP

MSP Workshops

**Workshop Expectations from UNEP presented by *Dr Bo Wahlstrom***



## Workshop expectations from UNEP

Jim Willis, Director  
UNEP Chemicals

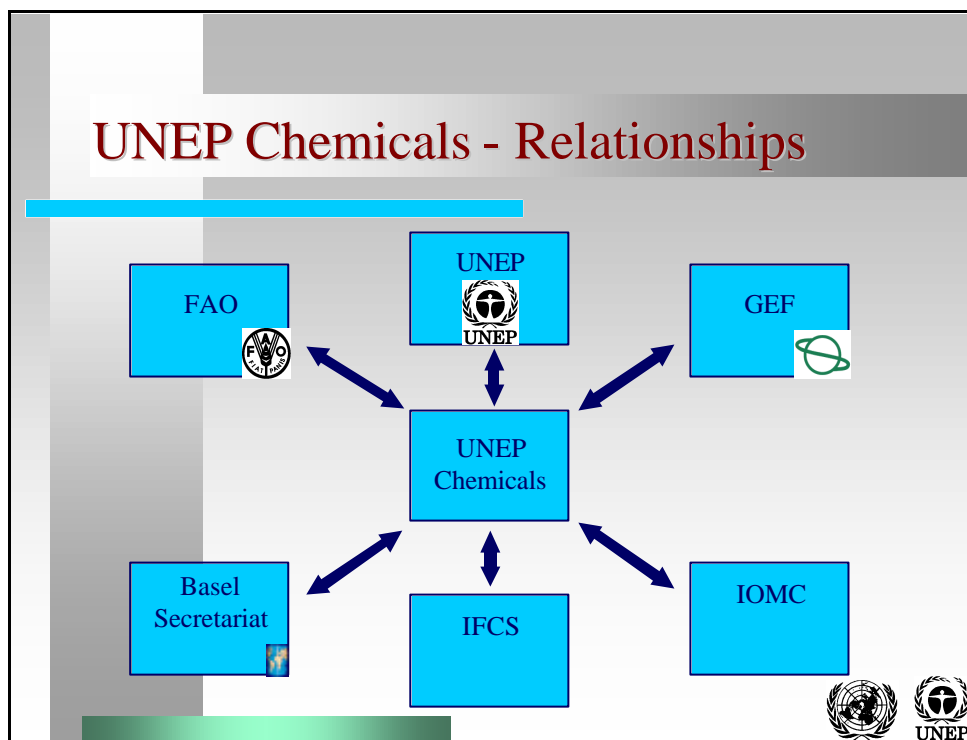


## UNEP Chemicals - Functions

- **Main Functional Areas:**
  - Stockholm Convention Secretariat (May 2001)
  - Rotterdam Convention Secretariat (September 1998)
  - Capacity Building
  - Assessment (POPs, PTS, Mercury)
  - Policy Development
  - Technical Support
- **Clustered with Basel Convention Secretariat (1989)**
- **Capacity Assistance Network with GEF**







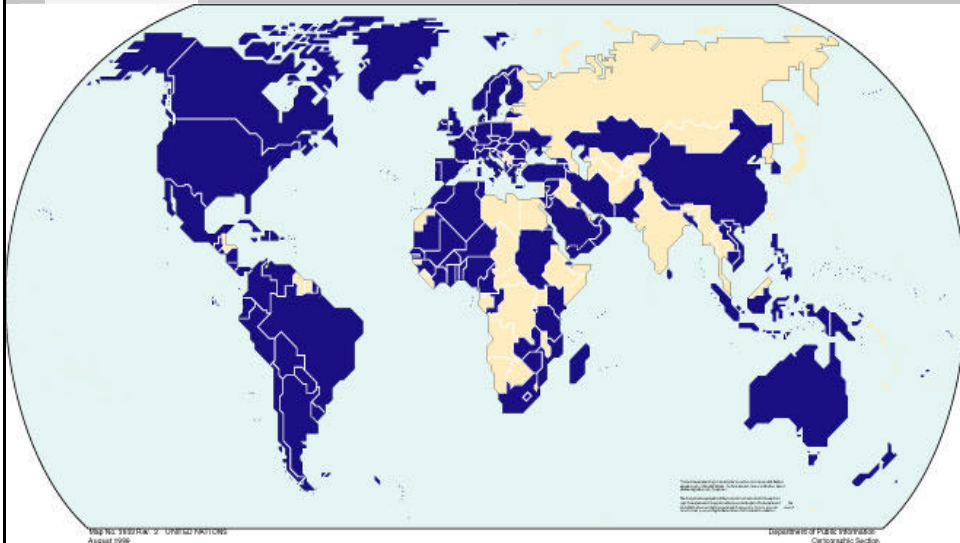
- ## UNEP Chemicals - Priorities
- **Entry into force of the Rotterdam Convention**
  - **Entry into force of the Stockholm Convention**
  - **Stockholm Convention implementation plans and support for implementation**
  - **Capacity building**
  - **Assessment: POPs, PTSs and Mercury**
  - **Chemical strategy**

## Status of signature and ratification

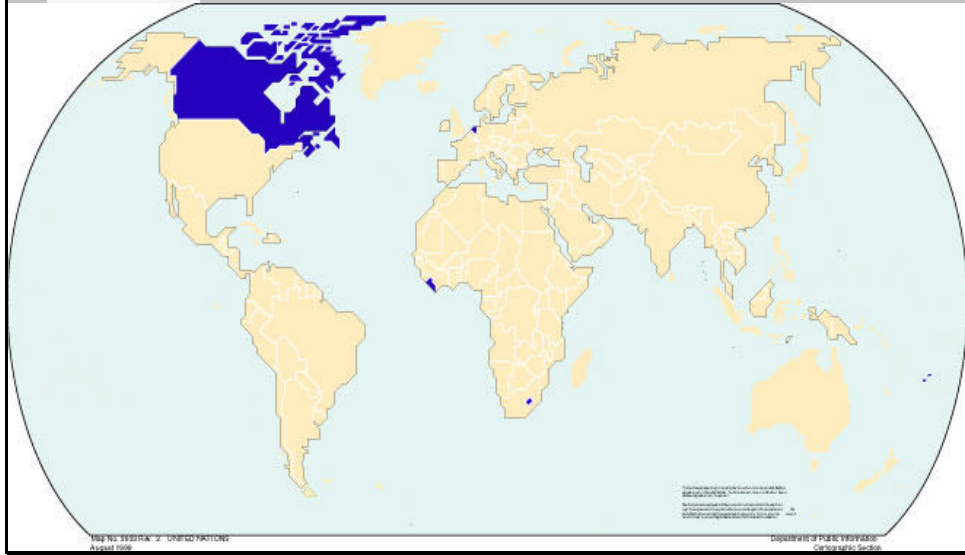
- **Stockholm**
- **Rotterdam**
- **Basel**



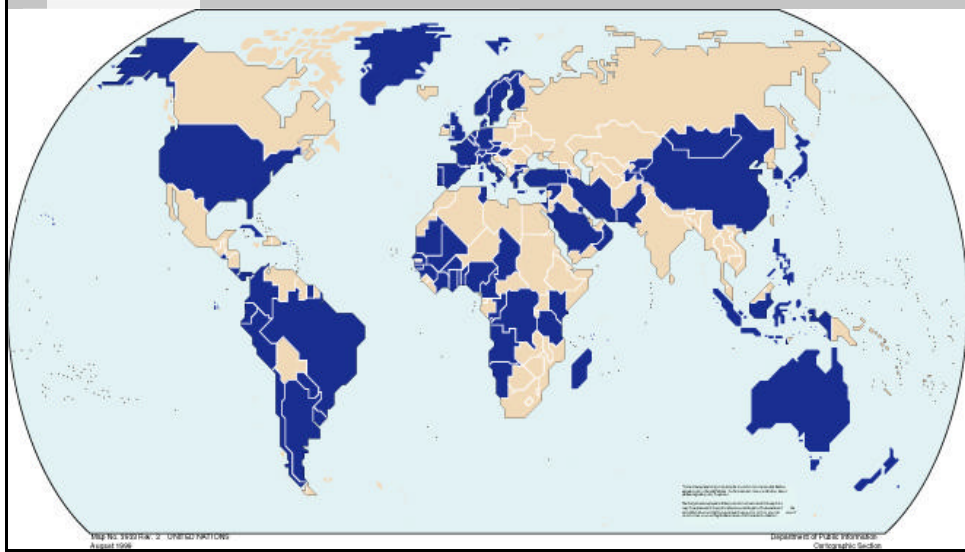
## Stockholm Signatures - 127



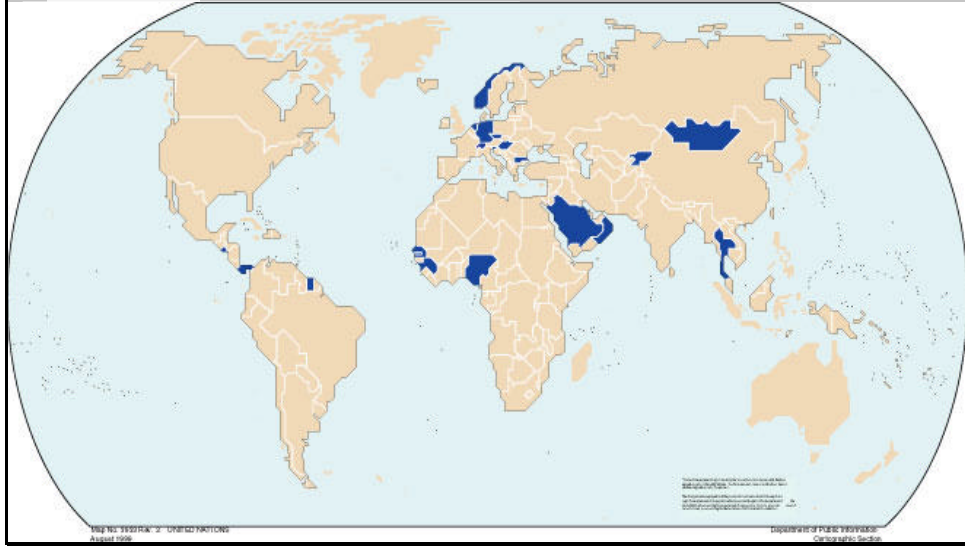
## Stockholm Ratifications - 6



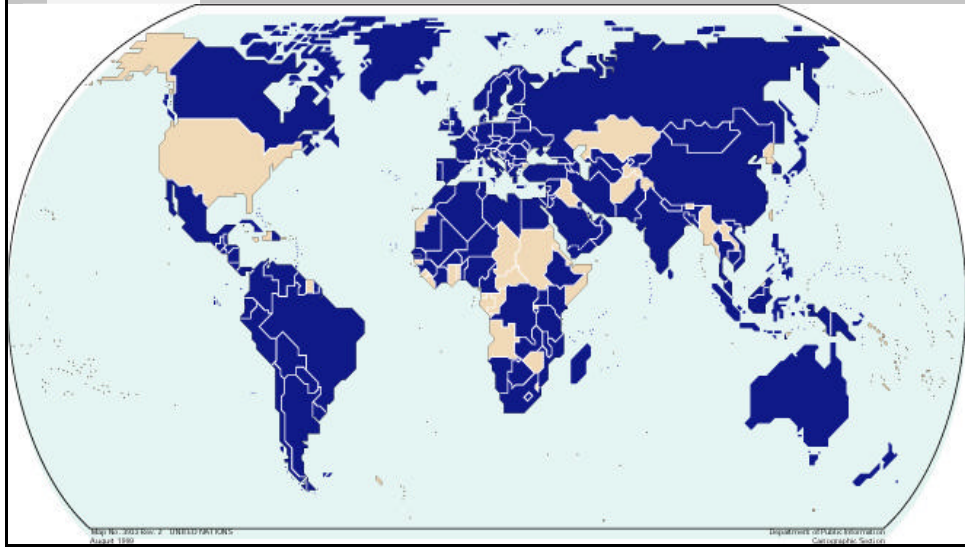
## Rotterdam Signatures - 73



## Rotterdam Ratifications - 20



## Basel Ratifications - 149



## Expectations for the workshop

- **Better understanding among all participants of the convention(s) and issues**
- **Signature of the Stockholm Convention**
- **Start of Stockholm Convention implementation plan (NIP) development process**
- **Ratification of the Rotterdam Convention**
- **Ratification of the Stockholm Convention**
- **Ratification of the Basel Convention**
- **Better PIC-POPs-Basel integration at the country and regional level**
- **Identification of capacity building steps**



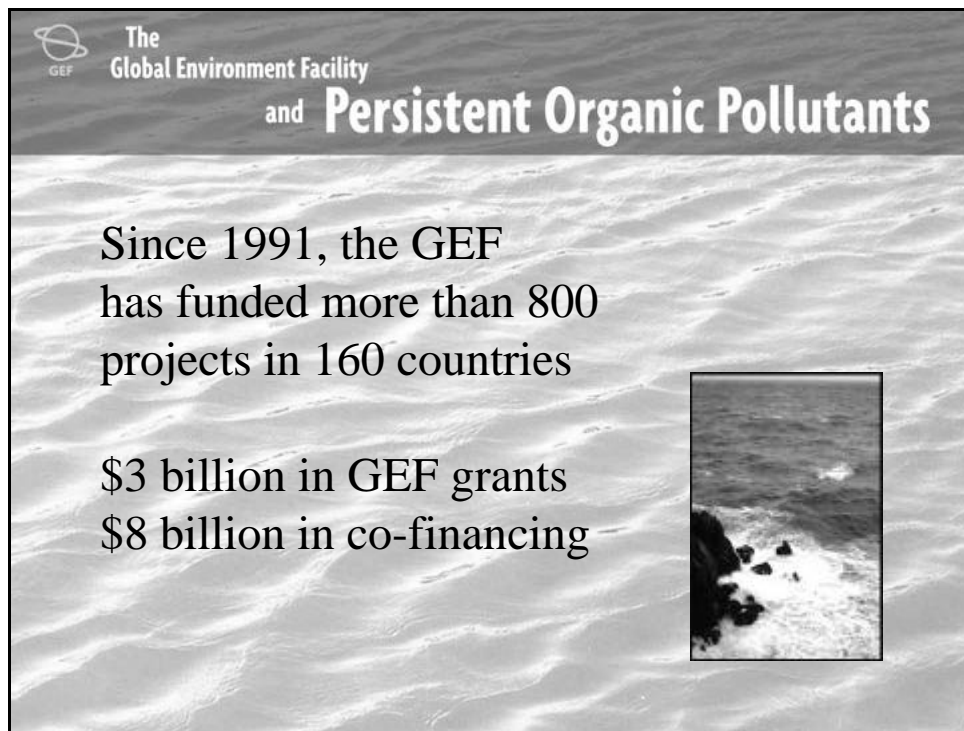
## Expectations from the Global Environment Facility *by Ms. Bahar Zorofi*


The slide features a background of a cloudy sky. At the top left is the GEF logo. The title 'The Global Environment Facility and Persistent Organic Pollutants' is centered at the top. Below the title is the question 'What is the GEF?' followed by a bulleted list of four points.

**The Global Environment Facility**  
and **Persistent Organic Pollutants**

What is the GEF?


- An independent financial mechanism that helps developing countries and economies in transition protect the global environment.
- 167 countries are members (May 2001).
- 36 countries contribute to the GEF trust fund, including developing countries.
- GEF partnerships unite governments, NGOs, scientists and the private sector.




 The  
 Global Environment Facility  
 and **Persistent Organic Pollutants**

Since 1991, the GEF  
 has funded more than 800  
 projects in 160 countries

\$3 billion in GEF grants  
 \$8 billion in co-financing






 The  
 Global Environment Facility  
 and **Persistent Organic Pollutants**

The GEF Fills a Unique Niche


- GEF funding complements, and does not substitute for existing aid programs.
- GEF supports projects with global environmental benefits for which official development funds are *not* available.
- GEF pays the added costs of making development projects friendly to the global environment.




 The  
Global Environment Facility  
and **Persistent Organic Pollutants**

### What is the GEF?

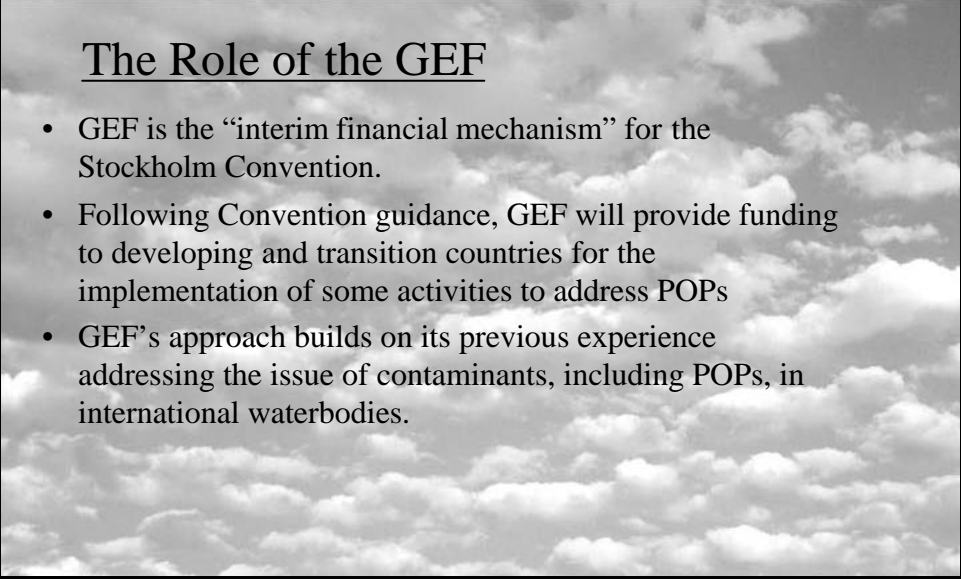
- **Project types**
  - Biodiversity
  - Climate change
  - International waters
  - Ozone depletion
  - Land degradation
- **New initiatives**
  - Sustainable transportation
  - Integrated ecosystem management
  - Agro-biodiversity
  - Persistent organic pollutants (POPs)



 The  
Global Environment Facility  
and **Persistent Organic Pollutants**

### The Role of the GEF

- GEF is the “interim financial mechanism” for the Stockholm Convention.
- Following Convention guidance, GEF will provide funding to developing and transition countries for the implementation of some activities to address POPs
- GEF’s approach builds on its previous experience addressing the issue of contaminants, including POPs, in international waterbodies.





 The  
Global Environment Facility  
and **Persistent Organic Pollutants**

GEF's Initial Assistance


1. GEF will initially help countries strengthen their capacity to prepare *National Implementation Plans (NIPs)*. This activity is known in the GEF as "enabling activities."
2. The NIP will help countries identify and prioritize capacity building, policy and regulatory reforms, and investments needed to address the issue of POPs.



 The  
Global Environment Facility  
and **Persistent Organic Pollutants**

GEF's Initial Assistance

3. See the GEF document "*Initial Guidelines for Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants*" for information on NIP-eligible activities.
4. The "*Initial Guidelines*" document is available from the GEF website at [www.gefweb.org](http://www.gefweb.org).




 The  
Global Environment Facility  
and **Persistent Organic Pollutants**

How much funding is available  
from GEF?


- GEF will provide funds to cover the agreed full cost, up to US\$500,000 per country, for enabling activities.
- Requests for more than US\$500,000 will be considered on a case-by-case basis




 The  
Global Environment Facility  
and **Persistent Organic Pollutants**

How can I improve my country's  
technical capacity to prepare its NIP?

1. GEF will provide capacity building support to countries by organizing:
  - a. workshops to familiarize countries with the application of the GEF's initial guidelines for enabling activities;
  - b. specialized training at the regional or sub-regional level



 The Global Environment Facility  
and **Persistent Organic Pollutants**

### How can I apply for GEF funding?

- The “Initial Guidelines” document includes a proposal outline.
- Contact one of the GEF’s partner agencies to assist you throughout the application process and during the implementation of the enabling activities

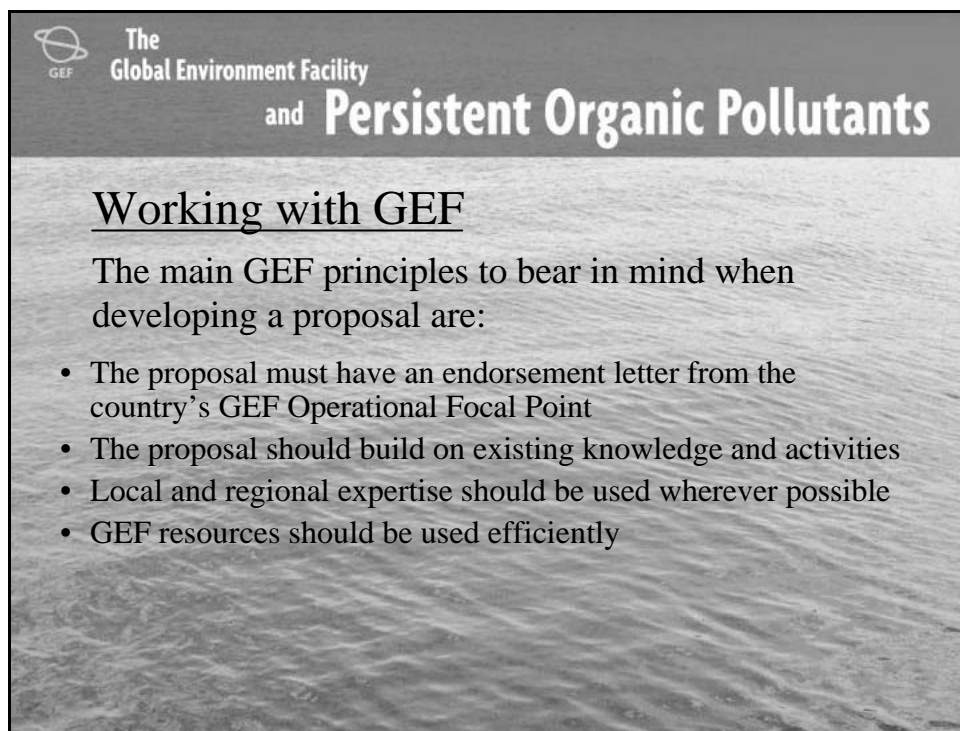



 The Global Environment Facility  
and **Persistent Organic Pollutants**

### GEF Partner Agencies

- United Nations Environment Programme
- United Nations Development Programme
- World Bank
- African Development Bank
- Asian Development Bank
- European Bank for Reconstruction and Development
- Food and Agriculture Organization
- Inter-American Development Bank
- UN Industrial Development Organization



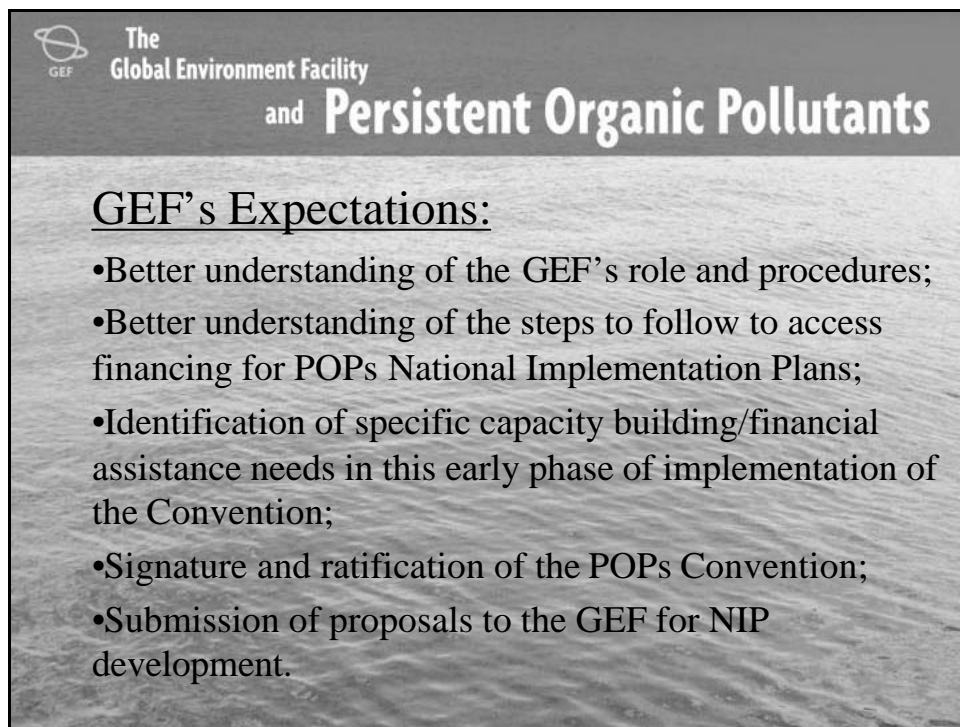



 The  
Global Environment Facility  
and **Persistent Organic Pollutants**

### Working with GEF

The main GEF principles to bear in mind when developing a proposal are:

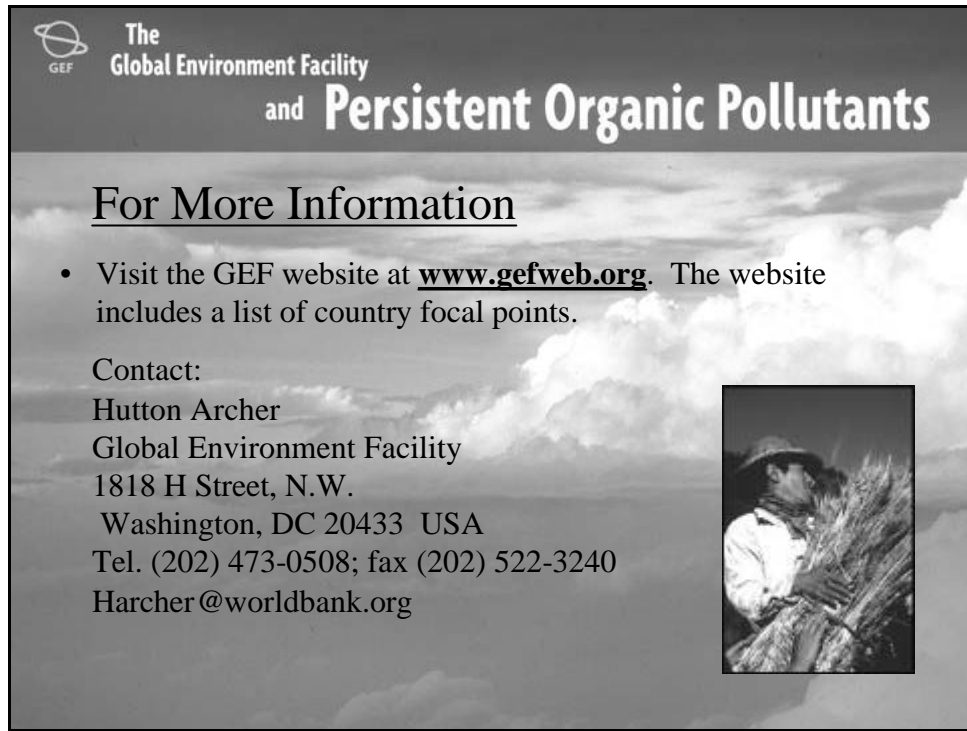
- The proposal must have an endorsement letter from the country's GEF Operational Focal Point
- The proposal should build on existing knowledge and activities
- Local and regional expertise should be used wherever possible
- GEF resources should be used efficiently




 The  
Global Environment Facility  
and **Persistent Organic Pollutants**

### GEF's Expectations:

- Better understanding of the GEF's role and procedures;
- Better understanding of the steps to follow to access financing for POPs National Implementation Plans;
- Identification of specific capacity building/financial assistance needs in this early phase of implementation of the Convention;
- Signature and ratification of the POPs Convention;
- Submission of proposals to the GEF for NIP development.


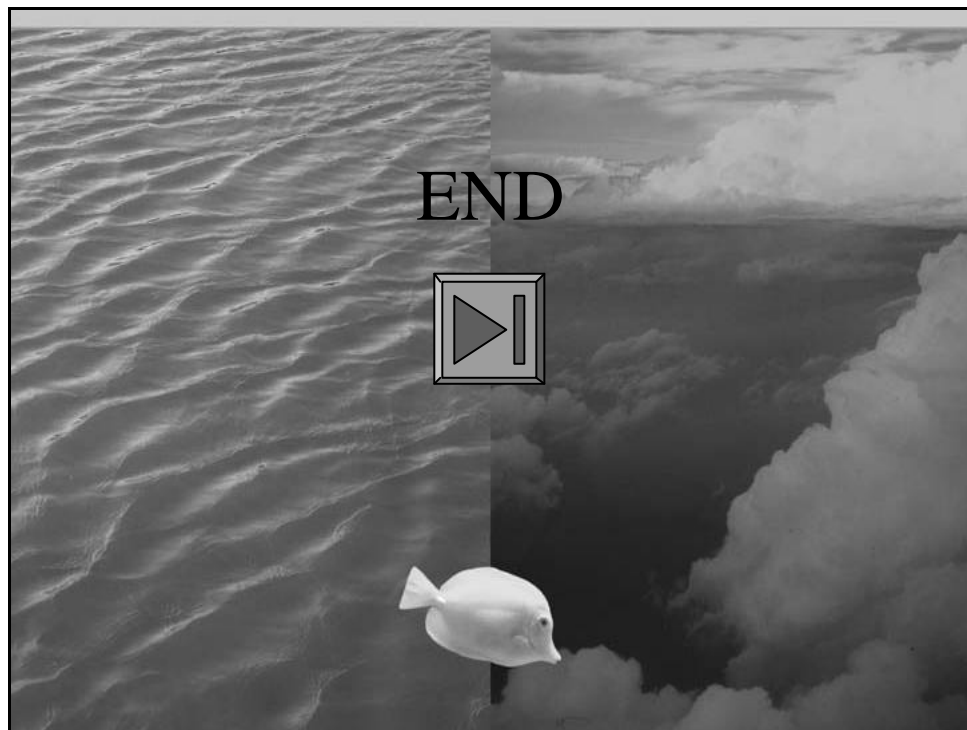


 **The  
Global Environment Facility  
and Persistent Organic Pollutants**

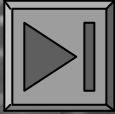
**For More Information**

- Visit the GEF website at [www.gefweb.org](http://www.gefweb.org). The website includes a list of country focal points.

Contact:  
 Hutton Archer  
 Global Environment Facility  
 1818 H Street, N.W.  
 Washington, DC 20433 USA  
 Tel. (202) 473-0508; fax (202) 522-3240  
 Harcher@worldbank.org

**END**



## Overview of the Stockholm Convention on POPs by Dr. John Buccini

### Stockholm Convention on POPs

1. Background
2. Convention Provisions
3. Current Status

John Buccini  
Chairman  
UNEP POPs Intergovernmental Negotiating Committee  
Ottawa, Canada

### Background: What are POPs?

- POPs are organic compounds (*i.e.*, carbon-based)
  - natural or anthropogenic origin
- unique combination of physical & chemical properties:
  - resist degradation in environment (*i.e.*, persistent)
  - low, but significant, vapor pressure (“semi-volatile”) leads to distribution in all environmental media
  - low water solubility + high fat solubility
- ➔ regional and global distribution by air, water, wildlife
- ➔ long-term exposure to humans and wildlife
- ➔ bioaccumulation in fatty tissues of living organisms
- ➔ acute and chronic toxic effects on humans & wildlife

## Background: The “UNEP 12”

Chemical	Pesticides	Industrial Chemicals	By-products
Aldrin	+		
Chlordane	+		
DDT	+		
Dieldrin	+		
Endrin	+		
Heptachlor	+		
Mirex	+		
Toxaphene	+		
Hexachlorobenzene	+	+	+
PCBs		+	+
Chlorinated dioxins			+
Chlorinated furans			+

Bratislava (08 April 2002)

Stockholm Convention

3

## Convention Provisions

**Objective = protection of health and environment**

[*Precaution* is acknowledged as an important element]

**Main provisions:**

- control measures
  - intentionally produced POPs
  - unintentionally produced POPs
  - stockpiles and wastes
- general obligations
- addition of new chemicals
- financial and technical assistance
- implementation aspects

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4

## Intentionally Produced POPs

### ➔ Goal = elimination of production and use of all intentionally produced POPs

- Chemicals slated for **elimination** are listed in Annex A:
  - aldrin, chlordane, dieldrin, endrin, heptachlor
  - hexachlorobenzene (HCB), mirex, PCBs, toxaphene
- Chemicals slated for **restriction** are listed in Annex B:
  - DDT (“acceptable purpose” for production and/or use in disease vector control programs)
- “specific exemptions” for these for some Parties
- other types of exemptions exist - some have conditions, accountability requirements, time limits (extensions)

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5

## Intentionally Produced POPs

### For PCBs (Annex A):

- **3 main goals:**
  - ➔ cease production of new PCBs ***immediately***
    - *i.e.*, entry into force of the Convention
  - ➔ eliminate use of in-place PCB equipment ***by 2025***
    - continued use is subject to conditions and restrictions
  - ➔ achieve the environmentally sound management of PCB wastes *as soon as possible and ***by 2028****
- **Parties must** report to the COP every 5 years on progress
- **COP will** review progress on 2025 & 2028 targets every 5 years

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6



## Intentionally Produced POPs

### For DDT (Annex B):

- **all Parties shall:**

- eliminate production and use except for disease vector control programs:
  - special public DDT register
  - reporting and other obligations
- promote research and development for alternatives to DDT

- **the COP will:**

- review at its first meeting and every 3 years thereafter to see when DDT is no longer needed for disease vector control use (*i.e.*, technically and economically feasible alternative products, practices or processes are available)

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7

## Intentionally Produced POPs

### Trade will be restricted for all POPs in Annexes A & B

- Imports/exports between Parties are limited to shipments:
  - intended for environmentally sound disposal, or
  - to Parties with:
    - “Specific Exemptions” under Annex A or B, or
    - “Acceptable Purposes” under Annex B
- Exports to non-Parties may take place subject to:
  - conditions on both Non-Party and Party, and
  - accountability requirements for the use and disposal of POPs

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8

## Intentionally Produced POPs

- ➔ **Goal = to identify possible POPs as early as possible in assessment programs and take action to reduce or eliminate generation and/or releases**
- Parties with regulatory and assessment schemes for industrial chemicals and/or pesticides, shall, in conducting assessments of:
    - new substances, take “measures to regulate with the aim of preventing the production and use” of new POPs
    - in-use substances, consider the screening criteria for candidates for addition to Convention (Annex D)
  - Convention does not require establishment of such programs

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9

## Unintentionally Produced POPs

- ➔ **Goal = continuing minimization and, where feasible, *ultimate elimination of total releases* of chemicals in Annex C derived from anthropogenic sources**  
[dioxins, furans, HCB, PCBs]

**Parties shall:**

- develop action plans within 2 years of entry into force
  - and implement their plans
- promote application of available, feasible and practical measures to achieve realistic and meaningful levels of release reduction or source elimination
- promote development and, where appropriate, require use of substitute or modified materials, products and processes to prevent formation and release of POPs

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10

## Unintentionally Produced POPs

- **Convention lists 20 source types that have potential for formation and release of unintentionally produced POPs to environment [Annex C Parts II (7 high potential) & III]:**
  - combustion sources (incinerators, boilers, motor vehicles)
  - thermal sources in metallurgical industry
  - pulp production with elemental chlorine
  - some chemical production processes
  - textile and leather dyeing and finishing
  - several waste recovery and disposal practices
  - destruction of animal carcasses
  - crematoria

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11

## Unintentionally Produced POPs

- For source categories with potential for comparatively high formation & release of POPs to environment, **Parties shall:**
  - for new sources,
    - promote and, as provided for in an action plan, require use of best available techniques (BAT), and
    - phase in BAT requirements as soon as practicable but no later than 4 years after Convention enters into force
    - promote use of best environmental practices (BEP)
  - for existing sources, promote use of BAT and BEP
- For other source categories (Annex C Part III), **Parties shall:**
  - for new and existing sources, promote use of BAT & BEP

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12

## POPs in Stockpiles & Wastes

⑥ **Goal = environmentally sound management (ESM) of stockpiles, wastes, and products and articles upon becoming wastes that consist of, contain or are contaminated by POPs**

**Parties must:**

- develop and implement strategies to identify stockpiles
- manage stockpiles in a safe, efficient and ESM until they are deemed to be wastes
- develop strategies to identify products & articles in use and wastes consisting of, containing or contaminated with a POP
- take measures to
  - handle, collect, transport and store wastes in ESM, and
  - dispose of wastes by destroying POP content or otherwise in ESM taking into account international rules

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13

## POPs in Stockpiles & Wastes

**Parties must (continued):**

- not allow recovery, recycle, reclamation, direct reuse or alternative uses of POPs
- not transport these materials across international boundaries without taking into account international rules (e.g., Basel Convention)
- develop strategies for identifying contaminated sites
  - remediation is not required by the Convention
  - if remediation is attempted, it must be done in an environmentally sound manner

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14

## General Obligations

- Designate a National Focal Point
- Develop, implement and update an implementation plan
- Promote and facilitate a wide range of public information, awareness and education measures for policy makers and all stakeholders
- Encourage and, as resources permit, undertake research, development, monitoring and cooperation on all aspects of POPs and their alternatives
- Report to the COP on:
  - measures taken by Party to implement the Convention
  - effectiveness of the measures taken
  - data concerning trade in intentionally produced POPs

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15

## Addition of New POPs

- **Agreed process** will be used to evaluate candidates nominated by Parties.
- **Scientific criteria** are specified (Annex D):
  - persistence, bio-accumulation, potential for long range transport, and adverse effects.
- **Precaution** will be incorporated in a number of ways to ensure that all proposed candidates are thoroughly considered on the basis of available data to see if they possess POPs properties.
- **POPs Review Committee** will be set up at the first COP to advise on proposals submitted by Parties.
- **Safeguards** will ensure that process is transparent and all Parties get a full hearing on any nominated candidate.

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Stockholm Convention

16

## Financial & Technical Assistance

### **Convention specifications:**

- Developing countries and countries with economies in transition will need technical and financial assistance.
- Regional and subregional centres will be established for capacity building and transfer of technology to assist countries in need.
- Developed countries will provide technical assistance and new and additional financial resources to meet agreed full incremental implementation costs.
- Global Environment Facility (GEF) is named as the principle entity of the interim financial mechanism to handle funding of capacity building and other related activities.

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Stockholm Convention

17

## Implementation Aspects

- Convention will enter into force 90 days after 50th ratification
- COP will be established to oversee implementation:
  - must meet within 1 year of entry into force
    - thereafter at regular intervals
  - must review effectiveness of convention commencing four years after entry into force, and periodically thereafter:
    - COP1 will arrange for comparable monitoring data on presence of POPs and regional/global environmental transport, and for reports on monitoring on regional and global basis
  - COP1 to establish POPs Review Committee
- UNEP will provide secretariat

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Stockholm Convention

18

## Convention Status

- Opened for signature on May 23, 2001 (in Stockholm)
  - 126 Parties have signed (period ends May 22, 2002)
  - 6 Parties have ratified
- INC-6 will be held June 17-21, 2002 (Geneva)
  - preparations for COP1
  - implement Stockholm resolutions
  - expected focus on NIPs and related financial and technical assistance
- COP1 changes?
- Convention text & information are on UNEP POPs home page:

[www.chem.unep.ch](http://www.chem.unep.ch)

## Overview of the Rotterdam Convention *by Dr. Katarina Magulova*

### Overview of the Rotterdam Convention



### This presentation will cover:

- Background
- Objective and scope
- How the convention works
- Party responsibilities
- Key players
- Supporting documentation
- Technical assistance
- Other information



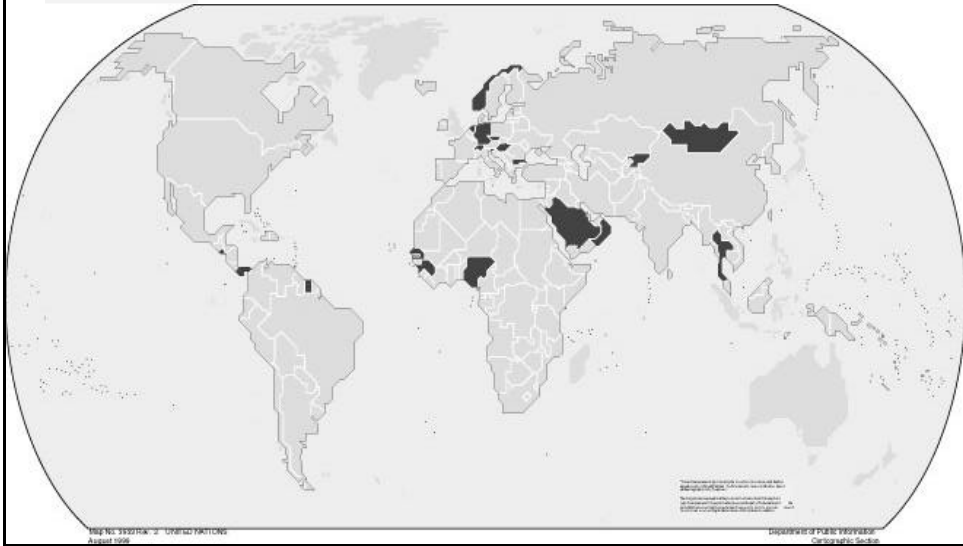
## Origins

- **1985 - FAO International Code of Conduct on the Distribution and Use of Pesticides**
- **1987 - UNEP London Guidelines for the Exchange of Information on Chemicals in International Trade**
- **1989 - FAO/UNEP Joint Program on the Prior Informed Consent procedure**
- **1992 - UNCED calls for adoption of a legally binding instrument by 2000**
- **1996-1998 - Negotiations take place (5 sessions)**
- **1998 - Convention adopted in Rotterdam**

## Rotterdam Conference

- **Adoption of the Convention and start of signature process (73 signatories)**
- **Adoption and signature of the Final Act**
  - **Resolution on interim arrangements**
  - **Voluntary PIC procedure brought in line with Convention**

## Status of Ratifications



## Objective of the Convention

- **To promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to their environmentally sound use**

## Objective of the Convention

- **How?**
  - **by facilitating information exchange about chemicals and their characteristics, and**
  - **by providing for a national decision-making process on their import and export.**

## What the Convention Achieves

- **Early warning system**
- **Keeps chemicals-related problems from getting worse**
- **Empowers developing countries**
- **Ensures labeling and hazard communication**
- **Promotes communication and information exchange among countries**

## Scope of the Convention

- **Applies to**
  - Banned or severely restricted chemicals, and
  - Severely hazardous pesticide formulations
- **Does not apply to:**
  - Narcotic drugs and psychotropic substances
  - Radioactive materials
  - Wastes
  - Chemical weapons
  - Chemicals used as food additives
  - Food
  - Chemicals in small quantities for research and analysis

## How It Works – Key Elements

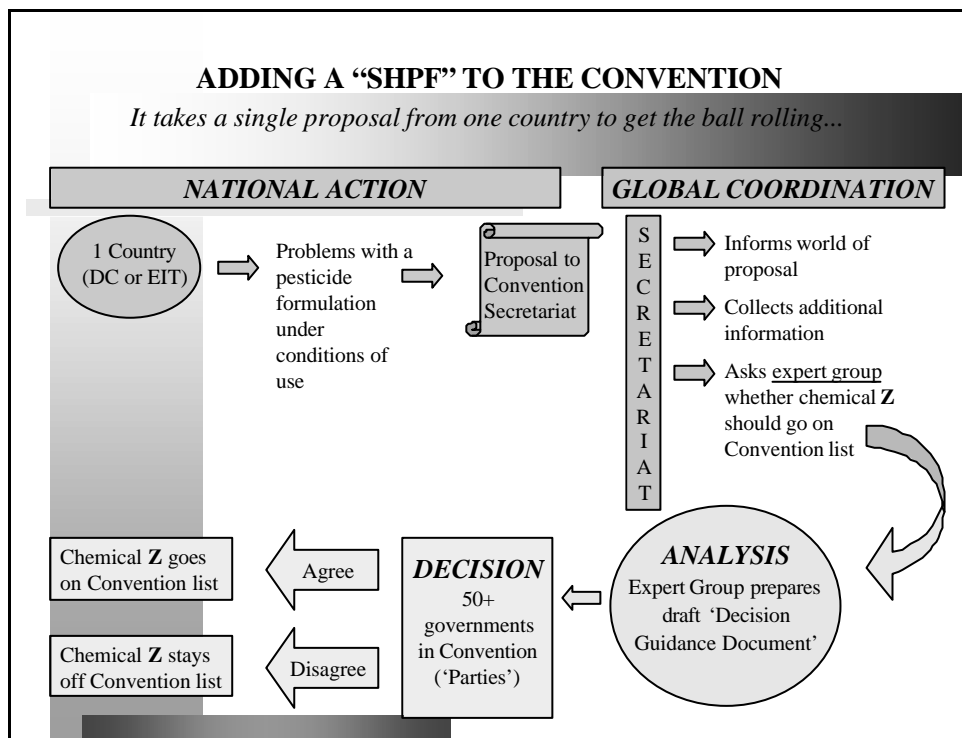
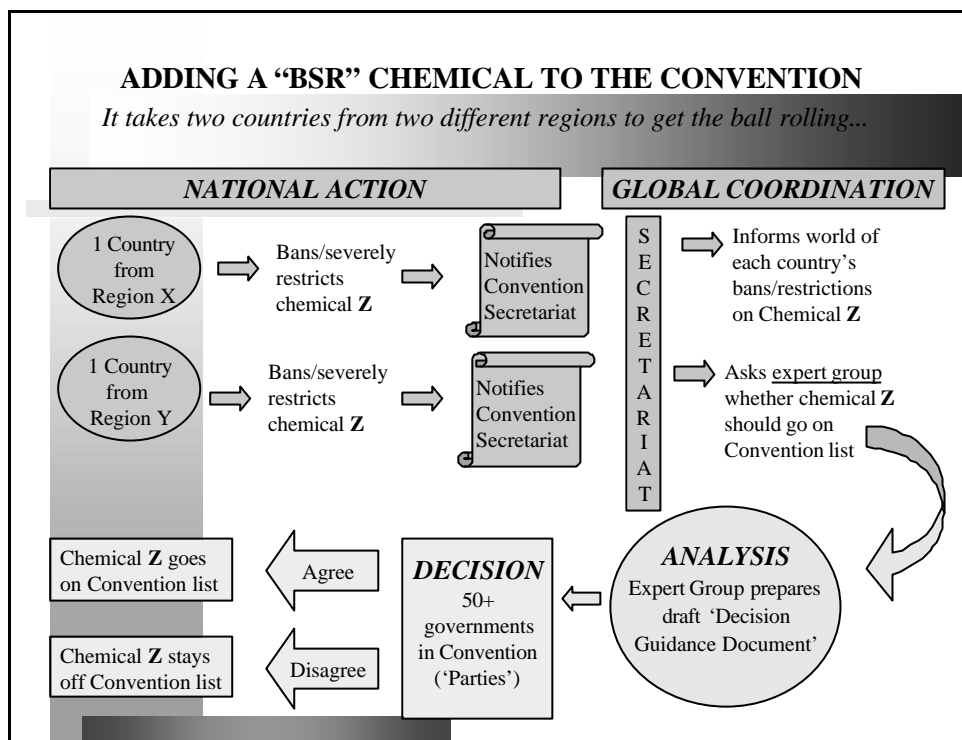
- **PIC Procedure:**
  - mechanism for formally obtaining and disseminating the decisions of importing countries as to whether they wish to receive future shipments of those chemicals specifically subject to the Convention and for ensuring compliance with these decisions by exporting countries

## How It Works – Key Elements

- **Information Exchange**
  - provisions for the *exchange of information* among Parties about a very broad range of potentially hazardous chemicals that may be exported and imported
- **The provisions include:**
  - parties must inform other Parties of each national control action to ban or severely restrict a chemical and
  - a Party that plans to export a chemical that is banned or severely restricted for use within its territory must inform the importing Party that such export will take place before the first shipment and annually thereafter;

## How It Works – Key Elements

- **Information Exchange provisions also include:**
  - exporting Parties, when exporting chemicals to be used for occupational purposes, must ensure that a safety data sheet following an internationally recognized format is sent to the importer;
  - opportunities for developing country Parties to inform others that they are experiencing problems caused by a severely hazardous pesticide formulation under conditions of use in their territory; and
  - that exports of chemicals included in the PIC procedure, and other chemicals banned or severely restricted by the exporter, are subject to labelling requirements that ensure adequate availability of information on risks and/or hazards to human health or the environment.



## Country Responsibilities

- **Exporting Countries:**
  - **Not export the chemical without the consent of the importer**
    - **Unless there have been previous shipments or the chemical is approved in that country**
  - **Communicate import decisions to exporters, industry and other relevant authorities**
  - **Ensure that exports do not occur contrary to the decisions of importing countries**
  - **Provide Export Notifications to importing countries**

## Obligations in relation to exports of chemicals

- **Implement legislative and administrative measures to communicate import decisions within its jurisdiction**
- **Take appropriate measures to ensure that its exporters comply with import decisions**
- **Advise and assist importing Parties**
  - **To obtain further information to help them make import decisions**
  - **To strengthen their capacities and capabilities to manage chemicals safely**

## Country Responsibilities

### ● **Importing Countries:**

- **Nominate a DNA**
- **Provide notifications of final regulatory actions to ban or severely restrict a chemical**
- **Submit proposals of severely hazardous pesticide formulations**
- **Provide import responses**
- **Acknowledge receipt of Export Notifications**

## Country Responsibilities

### ● **Importing Countries:**

- **Ensure that importers, relevant authorities and, where possible, users are informed of notifications received, and**
- **Ensure that import decisions apply uniformly:**
  - **To imports from ALL exporting countries, and**
  - **To any domestic manufacture of the chemical**



## Obligations in relation to imports of chemicals

- **Response shall consist of either a**
  - **final decision**
    - to consent to import
    - not to consent to import
    - to consent subject to specified conditions
  - **interim response, including**
    - an interim decision to import or not to import
    - a statement that a final decision is under consideration
    - a request for further information/assistance
- **Implement measures to ensure timely decisions regarding import of chemicals**
- **Respond regarding future import of chemicals within 9 months after circulation of DGD**

## Key Players

- **Designated National Authorities**
- **Conference of the Parties**
- **Chemical Review Committee**
- **Secretariat**

## Designated National Authorities (DNAs)

- **Focal Point for operation of the PIC procedure**
  - Responsible for the administrative functions required by the Convention
- **May cover pesticides, or chemicals, or both**
- **As of 1 September 253 DNAs from 165 states**

## Conference of the Parties (COP)

- **Highest Authority of the Convention**
- **Countries that have become Parties oversee implementation**
  - Interim procedure – Intergovernmental Negotiating Committee (INC)
  - Just over 100 countries now participate
- **Decides on inclusion of chemicals, establishes subsidiary bodies, defines PIC Regions, etc.**

## Chemical Review Committee (CRC)

- **Expert Committee**
- **Review notifications and proposals from Parties**
- **Make recommendations to COP/INC on chemicals to be added to the Convention**
- **29 Members from 7 “PIC Regions”**
  - Africa, Asia, Europe, Near East, Latin America, North America, Southwest Pacific
- **Interim procedure – interim Chemical Review Committee (iCRC)**

## Secretariat

- **Provided by UNEP and FAO jointly**
- **Service Parties, eg, convene COP/INC and CRC/iCRC meetings**
- **Facilitate some aspects of procedures**
  - Collect and review notifications
  - Maintain registers, eg, DNA lists
  - Communicate to Parties
- **Assist Parties in the implementation of the Convention**
- **Coordinate with other secretariats**
- **Other functions as specified in the Convention**

## Supporting Documentation

- **PIC Circular**
- **Notification of Control Action form**
- **Severely Hazardous Pesticide Formulation Report form**
- **Decision Guidance Document (DGD)**
- **Import Response form**

## Interim Arrangements

- **The resolution on interim arrangements:**
  - **Brings the voluntary PIC procedure in line with the Convention (interim procedure)**
  - **Asks the INC to oversee the implementation of the interim procedure and prepare for the Conference of the Parties;**
  - **All chemicals in Annex III of the convention are subject to the interim procedure;**
  - **Chemicals identified for inclusion under the original PIC procedure will be subject to the interim procedure as soon as the relevant DGD has been adopted;**
  - **The INC can add new chemicals to the interim procure in accordance with the provisions of the Convention**
  - **Establishes an interim Secretariat (UNEP/FAO).**

## Technical Assistance

- **Parties shall cooperate in promoting technical assistance for the development of the infrastructure and the capacity necessary to manage chemicals to enable implementation of the Convention;**
- **Parties with more advanced programs for regulating chemicals should provide technical assistance to other Parties in developing their infrastructure and capacity to manage chemicals.**

## Current Status

- **20 Parties to the Convention**
- **27 chemicals listed in Convention:**
  - 17 pesticides
  - 5 severely hazardous pesticide formulations
  - 5 industrial chemicals
- **Four new pesticides added to the interim PIC procedure**
- **Regional support for implementation workshops being held**
- **INC-8 held 8-12 October 2001 in Rome**
- **INC-9 scheduled 30 September – 4 October 2002 in Bonn**

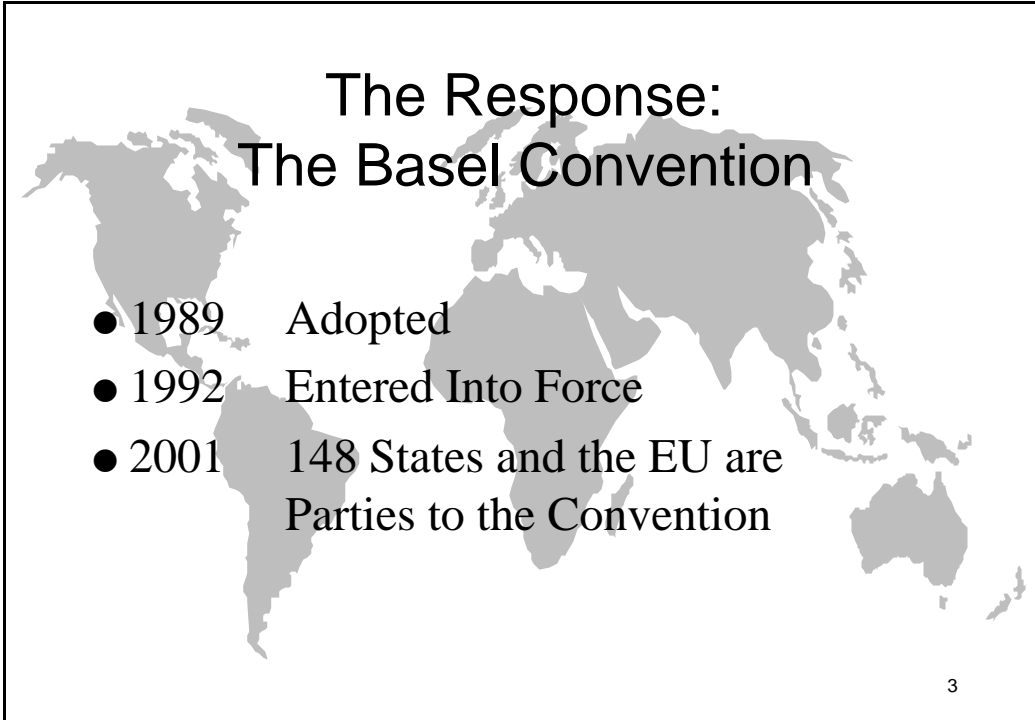
AVAILABILITY OF  
DOCUMENTATION

**Rotterdam Convention Website:**

**WWW.PIC.INT**

**Overview of the Basel Convention *by Dr. Katarina Magulova***





## The Response: The Basel Convention

- 1989 Adopted
- 1992 Entered Into Force
- 2001 148 States and the EU are Parties to the Convention

3



## Goals of Basel Convention

- **Protect human health and the environment against hazardous wastes**
- **Safeguard the environment in the developing countries**

4



## Key Objectives of Basel Convention

- **Reduce transboundary movements of hazardous wastes to a minimum consistent with their environmentally sound management;**
- **Dispose of hazardous wastes as close as possible to their source of generation;**
- **Minimize generation of hazardous wastes in terms of quantity and hazardousness.**

5

## Pillars of Basel Convention

- I. Regulation of all Transboundary Movements of Hazardous Wastes**
- II. Environmentally Sound Management of Hazardous Wastes and Other Wastes and of Their Disposal**

6

## Regulation of Transboundary Movements

•**1989 - Control System**: Requiring written notification from State of export to State(s) of import/transit.

•**1995 - Ban Amendment**: Banning export of hazardous wastes from developed countries (OECD members) to developing ones.

•**1999 - Protocol on Liability and Compensation**: Establishing rules on liability and compensation for damages caused by accidental spills of hazardous wastes during export or import.

7

## Waste Controlled Under the Convention

- Transboundary movements
- Which wastes are covered by the Convention
  - Hazardous waste
    - Basel waste (Article 1(1) a)
    - Nationally defined hazardous wastes (Article 1(1)b)
  - Other waste

8

## Waste Controlled (continued)

«Hazardous Wastes» are

- *wastes that belong to any category contained in Annex I of the Convention (Y1 – 18 or Y19-45), unless they do not possess any of the characteristics contained in Annex III of the Convention;*

9

## Waste Controlled (continued)

- Y10 Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)
- Y43 Any congener of polychlorinated dibenzo-furan
- Y44 Any congener of polychlorinated dibenzo-p-dioxin

10



## The Control System

- A procedure for the **notification** of transboundary movements of hazardous wastes or other wastes, based upon the **prior written consent** procedure.
- Each shipment of hazardous waste or other waste shall be accompanied by a movement document from the point at which a transboundary movement begins to the point of disposal.

11



## The Basel Ban Amendment

A new Article 4A:

- Immediate export ban from Annex VII to non-Annex VII countries for disposal
- Phase in export ban for recycling and recovery from 1998
- Ratified by 24 countries so far

12

## Other Restrictions on Transboundary Movements

- Transboundary movements only among parties
- The state of export shall prohibit export if
  - the state of import has an import ban,OR
  - the state of import has not given its consent to the shipment.

13

## Other Restrictions (continued)

- Non – environmentally sound management
- Exports for disposal to the area of 60° South latitude


14



## Focus

- **First Decade:** Develop global environmental regime for controlling transboundary movements of hazardous wastes.
- **Second Decade:** Strengthen existing political, legal, technical, and institutional efforts while taking on six major challenges:

15



## Six Challenges for the Next Decade

1. **Environmentally sound management and minimization**
2. **Effective implementation and enforcement**
3. **Capacity building**
4. **Partnership building**
5. **Greater efficiency through economic incentives**
6. **Enhanced collaboration**

16



## Supporting tools for implementation

- Manuals and guidelines
  - Model legislation on control and management of hazardous wastes
  - Implementation Manual
  - Instruction Manual on the Control system
  - Technical Guidelines
- The Basel Convention Regional Centres
- The Basel Secretariat Web Site

17



## A POPs Focus

- Guidelines for the environmentally sound management of persistent organic pollutant wastes;
- PCB guidelines
- Stockpiles of obsolete pesticides

18





**Stockholm Convention Provision for Intentionally Produced POPs by  
Dr. John Buccini**

**Stockholm Convention Provisions  
for Intentionally Produced POPs**

John Buccini  
Chairman  
UNEP POPs Intergovernmental Negotiating Committee  
Ottawa, Canada

**OUTLINE**

**Measures to reduce or eliminate releases from  
intentional production and use:**

- Articles 3, 4 and 15(2)
- Annexes A and B
- Specific exemptions, and the Register
- Acceptable purposes
- General exemptions
- Trade restrictions
- Assessment of new and existing chemicals
- Summary

## Elimination & Restriction

### Convention Goal = elimination of production and use of all intentionally produced POPs

- *i.e.*, industrial chemicals and pesticides

#### Parties shall: [Article 3, para. 1]

(a) "prohibit and/or take the legal and administrative measures necessary to eliminate":

- (i) production and use of chemicals in Annex A, and
- (ii) import and export of chemicals in Annex A

- *i.e.*, trade is restricted [see paragraph (2)]

(b) "restrict its production & use" of chemicals in Annex B

- "acceptable purposes" specified for these chemicals

Intentionally Produced POPs

3

## Elimination & Restriction

### Annex A (elimination)

- aldrin
- chlordane
- dieldrin
- endrin
- heptachlor
- hexachlorobenzene
- mirex
- polychlorinated biphenyls
- toxaphene

### Annex B (restriction)

- DDT

Intentionally Produced POPs

4

## Specific Exemptions

- “Specific exemptions” are identified with regard to production and/or use of the chemicals in Annexes A and B
  - during the negotiations, several countries indicated the need for these
  - Note: none are specified for endrin or toxaphene
- A State, on becoming a Party, may register for one or more of the *specific exemptions* listed in Annexes A and B
- Parties register by informing the Secretariat
- Secretariat will maintain a publicly available Register identifying Parties that have registered for *specific exemptions* [Article 4]
- The Register will not include the names of Parties for those *specific exemptions* that are available to all Parties (e.g., PCBs)

Intentionally Produced POPs

5

## Specific Exemptions

### Duration:

- period of 5 years after Convention enters into force for a particular chemical, unless a Party specifies an earlier date
- may be withdrawn by a Party at any time
- may be extended for 5 years, based on request from a Party
  - COP will review each request and any information submitted by requesting Party justifying continued need for exemption

### Condition:

- Parties intentionally producing or using POPs under the “specific exemptions” or “acceptable purposes” provisions must take measures to prevent or minimize human exposure and releases to the environment [Article 3, para. 6]

Intentionally Produced POPs

6

## Annex A

Chemical	Activity	Specific Exemption
Aldrin	Production	None
	Use	Local ectoparasiticide Insecticide
Chlordane	Production	As allowed for the Parties listed in the Register
	Use	Local ectoparasiticide Insecticide Termiticide Termiticide in buildings and dams Termiticide in roads Additive in plywood adhesives

Intentionally Produced POPs

7

## Annex A

Chemical	Activity	Specific Exemption
Dieldrin	Production	None
	Use	In agricultural operations
Endrin	Production	None
	Use	None

Intentionally Produced POPs

8

## Annex A

Chemical	Activity	Specific Exemption
Heptachlor	Production	None
	Use	Termiticide Termiticide in structures of houses Termiticide (subterranean) Wood treatment In use in underground cable boxes
Hexachloro benzene	Production	As allowed for the Parties listed in the Register
	Use	Intermediate Solvent in pesticide Closed system site-limited intermediate

Intentionally Produced POPs

9

## Annex A

Chemical	Activity	Specific Exemption
Mirex	Production	As allowed for the Parties listed in the Register
	Use	Termiticide
Toxaphene	Production	None
	Use	None

Intentionally Produced POPs

10

## Annex A

Chemical	Activity	Specific Exemption
PCBs	Production	None
	Use	Articles in use in accordance with the provisions of Part II of Annex A

**Note (iv):** All Parties are entitled to the PCB specific exemption

**N.B.** Parties using the PCB specific exemption will not be listed in the register [Article 4, para. 1]

Intentionally Produced POPs

11

## Annex A, Part II (PCBs)

**Annex A requires all Parties to cease production of new PCBs immediately (*i.e.*, entry into force)**

**All Parties using the (Part II) PCB specific exemption shall:**

- eliminate use of in-place equipment containing PCBs **by 2025:**
  - make determined efforts to identify, label & remove from use equipment with >10% or >0.05% and >5 litres of PCB
  - endeavour to identify & remove from use equipment with >0.005% (50ppm) and >0.05 litres of PCB
  - give higher priority to equipment with higher PCB levels

Intentionally Produced POPs

12

## Annex A, Part II (PCBs)

### All Parties using the PCB specific exemption shall:

- promote measures to reduce exposures and risk:
  - use PCBs only in intact and non-leaking equipment and only in areas where risk of environmental release can be minimized and quickly remedied
  - forbid use in food and feed production and processing areas
  - when used in populated areas (schools, hospitals, etc.)
    - take all reasonable measures to protect from electrical failure which could result in a fire
    - inspect regularly for leaks in equipment

Intentionally Produced POPs

13

## Annex A, Part II (PCBs)

### All Parties using the PCB specific exemption shall:

- not export or import PCB equipment, except for the purpose of environmentally sound management (ESM) of waste
- not recover liquids with more than 0.005% PCBs for reuse in other equipment, except for maintenance and servicing
- make determined efforts to achieve ESM of wastes containing >0.005% PCBs ASAP, and **by 2028**
- endeavour to identify articles with >0.005% PCB for ESM
- report to the COP every five years on their progress in eliminating PCBs [per Article 15]

**COP will review progress toward the 2025 and 2028 targets at 5 year intervals, taking into account reports from Parties**

Intentionally Produced POPs

14

## Annex B

Chemical	Activity	Acceptable Purpose or Specific Exemption
DDT	Production	<u>Acceptable purpose:</u> Disease vector control use in accordance with Part II of this Annex <u>Specific exemption:</u> Intermediate in production of dicofol Intermediate
	Use	<u>Acceptable purpose:</u> Disease vector control in accordance with Part II of this Annex <u>Specific exemption:</u> Production of dicofol Intermediate

Intentionally Produced POPs

15

## Annex B, Part II (DDT)

- **All Parties shall eliminate DDT production and use except** Parties that notify the Secretariat of their intention to produce and/or use DDT in disease vector control programs (an “acceptable purpose” in Annex B):
  - these Parties will be included in a special publicly available DDT Register maintained by the Secretariat
    - a Party may withdraw from the DDT Register at any time
  - production and/or use must be in accordance with WHO recommendations and guidelines on use of DDT, and only when locally safe, effective and affordable alternatives are not available to the Party
- **Two “specific exemptions” are allowed for DDT**, related to its use as an intermediate in the manufacture of other chemicals

Intentionally Produced POPs

16



## Annex B, Part II (DDT)

### Each Party in the DDT Register shall:

- report every 3 years [per Article 15] on:
  - quantities used
  - conditions of use, and
  - relevance of DDT to the Party's disease control strategy
- develop national action plan [per Article 7] to:
  - confine use of DDT to disease vector control
  - explore alternatives to DDT, and
  - take measures to strengthen health care and reduce incidence of disease

Intentionally Produced POPs

17

## Annex B, Part II (DDT)

- **All Parties**, within their capabilities, are encouraged to promote research and development to seek alternatives to DDT
- DDT use will be allowed until technically and economically feasible alternative products, practices or processes are available to countries that are currently reliant on DDT
- **COP** will review at its first meeting and every 3 years thereafter to see whether DDT continues to be needed for disease vector control

Intentionally Produced POPs

18

## Exemptions

### Chemicals in Annex A or B, are exempt in quantities:

- used for laboratory-scale research [Article 3, para. 5]
- used as a reference standard [Article 3, para. 5]
- occurring as unintentional trace contaminants in products and articles [Annexes A & B, Note (i)]
- occurring as constituents of articles manufactured or already in use before or on date of entry into force of an obligation concerning that chemical [Annexes A & B, Note (ii)]
  - provided Party notifies Secretariat that a particular type of product remains in use within that Party
  - Secretariat will make notification publicly available

Intentionally Produced POPs

19

## Exemptions

- HCB or DDT may be produced or used as closed-system site-limited intermediates that are chemically transformed in manufacture of other chemicals that do not exhibit POPs properties [Annexes A and B, Note (iii)]
- Party shall notify Secretariat of:
  - total amounts produced or used
  - nature of site-limited process, and
  - amount of HCB or DDT present in final product
- These notifications will be made publicly available
- Such production or use is not considered a *specific exemption*
- Production/use will cease after 10 years unless Party submits a new notification to Secretariat, in which case period will be extended for another 10 years, subject to COP approval

Intentionally Produced POPs

20

## Trade Restrictions

**Convention imposes trade restrictions for all POPs  
in  
Annexes A and B [Article 3, para. 2]**

**Imports and exports between Parties are limited to  
shipments:**

- intended for environmentally sound disposal [per Article 6, paragraph 1(d)], or
- to Parties with:
  - “specific exemptions” under Annex A or B, or
  - “acceptable purposes” under Annex B

Intentionally Produced POPs

21

## Trade Restrictions

**Exports to non-Parties may take place but there are conditions  
on both Non-Party and Party**

- **Non-Party shall** provide annual certification to exporting Party
  - specifying the intended use of the chemical
  - expressing commitment to:
    - protect health and environment by minimizing or preventing releases
    - comply with the requirements of Article 6, paragraph 1 concerning POPs stockpiles and wastes
    - comply with Annex B, Part II, paragraph 2 (DDT production and/or use in accordance with WHO recommendations, etc.)
  - supplying information on domestic legislation, regulation, etc.
- **Exporting Party shall** send certification to secretariat within 60 days

Intentionally Produced POPs

22

## Trade Restrictions

**Parties shall provide the following information:** [Article 15, para. 2]

- data on, or estimates of, total quantities of POPs in Annexes A and B that were produced, imported and exported, and
- a list of States from which it has imported or to which it has exported POPs in Annexes A and B

**COP will specify the frequency & format of such reports**

Intentionally Produced POPs

23

## Assessment of Chemicals

**Parties with regulatory and assessment schemes for industrial chemicals and pesticides shall, in conducting assessments of:** [Article 3, para. 3 and 4]

- **new substances**, take “measures to regulate with the aim of preventing the production and use of” new POPs
- **in-use substances**, consider the screening criteria for candidates for addition to Convention (Annex D)

**Note: These provisions**

- will allow the identification of possible POPs as soon as possible in these assessment programs, but
- do not require Parties to set up schemes for assessment and regulation of industrial chemicals or pesticides

Intentionally Produced POPs

24

## Summary

Chemical	Production	Use
Endrin	No	No
Toxaphene	No	No
Aldrin	No	2 Specific Exemptions
Dieldrin	No	1 Specific Exemption
Heptachlor	No	5 Specific Exemptions
PCBs	No	All Party Specific Exemption

Intentionally Produced POPs

25

## Summary

Chemical	Production	Use
Chlordane	Restricted	6 Specific Exemptions
HCB	Restricted	3 Specific Exemptions Site-limited Intermediate
Mirex	Restricted	1 Specific Exemption
DDT	Restricted	Specific Exemptions Acceptable Purposes Site-limited Intermediate

Intentionally Produced POPs

26

## Summary

**Considerations for ratification include:**

- take legal and administrative measures to eliminate and/or restrict production and/or use of POPs in Annexes A and B
- determine need for specific exemptions
  - inform Secretariat at time of ratification and get into the Register
  - take measures to prevent/minimize human exposure and environmental releases
- needs for site-limited intermediate and other exemptions
- measures to comply with trade restrictions
- reporting requirements

Intentionally Produced POPs

27

## Summary

**Considerations for ratification include:**

- special regimes for PCBs and DDT require detailed examination of national circumstances
- if Party has assessment program(s) for new and/or existing chemicals or pesticides, must evaluate substances for POPs properties using criteria in Annex D

Intentionally Produced POPs

28

## Stockholm Convention Provision for Unintentionally Produced POPs *by Dr. John Buiccini*

### Stockholm Convention Provisions for Unintentionally Produced POPs

John Buccini  
Chairman  
UNEP POPs Intergovernmental Negotiating Committee  
Ottawa, Canada

## OUTLINE

### **Measures to reduce or eliminate releases of unintentionally produced POPs:**

- Article 5
  - action plan
  - release reduction or source elimination
  - substitute materials, products, processes
  - source categories (new and existing):
    - best available techniques (BAT)
    - best environmental practices (BEP)
- Annex C
- Summary

## Unintentionally Produced POPs

**Convention Goal** = “continuing minimization and, where feasible, ultimate elimination” of the total releases of chemicals in Annex C derived from anthropogenic sources

### Annex C, Part I

Chemical
Dioxins and furans (PCDD/PCDF)
Hexachlorobenzene (HCB)
Polychlorinated biphenyls (PCB)

Unintentionally Produced POPs

3

## Article 5

**Parties shall, at a minimum, take measures to address the following:**

- action plan
- release reduction or source elimination
- substitute materials, products, processes
- new and existing sources
  - best available techniques (BAT)
  - best environmental practices (BEP)

Unintentionally Produced POPs

4



## Action Plan

**An action plan shall:** [Article 5, para. (a)]

- be developed within 2 years of entry into force
  - may be national, regional, or subregional
  - constitutes part of the overall implementation plan in Article 7
- identify, characterize and address release of chemicals in Annex C
- facilitate implementation of other requirements in Article 5
- be implemented!

Unintentionally Produced POPs

5

## Action Plan

**The action plan shall:** [Article 5, para. (a)]

- evaluate current and projected releases, including development & maintenance of source inventories and release estimates, noting source categories in Annex C
- evaluate efficacy of Party's laws and policies to manage such releases
- develop strategies to reduce releases
- promote education and training on strategies
- review success of strategies every 5 years
  - include this in reports to COP [Article 15]
- include a schedule for implementation of action plan

Unintentionally Produced POPs

6

## Other Measures

### Parties must:

- promote application of available, feasible and practical measures to achieve *expeditiously* realistic and meaningful levels of release reduction or source elimination [Article 5, para. (b)]
- promote development and, where appropriate, require use of substitute or modified materials, products and processes to prevent formation and release of POPs in Annex C [Article 5, para. (c)]
  - note the general guidance in Annex C
  - guidelines will be adopted by COP

Unintentionally Produced POPs

7

## Source Categories

**The following industrial source categories have the potential for comparatively high formation and release of POPs to the environment:** [Annex C, Part II]

- waste incinerators
  - municipal, hazardous or medical wastes
  - sewage sludge
- cement kilns firing hazardous wastes
- pulp production involving elemental chlorine
- thermal processes used in metallurgical industry
  - secondary production of aluminum, copper or zinc
  - sinter plants in iron and steel industry

Unintentionally Produced POPs

8

## Source Categories

For industrial sources that Party identifies as having **potential for comparatively high formation & release of POPs to environment (including those in categories in Annex C Part II)**, Party must:

- for new sources warranting such action:
  - promote, and as provided for in an action plan, require use of best available techniques (BAT) [Article 5, para. (d)]
    - phase in any BAT requirements for new sources in categories in Annex C Part II as soon as practicable but *no later than 4 years after entry into force*
  - promote use of best environmental practices (BEP) [Article 5, para. (d)]
- for existing sources, promote use of BAT & BEP [Article 5 (e)]

Unintentionally Produced POPs

9

## Source Categories

**The following industrial source categories have the potential for formation and release of POPs to the environment:** [Annex C, Part III]

- open burning of wastes (including landfill sites)
- thermal processes in the metallurgical industry not specified in Part II
- residential combustion sources
- fossil-fuel fired utility and industrial boilers
- firing installations for wood and other biomass fuels
- motor vehicles, especially those burning leaded gasoline

Unintentionally Produced POPs

10

## Source Categories

**The following industrial source categories have the potential for formation and release of POPs to the environment (continued):** [Annex C, Part III]

- chemical production processes releasing unintentionally produced POPs (e.g. production of chlorophenols and chloranil)
- textile and leather dyeing and finishing
- shredder plants for the treatment of end-of life vehicles
- destruction of animal carcasses
- smouldering of copper cables
- waste oil refineries
- crematoria

Unintentionally Produced POPs

11

## Source Categories

- **For both new and existing industrial sources in categories in Annex C Part III, Parties must promote use of BAT & BEP** [Article 5, para. (e)]
- **Parties should** take into consideration the guidance on BAT and BEP in Annex C, guidelines that will be adopted by the COP, and definitions in Article 5, para. (f)
- **Note:** Convention defines new sources [Article 5, para. (f)]
  - = construction or substantial modification of source commences >1 year after
    - convention enters into force for Party, or
    - entry into force for Party of amendment to Annex C

Unintentionally Produced POPs

12

## Annex C

### **Part IV: Definitions of chemicals**

### **Part V (A): General preventive measures (BAT & BEP)**

- use of low-waste technology
- use of less hazardous substances
- promote recovery & recycling of materials and wastes
- replacement of feedstocks that are POPs or give rise to POPs releases
- good housekeeping and preventive maintenance
- improvements in waste management practices
- minimize presence of POPs contaminants in products
- avoid using elemental chlorine in bleaching operations

Unintentionally Produced POPs

13

## Annex C

### **Part V (B): BAT**

- general considerations
- general release reduction measures

### **Part V (C): BEP**

- COP may develop guidance

Unintentionally Produced POPs

14

## Summary

### Considerations for ratification include:

- measures to reduce and/or eliminate releases of POPs in Annex C (dioxins, furans, HCB, PCB)
- action plan to be developed within 2 years of entry into force
  - part of Article 7 implementation plan
- action plan to be implemented
  - progress reports provided to COP (per Article 15)
- inventories or estimates of current and projected releases

Unintentionally Produced POPs

15

## Summary

### Considerations for ratification include:

- for new sources in Annex C:
  - Part II, promote and require BAT (within 4 years)
  - Part III, promote BAT
- for existing sources in Annex C:
  - Parts II and III, promote BAT
- for all types of new and existing sources
  - promote BEP

Unintentionally Produced POPs

16

**Stockholm Convention Provision for Stockpiles and Wastes by Dr  
*John Buccini***

**Stockholm Convention Provisions for  
Stockpiles and Wastes**

John Buccini  
Chairman  
UNEP POPs Intergovernmental Negotiating Committee  
Ottawa, Canada

**OUTLINE**

**Measures to reduce or eliminate releases from  
stockpiles and wastes:**

- Article 6
- Related Issues
  - Trade [Article 3]
  - Unintentionally produced POPs [Annex C]
  - PCB Issues [Annex A, Part II]
  - Adding new POPs [Annex F]
- Summary

## Stockpiles & Wastes

**Convention Goal** = to ensure that:

- stockpiles that consist of or contain a POP in Annex A or B, and
- wastes, including products and articles upon becoming wastes, that consist of, contain or are contaminated with a POP in Annex A, B or C

are managed in a manner protective of human health and the environment

**Note:** 2 differences between “stockpiles” and “wastes”

Stockpiles and Wastes

3

## Article 6: Stockpiles

**Parties shall:**

- develop and implement strategies to identify stockpiles [para. 1 (a)(i) and 1 (b)]
- manage stockpiles in a safe, efficient and environmentally sound manner (ESM) until they are deemed to be wastes [paragraph 1 (c)]
  - *i.e.*, no remaining uses by Party
    - no *specific exemption* or *acceptable purpose*
  - does not apply to stockpiles that may be exported
    - per Article 3, para. 2

Stockpiles and Wastes

4



## Article 6: Wastes

**Parties shall:** [para. 1 (a)(ii)]

- develop strategies to identify
  - products and articles in use, and
  - wastes

that consist of, contain or are contaminated with a POP in Annex A, B or C

Stockpiles and Wastes

5

## Article 6: Wastes

**Parties shall:** [para. 1 (d)]

- handle, collect, transport and store wastes in an ESM
  - dispose of wastes
    - in such a way that POP content is destroyed or irreversibly transformed, or
    - otherwise in an ESM when
      - destruction or irreversible transformation is not the environmentally preferred option, or
      - POP content is “low”,
- taking into account international rules, standards, etc.

Stockpiles and Wastes

6

## Article 6: Wastes

**Parties shall:** [para. 1 (d)]

- not allow disposal operations leading to recovery, recycle, reclamation, direct reuse or alternative uses of POPs
- not transport wastes across international boundaries without taking into account international rules, standards and guidelines (e.g., Basel Convention)

Stockpiles and Wastes

7

## Article 6: Contaminated Sites

**Parties shall:** [para. 1 (e)]

- endeavour to develop strategies for identifying sites contaminated by POPs in Annex A, B or C and,
- if remediation is attempted, do it in an ESM

**Note:** Remediation is not required by the Convention

Stockpiles and Wastes

8

## Article 6: COP Activities

**COP shall cooperate with appropriate bodies of Basel Convention to establish:** [para. 1 (e)]

- levels of destruction and irreversible transformation for purposes of paragraph 1 (d)
- methods that constitute ESM
- levels of POPs in Annexes A, B and C that are considered “low” for the purposes of paragraph 1 (d)

Stockpiles and Wastes

9

## Related Issues: Trade

**Convention imposes trade restrictions for all POPs in Annexes A and B:** [Article 3, para. 2]

Imports & exports between Parties are limited to shipments:

- intended for environmentally sound disposal [per Article 6, paragraph 1(d)], or
- to Parties with:
  - “specific exemptions” under Annex A or B, or
  - “acceptable purposes” under Annex B

Stockpiles and Wastes

10

## Related Issues: Trade

### **Exports to non-Parties may take place but there are conditions on both Non-Party and Party**

- Non-Party shall provide annual certification to exporting Party:
  - expressing commitment to *inter alia*:
    - protect health and environment by minimizing or preventing releases
    - comply with the requirements of Article 6, paragraph 1 concerning stockpiles and wastes
- Exporting Party shall transmit certification to Secretariat within 60 days of its receipt

Stockpiles and Wastes

11

## Related Issues: Trade

### **Parties shall provide the following information:** [Article 15, para. 2]

- data on, or estimates of, total quantities of POPs in Annexes A and B that were produced, imported and exported, and
- a list of States from which it has imported or to which it has exported POPs in Annexes A and B

**Note:** COP will specify frequency & format of such reports

Stockpiles and Wastes

12

## Related Issues: PCB

**Parties using PCB specific exemption shall:** [Annex A Part II]

- eliminate use of in-place PCB equipment PCBs **by 2025**
- not export or import PCB equipment, except for the purpose of ESM of waste
- not recover liquids with more than 0.005% PCB for reuse in other equipment, except for maintenance and servicing
- make determined efforts to achieve ESM of wastes containing >0.005% PCB ASAP, and **by 2028**
- endeavour to identify articles with >0.005% PCB for ESM
- report to the COP every 5 years on their progress in eliminating PCB [per Article 15]

Stockpiles and Wastes

13

## Related Issues: Unintentional POPs

**Annex C, Part II identifies the following among the industrial source categories having the potential for comparatively high formation and release of POPs to the environment:**

- waste incinerators
  - municipal, hazardous or medical wastes
  - sewage sludge
- cement kilns firing hazardous wastes

Stockpiles and Wastes

14

## Related Issues: Unintentional POPs

**Annex C, Part III identifies the following among the industrial source categories having the potential for formation and release of POPs to the environment:**

- open burning of wastes (including landfill sites)
- shredder plants for the treatment of end-of-life vehicles
- smouldering of copper cables
- waste oil refineries

Stockpiles and Wastes

15

## Related Issues: Unintentional POPs

**Annex C, Part V (A) identifies the following among general preventive measures to minimize production of POPs (BAT & BEP):**

- use of low-waste technology
- promote recovery & recycling of materials and wastes
- improvements in waste management practices

Stockpiles and Wastes

16

## Related Issues: Adding New POPs

- **Annex F requests information** on waste disposal implications in evaluating socio-economic information prior to deciding whether a chemical should be added to Annex A, B or C

Stockpiles and Wastes

17

## Summary

### Considerations for ratification include:

- **Stockpiles containing POPs in Annex A or B:**
  - develop and implement strategies for identification
  - manage in ESM until they become wastes
- **Wastes containing POPs in Annex A, B or C:**
  - develop strategies for identification
  - handle, collect, transport and store in ESM
  - disposal such that POP content is destroyed or irreversibly transformed, or otherwise in an ESM, taking into account international rules, standards, etc.

Stockpiles and Wastes

18

## Summary

### Considerations for ratification include:

- **Wastes containing POPs in Annex A, B or C:**
  - prevent recovery, recycle, reclamation, direct reuse or alternative uses of POPs
  - transport across international boundaries must take into account international rules, standards and guidelines (e.g., Basel Convention)
- **Sites contaminated by POPs in Annex A,B or C:**
  - endeavour to develop strategies for identifying sites
  - if remediation is attempted, do it in an ESM

Stockpiles and Wastes

19

## Summary

### Considerations for ratification include:

- **Trade restrictions:**
  - must implement measures in Article 3, para (2) and reporting requirements in Article 15, para. (2)
- **PCB measures:**
  - must implement measures in Annex A Part II
- **Unintentionally produced POPs**
  - address source categories in Annex C, Parts II and III
  - implement BAT and BEP using guidance in Annex C Part V

Stockpiles and Wastes

20



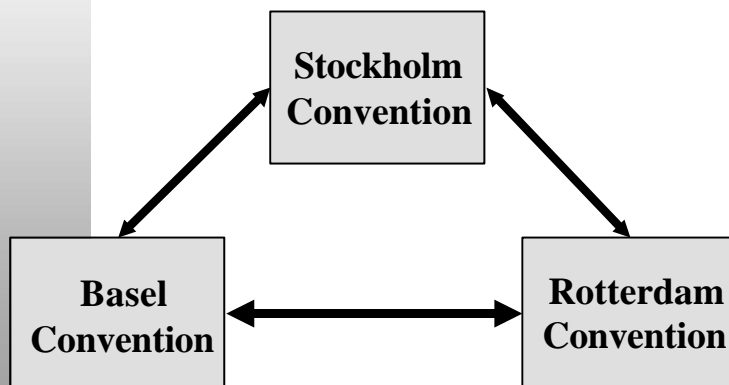
**Relationship of the Stockholm Convention to the Basel and Rotterdam Convention** *by Dr. Katarina Magulova*

Relationship of the Stockholm Convention  
to the Basel and Rotterdam Conventions

Overview

- **Life Cycle Management**
  - The 3 treaties together cover elements of “cradle-to-grave” management
  - Common thread = POPs
- **Interlocking scope and coverage**
- **“Bridging” elements**
- **“Clustering” and governance issues**

## Overview



## Scope and Coverage

- Evaluating/regulating new chemicals (PIC and POPs)
- Evaluating/regulating existing chemicals (PIC and POPs)
- Import/export controls (PIC, POPs and Basel)
- Disposal (POPs and Basel)
- Hazard communication (PIC, POPs and Basel)
- Environmental releases (POPs)
- Other links, eg, regional treaties

## New and Existing Chemicals

- **New Chemicals**
  - “regulate with the aim of preventing the production and use of new pesticides or new industrial chemicals which... exhibit the characteristics of persistent organic pollutants”
- **Existing Chemicals**
  - “take into consideration within these schemes the criteria in paragraph 1 of Annex D when conducting assessments of pesticides or industrial chemicals currently in use”
- **Banned or severely restricted chemicals must be notified under the Rotterdam Convention**

## Import/Export Controls (1)

- **Rotterdam Convention is a first line of defence (keeps POPs problems from spreading or getting worse)**
- **8 POPs are included in both Conventions**
  - Aldrin
  - Chlordane
  - DDT
  - Dieldrin
  - Heptachlor
  - Hexachlorobenzene
  - PCBs
  - Toxaphene\*
- **Possible future POPs are also included (or can be included)**

## Import/Export Controls (2)

- **Stockholm Convention Article 3(2) controls import/export**
- **Rotterdam Convention provides an “extension”**
  - Reporting for trade under Stockholm Convention exemptions
  - Trade with Stockholm Convention non-Parties
  - Period until the Stockholm Convention enters into force
  - Trade in possible future POPs
  - Monitoring trade
  - Harmonized System Custom Codes
- **Should be implemented consistently**

## Import/Export Controls (3)

- **Rotterdam Convention/Basel Convention**
- **Covers trade in toxic chemicals and hazardous wastes**
- **Masquerades (wastes travelling as chemicals)**
- **Stockpiles (eg, prevention)**
- **Illegal traffic**
- **Customs matters**

## Waste Management (1)

- **Destroying POPs wastes**
- **Stockholm Article 6(1)(d)**
  - “Picked up” by Basel
- **Stockholm Article 6(2)**
  - A – irreversible transformation
  - B - Environmentally sound disposal
- **Stockholm Resolution 5**
  - technical guidelines for the environmentally sound management of persistent organic pollutant wastes

## Waste Management (2)

- **Preventing the creation of POPs in waste management practices**
- **Stockholm Article 5**
- **Annex C**
  - **Relevant Part II Source Categories:**
    - Waste incinerators, including co-incinerators of municipal, hazardous or medical waste or of sewage sludge
    - Cement kilns firing hazardous waste
  - **Relevant Part III Source Categories:**
    - Open burning of waste, including burning of landfill sites
    - Waste oil refineries
    - Possibly others???

## Waste Management (3)

- **Basel Technical Guidelines:**

- PCBs
- Dioxins
- Furans
- Others?

## Bridging Elements

- **Technical Assistance**
- **Technology Transfer**
- **Regional Centres**
- **Financial Mechanism**
- **National Implementation Plans**
- **Policy Development (INCs, COPs and subsidiary bodies)**

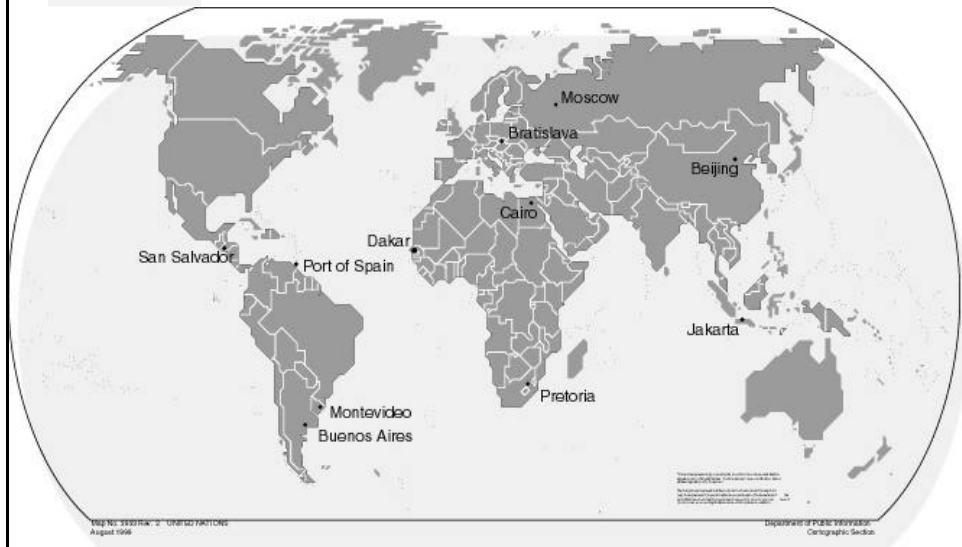
## Technical Assistance/Technology Transfer

- **Article 12, Paragraph 3**
  - **Bilateral technical assistance**
  - **Other technical assistance as agreed by COP**
- **Article 12, Paragraph 4**
  - **Technical assistance**
  - **Technology transfer**
  - **As agreed by COP**
  - **Regional Centres**

## Regional Centres

- **Established by the Basel Convention**
- **Required by the Stockholm Convention**
- **Interim period – use of BRCs for the Stockholm Convention?**

## Basel Regional Centres



## Financial Mechanism

- **Stockholm Convention**
  - **Financial Mechanism**
    - GEF
    - Other sources of funds
- **Rotterdam Convention**
  - **Informal**
- **Basel Convention**
  - **Technical Cooperation Trust Fund**



## Financial Mechanism

- **Leveraging resources**
- **Control of POPs production, import and use**
- **Disposal of POPs**
- **Waste disposal technologies**
- **Implementation Plans**

## Clustering

- **International Environmental Governance**
- **Process also looking at MEAs**
- **Decision to pilot a Chemicals and Waste Cluster**
- **Agreement on approach to be taken in Montreal on 1 December**
- **First steps – administrative and policy linkages**

## Summary

- **Framework for life cycle management**
- **Leveraged resources**
- **Strengthened programmes**
  - **Infrastructure**
  - **Risk Assessment**
  - **Risk Management**
  - **Public participation**
  - **Customs**
  - **Sustainable development**
- **Global/regional/national levels**

## **Issues and Problems of Obsolete and Banned Pesticides** *by Dr. Alemayehu Wodageneh*

Pesticides and leaking and corroding pesticides containers are worldwide and serious environmental issues. They exist in both urban areas and in populated zones. Most of the rural landscapes of developing countries are littered with obsolete stockpiles involving pesticides of all types, POPs pesticides, empty and contaminated containers of all types, makes and sizes. These stockpile leftovers are constant threats to the human health in the agricultural world they were designed and meant to help. They are affecting not only the agriculture and its environment, but also the health of people and consequently development. The global environmental tragedy is a direct result of several decades of mishandling and wrong agricultural, aggressive pesticide sales and distribution, etc. The problem most serious and dramatic in the developing world where there are no awareness, facilities, expertise and above all funds for cleaning up the toxic waste. Conservative estimates find well over 500 000 tonnes of obsolete pesticides in developing countries and of this total over 120,000 tonnes is confirmed to exist in Africa.

The alarming inventory information gathered during surveys over the last seven years has provided concrete evidence of the real and immediate danger resulting from stockpiles in many of the countries covered in Africa and other parts of the world. The collaborative programme on disposal of obsolete pesticides underlines the urgency, the importance and the need for both commitment and concerted international effort to solve this problem. The Indication confirms that at least over 500 million dollars will be required to clean up critical areas of the developing world but considering on going unit cost of disposal, this total sum might be far less than what will be required. The task of cleaning up the toxic mess is a complex. It is technical, dangerous and expensive. Operation has to be undertaken and managed by professional staff with skills and adequate background and for this to be achieved successfully, adequate financial resources will be required. If the problem is delayed or left without solution, it will be far more expensive and the potential for environmental disaster will be much greater.

### **Causes for accumulation of obsolete pesticide stocks**

The causes of accumulation stockpiles are many and differ from country to country including the variety and types of toxic waste involved. The following are some of the known causes:

- 1 Inadequate storage facilities and improper pesticide containers. This is true that some 96% of the stores in the developing world are substandard including stores owned by governments, state and private farms and also those owned and managed by the pesticide vendors or distributors.
- 2 Pesticides banned while in storage,
- 3 Prolonged storage of products with short shelf-life

- 4 Inability to forecast pest outbreaks such as locusts, birds, grasshoppers, armyworms, etc.
- 5 Poor or no ability to make correct assessment of pesticide requirements
- 6 Unawareness of the inherent danger of pesticides and associated short and long-term environmental consequences
- 7 Poor stock management and lack of record-keeping in almost all cases
- 8 Inappropriate pesticide provisions or unethical dumping under a pretext of donations
- 9 Uncoordinated donations of pesticides arriving from different sources at about the same time for the same purpose
- 10 Over-purchase through government budget allocations
- 11 Ineffective distribution system or lack of means and facilities for coordinated actions
- 12 Aggressive profit motive by vendors
- 13 Illegal cross-border trading, etc.

### **The first line of action in addressing the issue of stockpiles**

The first line of action in addressing the problem is to conduct countrywide surveys and to take appropriate inventory of stocks. The following should be taken into consideration.

The issue of obsolete pesticides is complicated but at least the points listed below from (a) to (g) need to be taken into consideration:

- a) Knowledge of causes of accumulation of stockpiles in each case.
- b) How and by what means further accumulation can be avoided?
- c) Studying how to get prepared to get rid of accumulated stocks and to find the means to do it.
- d) What alternative methods of pest control are available for use?
- e) What policies should be put in place to minimise the use of pesticides and move to other alternative methods of agricultural and vector pest control?
- f) How soon governments concerned can enact the identified measures?

- g) What resources are available and how to implement effectively new or existing rules or regulations?
- 1 Studying and analysing the above few and basic questions is useful so as to find solutions to recurring problems of stockpiles and widespread environmental havoc.
  - 2 Study, understand and compare disposal methods available. Disposal by means of incineration is increasingly opposed by Non-Governmental Organizations (NGOs), the Civil Society, the public awareness group, Green Peace, etc. Opposition is stiffer when cement-kilns are chosen for destruction of waste. Basically use of cement kiln is not acceptable simply because dioxin emissions into the environment is unavoidable. Dioxins are highly dangerous than a given set of pesticide waste intended for destruction. Toxic waste solids such as containers can't be handled buy cement kiln.
  - 3 The action of countrywide surveys and inventory taking should always consider the following four categories of waste or stockpiles:

**Obsolete and banned pesticides:**

These are pesticides that are no longer useful for the purpose for which they were or are intended. They might exist in various forms such as liquids, granules, powders, emulsions, gasses, etc.

**Empty and contaminated pesticide containers:**

These are equally as dangerous as pesticides and therefore should be taken into consideration when taking inventories. In many countries and mainly in developing countries, pesticide containers are used for domestic purposes and thus often cause major environmental and health disasters.

**Heavily contaminated soils:**

These are major sources of water contamination particularly ground water. Contamination takes place from run off often immediately after rains during rainy seasons.

**Buried pesticides:**

These are often found in unmarked or marked sites in the midst of populated zones with little or no attention as to their environmental impacts. Such leads to soil contamination subsequently leading to highly hazardous and widespread contamination.

FAO has developed a format that is widely used for inventory taking. The format is simple to use. It is useful for exchanging of information for updating the FAO global database on stockpiles. It provides bases for initiating disposal operations.. The inventory format should be completed in Excel so as to facilitate conversion of inventory information to a database. ***The electronic version of the FAO Inventory Format is attached.***

## Survey activities

FAO started gathering information and taking inventories of obsolete stocks since 1994. Between 1994 and 2001, the FAO Collaborative Programme on Disposal of Obsolete Pesticides, identified stockpiles in many countries mainly in Africa and the Near East. Currently information on inventories and stock data is available from 46 countries in Africa, nine in the Near East, seven in the Far East and 12 in Latin and Central America and the Caribbean. However, inventories secured are only indicative and in most cases are far under estimated and not taken into consideration the four components of stockpiles described above. In each case and in each country, inventory results need and should be regularly updated.

## Destruction of waste

Destruction often requires high temperature incineration in dedicated hazardous waste facilities. At least at the moment these are the preferred means of destruction. There are a number of different facilities but almost all are either under development or are not widely used or accepted in many countries. These are:

- 1) Chemical treatment
- 2) Engineered landfill
- 3) Long term controlled storage
- 4) Reuse/reformulation
- 5) New technology
  - Gas phase hydrogenation
  - Electrochemical Oxidation
  - Molten Metal
  - Molten salt
  - Solvated Electron Process
  - Supercritical Water Oxidation
  - Plasma Arc

The above methods of destruction can be debated by indicating advantages and disadvantages. Most of each of the technologies either updated or being revised while few of them continue to be used on a limited scale in limited countries.

The method of engineered landfilling is often available if Government policies support them. However, owing to long-term negative impacts on environment and owing to the fact that they require constant maintenance, such methods of waste disposal is gradually discouraged. In fact many developed countries are avoiding their widespread use. In many developed countries old landfilled sites are being excavated and decontaminated at much higher cost. Despite widespread oppositions, currently dedicated high temperature incinerations are being widely used. Dedicated facilities have strict emission control mechanisms backed by constant monitoring and supervisions to ensure safety of operations and zero release of dioxins. But since such sophisticated incinerators are expensive to install, developing countries can't

afford them. The usual practice therefore is to clean up stockpiles professionally, repackage them in new UN approved repackaging materials/containers, transport them overland to a major port and then tranship them overseas such as to countries where waste destruction facilities exist and where waste is accepted. the cost of such operations varies between US\$3,000 and US\$4,500 per tonne depending on a number of factors. However, with increased competition among waste treatment companies, the cost of disposal per unit weight or volume is expected to decrease.

## **Policy Issues**

Past mistakes have been recognised and measures are being taken to prevent repetition. But still large quantities of obsolete pesticides remain as a heritage since over 30 years of misuse. Unless coordinated international action is taken, the current situation will continue to worsen. However, the following are ongoing efforts that are currently being implemented:

- 1 Organizing a global effort to dispose of existing hazardous chemicals and to avoid further accumulations.
- 2 Providing monitoring services to ensure that contractors comply with international safety and environmental standards.
- 3 Ensuring more cooperation among donor governments, aid agencies, recipient governments and agrochemical companies. Each needs to assume some of the responsibilities for the current situation by giving high priorities.
- 4 Promoting methods of pest management that will reduce total reliance on pesticides by providing guidelines that should limit stocks of pesticides to short-term requirements
- 5 Recommending or enforcing agrochemical companies to take back and dispose of unused or substandard products they supplied at their own cost including the return of collection of pesticide containers.
- 6 Seeking funding sources for disposal operations by establishing joint funding arrangements as and when necessary.

## Provisions

FAO provided guidance and assistance to member countries in a number of ways such as the following:

- Surveying and monitoring of potential problems of existing stockpiles.
- Developing and distributing guidelines for safe storage, for preventing accumulation and for removal and destruction of waste.
- Initiating and formulating disposal projects for member countries.
- Organising local, national and regional training, seminars, workshops and group discussions.
- Sensitising and mobilizing the public through awareness raising.
- Supervision, monitoring and follow-up of disposal operations at field level.
- Raising awareness by sharing information, etc.

## Guidelines on obsolete stockpiles

FAO has produced and published a series of guidelines and related documents on the management and proper storage of pesticides, safe disposal operations, etc. The following are available in hard copies, in electronic formats and on the Internet.

- Prevention of Accumulation of Obsolete Pesticide Stocks,
- Pesticide Storage and Stock Control Manual,
- Disposal of bulk quantities of obsolete pesticides in developing countries
- Guidelines for the management of small quantities of unwanted and obsolete pesticides
- Assessing soil contamination (A reference manual)
- Baseline study on the problem of obsolete pesticide stocks
- Training manual in waste management,
- Country guidelines to help governments in developing countries as to how to address the problem and to how to coordinate the various stakeholders, etc.

Most of these guidelines are already available in English, French, Spanish and Arabic and those that are not will soon be available.

Other related documents on prevention and disposal are also available. Most of the guidelines can be referred to and downloaded from the FAO homepage on the Internet: <http://www.fao.org> at the following website:

[http://www.fao.org/WAICENT/FAOINFO/AGRICULT/AGP/AGPP/Pesticid/Disposal/index\\_en.htm](http://www.fao.org/WAICENT/FAOINFO/AGRICULT/AGP/AGPP/Pesticid/Disposal/index_en.htm)



In addition, various basic information resources compiled in a CD-ROM containing database on stocks of some countries, guidelines, posters, video on disposal operations of stockpiles, brochures, etc. are also available.

The FAO video's provide information on the effect of pesticides and problems by showing actions on disposal operations at the field level.

**Basel Convention regional Centre *by Miss, Dana Lapesova*****BASEL CONVENTION REGIONAL CENTRE  
BRATISLAVA, SLOVAK REPUBLIC**

1995: Establishment of the BCRC as a unit within  
**SLOVAK ENVIRONMENTAL AGENCY – WASTE  
MANAGEMENT CENTRE**

Based on a feasibility study – prepared by Finland  
UN – UNEP/SBC/SAE project No. BS/3100-97-01

- generous grant from the Swiss government
- grant from DEPA
- in-kind contribution from the Slovak Republic

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

**BASEL CONVENTION REGIONAL CENTRE  
BRATISLAVA, SLOVAK REPUBLIC**

- Knowledge of the current state of waste management in CEE countries was considered basic condition for the project realization.

**Operational strategy for the Centre for 2000 –2002**

- Training courses and workshops
- Supplementary projects to the workshops and comprehensive studies
- Assistance and advisory services
- Promotion and public awareness

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

## **BCRC BRATISLAVA TRAINING COURSES**

### **June 1997 to March 2000: 9 training courses**

#### **No. 1: June 1997**

- Implementation of the Basel Convention into the National Legislation  
(Demonstration Project – Petrochemical Company Slovnaft Bratislava)

#### **No. 2: October 1997**

- Identification of Hazardous Wastes  
(Hazardous waste collection, Saubermacher Company in Graz, Austria)

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

## **BCRC BRATISLAVA TRAINING COURSES**

#### **No. 3 December 1997**

- The Information Management System on Wastes  
(Rubber Company Matador Puchov, Slovakia)

#### **No. 4 March 1998**

- Enforcement of the Basel Convention Principles  
(Slovak Gas Industry, Danube-River Hydro-Energetic Complex)

#### **No. 5 June 1998**

- Public Awareness Programmes  
(Aluminium Plant, Envirofilm)

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

**BCRC BRATISLAVA TRAINING COURSES****No. 6 September 1998**

- Cleaner production and Waste Minimisation  
(Pulp and paper Mill AssiDoman Packaging Sturovo,  
Slovakia)

**No. 7 November 1998**

- Methods of Waste Disposal with Focus on  
Incineration  
(incineration plant EbS in Vienna – Simmering,  
Austria and waste alternative Treatment Company in  
Slovakia)

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

**BCRC BRATISLAVA TRAINING COURSES****No. 8 May 1999**

- Control of the Transboundary Movements of  
Hazardous Wastes  
(Visit to the Slovak-Austrian border check point)

**No. 9 March 2000**

- Implementation of the Basel Ban Amendment  
(Danish Project)

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

## CATALOGUE OF QUESTION

- related to the topics
- had two aims:
  - to initiate profound preparation
  - to provide BCRC with detail and actual information on the conditions related to a given topic in CEEC (reliable background information)

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

## TRAINING PROCESS EVALUATION

- work plan was successfully implemented
- key problem – different level of CEEC in environmental and waste national legislation
  - definition of waste
  - system of standards
  - treatment of HW
  - HW management system
  - Financial support from the state budget
  - Information system – level

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

## TRAINING PROCESS EVALUATION

### Current Situation

- All countries under the competence of BCRC Bratislava became members of the Basel Convention

### Result

- All countries has established Competent Authorities and Focal Points under the Article 5 of the Basel Convention

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

## BCRC CLEARING HOUSE ACTIVITIES

- Collection and evaluation of professional information as a permanent process
- Establishment and carrying out of six technological projects and case studies
- Publishing
- Direct regional in situ activity – sponsored three countries in workshop in FR Yugoslavia
- Cooperation with others BCRC in the world
- Four Advisory Boards
- One General Assembly

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

## **BCRC CLEARING HOUSE ACTIVITIES**

- The majority of the projects were initiated by the BCRC experts – 4 were carried out only by experts from Slovakia, other countries participated in 3 projects.
  - Procedure of selection , approval and implementation of TP and CS:
  - choice of themes – based on proposals initiated by the training course participants
  - problem areas identified as priorities in relation to training courses and/or suggestions direct from individual countries

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

## **BCRC CLEARING HOUSE ACTIVITIES**

- issues related to the work programme under BC Technical Working Group
- relevant decision of the COP or other BC subsidiary bodies
- implementation in the other region
- application of the project outputs in the CEE region

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

## PROJECTS

- Internet Information System on The Basel Convention
- Proficiency Testing RTC 01/1998 by International Inter-Laboratory Comparison on Determination of PCB/Congeners and PAHs in Soil Matrix
- Hazardous Characteristics of the Flying Ashes from Coal-Burning Power Plants and Waste Incinerators
- Technical Guidelines for Collection of the Different Types of Samples to the Form Available for Using Different Methods of Heavy Metal Analyses/Mineralisation

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

## PROJECTS

- Technical Guidelines for Collection of the Solid and Liquid Samples of Waste
- Hazardous Characteristics of wastes Controlled by the Basel Convention

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia



## BCRC BRATISLAVA FINANCIAL MODEL

- Cooperation SBC – BCRC – and CA and FP of all countries which belong to
- 6<sup>th</sup> training course: 4 possibilities for the new financial model
  - the full coverage from CEEC own resources
  - part-time coverage
  - coverage of selected future activities (forward agreed)
  - without any financial support from CEEC
- other possibility – continuation of direct financial contributions – through UNEP Fund
- private-public partnership, industry, banks

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

## PRESENT STATE

### In preparation

- 10<sup>th</sup> Workshop on COMPARATIVE ANALYSIS OF INTERNATIONAL WASTE LISTS AND CONTROL SYSTEMS
  - Sponsored by grant from DEPA, June 2002
- Participation in two projects
  - Used brake fluid processing
  - Preparation of national inventories and national plans for the environmental sound management of PCB and PCB containing equipment
- Cooperation in a workshop on Implementation of the Stockholm Convention on POPs, Bratislava, April 2002

Cairo  
April 4-5, 2002

Dana Lapešová  
BCRC Bratislava, Slovakia

**Stockholm Convention General Obligation Presented  
by Dr. John Buccini**

**Stockholm Convention:  
General Obligations**

John Buccini  
Chairman  
UNEP POPs Intergovernmental Negotiating Committee  
Ottawa, Canada

**OUTLINE**

**General obligations include the following Articles:**

- 7 - Implementation plans
- 9 - Information exchange
- 10 - Public information, awareness & education
- 11 - Research, development & monitoring
- 15 - Reporting

**Summary**

## Article 7: Implementation Plans

### Parties shall:

- develop & endeavour to implement an implementation plan [para. 1 (a)]
- submit plan to COP within 2 years of entry into force of Convention for the Party [para. 1 (b)]
- review and update plan on a periodic basis, in a manner to be specified by COP [para. 1 (c)]
- cooperate with other Parties directly, or through intergovernmental organizations, and consult stakeholders in all these actions [para. 2]
- endeavour to utilize and integrate these plans in national sustainable development strategies [para. 3]

General Obligations

3

## Article 7: Implementation Plans

### As part of its implementation plan under Article 7:

- Party in the DDT Register shall develop national DDT action plan to: [Annex B Part II]
  - confine use of DDT to disease vector control
  - explore alternatives to DDT, and
  - take measures to strengthen health care and reduce incidence of disease
- Party shall develop an action plan within 2 years of entry into force to identify, characterize and address releases of unintentionally produced POPs in Annex C and facilitate implementation of the requirements of Article 5

General Obligations

4

## Article 9: Information Exchange

**Parties shall:**

- facilitate or undertake information exchange on the reduction or elimination of the production, use and release of POPs and alternatives to POPs [para. 1]
  - exchange information directly or through secretariat [para. 2]
  - designate a national focal point to facilitate this exchange of information on POPs and their alternatives [para. 3]
  - protect confidential information as mutually agreed [para. 5]
    - health & environmental information are not confidential
- Secretariat serves as clearing house mechanism** [para. 4]

General Obligations

5

## Article 10: Public Information

**Parties shall, within their capabilities, promote and facilitate the following as they relate to POPs and alternatives to POPs:** [para. 1]

- awareness among policy and decision makers
- provision of available up-to-date information to the public
- development and implementation of educational and public awareness programs
- public participation in developing and implementing measures to address POPs
- training and development programs for stakeholders
- development, exchange and implementation of education and training programs at national and international levels

General Obligations

6

## Article 10: Public Information

**Parties shall, within their capabilities:**

- ensure public has access to up-to-date information [para. 2]
- encourage industry and professional users to promote and facilitate provision of information at national & other levels [para. 3]

**Parties may:**

- use range of approaches to provide information, and may establish information centres at national & regional levels [para. 4]
- develop mechanisms (such as PRTRs) to collect and disseminate information on annual amounts of POPs in Annex A, B or C that are released or disposed of [para.5]

General Obligations

7

## Article 11: Research, etc.

**Parties shall, within their capabilities,** encourage and/or undertake research, development, monitoring and cooperation on all aspects of POPs, their alternatives and candidate POPs, including on: [para. 1]

- sources and releases to environment
- trends in levels in the environment and humans
- environmental transport, fate and transformation
- effects on human health and the environment
- socio-economic and cultural impacts
- release reduction and/or elimination
- methods for source inventories & for analysis of POPs

General Obligations

8

## Article 11: Research, etc.

**Parties shall, within their capabilities,** in undertaking the actions in paragraph 1: [para. 2]

- support and further develop international programmes, networks and organizations to define, conduct, assess and finance research, data collection and monitoring
- support national and international efforts to:
  - strengthen national scientific and technical research capabilities, particularly in developing countries and countries with economies in transition, and
  - promote access to and exchange of data & analyses
- undertake research work on alleviating effects of POPs on reproductive health

General Obligations

9

## Article 11: Research, etc.

**Parties shall, within their capabilities,** in undertaking the actions in paragraph 1: [para. 2]

- take into account concerns and needs, particularly financial and technical resources, of developing countries and countries with economies in transition, and cooperate in improving their capability to participate in these efforts
- make the results of these activities accessible to the public on a timely and regular basis
- encourage and/or undertake cooperation with regard to storage and maintenance of pertinent information

General Obligations

10

## Article 15: Reporting

**Parties shall report to the COP on:** [para 1]

- measures taken by Party to implement the Convention
- effectiveness of the measures taken

**Parties shall provide the Secretariat:** [para 2]

- data on, or estimates of, total quantities of POPs in Annexes A and B that were produced, imported and exported
- list of States from which it has imported or to which it has exported POPs in Annexes A and B

**COP will specify frequency, format of such reports** [para 3]

General Obligations

11

## Article 15: Reporting

- Parties that make use of the PCB specific exemptions [Annex A Part II] shall report to the COP every 5 years on their progress in eliminating PCBs
- Parties in the DDT Register [Annex B Part II] shall report to the COP every 3 years on:
  - quantities of DDT used
  - conditions of use, and
  - relevance of DDT to Party's disease control strategy
- Parties shall report to the COP every 5 years on the success of its strategies in reducing releases of unintentionally produced POPs in Annex C

General Obligations

12

## Summary

### Considerations for ratification include:

- Information Exchange [Article 9]
  - establish National Focal Point
  - means to exchange information
    - Parties and Secretariat
    - protection of confidential information
- Public Information [Article 10]
  - raise awareness of stakeholders and policy makers
    - information, education, training & development
  - engage all stakeholders in POPs activities

General Obligations

13

## Summary

### Considerations for ratification include:

- Research, Development and Monitoring [Article 11]
  - information will be needed to:
    - assess status quo (inventories, etc.)
    - set baseline levels for humans and environment
    - monitor effectiveness of actions taken
  - cooperation with other countries and IGOs
  - capacity building in developing countries
- Note: Effectiveness Evaluation provision will require national and regional inputs [Article 16]

General Obligations

14



## Summary

### Considerations for ratification include:

- Reporting [Article 15]
  - reports to COP:
    - implementation measures and their effectiveness
    - success of Party's strategies in reducing releases of unintentionally produced POPs (5 years)
    - elimination of in-use PCB & PCB wastes (5 years)
    - amounts of DDT used, conditions of use, relevance to disease control strategy (3 years)
  - report to Secretariat:
    - trade data for POPs in Annexes A and B

General Obligations

15

## Summary


### Considerations for ratification include:

- Implementation Plans [Article 7]
  - required 2 years after entry into force, but needed earlier because:
    - ties together all aspects of Convention
    - will guide early actions and setting of priorities
    - plans for DDT and unintentionally produced POPs to be incorporated
    - stakeholder involvement will be achieved
    - engagement of other countries and IGOs
  - important element of this workshop!

General Obligations


16

**Interim Activities and INC-6 by Dr. Bo Wahlström**




***Interim Activities and INC-6***

Bo Wahlström  
UNEP Chemicals




MSP Workshop - Bratislava, Slovak  
Republic, 8-12 April 2002



Outline

1. Final Act of Stockholm Convention
2. INC-6
3. Interim activities



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## Final Act

I. Meeting report of DIPCON

II. Resolutions

III. The Stockholm Convention



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Republic, 8-12 April 2002

## Resolutions

-Interim Arrangements

-Interim financial arrangements

-Capacity building and capacity assistance network

-Liability and redress

-Issues related to the Basel Convention

-Secretariat



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### *Interim arrangements*

- Financial and technical assistance
- UNEP to convene further sessions of INC
- INC to focus on activities that will facilitate a rapid entry into force and effective implementation
- Rules of procedures etc. for the POPs Review Committee
- Guidance on current and projected releases of unintentionally produced POPs
- Guidance on best environmental practices



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### *Interim arrangements, cont.*

- Preparatory work for the listing of new POPs
- Scoping document by secretariat on issues in 1(d) of Article 6
- Establish any subsidiary bodies, as appropriate
- Apply the provisions on a voluntary basis
- UNEP to provide secretariat during the interim period
- Countries to contribute to UNEP trust fund for interim activities



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### *Interim financial arrangements*

- Requests GEF to establish a new focal area to supplement the Convention
- Requests GEF to establish an operational programme on POPs
- GEF to report to COP-1 on measures taken to ensure transparency and simple, flexible and expeditious procedures
- Donors to provide additional financial resources



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### *Interim financial arrangements*

- Interim secretariat to invite funding institutions to provide information on how to support to the Convention
- COP-1 to review availability of financial resources additional to those from GEF and how to channel these into support for the Convention



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### ***Capacity building and Capacity assistance network***

- INC invited to focus on arrangements for capacity building in signatory countries
- GEF and UNEP to develop modalities for establishing a capacity assistance network
- Identify and maintain inventory of sources of assistance
- Assist signatories to identify sources
- Provide information to signatories on categories, sources and requirement



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### ***Capacity building and Capacity assistance network***

- Encourage involvement of private sector and NGOs
- Other entities providing assistance urged to contribute to this effort
- Invites GEF to take into account the needs for the implementation of the Convention in developing its capacity building strategy and to report to INC-6



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### ***Liability and redress***

- Welcomes Austria's offer to host a workshop
- Governments and IGOs to provide secretariat with information on measures and agreements on liability and redress
- Secretariat to organize workshop in 2002
- COP-1 to consider report and decide on further action



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### ***Resolutions related to the Basel Convention***

- Basel Convention should make work on technical guidelines for managing POPs wastes a priority
- Basel and Stockholm to co-operate closely on issues related to 1(d) of Article 6
- INC and secretariat to co-operate with Basel bodies
- SBC invited to report on managing POPs wastes to POPs INC



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### ***Resolutions related to the secretariat***

- Offers from Switzerland and Germany welcomed
- Countries to provide full details of offers
- UNEP to provide secretariat functions of the Convention
- UNEP to consider offers, including other offers, and prepare a comparative analysis for COP-1 in consultation with the INC



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### ***INC-6, agenda***

1. Opening
2. Organizational matters
3. Review of ongoing work
4. Activities of secretariat
5. Preparations for COP-1 according to the Convention
6. Other matters
7. Closure



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### ***INC-6; Organizational matters***

- Adoption of agenda
- Organization of work
- Report on inter-sessional work
- Bureau issues



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### ***INC-6; Preparations for COP-1 according to Convention***

- Measures to reduce or eliminate releases from intentional production
- Measures to reduce or eliminate releases from unintentional production
- Measures to reduce or eliminate releases from stockpiles and waste



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***INC-6; Preparations for COP-1 according to  
Convention***

- Implementation plans
- Listing of chemicals
- Information exchange
- Technical assistance
- Financial resources and mechanisms
- Interim financial mechanism



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***INC-6; Preparations for COP-1 according to  
Convention***

- Reporting
- Effectiveness evaluation
- Non-compliance
- Settlement of disputes
- Conference of the Parties
- Other issues not covered



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### ***INC-6; Other preparations for COP-1***

- Location of the Secretariat
- Liability and redress

### ***INC-6; Other issues***

- Status of signature and ratification of the Convention



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### ***Implementation of interim activities***

1. Relating to measure to reduce or eliminate releases from stockpiles and wastes
  - Scoping document on Article 6 issues
  - Cooperative activities between the Stockholm Convention and the Basel Convention
2. Implementation plans
  - Guidance on preparation of implementation and action plans



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### *Implementation of interim activities*

#### 3. Issues relating to technical assistance and financial resources

- Request for the establishment of a new focal area within the GEF
- Efforts on arrangements for capacity building for the implementation of the Convention in developing countries
- UNEP and GEF in cooperation to develop modalities for a capacity assistance network and report to INC-6
- Prompt start of the Capacity Assistance Network



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### *Implementation of interim activities*

#### 4. Relating to liability and redress

- Governments and relevant international organizations provide secretariat on liability and redress
- Workshop on liability and redress in the context of the Stockholm Convention



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## *Summary*

In the interim period there will be:

- INCs to prepare COP-1 and oversee interim activities
- Interim Secretariat
- Implementation of interim activities
- Voluntary implementation of the Convention provisions by States



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**Chemicals Control by Mr. Bengt Bucht**

**Chemicals Control**

**Responsibilities, management,  
institutions**

**Bengt Bucht**

**Swedish National Chemicals Inspectorate**

1

**CHEMICALS CONTROL  
SPHERE**

**Health and Environment and Safety**

**Consumers**

**Workers**

**Ecosystems**

**Property**

2

## **PRECAUTIONARY APPROACH**

- **RIO Declaration on The Precautionary Principle**
- **Openness/Information - prerequisites for precaution**
- **Clean products and Clean production - the first steps to precaution**

3

## **PRECAUTIONARY PRINCIPLE**

### **RIO Declaration**

#### **Principle 15**

**”Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to *prevent* environmental degradation”**

4

## **OPENNESS - INFORMATION**

**The users need more information  
(employers, employees, consumers)**

\*

**Openness - prerequisite for trust**

5

## **Cleaner Products and Production**

**SUBSTITUTION - Avoid hazardous  
chemicals which may be replaced by less  
hazardous ones**

☆

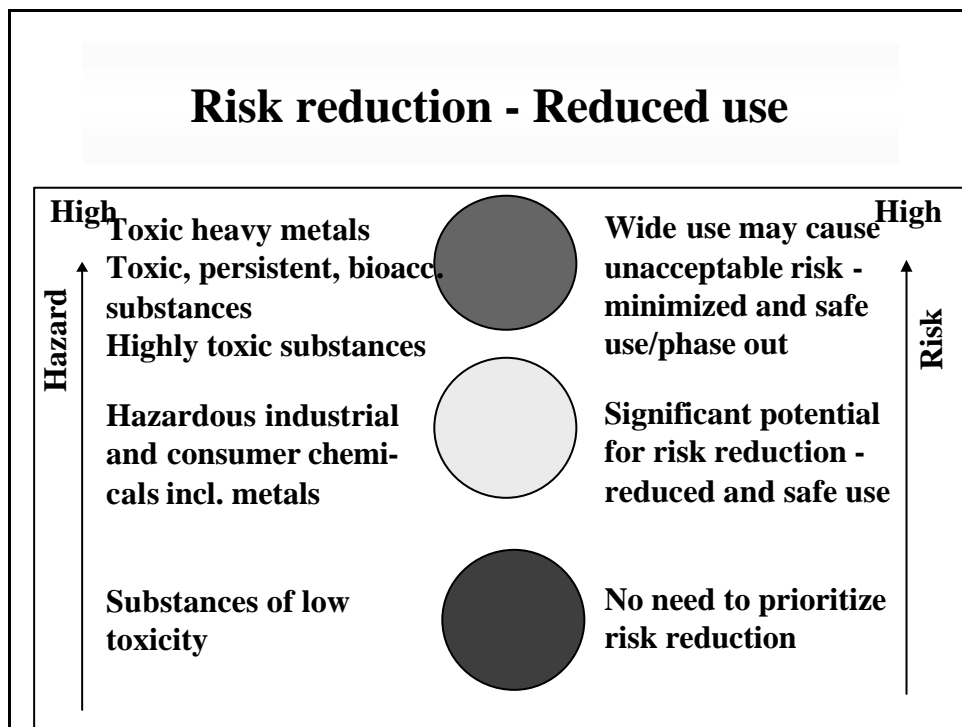
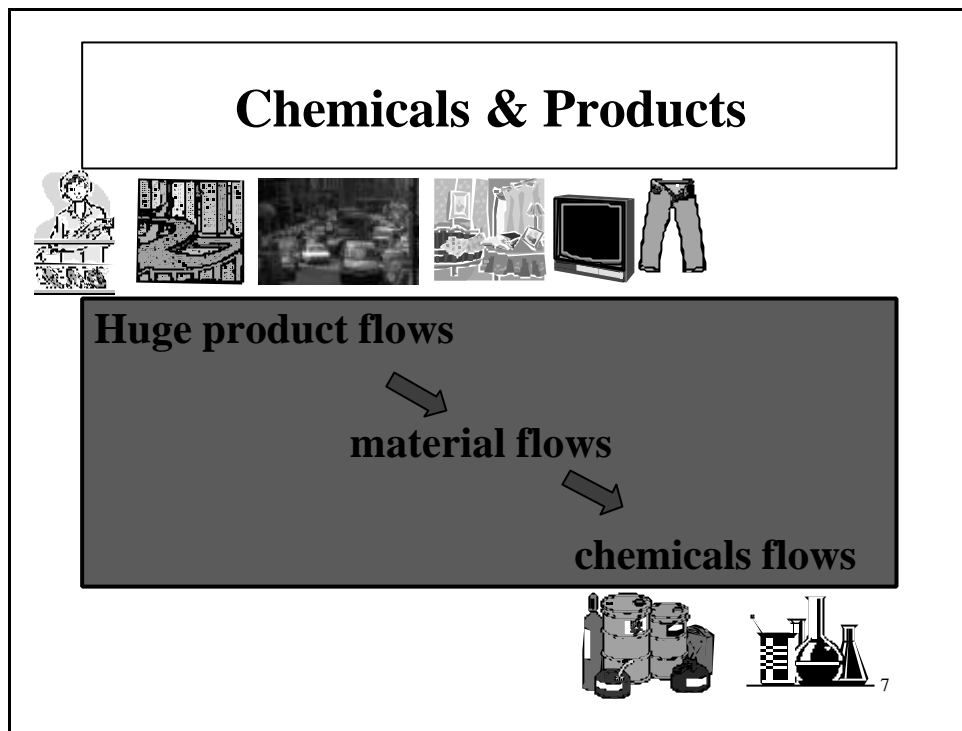
**Use less chemicals with care**

☆

**RESTRICTIONS/BANS - When necessary**

6





## Chemicals control - basic parts

1. **Getting knowledge of hazardous properties of chemicals**  
*(testing, hazard assessment, classification,...)*
  2. **Disseminating knowledge on chemicals** *(labelling, safety data sheets, ...)*
  3. **Choice of chemicals** *(bans, restrictions, voluntary substitution, ...)*
- ↓
4. **Assessing risks and taking measures for risk reduction**  
*(technical measures for pollution and exposure prevention, protective equipment, use instructions etc.)*

Placing on the market

Use

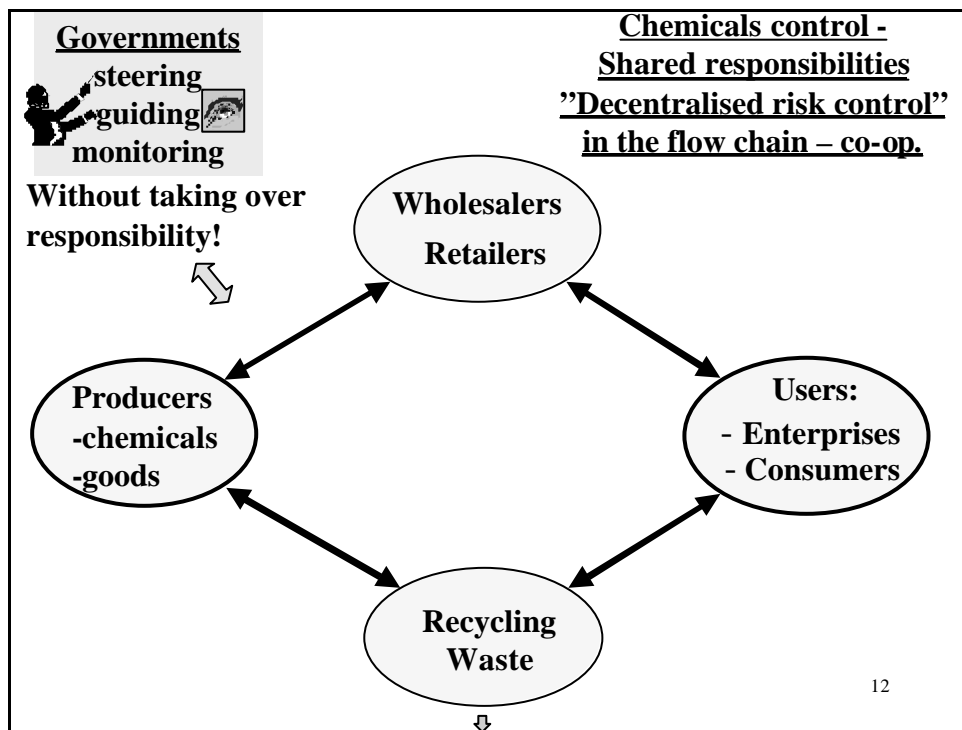
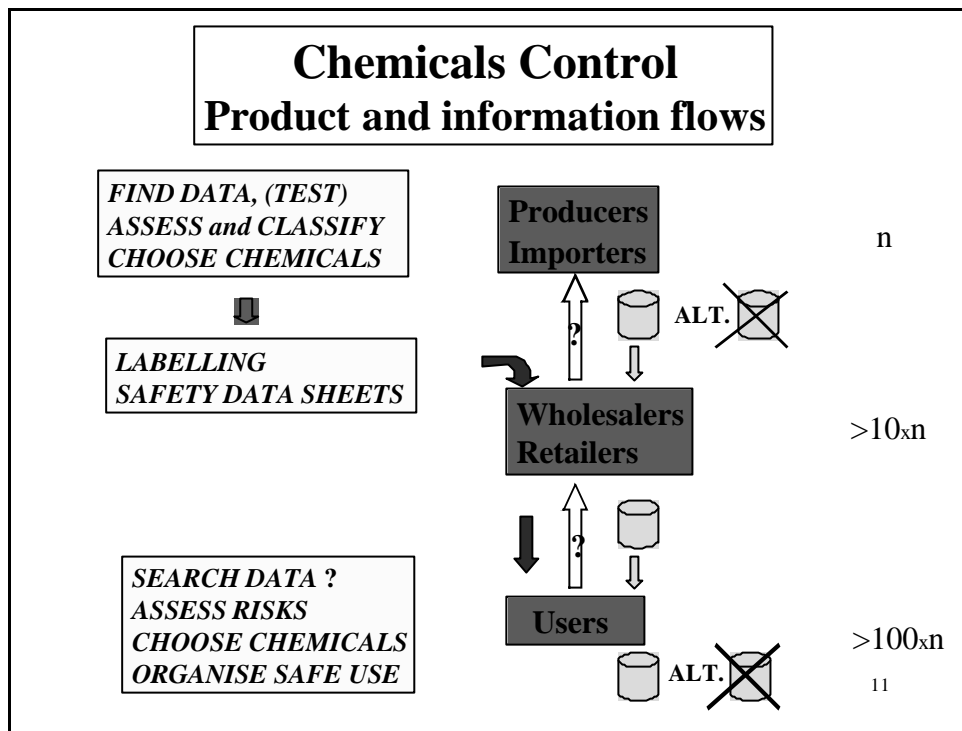
**Producers/importers/users are responsible!**

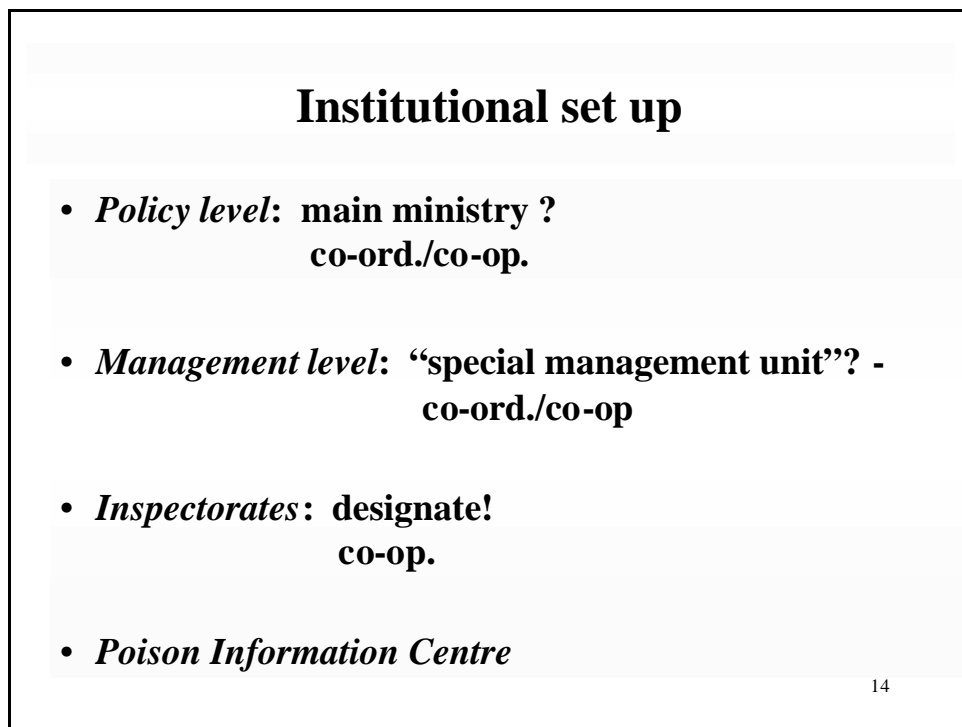
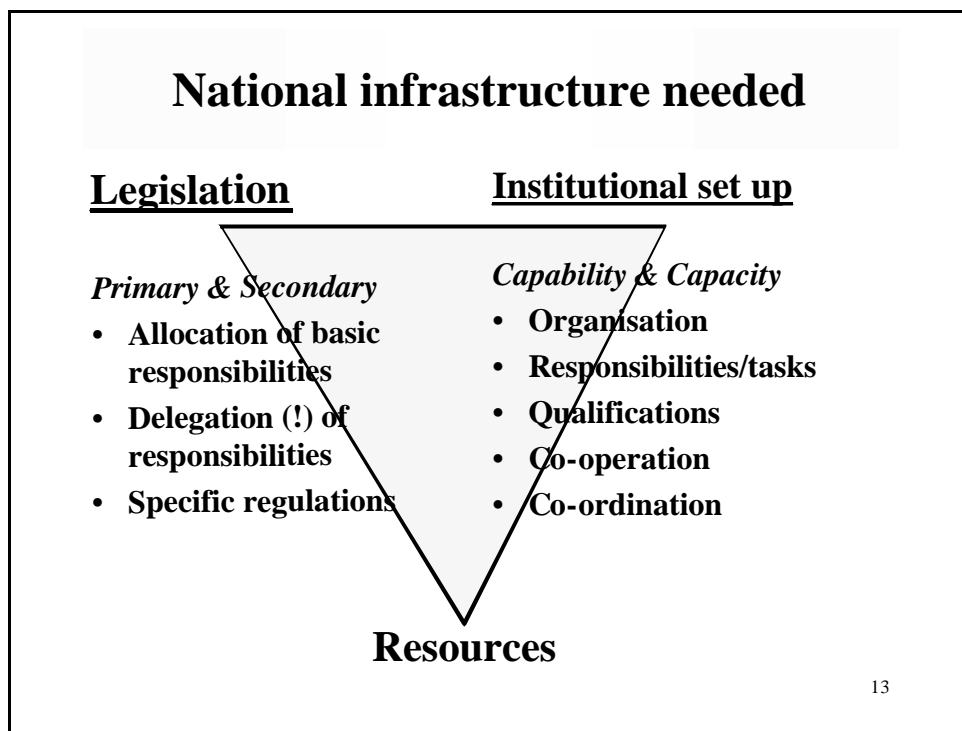
## Role of Trade and Industry

- **Trade & industry and consumers have the main responsibility for a safe marketing and use of chemicals**
- **Government/agencies steer and supervise**

*Regular dialogue between ministries/agencies and trade&industry is necessary*

- **Recognise the separate roles of public institutions and trade&industry! Do not mix them!!**





## Organisation of institutions

- **Clarify allocation of responsibilities. Co-ordination/co-operation - avoid duplication of tasks**
- **Concentrate responsibility and resources**  
*(PPP's, biocides, other chemicals)*



**makes a cost-effective use of existing resources**

- **Additional resources as needed**

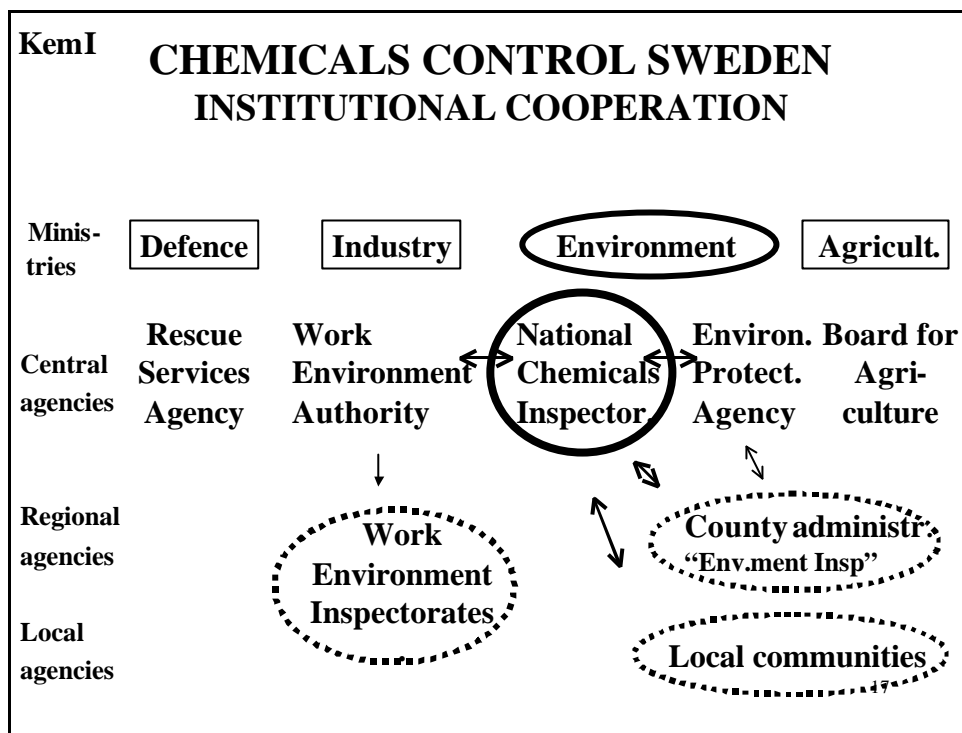
## COHERENCY Swedish example

**One basic legislation**  
"The Environmental Code"

**One central agency**  
"The Chemicals Inspectorate"

**for chemicals control in the first step of the  
product chain = placing on the market**

**[www.kemi.se](http://www.kemi.se)**



### Ministries of environment as responsible bodies for chemicals control?

**Increasing focus on environmental effects or environmentally mediated health effects due to use of chemicals**

+

**Min's of environment are familiar with issues concerning risk assessment and management.**

but

**Other alternatives possible!**

### **Possible policy related tasks for main Ministry**

- **Propose/issue basic legislation**  
(classific./label./SDS, restrictions, new/exist. subst., export/import, biocides, PPPs, ..)
- **Policy issues as regards control of chemical hazards and risks**
- **Co-ord. between and co-op. with other ministries**
- **International co-operation as regards policy issues**

*!Placing on the market!*

19

### **Tasks for a "Chemicals managing unit"**

- **Propose/prepare decisions to be taken at higher level.**
- **Other support to the government in policy issues**
- **Monitor/assess domestic use of chemicals (H&E)**
- **License enterprises placing chemicals on the market**
- **Register pesticides (biocides, PPPs)**
- **Co-operate with other state institutions**
- **Co-operate with trade, industry and other stakeholders**
- **Guide and advice supervision agencies**
- **International activities on expert/management level**

20

## ENFORCEMENT - WHAT IS NEEDED?

- **Clear legal responsibilities for enterprises**
- **Sanctions in case of violation of law**
- **Instructions for inspectorates: clear tasks**
- **Legal rights for inspectorates: to get information, to site visits, to issue orders**
- **Knowledge of enterprises to inspect**
- **Resources and qualifications**
- **Guidance/support to inspectorates: methodology, training, ....**

21

## Producers/Importers/Exporters Responsibilities of Enterprises

### As regards products placed on the market:

- **Compliance with regulations, conventions, EMS**
    - **Classification, Labelling, Safety Data sheets**
    - **Bans, restrictions** (*chemicals, waste, ..*)
    - **Licenses/Approvals** (*pesticides, ...*)
    - **Notification; New substances/At export (PIC)**
    - **Responsible Care&Product Stewardship!!**
  - **Demands of customers!!**
- ↓
- **Organisation, routines**
  - **Qualifications** (*own/external expertise*)
  - **List of chemicals used/to be placed on the market**
  - **Documentation on chemicals used/to be placed on the market** (*test data, literature, from suppliers, ...*)

**Inspectorates  
to check**

22



## Users and other handlers Responsibilities of enterprises

### As regards handling:

Compliance with regulations, conventions, EMS/Safe use

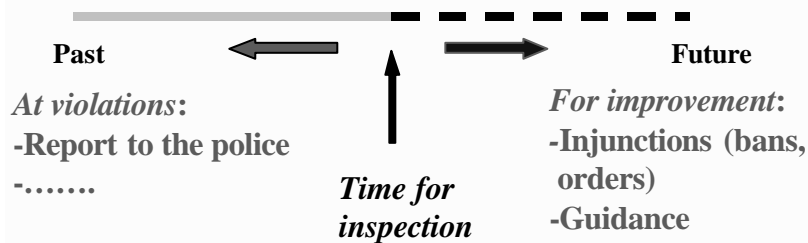
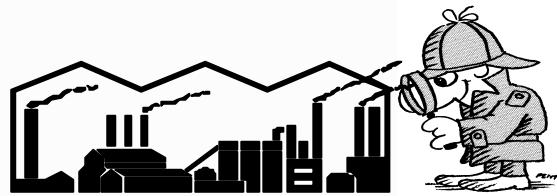
- use instructions, workers informed, labelling, etc.
- emission/exposure limits, bans/restrictions
- technical measures applied
- personal protective equipment available and used
- waste taken care of properly
- effects (workers health/environment) taken note of

- Organisation, routines – purchasing!
- Qualifications
- List of chemicals used
- Hazard and other information from suppliers

Inspectorates  
to check

23

## Actions at inspection



24

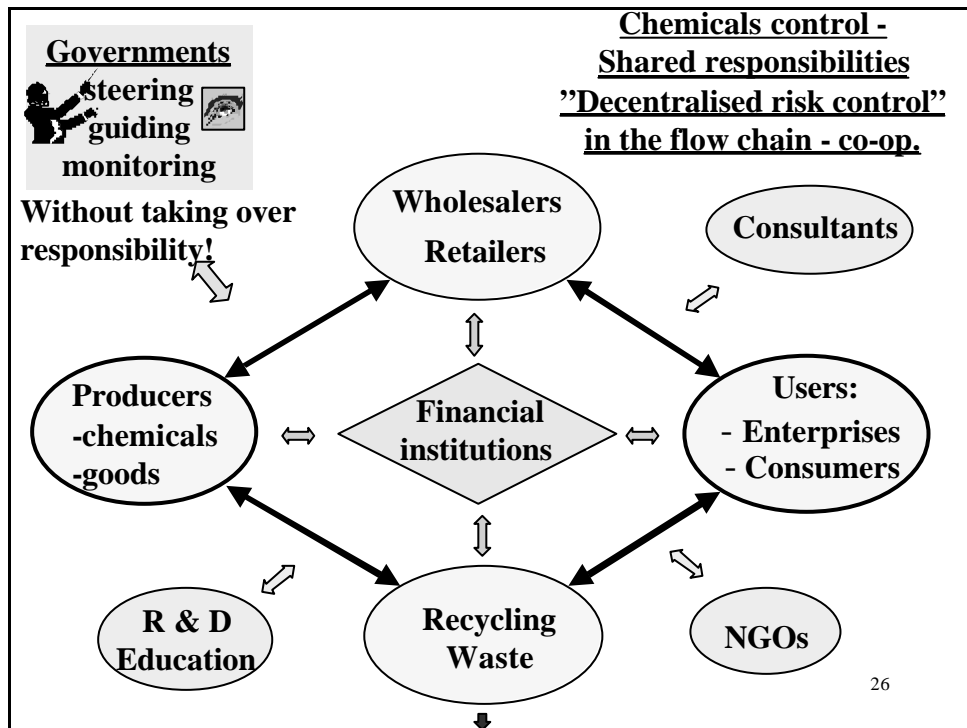
## CHEMICALS CONTROL

### Interdisciplinary area

#### Need for different types of qualifications/expertise

- toxicology and ecotoxicology, chemistry, physical chemistry, engineering, medicine, economy, law, agriculture, ..
- public health, occupational health, ecology
- fire prevention, accident prevention
- Hazard/risk assessors - risk managers


25



**Legislating Chemicals *by Mr Masa Nagai***

.....

**LEGISLATING CHEMICALS**



Masa Nagai  
 Environmental Law Branch  
 UNEP

.....

.....

**Setting objective**

To reduce risks to human health and the environment by:

- Regulating certain chemicals
- Regulating certain human activities causing the release of certain chemicals into the environment or introduction of such risks

.....

·  
·  
·

## Linkage to sectoral laws

Relevant sectoral laws may cover:

- Water pollution (surface and ground water)
  - Marine environmental pollution
  - Air pollution
  - Soil contamination
  - Harm to wild fauna and flora
  - Development or land use planning
- · · · ·

·  
·  
·

## Lifecycle approach

Target regulatory actions at:

- Research, Development & Testing
  - Manufacture
  - Transport, Storage
  - Distribution, Trade
  - Use
  - Disposal
  - Unintentional generation
- · · · ·

## Socio-Economic Consideration

- Ensure that regulatory measures on certain chemicals are identified taking fully into account development needs and the need to protect human health and the environment.

## Responsibility

- Identify persons who are responsible for risks associated with certain chemicals
- Make such persons accountable in taking actions required to achieve the legislative objectives
- Make such persons bear administrative costs for implementing legislation

## Institutional arrangements

- Identify an authority or authorities responsible for implementing legislation
- Identify the relationship with other existing laws, and define jurisdiction among authorities
- Establish institutional mechanisms for inter-sectoral coordination and review

## Manufacture & Use Ban/Restriction

- Prohibition or restriction of chemicals causing unacceptable risks
- Address manufacture, import and use
- Differentiated regulatory actions for different types of chemicals

## Emission/Release Control

- Emission/release control of certain chemicals
- Set emission/release standard
- Regulate certain types of activities and facility

## Wastes Management

- Regulate generation, collection, transport, storage, treatment, recycling and disposal of wastes
- Distinct regulatory measures for municipal wastes and industrial wastes
- Regulate the persons and installations involved, and phases of related activities

## Means to Enforce

- Record keeping
- Document to track movement
- Permit & License
- Reporting
- Inspection
- Penalties
- Incentive measures

## Towards Prevention

- Building knowledge basis
- Health and environmental risk assessment
- Awareness of existing risks
- Planning for the sites of hazardous installations
- Preparedness for accidents
- Funds for pollution prevention



## Restoration of Damage

- Compensation schemes for injury
- Procedures and funds for clean-up contaminated sites
- Procedures for settlement of disputes

## International Issues

Bring national legislation in line with:

- Stockholm Convention (persistent organic pollutants)
- Rotterdam Convention (hazardous chemicals in international trade)
- Basel Conventions (transboundary movements of hazardous wastes)

**Chemicals Legislation: A Model *by Mr Masa Nagai***

**Chemicals Legislation: A Model**

Masa Nagai  
Environmental Law Branch  
UNEP

**Setting objective**

Establish procedures to assess health and  
environmental impact of certain chemicals

Regulate the chemicals posing unacceptable  
risks

## Scope

- Define the categories of chemicals to be covered
- Combination of characteristics for the categories:
  - Persistent
  - Bioaccumulative
  - Toxic

## Exemptions

- Exemption may be accorded to:
  - Chemicals already covered by other existing laws (e.g. pharmaceuticals)
  - Chemicals for specific use (e.g. research)
  - Chemicals in the quantity under a given threshold

## Lists

- Lists of categories of chemicals
  - First priority for regulation
  - Second priority for regulation
  - Others
- Inventory of existing chemicals
- Practical means to amend the lists
- New chemicals - Not on the lists

## Authority

- Identify the authority responsible to implement the legislation
  - Minister(s) with executing power to issue and undertake regulatory measures
  - Minister(s) with whom coordination is required (e.g by notifying measures taken)

## Responsibility

- Identify persons who are to be governed by the legislation:
  - Manufacturers
  - Importers or traders
  - Users
- Make them responsible to take measures required under the legislation

## Information Gathering

- Notification to the authority of the intent of manufacture, import or sale, or use
  - Name, address, amount of chemicals, purposes
- Submission of chemicals information by manufacturers or importers

## Assessment

- Assessment by the authority of impact to health and environment, based on the chemicals information submitted and/or its own tests
- Assessment to be done in a given period
- Observe transparent process

## Measures

- Prohibit manufacture, import or sale, or use
- Permit with certain regulatory measures:
  - Licensing
  - Compliance with certain technical standard
  - Bookkeeping and report
- Permit

## Differentiated Measures

- Regulatory measures may be differentiated according to the assessed risks
- Lists of different categories of chemicals, posing different levels of risks, may provide a basis for such differentiated treatment

## Enforcement

- Recommendation
- Administrative order
- Mandatory submission of reports
- Onsite inspection
- Administrative and criminal punishment

## Financial means

- Administrative costs may be partially borne by:
  - those who intend to manufacture, import or sale, or use, upon application
  - those who are permitted, upon, e.g. licensing

## Regulations

- Lists of individual chemicals may be published under regulations issued by the authority, e.g. Minister(s)
- Such lists maybe amended from time to time to keep them updated
- Other matters that require regular update (e.g. technical standard or administrative fees) may be covered by regulations



## Linkage to other laws

- Waste management
- Agricultural chemicals
- Air quality
- Water quality
- Marine and coastal environment
- Soil quality
- Environmental impact assessment

**UNITAR; Preparation of National Profiles *by Dr Bo Wahlström***

**Preparation of National Profiles  
to Assess the National Infrastructure  
for the Sound Management of Chemicals**

**UNITAR**

Training and Capacity Building Programmes in  
Chemicals and Waste Management

United Nations Institute for Training and Research (UNITAR)  
Palais des Nations  
1211 Geneva 10

Tel: +41 22 917 1234  
Fax: +41 22 917 8047  
Email: cwm@unitar.org



*National Profiles for the Sound Management of Chemicals*

Z:cwm.08/PTF8/presentations/National Profiles.ppt

**What is a National Profile?**

- A comprehensive and systematic documentation of the national infrastructure for the management of chemicals, including identification of existing gaps and weaknesses.



*National Profiles for the Sound Management of Chemicals*

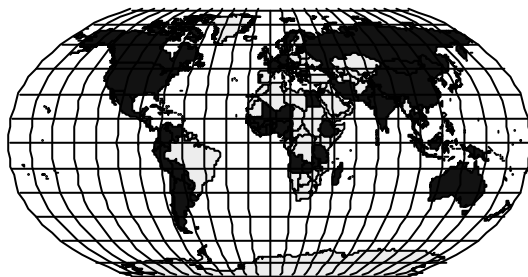
### A National Profile includes Information on...

- Chemical production, import, export and use
- Priority concerns related to chemical production, import, exports and use
- Chemicals legislation and non-regulatory mechanisms
- Responsibilities and activities of governmental and non-governmental bodies
- Existing interministerial bodies and national coordinating mechanisms
- Available data sources
- Technical infrastructure
- Resources available and needed



*National Profiles for the Sound Management of Chemicals*

### National Profile Preparation Worldwide



Legend	
□	National Profile in Preparation (23)
■	National Profile Prepared (67)



*National Profiles for the Sound Management of Chemicals*

## References to National Profiles

- **Priorities for Action, Intergovernmental Forum on Chemical Safety, 1994...**

"National Profiles to indicate the current capabilities and capacities for management of chemicals and the specific needs for improvements should be elaborated as soon as possible and no later than 1997."

- **Priorities for Action, Intergovernmental Forum on Chemical Safety, 2000...**

"By 2002, most countries, through a multi-stakeholder process, will have developed a National Profile on chemicals management."

- **May 2001 Global Environment Facility (GEF) Council Meeting...**

Countries recognised the utility of National Profiles with regard to the successful implementation of POPs-related activities and encouraged their development.

*Initial Guidelines for Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants (GEF/C.17/4)* encourages countries that have not prepared a National Profile to do so using UNITAR/IOMC guidance.



*National Profiles for the Sound Management of Chemicals*

## Key Principles for Preparing a National Profile

- Involvement of all concerned parties (multi-stakeholder approach)
- Country-driven process (*by countries for countries*)
- Ongoing process (living document – should be updated on a regular basis)
- Presentation in a standard but flexible reporting format



*National Profiles for the Sound Management of Chemicals*

### **Possible Benefits of Preparing a National Profile**

- Integration of scattered information into one single national document
- Initiation of a comprehensive and transparent process to define national priorities
- Enhanced co-operation of all interested parties within and outside of government
- Broadened network of contacts
- Increased mutual awareness and promotion of information exchange among concerned parties



*National Profiles for the Sound Management of Chemicals*

### **Possible Benefits of Preparing a National Profile**

- Support reporting under international reporting schemes, including the Stockholm Convention on Persistent Organic Pollutants
- Important component of an Integrated National Programme for the Sound Management of Chemicals



*National Profiles for the Sound Management of Chemicals*

**UNITAR Programme to Assist Countries  
in Preparing National Profiles  
to Assess their National Infrastructure  
for the Sound Management of Chemicals**

- Conducted under the umbrella of the IOMC
- Guidance Document published in English, French, Spanish
- Support programmes in place for developing countries



*National Profiles for the Sound Management of Chemicals*

**UNITAR/IOMC National Profile Programme Support**

- Assistance for countries to translate the Guidance Document into the local language
- Grants for a national university, research institute, or ministry to assist in collecting the relevant national and local information
- Support of the organisation of national and local meetings
- Consultancy support to facilitate a participatory process in preparing the National Profile



*National Profiles for the Sound Management of Chemicals*

### **UNITAR/IOMC National Profile Programme Support**

- Support for publication, both hard copy and electronic, of the National Profile
- With country permission, National Profiles are added in the UNITAR/ECB National Profiles Homepage
- Eventual addition of future editions of UNITAR National Profiles CD ROM



*National Profiles for the Sound Management of Chemicals*

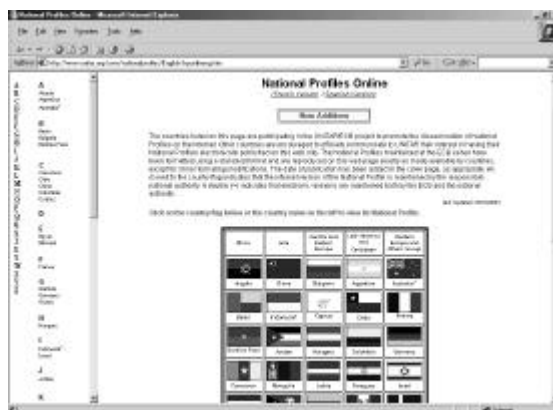
### **Preparing a National Profile to Assess the National Infrastructure for Management of Chemicals: A Guidance Document**

- PART A: The international and National Policy Frameworks for the Sound Management of Chemicals and for the Preparation of National Profiles
- PART B: Organising the Preparation of a National Profile
- PART C: Suggested Structure and Contents of a National Profile



*National Profiles for the Sound Management of Chemicals*

## National Profiles Homepage



National Profiles for the Sound Management of Chemicals

## How to Apply for Support through National Profile Programme

- Application form available from UNITAR
- One application per country
- At least two co-sponsoring Ministries
- Can also be undertaken as part of the preparation process for a POPs National Implementation Plan



National Profiles for the Sound Management of Chemicals



**Introduction to the Global Environment Facility by Ms Sarah Sanders**

**Introduction to the GEF  
Subregional Workshop to support  
the POPs Convention**

**The Global Environmental  
Focal Areas of the GEF**

- ❖ Biodiversity
- ❖ Climate Change
- ❖ International Waters
- ❖ Ozone Depletion (only countries in transition)
- ❖ Cross cutting: Land Degradation as it relates to the above focal areas
- ❖ [Persistent Organic Pollutants – POPs – to be determined]



## The GEF and the Global Environmental Conventions

- ❖ The GEF is the designated “financial mechanism” for the:
  - Convention on Biological Diversity (CBD)
  - Convention on Climate Change (UNFCCC)
  - POPs Convention
- ❖ The GEF collaborates closely with other treaties and agreements to reach common goals (International Waters, CCD, Montreal Protocol)



## Convention on Biological Diversity (CBD)

- ❖ Objectives of the Convention
  - Conservation
  - Sustainable use
  - Fair and equitable sharing of benefits
- ❖ Financial Mechanism
  - GEF is the financial mechanism of the Convention



## UN Framework Convention on Climate Change (UNFCCC)

- ❖ Requires developing country states (non-Annex I Countries) to prepare National Reports on their:
  - greenhouse gas emissions
  - national climate policies
  - vulnerability to climate change
- ❖ Financial Mechanism
  - GEF is the financial mechanism of the Convention and provides funding for preparation of these reports
- ❖ The Convention is also the source of guidance for GEF funding of climate projects.



## International Waters

**The coastal oceans and transboundary fresh water basin are under siege from:**

- ❖ Unsustainable irrigation diversion of fresh water
- ❖ Pollution discharge from industry, sewage, agriculture
- ❖ Over fishing
- ❖ Habitat loss and Wetland conversion
- ❖ Persistent Organic Pollutants (POPs)
  
- ❖ The GEF is not a financial mechanism for International Waters. However it supports Regional Sea Conventions, UNCLOS, and selected maritime conventions



## Land Degradation & GEF's Role

- ❖ Support country driven activities that prevent/ control land degradation through its interface with the GEF's Focal Areas.
- ❖ Addresses LD as part of national sustainable development plan
- ❖ Complements, rather than substitutes other financing available
- ❖ Possible if project design is from the bottom up (local needs as well as conservation)



## Linkages

- ❖ The environment is interconnected through all levels
- ❖ Local, national, regional, global
- ❖ Country projects funded by the GEF need to focus on preserving the integrity of the global environment - improving environmental conditions and ensuring sustainability at all levels



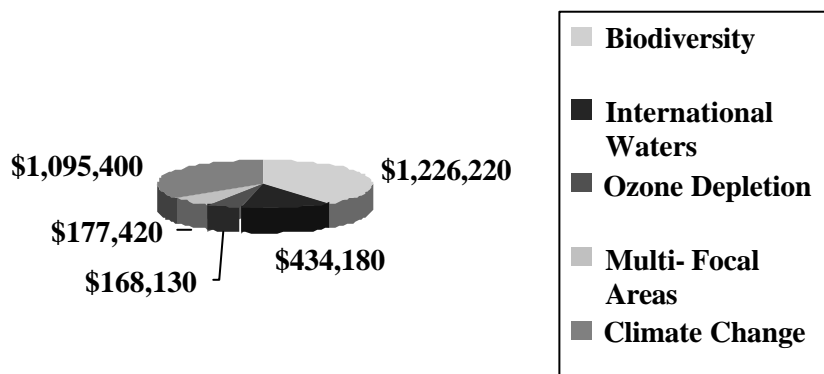
## History of the GEF – A Timeline

- ❖ GEF Pilot Phase
  - 1991 - 1994
  - \$1 Billion US Dollars
  
- ❖ Replenishment:
  - 1995 - 1998
  - \$2.2 Billion US Dollars
  - 1999 - 2001
  - \$2.8 Billion US Dollars
  
- ❖ World Bank is the Trustee of the GEF Trust Fund



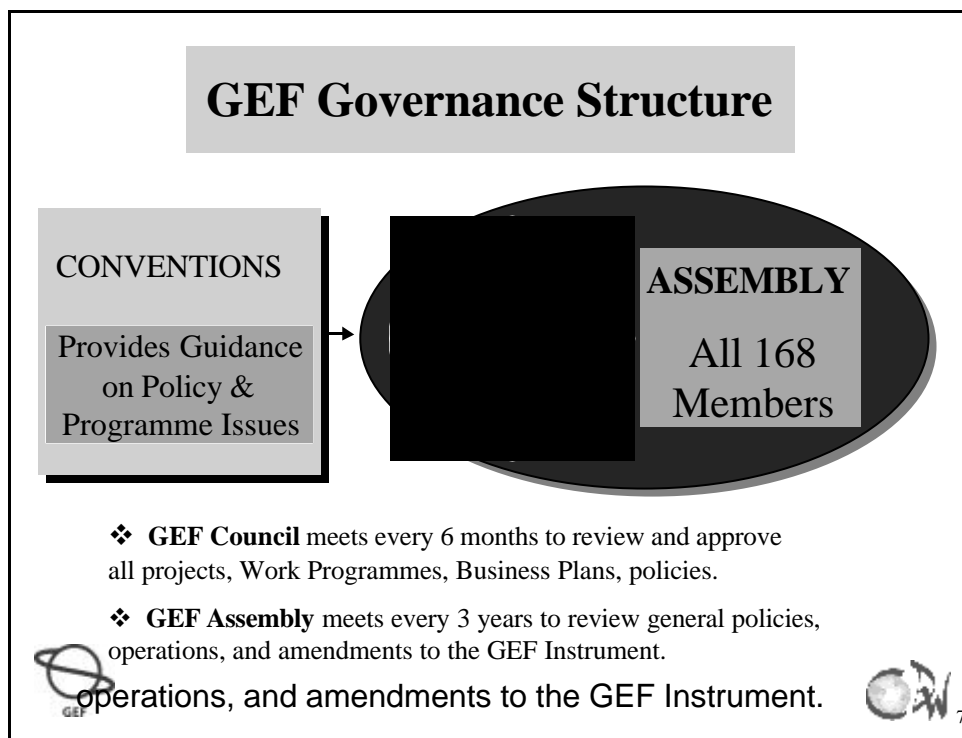
## GEF Portfolio (July 2000)

in millions of US dollars



<b>Total GEF</b>	<b>\$ 3,101.341</b>
<b>Total Co-Financing</b>	<b>\$ 8,443.100</b>
<b>TOTAL</b>	<b>\$11,544.441</b>



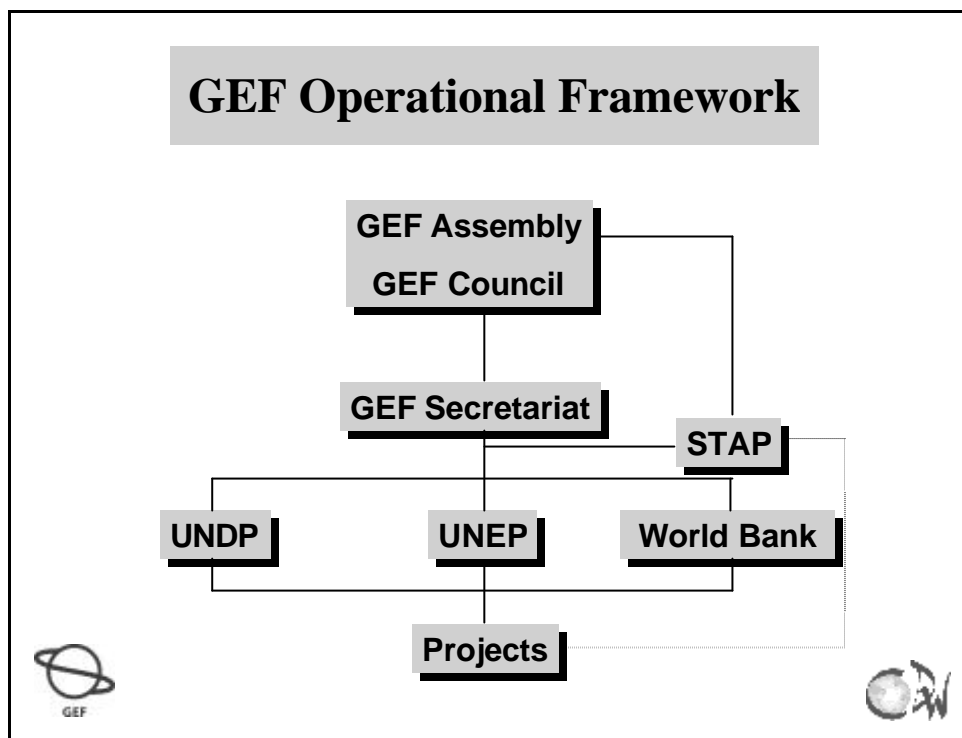


### Overview of member countries of the GEF

**Countries grouped according to their Constituency**

❖ AFRICA	6	Constituencies
❖ ASIA	6	Constituencies
❖ LAT & CARIB	4	Constituencies
❖ EAST EUR	2	Constituencies



- ### Executing Agencies with shared responsibility for GEF Project Cycle Management
- ❖ FAO
  - ❖ UNIDO
  - ❖ African Development Bank
  - ❖ Asian Development Bank
  - ❖ European Bank for Reconstruction and Development
  - ❖ Inter-American Development Bank

## Projects can also be executed by:

- ❖ Government Agencies
- ❖ UN Specialized Agencies
- ❖ Non-Governmental Organizations
- ❖ Bilateral Development Cooperation Agencies
- ❖ Others from the private sector/institutes



## Key National Focal Points

- ❖ Political Focal Point / Member
- ❖ Operational Focal Point
- ❖ Convention Focal Point





## Cooperation at National Level

- ❖ Operational Focal Point
- ❖ Stakeholders
- ❖ NGOs
- ❖ General Public
- ❖ Implementing Agencies



## Responsibilities GEF Political Focal Point

- ❖ Ensure overall policy consistency
- ❖ Ensure GEF policies consistent with national policies
- ❖ Communicate Government views
- ❖ Act as in-country Government contact point
- ❖ Report on GEF Council Meetings



## **Responsibilities Operational Focal Point**

- ❖ Ensure GEF-activities consistent with national policies
- ❖ Identify project ideas to meet country priorities
- ❖ Facilitate in-country consultations
- ❖ Provide feedback on projects



## **Responsibilities Convention Focal Points (CBD & FCCC)**

- ❖ Receive and distribute Convention documentation
- ❖ Coordinate national policies consistent with the Conventions
- ❖ Communicate Government views
- ❖ Act as in-country contact point for consultations
- ❖ Report on FCCC and CBD



## **Non-Government Stakeholders**

- ❖ Non-Governmental Organizations
- ❖ Private Sector (business/banks/local and foreign investors)
- ❖ Research and Academic Community
- ❖ Country public involvement



## **Non-Governmental Organizations**

- ❖ Advise on Governmental and GEF decisions
- ❖ Assist in shaping GEF policies
- ❖ Attend GEF council meetings and comment on operational strategies and programs
- ❖ Assist in designing and execute GEF projects and inform on monitoring work



## Private Sector

- ❖ Provides access to private capital
- ❖ Provides access to know how and training
- ❖ Encourages shift from public to private sector investment
- ❖ Provides link with economic activities that effect the global and local environment e.g., energy, transport, agriculture, fisheries



## Research and Academic Community

- ❖ Scientific and Technical Advisory Panel (STAP)
- ❖ Members and Roster of Experts
- ❖ STAP Activities
- ❖ Targeted Research
- ❖ Need to Incorporate and Coordinate Local Scientists



## Why Country public involvement?

- ❖ Country's own priorities are addressed
- ❖ Projects more responsive to local needs
- ❖ Strengthens ownership and accountability
- ❖ Opportunity to build local partnerships
- ❖ Improves awareness and knowledge



## Country Public Involvement

### Constraints:

- ❖ National coordination to include all opinions is not easily established
- ❖ Involvement of many groups could slow down the project development and approval process
- ❖ Increased institutional capacity may be required at government level

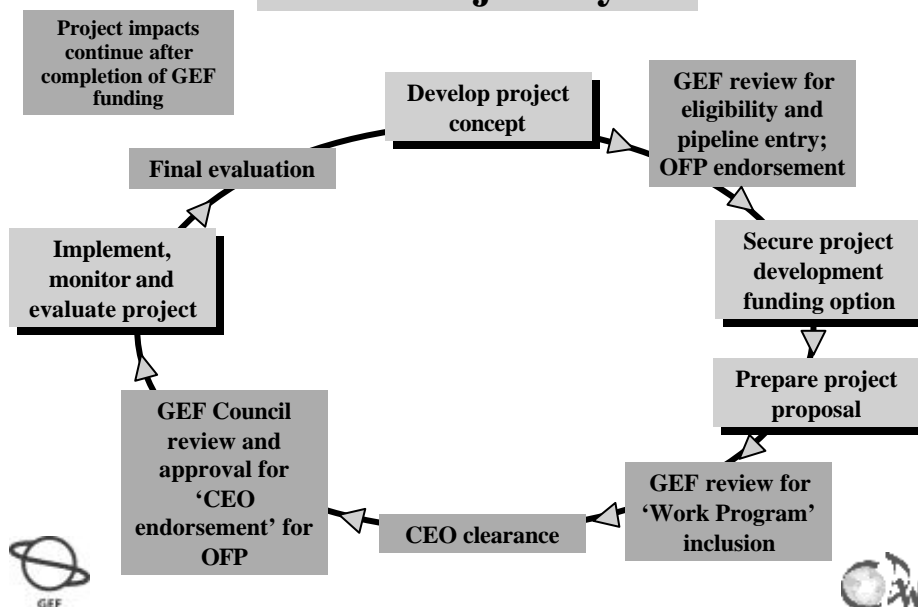


## GEF and Strengthening Country Coordination

- ❖ How to improve communication with the GEF Council through the Constituency?
- ❖ How to better link the OFP to stakeholders?
- ❖ How to make effective use of the Internet?
- ❖ How to strengthen a continuing dialogue at National level?
- ❖ How to use the media to improve public awareness and involvement?



### Basic Project Cycle



## “Coarse Filter” criteria for GEF funding

- ❖ How do I tell whether my project idea meets basic criteria for GEF eligibility?



### 1. The Eligibility Test

- ❖ To be eligible for GEF financing, a country must:
  - have ratified the Convention on Biodiversity or Framework Convention on Climate Change (or, in the interim period, signed the POPs Convention for eligibility for NIPs)
  - be eligible for assistance from the UN system or the World Bank



## 2. The Global Significance Test

- ❖ Does the project idea deal with globally significant biodiversity, transboundary international waters resources, or reduction of greenhouse gas emissions?



## 3. The National Priority Test

- ❖ Does your project concept reflect national environmental priorities and commitments?
  - GEF focal point endorsement is a requirement.





## 4. Co-funding Test

- ❖ Does your project concept have co-funding from other sources? If not, is there a good potential for creating co-funding partnerships?
- ❖ Remember GEF financing is co-financing.



## 5. The Portfolio Test

- ❖ Does your idea have the potential to be a catalytic and innovative project in the overall GEF portfolio?
  - Learn about existing or planned GEF projects in your country.



## GEF is a Co-financier

- ❖ GEF encourages partnerships by bringing together multiple sources of funding for projects
- ❖ **Key Concept:** the GEF is not a project financier, but a project Co-financier providing “new and additional” funds to address global environmental issues



## “Incremental Costs”

- ❖ Cost of activities for the global environment beyond what is required for national development
- ❖ GEF projects must complement national programmes and policies to maximize global benefits
  - 1) Establish the baseline
  - 2) Determine cost of GEF alternative
  - 3) Incremental cost (project budget) = GEF alternative -- cost of baseline



## Other Project Eligibility Requirements

- ❖ Country-driven and endorsed by host Government
- ❖ Produce identifiable global benefits
- ❖ Participation of all affected groups and transparency
- ❖ Consistency with the Conventions
- ❖ Possess strong scientific and technical merit
- ❖ Financially sustainable and cost-effective
- ❖ Include processes for monitoring, evaluation, and incorporation of lessons learned
- ❖ Play catalytic role that leverages other financing



## Moving from Concept Paper to Project Proposal

- ❖ Choose a funding pathway that is appropriate for the scope of your project:
  - Full Projects
  - Medium-sized Projects
  - Small Grants Programme



## GEF Funding Categories

- ❖ Full-size projects (\$1 million and up)
- ❖ Medium-sized projects (up to \$1 million)
- ❖ Financing can be available for preparing projects
- ❖ Small Grants Programme (up to \$50,000)
- ❖ Enabling activities
- ❖ Project Development Funds (PDF-A up to \$25,000; PDF-B up to 350,000; PDF-C up to \$1 million)



## GEF funding pathways

Funding Pathway	Funding level	~ Time required	Prep. funding
Full Project	\$1 US million and up	6-24 months	up to \$US 350,000
Medium Project	\$US 50,000 – 1 million	6-12 months	up to \$US 25,000
Small Grant	up to \$US 50,000	3-6 months	up to \$US \$2000



## GEF Medium-Size Projects (MSPs)

- ❖ Meet government/NGO demand for fast, flexible funding
- ❖ Receive expedited funding of up to \$1 million; take 6 months on average
- ❖ Designed in partnership with the NGO community
- ❖ Over US\$ 21 million in MSPs in fiscal 1999 and x in fiscal 2000



## Preparatory funding

- ❖ **PDF A or Block A** - up to \$US 25,000 funding is available for preparing a medium or full project brief.
- ❖ **PDF B or Block B** - up to \$US 350,000 funding is available **ONLY** for full projects.



### Use **PDF A** or **Block A** to:

- ❖ assess possible project sites
- ❖ identify threats and root causes or key barriers
- ❖ evaluate institutional frameworks
- ❖ meet and consult stakeholders
- ❖ identify co-funding possibilities



### Use **PDF B** or **Block B** to:

- ❖ conduct feasibility studies
- ❖ undertake detailed assessments
- ❖ develop institutional and planning frameworks
- ❖ make field visits and full consultations with stakeholders
- ❖ complete co-funding arrangements



**Initial Guidelines for Enabling Activities on POPs by *Ms Bahar Zorofi***



Global Environment Facility

INITIAL GUIDELINES FOR ENABLING  
ACTIVITIES ON POPs

Subregional Workshop to Support  
Implementation of the POPs Convention  
Bratislava, Slovakia, 8-12 April 2002

## Outline

### Part I

- Early assistance: criteria and guidelines
- Eligible Activities
- Step-wise framework for NIP

### Part II

- Procedure and Format

## The Guidelines

- Developed by GEF Secretariat in consultation with WB, UNDP, UNEP, FAO, UNIDO and POPs Convention Secretariat;
- Approved by Council May 2001;
- Represent an "early response";
- NIP is main focus of GEF assistance in this first phase of implementation;
- Draft Operational Programme on POPs is other component of GEF assistance.

## Eligibility Criteria

- In the interim period: developing countries and countries with economies in transition.
- After entry into force, the COP will provide guidance on criteria.



## GEF's early assistance

- NIPs
- Capacity building for sustained support.
- To the extent that capacity building needs of countries to address POPs will address more general chemicals management issues, the GEF, in supporting the POPs Convention, will strengthen Basel, PIC, Bamako etc.

## Eligible Activities

- Preliminary inventories of sources and emissions of POPs;
- Action Plan for the reduction of releases of unintentional by-products;
- Action Plan to control the use of DDT for disease vector control;
- Build capacity to report every five years on progress in phasing out PCBs;

## Eligible Activities (Contd)

- Preliminary assessment of stockpiles of POPs and of waste products contaminated with POPs; identification of management options, including opportunities for disposal;
- Build capacity to report to the COP on total production, import and export;
- Build capacity to identify sites contaminated by POP.

## Eligible Activities (Contd)

- Build capacity to assess the need of continued specific exemptions and preparation of their reporting/extension;
- information exchange, and awareness raising through multi-stakeholder participatory processes.

## Indicative step-wise process

### ■ *Step 1: Determination of coordinating mechanisms and organization of process*

- (i) identification and strengthening of national institution/unit to serve as Focal Point;
- (ii) determination of multi-stakeholder national coordinating committee based on a stakeholder analysis;
- (iii) identifying and assigning responsibilities among government departments and other stakeholders for the various aspects of POPs management.

## Step-wise process for NIP

### ■ *Step 2: Establishment of POPs inventory and assessment of national infrastructure and capacity*

- (i) preparation of a National Profile (or core sections that relate to POPs); establishment of a register, in order to create and maintain a reliable inventory;
- (ii) preliminary inventory of production, distribution, use, import and export;
- (iii) preliminary inventory of stocks and contaminated sites and products; assessment of opportunities for disposal of obsolete stocks;
- (iv) preliminary inventory of releases to the environment;

## Step-wise process for NIP

- (v) assessment of infrastructure capacity and institutions to manage POPs, including regulatory controls, needs and options for strengthening them;
- (vi) assessment of enforcement capacity to ensure compliance;
- (vii) assessment of social and economic implications of POPs use and reduction;
- (viii) assessment of monitoring, research and development, and chemical analytical capacity; and
- (ix) identification of POPs-related human health and environmental issues of concern; basic risk assessment as a basis for prioritization of further action taking into account, inter alia, potential releases to the environment and size of exposed population.

## Step-wise process for NIP

### ■ *Step 3: Setting of priorities and determination of objectives*

- (i) development of criteria for prioritisation, taking into account health, environmental, and socio-economic impact and the availability of alternative solutions; and
- (ii) determination of national objectives in relation to priority POPs or issues.

## Step-wise process for NIP

### ■ *Step 4: Formulation of a National Implementation Plan, and specific Action Plans on POPs*

- (i) identification of management options, including phasing out and risk reduction options;
- (ii) determination of the need for the introduction of technologies, including technology transfer and indigenous alternatives;
- (iii) assessment of the costs and benefits of management options;
- (iv) development of a national strategy for information exchange, education, communication and awareness raising;
- (v) preparation of a draft NIP which may include priorities, timetable for implementation, and estimated cost of proposed interventions, including incremental costs where applicable.

## Step-wise process for NIP

### ■ *Step 5: Endorsement of NIP by stakeholders*

- (i) submission of a draft NIP to stakeholders for comments through workshops, dissemination of information, etc., to obtain the commitment of stakeholders, including decision-makers, to implement the NIP;
- (ii) finalization of the NIP.

## Expedited Procedures

- GEF funds 100% of "agreed costs"; enabling activity costing less than US\$ 500,000 approved under expedited procedures.
- Proposals to be endorsed by the GEF Operational Focal Point.
- Proposals should build on previous/existing activities/knowledge.
- Resources should be used efficiently.
- Local and Regional expertise to be used where possible.

## Steps for expedited procedures

### STEP 1

Choose a GEF Implementing/ Executing Agency (WB, UNDP, UNEP, FAO, UNIDO, RDBs) that you are comfortable with.

- Different Agencies have different "comparative advantages".
- The important thing is to develop a NIP. Any of the agencies should be able to assist you.

## Steps for expedited procedures

### STEP 2

Finalise the proposal with IA/EA.

- Iterations / e-mails
- IA/EA send staff or consultant
- IA/EA to exercise quality control.

## Steps for expedited procedures

### STEP 3: Submission

- Seek Country's Operational Focal Point endorsement.
- Proposal is submitted to the GEF Secretariat by IA/EA on behalf of Country.

## Steps for expedited procedures

### STEP 4: Approval

- Circulation to IAs/Eas, Convention Secretariat, for comments.
- GEF Secretariat may request additional information / clarifications etc.
- the GEF CEO and Chairman approves proposals < US\$ 500,000.

## Steps for expedited procedures

### STEP 5:

#### Signature of Project Document with IA/EA

- Contractual arrangements
- Reporting obligations
- Country and IA/EA sign project document which is the legal basis for disbursement of funds from the IA/EA.



INDICATIVE FRAMEWORK FOR DEVELOPING NATIONAL IMPLEMENTATION PLANS (FOR FULL DETAILS SEE GUIDELINES)			
Step 1	Determining Co-ordinating Mechanism and Organizing Process		
KEY ACTIVITIES/ISSUES	Output/Results	Possible Assistance Needs	Indicative Timeframe
<ul style="list-style-type: none"> <li>• Identification and strengthening of national institution/unit to serve as Focal Point;</li> <li>• Identification and sensitization of main stakeholders;</li> <li>• Strengthening government commitment;</li> <li>• Determination of multi-stakeholder national co-ordinating committee;</li> <li>• Identifying and assigning responsibilities amongst government departments and other stakeholders for the various aspects of POPs management;</li> <li>• Obtaining commitment of national stakeholders (for example by means of Memorandum of Understanding);</li> <li>• Assessment of needs of Focal Point to oversee overall execution (technical, human resources, etc.);</li> <li>• Drawing-up overall workplan;</li> <li>• Organisation of inception workshop</li> </ul>	<ul style="list-style-type: none"> <li>• Focal Point to oversee overall execution;</li> <li>• National co-ordinating mechanism amongst stakeholders is identified / established;</li> <li>• Agreement, including mission statement, amongst national stakeholders is developed;</li> <li>• Agreed Focal Point needs and budget;</li> <li>• Overall workplan and timeframe for country activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation manual and/or guidance for overall implementation, including expected country deliverables/ output;</li> </ul>	2 to 3 months
<b>Comments Step 1</b>	<ul style="list-style-type: none"> <li>• Wherever possible, use should be made of existing committees/structures for overseeing NIP development; the creation of new coordinating structures should be avoided.</li> <li>• External consultants may be recruited to provide technical assistance, if needed. Priority should be given to local and regional consultants.</li> <li>• Awareness raising activities and effective communication at the country level, whether directed to decision-makers or the public at large, should be on-going activities which are important for steps 1 through 5 and further.</li> </ul>		

*(Framework developed in the context of the preparation of the "Development of National Implementation Plans for the management of POPs" GEF funded pilot project implemented by UNEP)*

## Format for proposal

- Cover page
- Project description: not to be forgotten
- Timetable and workplan
- Budget
- Optional annex: background information on country situation
- Endorsement

## Summary

- Countries signatory to the Convention are eligible for GEF assistance for NIP development.
- The guidelines approved by the GEF describe the eligible activities and recommend a step-wise framework.
- Procedure and format are also described in the guidelines.

## 7. THE GEF IMPLEMENTING AND EXECUTING AGENCIES

*UNDP by Ms Sarah Sanders*

United Nations Development Programme **undp**  
Regional Bureau for Europe and the CIS

### UNDP Support to POPs Enabling Activities


### UNDP-GEF RBEC

UNEP Subregional Workshop on Support for the Implementation of the  
Stockholm Convention on Persistent Organic Pollutants  
12 April 2002

United Nations Development Programme **undp**  
Regional Bureau for Europe and the CIS

### Objective


*'the purpose of the POPs Enabling Activity is for Countries to undertake an assessment of their capacity and to prepare a National Implementation Plan so that they can meet obligations under the Stockholm Convention'*



## Portfolio

UNDP-GEF/RBEC is currently working on the POPs EA with 3 countries in the region:

Country	Current Status
Slovakia	Approved October 2001 Implementation Feb 2002
Kazakhstan	Approved December 2001 Implementation April 2002
Latvia	Awaiting approval



## POPs Projects

**Non Combustion Technology for the Destruction of POPs**  
*Slovakia and Phillipines*  
*PDF B extension – Project under development*  
*UNIDO are executing agency*

**Demonstrating and Promoting Best Practices in reducing hospital waste**  
*Poland*  
*PDF A proposal under preparation*  
*WHO are executing agency in partnership with NGO, Health Care without harm*



United Nations Environment Programme  
Regional Bureau for Europe and the CIS

## UNDP-GEF

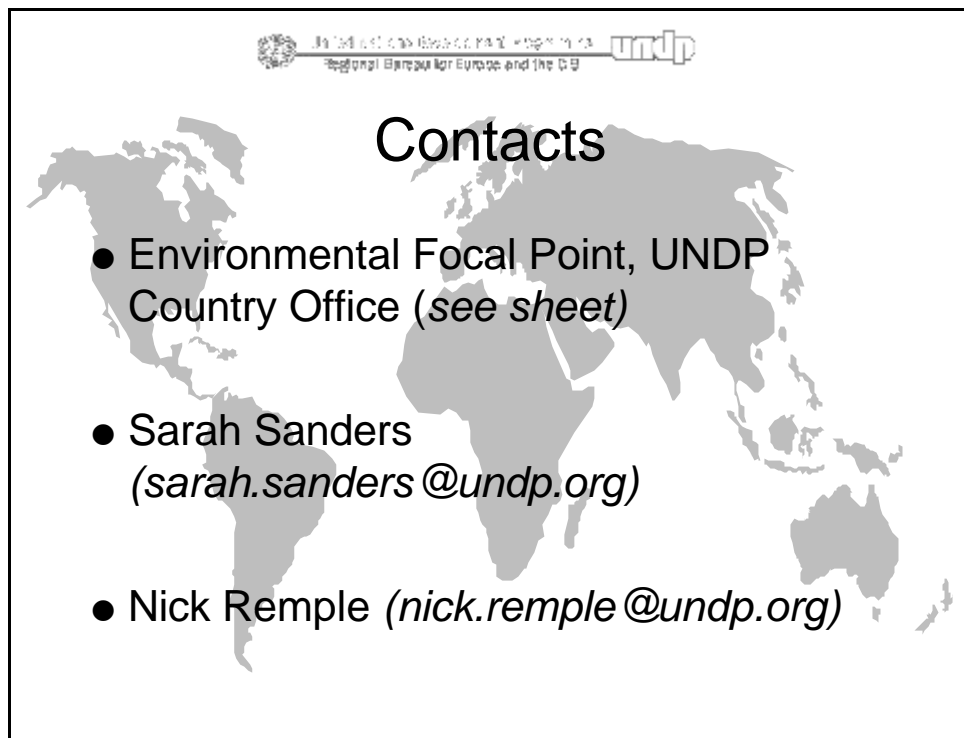
- Experience in other Enabling Activities  
*Biodiversity, Climate Change, National Capacity Self Assessments*
- In-country experience of Country Offices  
*UNDP Guidebook*
- National Expertise



United Nations Environment Programme  
Regional Bureau for Europe and the CIS

## Lessons Learnt

- Country driven
- High Level Support
- Stakeholder participation
- Policy Commitment
- Part of long term process
- Utilise existing coordinating mechanisms and structures
- Raise awareness
- Action Plans and Financing
- Takes time



United Nations Development Programme  
Regional Bureau for Europe and the CIS

## Contacts


- Environmental Focal Point, UNDP  
Country Office (*see sheet*)
- Sarah Sanders  
(*sarah.sanders@undp.org*)
- Nick Remple (*nick.remple@undp.org*)

## **The World Bank by Mr Steve Gorman**



**The World Bank** Activities Related  
To  
Persistent  
Organic  
Pollutants

Steve Gorman  
Environment Department  
World Bank  
SGorman@worldbank.org



**Bank's Interest in POPs**

- Key partner in sustainable development & protecting the environment with client countries
- Implementing agency for the GEF & MLF
- Global & local environmental problem.
- Largest source of development assistance (US\$20-30 billion per annum in loans)
- Trust Funds (Grant Financing)  
approx. US\$3billion
- MOU with UNEP

## **POPs: A Cross-Sectoral Issue**

- POPs impact on those sectors which are priority in Bank's development assistance program i.e. agriculture, health, water & sanitation, industry, energy, mining & waste disposal;
- Bank safeguard policies are key tools in ensuring that environmental and human health issues are addressed in projects;
- Extensive experience in implementing global environmental programs;

## **World Bank Support Worldwide**

- POPs baseline studies in preparation for development of National Implementation Plans;
- Capacity building for chemical management;
- Study on linkages of POPs and poverty;
- PCBs inventories (planned).



## Possible Funding

- Trust Funds
- Canadian Trust Fund US\$14 million over 5 years
- Other Bilateral Donors
- GEF
  - Existing funding under OP 10& 12
  - Enabling Guidelines approved in May 2001
  - New OP in to be approved

## The GEF

- Since 1991, the GEF
  - has funded more than 800 projects in 160 countries:  
  
\$3 billion in GEF grants  
\$8 billion in co-financing (\$6 billion done by the Bank)

## The GEF

- GEF funding complements, and does not substitute for existing aid programs.
- GEF supports projects with global environmental benefits for which official development funds are *not* available.
- GEF pays the added costs of making development projects friendly to the global environment.

## The role of the GEF on POPs

- GEF is the “interim financial mechanism” for the Stockholm Convention.
- Following Convention guidance, GEF will provide funding to developing and transition countries for the implementation of some activities to address POPs
- GEF’s approach builds on its previous experience addressing the issue of contaminants, including POPs, in international waterbodies.

## GEF's Initial Assistance

1. GEF will initially help countries strengthen their capacity to prepare *National Implementation Plans* (NIPs). This activity is known in the GEF as "enabling activities."
2. The NIP will help countries identify and prioritize capacity building, policy and regulatory reforms, and investments needed to address the issue of POPs.

## GEF's Initial Assistance

3. See the GEF document "*Initial Guidelines for Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants*" for information on NIP-eligible activities.
4. The "*Initial Guidelines*" document is available from the GEF website at [www.gefweb.org](http://www.gefweb.org).

## **How much funding is available from GEF?**

- GEF will provide funds to cover the agreed full cost, up to US\$500,000 per country, for enabling activities.
- Requests for more than US\$500,000 will be considered on a case-by-case basis

## **The GEF in the Future**

- Replenishment discussions ongoing
- \$250 million planned for POPs
- \$45million projected for NIPs
- \$205 for other activities

## Canadian Trust Fund: Objectives

- Help developing countries and EITs build commitment and capacity to take measures to reduce release of POPs;
- Engage the commitment and support of these countries for POPs convention
- help key source countries in need to address their critical domestic health, environment and sustainable development issues related to POPs;

## The Canadian Fund

- Support negotiation process by encouraging and helping countries build capacity to reduce releases of POPs by :
  - reducing or eliminating their production of POPs,
  - reducing or eliminating their use of POPs including switching to safer, more sustainable alternatives,
  - safely disposing of stockpiles and wastes, and
  - reducing emissions of POPs.

## **WB support to POPs - health (1)**

- Roll Back Malaria Partnership (WB, WHO, UNICEF, UNDP) with focus on Africa;
- Malaria control programs often only public health entities that use pesticides;
- WB direct financing for malaria control account more than US\$200 million in 25 countries worldwide;

## **Bank activities in prevention – agricultural pesticides (1)**

- Overall Bank's commitment to integrated pest management (safeguard policy OP 4.09);
- Support of strategy that promotes the use of biological or environmental control methods and reduces reliance on synthetic chemical pesticides;
- Assessment of the country's regulatory framework and institutional capacity to promote safe, effective and environmentally sound pest management;

## **Bank activities in prevention – agricultural pesticides (2)**

- Borrower specifically addresses pest management within the project's environmental assessment;
- Elements of Bank-supported country-level investment programs:
  - Policy framework: elimination of pesticide subsidies,
  - Strengthening regulatory core functions (pesticide registration, control and enforcement of regulations for worker and environmental protection, provisions for pesticide management),

## **Bank activities in prevention – agricultural pesticides (3)**

- Capacity building: training of extension workers and farmers in integrated pest management,
- Institution building: quality control for residues in food, environmental monitoring,
- Risk and disaster management.

## **African Stockpiles Program: Objectives**

- Rid all 53 African countries of stockpiled obsolete pesticides;
- Clean-up / render harmless / dispose of associated wastes (i.e. used containers, contaminated soils);

## **The Problem**

- Almost all Countries have obsolete pesticides – some dating back 40 years;
- Perhaps 30% are POPs and more can become POPs via inappropriate incineration;
- Most countries lack capacity to remedy the problem (labs, institutional capacity, \$\$) and need/want assistance to remove this serious threat;
- Adverse impacts (economic development; human health, ecosystem health, water quality; biodiversity etc).



## Existing Partners

- World Bank (implementing agency),
- FAO, UNEP (POPs & Basel Sect.) ,  
UNIDO,
- OAU, UNECA,
- WWF, PAN (UK and Africa),
- CLI (Crop Life International).

## Program Scope

- Expected to last ten or more years;
- Estimated cost US\$250 Million USD  
(US\$50-75 million for prevention and  
US\$150-175 million for clean-up);
- Several tranches (4 -7 pilot countries first  
tranche before program expansion to  
remaining countries);
- Program implementation expected to begin  
in early 2003.

## **Next Steps/Future consideration**

- Mainstreaming POPs in Bank activities (Local & Global benefits).
- Linking toxics & poverty
- Looking at chemicals as a package given the most recent decision of the UNEP GC to develop a Global Chemical Strategy i.e., MP, Basel, PICs (Rotterdam convention), POPs

**FAO by Dr Alemayehu Wodageneh**

What FAO [in collaboration with member countries] can do to minimize issues and problems of stockpiles

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**UNEP Subregional workshop on support for  
the implementation of the Stockholm  
Convention on Persistent Organic  
Pollutants (POPs)**

Bratislava, Slovak Republic 8-12 April 2002

**Presented by**

**Alemayehu Wodageneh (PhD)**

**FAO, AGPP, Rome, Italy**

## **General matters**

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1. Advise governments about short-and-long term problems of POPs, stockpiles and pesticides
3. Raise awareness at all levels
3. Train technical staff, conduct workshops, seminars on stockpiles
4. Assist countries in countrywide surveys and **inventory taking of stockpiles using FAO inventory format**
5. Mobilize countries in signing, ratifying and implementing POPs and other Conventions

## Direct assistance

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1. Assist and guide countries in environmental risk assessment
2. Assist member countries in project formulation and execution under donor support and the FAO Technical Cooperation Programme (TCP) and other sources
3. Provide assistance and provide information on the FAO International Code of Conduct on the distribution and use of pesticides

## Technical & relevant issues of concern

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1. Contaminated soil at affected sites, stores, etc.
2. International tenders and selection of waste management services and commissioning
3. Cleaning up, repackaging and disposal of toxic waste, decontamination and remediation of affected sites

## Technical guidance on matters of relevance

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1. Importance of the International Maritime Dangerous Goods Code (IMDG) related to shipment of waste on high seas
2. Importance and relevance of the Basel Conventions to shipment, transport, etc. of waste across country borders
3. Importance of prevention of accumulation of waste
3. Use and implementation of alternative methods of pest control (Integrated Pest Management)

## Technical guidelines

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**Develop and provide various FAO guidelines on toxic waste and stockpiles management free to countries:**

1. On prevention of accumulation
2. Pesticide storage and management
3. Disposal of bulk quantities
4. Management of small quantities
5. Assessing of contaminated soil
5. Baseline studies of stocks
6. Countrywide surveys and inventory taking (comprehensive publication)
7. Country guidance

## FAO information sources provided to member countries

1. Video cassettes, CD-ROM's on stockpiles management and pesticide POPs
2. Posters of various affected sites and disposal operations
3. Share compiled inventory data on stocks and information
4. Brochures, on issues and problems of obsolete pesticides

## FAO's training components in relation to obsolete stockpiles

1. Highlight of available technologies on disposal
2. First aid training while handling waste
3. Avoidance of risks while inventory taking
4. POPs GEF concept and guidance where applicable
5. Selection and use of personal protective equipment
6. Protective gloves, masks, boots, etc
7. Risk assessment in store and in disposal Operation
8. Guidance and use of safe working areas
9. Sampling and analysis of toxic substances
10. Site & stock stabilization
11. Turn key disposal project, etc.

## Major interest and salient features of FAO's activities

1. Enhance Prior Informed Consent (PIC) - Information on Certain Hazardous Pesticides and Industrial Chemicals in International Trade
3. Determine Maximum Pesticide Residue Levels (MRLs) in Food and the Environment
4. Engage in Codex Alimentarius procedures through Maximum Limits for Pesticide Residue in Foods

## Major interest and salient features of FAO's activities

6. Provide maximum residue levels for individual pesticide in different foods and feed items, and provides advice on the acceptable levels of pesticide residues in food moving in international trade.
7. Provide Pesticide Specifications and Quality Control Standards
9. Ensure management of risks associated with the use of pesticides.
9. Enhance and maintain International Code of Conduct on the Distribution and Use of Pesticides and
10. Find effective solutions, by following up implementation of the up of the Code:

## The FAO International Code of Conduct (12 articles)

Article 1	Objectives of the Code
Article 2	Definition of the Code
Article 3	Pesticide Management
Article 4	Testing of Pesticides [ <u>Manufacturers to ensure Safety, Efficiency, Fate in the Environment</u> ]
Article 5	Reducing Health Hazards
Article 6	Regulatory & Technical Requirements
Article 7	Restrictions on Availability and Use
Article 8	Distribution and Trade
Article 9	Information Exchange and Prior Informed Consent (PIC)
Article 10	Labeling, Packaging, Storage and Disposal
Article 11	Advertising
Article 12	Implementation and Monitoring of Code

## Major interest Salient features of FAO's activities



11. Get involved actively in helping countries establish and strengthen their plant protection capabilities
12. Provide operational guidelines and training on scientific and technical personnel.
13. Strengthen food control through laboratory assessment, training in laboratory management and residue analysis, and publication of specifications for pesticides and manuals for pesticide analysis and quality assurance in food control chemical laboratories.



## Major interest Salient features of FAO's activities



14. Train staff in the safe, efficient and environmentally sound management of pesticides
15. Assist in establishing laboratory infrastructures for quality control of pesticides and residues.

## Related websites of interest maintained by FAO

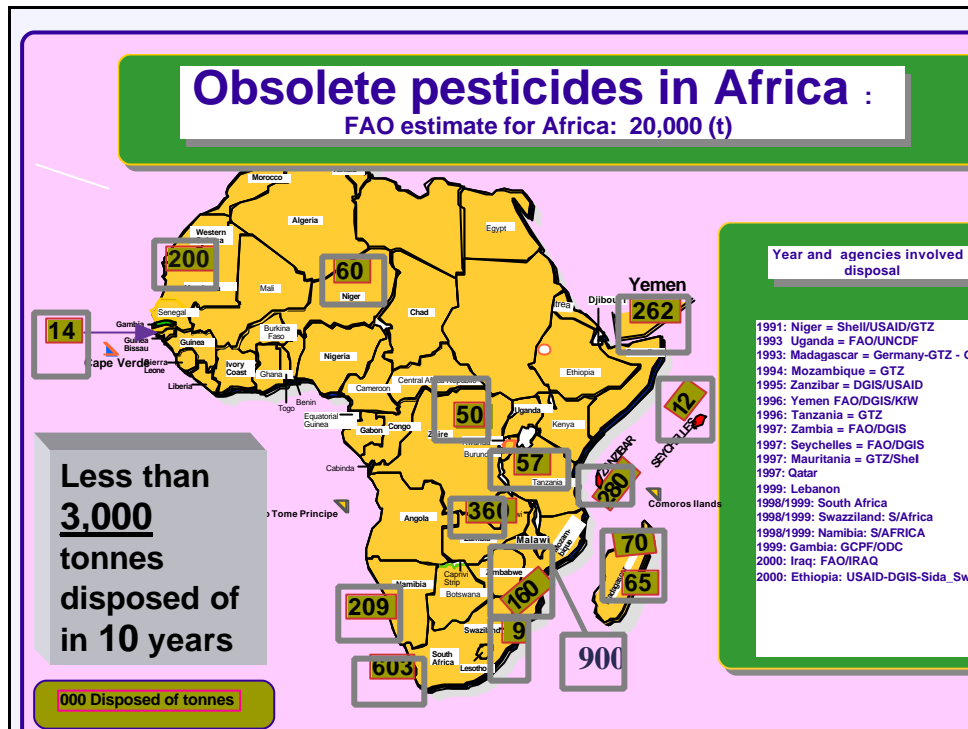
1. International plant protection convention, IPPC Secretariat, hosted by FAO's Plant production and protection division (AGP)
2. Ecoport, a shared, on-line database aimed at integrating inter-disciplinary information on the Earth's biodiversity. Contains AGPP's **Global plant & pest information system.**
4. Insect and pest control Programme of the FAO/IAEA joint division for nuclear techniques in food and agriculture (AGE)
5. Pesticide management aimed at minimizing hazards

## Related websites of interest maintained by FAO


1. FAO specifications for plant protection products - Technical specifications for more than 200 pesticides and related formulations
2. Manual on the development and use of FAO specifications
3. Issues on activities of FAO's Integrated pest Management Programme and its approach and ,
4. Information on briefing on the dangers of indiscriminate pesticide use.

## Related websites of interest maintained by FAO

1. FAO guidelines and standards - technical standards, test procedures, policy guidelines for the introduction of equipment certification and spray operator-training schemes.
2. Information on desert locust situation, updates and forecast, i.e. FAO's watchtower on desert locust movements across Africa and West Asia.
3. Locust publications include bulletins and updates, guidelines, surveys/projects in Iran and Senegal, details of desert locust atlas



## POPs General references



- Convention (POPs)
- Rotterdam Convention (PIC)
  - Web site: [www.chem.unep.ch/pops/](http://www.chem.unep.ch/pops/)
- Basel Convention
  - Web site: [www.basel.int/](http://www.basel.int/)

## PCB General references



- Management of PCBs in the United States
- Inventory of Worldwide PCB Destruction Capacity
- Survey of Currently Available Non-incineration PCB Destruction Technologies
- Guidelines for the Identification of PCBs and Materials Containing PCBs
  - Web site: [www.chem.unep.ch/pops/](http://www.chem.unep.ch/pops/)

## PCB General references



- US EPA Regulations on PCB 40 CFR Part 761
  - Web site: [www.epa.gov/pcb/](http://www.epa.gov/pcb/)
- European Council Directive 96/59/EC on PCBs (Document 396L0059)
  - Web site: <http://europa.eu.int/eur-lex/en>
- International Programme on Chemical Safety, Environmental Health Criteria (EHC) 140 (PCBs 1992 Second Edition)
  - Web page: [www.who.int/pes/pub\\_ehc](http://www.who.int/pes/pub_ehc)

## Dioxin general references



- Standardised Toolkit for Identification and Quantification of Dioxin and Furan Releases
  - Web page: [www.chem.unep.ch/pops/](http://www.chem.unep.ch/pops/)
- European Community Strategy for Dioxins, Furans and Polychlorinated Biphenyls
  - Web page: <http://europa.eu.int/eur-lex/en>
- International Programme on Chemical Safety, Environmental Health Criteria (EHC) 88 (Dioxins and Furans)
  - Web page: [www.who.int/pcs/pub\\_ehc](http://www.who.int/pcs/pub_ehc)

## Information source



- FAO Home Page:
  - [www.fao.org/](http://www.fao.org/)
- FAO Obsolete Pesticides Project Website:
  - [www.fao.org/WAICENT/FAOINFO/AGRICULT/AGP/AGPP/Pesticid/Disposal/index](http://www.fao.org/WAICENT/FAOINFO/AGRICULT/AGP/AGPP/Pesticid/Disposal/index)

## Information source



- General Sites of interest:
  - US EPA:  
[www.epa.gov/pcb](http://www.epa.gov/pcb)
  - UK Ministry of Environment:  
[www.environment-agency.gov.uk/](http://www.environment-agency.gov.uk/)
  - US Occupational Health and Safety Administration (OSHA):  
[www.osha.gov](http://www.osha.gov)
  - For International Maritime Dangerous Goods Code (IMDG):  
[www.imo.org](http://www.imo.org)

## Information source



- Useful e-mail addresses include:
  - For FAO: [alemayehu.wodageneh@fao.org](mailto:alemayehu.wodageneh@fao.org)
  - For UNIDO: [meisa@unido.org](mailto:meisa@unido.org)
  - For UNEP: [chemicals@unep.ch](mailto:chemicals@unep.ch)
  - For Basel: [sbc@unep.ch](mailto:sbc@unep.ch)

## Information source



- Useful web addresses for equipment suppliers include:
  - For field test kits:
    - [www.dexsil.com](http://www.dexsil.com)
    - [www.ensys.co.uk](http://www.ensys.co.uk)
    - [www.hach.com](http://www.hach.com)
  - For personal protective equipment

## Information source



- For United Nations Approved packages:
  - [www.vanleer.com](http://www.vanleer.com)
  - [www.skolnik.com](http://www.skolnik.com)
- A more detailed list of suppliers and manufacturers can be obtained from FAO and other relevant organizations

**UNIDO by Ms Claudia Linke -Heep**

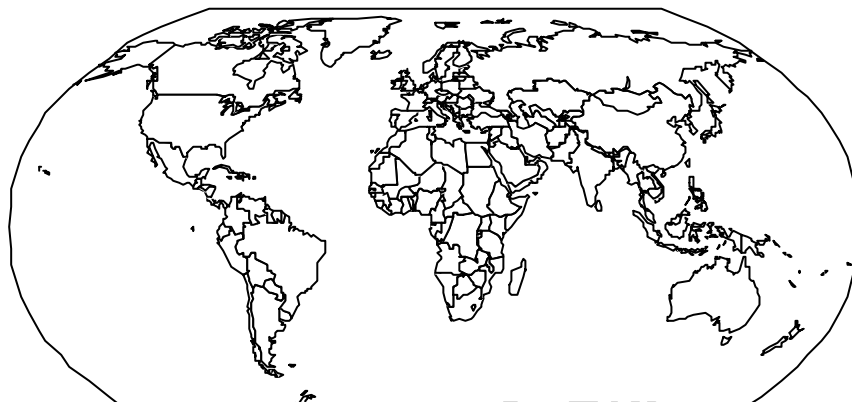
## Persistent Organic Pollutants (POPs)



*assisting our member countries in the context of international environmental frameworks & development*



## First steps: 'Enabling Activities'



- Enabling Activities proposal submitted by UNIDO & approved by GEF
- Enabling Activities proposal submitted by UNIDO, approval pending







## UNIDO partners in this region:

Croatia  
 Czech Republic  
 Hungary  
 Macedonia  
 Poland  
 Romania



## Next steps – the technical challenges



## Demonstration projects

- test the viability & removal of barriers that impede adoption & effective implementation of available
  - non-combustion technologies for destroying POPs (approved PDF-B);
  - bioremediation technologies for degradation of POPs (concept paper)
- identify and evaluate environmentally sound alternatives to POPs

## Feeding the world without poisons: Environmentally friendly alternatives to POPs-based pesticides

- Botanical Pesticides – **NEEM**
  - Biopesticides  
*Bacillus thuringiensis* (Bt)



## Non-combustion technologies

- **POPs elimination via available innovative technologies**
- **Slovakia, Philippines**
- **A demonstration in advance of tackling important stockpiles & contaminated soils**
- **GEF-funded USD 250 000**



## Non-combustion technologies: Situation in Slovakia

- **1 000 tonnes of stockpiles** - delor and residues from different stages of the production
  - old production plant (Chemko Strážske)
- **30 000 pcs of PCBs containig equipment** (preliminary inventory 2001)
- **30 000 tonnes of PCBs polluted sediment and soil** (rough estimate)



## Process of the project implementation

- Stockpile characteristics
  - \* Storage location
  - \* Analyses for PCBs, dioxins and furans
    - \* Laboratory UPKM Bratislava (Slovakia)
    - \* Laboratory VUOS (CETA) Pardubice (Czech Republic)
  - \* Manipulation conditions



## Process of the project implementation

- Technology
  - \* **Requirements** (UNIDO expert team and the Slovak National POPs Commission under MoE)
  - \* **Location** (avoid transport ..., infrastructure ..., personnel ..., environmental impact ...)
  - \* **Design** (capacity, type of waste, semi-mobility ...)



### Time frame:

**2002 final selection, EIA process ...**

**2003 technology installation**

**2003 – 2006 operation phase under GEF**

**2007 – operation phase Slovakia**



### Final Country Planning Activities will include:

- specifications to be used to guide the acquisition and deployment of the selected technologies;
- detailed characterization of the stockpile to be destroyed including chemical/physical analysis;
- other relevant site assessment or analysis;
- operating guidelines to be followed during destruction and cleanup activities; and
- ongoing site monitoring and reporting protocols; etc.



## Supporting the Stockholm Convention



*Programme Development  
and Technical Cooperation  
Division*

*Cleaner Production &  
Environmental  
Management Branch*



**POPs – UNEP and GEF *presented by Dr. Bo Wahlström***

**POPs – UNEP and the GEF**

Jim Willis, Director  
UNEP Chemicals

**Over 140 countries participate in UNEP GEF Project Activities**

Project Jurisdiction	# of Activities
Single country	103
Regional	78
Multi-country	20
Global	31
<b>Total</b>	<b>232</b>

## **UNEP/GEF POPs and PTS Projects (1)**

- **Regionally-based Assessment of Persistent Toxic Substances**
- **Development of NIPs for POPs: 12-country pilot project**
- **Support for Implementation of the Stockholm Convention (Medium size project)**
- **Persistent toxic substances, food security, and Indigenous Peoples in Arctic Russia (Medium size project)**
- **Demonstration of alternatives to DDT in Mexico and Central America (PDF-B)**
- **Reducing pesticides runoff to the Caribbean Sea (Colombia, Costa Rica, Nicaragua) (PDF-B)**

## **UNEP/GEF POPs and PTS Projects (2)**

- **Reduction of exposure to DDT and strengthening of malaria control - Executed by WHO/AFRO and Ministries of Health in Eritrea, Ethiopia, Madagascar, Namibia, South Africa, and Swaziland (PDF-B)**
- **Support to local communities for the reduction of pesticides use in the Niger and Senegal River basins through Integrated Pest and Production Management - Executed by FAO/Global IPM Facility in Benin, Guinea, Mali, Mauritania, Niger and Senegal (PDF-B)**



## Some Considerations

- The NIP is your plan for implementing the convention; make sure that the plan is designed to meet your needs.
- Different approaches in developing the plan:
  - *Large external consultant component*
  - *Country-driven*
- EAs get a flat fee of ~\$50,000 not included in the project budget.
- Budgets are country-specific; \$500,000 is not automatic.
- Different EAs have different strengths and weaknesses. Compare offers of assistance carefully.
- Partnerships are possible, but should be specified in your proposal.

## Why Consider UNEP? (1)

- UNEP is the secretariat of the Stockholm Convention and is designated by the Convention to assist parties.
- With UNEP supporting its NIP, the entire amount of GEF funding goes to that country.
- UNEP has more than \$6 million USD, in addition to what is available through the GEF, for projects and workshops in countries that develop their implementation plans with UNEP's support.

## Why Consider UNEP? (2)

- **UNEP has extensive experience in all of the twelve POPs listed in the Stockholm Convention; an active POPs programme since 1995.**
- **Governments selected UNEP to convene and support the negotiations of the Convention on the basis of its policy and technical competence on POPs.**
- **UNEP seconded a staff member to write the “Initial guidelines for enabling activities for the POPs Convention” and is the agency most familiar with its requirements.**
- **12-Country GEF project gives UNEP a “head start.”**

## Why Consider UNEP? (3)

- **UNEP is preparing the detailed guidelines for developing NIPs.**
- **UNEP has developed all of the currently available UN guidelines and guidance materials specific to POPs.**
- **UNEP has 40 staff members ready to provide immediate assistance to countries on NIPs.**
- **UNEP has financed and provided technical support for over 60 national projects in developing countries and countries with economies in transition on the major issues addressed by the Stockholm Convention.**

## Why Consider UNEP? (4)

- **Since 1995, UNEP has held over 100 regional, sub-regional and national workshops addressing POPs and the priority issues that are reflected in the Stockholm Convention.**
- **UNEP implements 20-30 regional and sub-regional workshops each year on the Stockholm Convention. These address the key issues of implementation, including PCB and dioxin/furan inventories and action plans, and selecting alternatives to POPs pesticides. Where possible, these will be held in countries selecting UNEP to support their NIP in order to strengthen the plan development process and to build synergies.**

## Why Consider UNEP? (5)

- **UNEP has extensive experience in implementing GEF projects. UNEP is a founding member of the GEF, and has been an Implementing Agency since the GEF's inception in 1991.**
- **UNEP was the first agency with POPs projects approved by the GEF.**
- **UNEP's underlying interest is to ensure that each country has the ability to fulfil its obligations under the Stockholm Convention and thereby to protect health and the environment from POPs. UNEP's approach is designed to ensure that projects are country-driven, country-led and country-implemented.**

## Follow-up

- **UNEP would be pleased to arrange follow-up consultations with countries to:**
  - **Provide in depth briefings on the Convention and its requirements**
  - **Develop proposals for NIPs for GEF funding**
  - **Design other needed actions (e.g., workshops or projects) for chemical safety**
- **Can take place at UNEP or in your country**

## 8. COUNTRY REPORTS

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### BULGARIA

#### STATUS OF CHEMICALS LEGISLATION IN BULGARIA

By Silvia Raykova

Bratislava, 8-12 April 2002

Enters into force on 5 of February  
2002

■ LAW ON PROTECTION FROM THE  
HARMFUL IMPACT OF THE  
CHEMICAL SUBSTANCES,  
PREPARATIONS AND PRODUCTS

### The Aim of the Law :

- To protect human health and the environment from the harmful effects of dangerous chemical substances, preparations and products

### This law regulates:

- The conditions and the order of manufacture, trade, import, export, import and use of chemical substances and preparations
- The state control of these activities
- The rights and duties of persons who manufacture and trade chemical substances and preparations

## Development of new regulations on:

- Classification, packaging and labelling of dangerous chemical substances, preparations and products
- Restrictions on trade and use of certain dangerous chemical substances, preparations and products
- Risk assessment of human health and environment for new chemical substances
- Export-import control on certain dangerous chemical substances, preparations and products
- Notification of new substances

## Positive Elements of the Law are:

1. Acceptation of the law is a step for approximation of the national legislation with this in the European union
2. The regulation of issues on:
  - classification, packaging and labelling of dangerous chemical substances and preparations;
  - notification of new chemical substances;
  - import, export and trade of chemical substances and preparations;
  - measures for safe manufacture and use of chemical substances and preparations;
  - state control of chemical substances and administrative punitive provisions

### Status of Conventions for Bulgaria

Stockholm Convention on POPs  
 - signed, 22 May 2001

Rotterdam Convention on PIC  
 - ratified, July 2000

Basel Convention  
 - ratified, January 1996

### List of banned pesticides and chemicals for import and use in Bulgaria (1)

Name	Year of ban	Proposed year for ban
Aldrin	1969	1997
Chlordane		
DDT	1969	
Dieldrin	1969	
Endrin	1969	
Heptachlor	1991	
Hexachloro benzene		1997



List of banned pesticides and  
chemicals for import and use in  
Bulgaria (2)

Name	Year of ban	Proposed year for ban
Mirex		1997
Toxaphene	1985	
Lindan	1991	
Polychlorinated Biphenyls (PCB)		1999

Problems with unsold stocks, banned and mixed plant protection products after the year 1990 arose from:

- Decreasing of collectivization of agriculture and creating of the private sector
- Decentralization of import
- Reduced control of storage

## Responsibilities for solving of obsolete pesticides problem

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- Ministry of Agriculture and Forestry
- Civil Protection Agency
- Ministry of Labour
- Ministry of Interior
- Ministry of Environment and Water

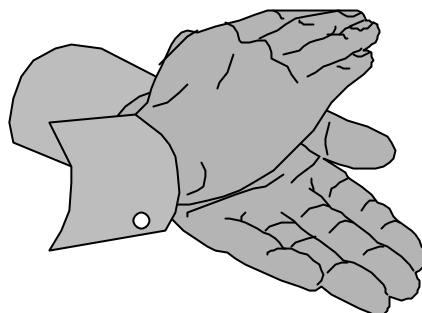
## GEF POPs 12 countries Project

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- Bulgaria is approved as a Pilot Project for the Development of National Implementation Plan

**END**

Thank you !!





## CROATIA

### I. INTRODUCTION

The Republic of Croatia ratified almost all international environment protection treaties: Vienna Convention for the Protection of the Ozone Layer (1991); Montreal Protocol on Substances that Deplete the Ozone Layer (1991) London Amendment (1994), Copenhagen Amendment (1996), Montreal Amendment (2000); United Nations Framework Convention on Climate Change (1996); Convention on Long-range Transboundary Air Pollution (1991); Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1994), Convention on Biological Diversity (1996); Convention for the Protection of the Mediterranean Sea against Pollution; Convention on Environmental Impact Assessment in a Transboundary Context (1996). The preparatory work for signing the Rotterdam Convention is underway.

The republic of Croatia is committed to fulfilling the requirements of the Stockholm Convention, which was signed at the Conference of the Plenipotentiaries in Stockholm on 23 May 2001.

Based on the Environment Performance Review (1999) and complying with requirements of the Stockholm Convention the following constrains need to be addressed as a matter of priority:

- Non-compliance legislation
- Instruments for financing waste management by enterprises are not established
- Uncontrolled landfills pollute surrounding soil and groundwater
- No incentives for clean technologies are present
- Lack of environmental awareness among citizens and enterprises.

Project “Enabling Activities to facilitate early action on the implementation of the Stockholm Convention on Persistent Organic Pollutants in the Republic of Croatia“ recently was approved by the Global Environment Facility (GEF). The objective of this project is to strengthen national capacity and the enhance knowledge and understanding amongst decision-makers, managers, the industry, NGOs and the public at large on POPs to develop and formulate a National Implementation Plan (NIP). By achieving this objective Croatia will meet the obligations of the Stockholm Convention and will be enabled to manage the elimination of POPs. Specifically, the project will:

Allow Croatia to meet its reporting obligations under the Stockholm Convention

Prepare the ground for the implementation of the Stockholm Convention in Croatia

Strengthen national capacity to manage POPS and strengthen chemicals management capacity in general

Maximize government commitment and facilitate ratification of the Stockholm Convention.

## II. PESTICIDES

### Pesticide use in Croatia

Croatia annually consumes between 8-11,000 tonnes of various plant protection preparations. Croatia expects a minor growth in consumption of plant protection agents, with the permanent necessity of their maximally rational application and orientation towards environmentally soundest preparations.

In 1997, there were 580 plant protection preparations based on 255 different active substances with the usage permits in Croatia., and this number consisted of 197 preparations for the group of zoocides (predominantly insecticides), 171 fungicides, 189 herbicides and 23 other preparation types.

Among 580 licensed pesticides there are 56 pesticides containing the following 11 POPs as active substances: Atrazin, Bendozone, Chlorpicrin, Dichlorvos, 2,4-D; Endosulfan, Fetion, Lindane, Malathion, Parathion and Simazine. In Croatia, four firms produce, import and distribute plant protection agents (pesticides as well): CHROMOS AGRO, d.d Zagreb, HERBOS, d.d. Sisak, PLIVA, d.d. Zagreb and SAPONIA, d.d. Osijek.

According to the available data of the Ministry of Agriculture and Forestry, the average annual use of pesticides is the following: 7,600 tonnes – preparations and 3,500 tonnes – active substance. Approximately 7 tonnes of lindane is consumed annually in Croatia.

Crop pests decrease yields by 29.2 percent (the level of damage for Europe is 28 percent). In the past decade, the use of plant protection agents has decreased, not for ecological but exclusively for economic reasons. Farmers simply cannot afford them.

### Pesticides legislation

The use of pesticides (they are treated as toxins/poisons) in the Republic of Croatia is governed by the following main regulations:

- Law on Plant Protection (1994)
- Law on Poisons (1999)
- Poison list (2001)

Only plant protection agents with the approval of the Ministry of Agriculture and Forestry may be applied and put on the market. The approvals are issued by the Ministry of Agriculture and Forestry upon proposal of its Plant Protection

Commission. Issuance of approval requires prior decision on adequacy of application of the agent and its classification according to groups defined by the Ministry of Health.

Apart from the above laws, plant protection area is governed by other regulations as well:

- 1 Law on Environmental Protection
- 2 Law on Waste
- 3 Law on Occupational Safety and Health
- 4 Law on Forests
- 5 Law on Financial Incentives and Charges in Agriculture and Fisheries
- 6 By-Law on Soil Protection from Contamination with Noxious Substances
- 7 By-Law on the Amounts of pesticides, Toxins, Microtoxins, metals, Histamines and Similar Substances that May be Found in Foodstuffs and on other Conditions Concerning Health Appropriateness of Foodstuffs and Mass Consumption Use
- 8 By-Law on Maximum Allowed Concentrations of Hazardous Substances in Waters and Territorial and Internal Sea.

Application and sales of the following pesticides as plant protection agents are prohibited in the Republic of Croatia: aldrin, chlordane, chlordecone, dieldrin, endrin, heptachlor, mirex and DDT. DDT is not permitted in agriculture since 1972, and in forestry from a later date. In the past ten years, no permit for the import of endrin or toxaphene has been requested.

### **Environmental concerns in Agriculture**

Basic environmental problems in agriculture in the Republic of Croatia can be classified into three groups:

#### Solid quality and degradation:

Intensive crop production, particularly, too much intensive crop rotation, use of agro-chemicals and heavy machines, industrial processes, waste disposal and use of fossil fuel damage land in some parts of the country with intensive agricultural production.

#### Water use and water pollution:

Water pollution are mainly due to agricultural activities and wastewater effluents from cattle farms and fishponds.

#### Wastes.

The main sources of wastes in agriculture are fluid manure and wastewater from intensive livestock breeding and fattening, as well as waste from land cultivation.

However, the absence of a soil inventory and of regular soil monitoring is a severe obstacle to taking soil protection and sustainable management measures, as the true condition of the soil is practically unknown.

The pesticide content in water or soil has not been monitored on a regular basis. The level of atrazine in water, for example, sometimes exceeds 100 mg/l, which is the Croatian and the European's MAC for a single pesticide in water intended for human consumption.

Activities needed to be undertaken:

- 1 Develop, adopt and enforce measures on environmentally friendly use of pesticides
- 2 Enact rules of good agricultural practice
- 3 Establish permanent soil quality monitoring, together with the system of information on soils
- 4 Develop a land register
- 5 Employ various measures to encourage alternative agricultural production
- 6 Encourage family-farm orientation to the development of various forms of rural and eco-tourism
- 7 Encourage the use of biological and other pesticides that are not harmful for the environment.

### **III. POLYCHLORINATED BIPHENYLS**

PCBs are not produced in the Republic of Croatia and there are no accurate records on annual imports of such substances. Beginning with 1992, no PCB-containing transformers or capacitors are imported or produced.

Handling of PCB- containing devices is a costly procedure, which can be quickly done only by economically developed countries. The Republic of Croatia, primarily due to severe war damage, and a long-lasting economic crisis, is not in the position to handle its PCB-containing devices in a short period, and install adequate environmentally harmless devices instead, as it requires large investment. Croatia is therefore forced to keep using major part of such devices, until the expiry date or the first damage, after which they need to be properly handled – destroyed.

Due to a largely distributed and at the same time uncontrolled industrial application of PCBs in the past (before 1991), no systematised data exist on their usage numbers or the quantities of transformers imported into Croatia. Many industrial and electricity production plants have significant quantities of PCB-containing transformers of medium and high nominal power installed. It could be said that the data on existing capacitors and energy transformers containing PCB are only just being collected and systematised.



### **Existing data on PCB-containing equipment**

In Croatia, there are units containing PCBs and while being in operation they are subjected to the control of Ministry of Labour and Social Welfare. When units stop operating and become waste they are controlled and supervised by Ministry of Environmental Protection and Physical Planning. The same measures would be used for PCTs. In compliance with the regulations of the Republic of Croatia waste PCBs or waste contaminated with them are classified into the category of hazardous waste and its management falls within the State authority. By the special authorisation granted by the authorised ministries, in 1992 APO (hazardous Waste Management Agency LTD.) was appointed for keeping records, supervision of waste management and elaboration of the strategy relating to the substitution of all installed and spare devices filled up with PCBs/PCTs. For the reason that in the Croatia there has not been any database (inventory of hazardous waste), activities relating to the management of equipment containing PCBs should have started by collecting data on the existing devices and equipment containing PCBs.

In compliance with authorisations and demands the following activities were performed in the period from 1993 to 1999:

- Database for Croatia as per counties was created
- Plan relating to the substitution of equipment and devices containing PCBs was made and the organized management/destruction of PCB was started.

The data on equipment containing PCBs were collected by the poll. At first the poll covered the biggest industrial and production facilities, as well as power supply utilities. Afterwards the database was being extended and updated and the whole country was included into the database.

In accordance with the Law on Waste, the Ministry of Environmental Protection and Physical Planning entrust handling hazardous waste to companies authorised to do it. In Croatia there is only one specialized public installation exclusively treating hazardous waste PUTO (Croatia acronym for "mobile installation for thermal waste treatment"): it is a mobile waste incinerator installed in Zagreb in 1997. It started operating commercially after obtaining a permit in 1998. The main investor is the City of Zagreb, together with the companies "Hafner", Bolzano, Italy and IRS, Mannheim, Germany. The modular installation makes it possible to reuse the material and energetic content of input waste, at the same time respecting German, EU and Croatian environmental regulations. Flue gas retention is 99.9 percent, and no liquid waste is produced.

Hazardous waste such as PCB not yet being handled in an environmentally sound manner in the Republic of Croatia, the valid permit allows for PCB to be transported for incineration to the European union states possessing PCB incineration plants. The same procedure is applied to PCTs, in compliance with the Basel convention. According to the existing records, in the period 1994-1999 it was handled defective transformers and capacitors as follows: 23 tonnes in 1994, 60 tonnes in 1995, 60 tonnes in 1996, 16 tonnes in 1997, 42 tonnes in 1998 and 16 tonnes in 1999 in such a

manner. According to preliminary estimation only 10-15 percent of the total installed equipment in Croatia has been handled so far.

The Croatian Electricity Company in conjunction with the Hazardous Waste Management Agency started in 1993 the Project of Replacement of PCBs in Cooling Oils in Capacitors and Transformers by Environmentally Harmless Alternatives. In the framework of this Project approximately 30 percent of such devices in the electricity sector were systematically replaced until 1998, and they are handled abroad, in an environmentally sound manner (incineration at the hazardous waste incinerator). For the time being, devices in working order keep working until damage occurs. The devices are properly marked to warn the personnel of the presence of PCB, and they are located in closed, locked areas within transformer stations which can be accessed only by authorised, trained personnel of the Croatian Electricity Company.

### **PCB s legislation**

There is no regulation in Croatia prohibiting the use of PCBs nor is there any deadline to handle all existing PCB quantities in an environmentally sound manner. However, handling PCBs, PCB-containing devices and hazardous waste is governed by a number of regulations.

- The main regulations are as follows:
- Law on Environmental Protection (1994)
- Law on Waste (1995)
- By-Law on Waste Categories (1996)
- By-Law on the Conditions for Handling Hazardous Waste (1998)
- By-Law on Safe Handling of Substances Containing Polychlorinated Biphenyles, Polychlorinated Naphtalene and Polychlorinated terphenyles (1991)
- Law on Transport of Hazardous Waste (1993)
- Law on Air Quality Protection (1995)
- By-Law on Recommended and Limit Ambient Air Quality Values (1996)
- Rule Book on Environmental Pollutants Inventory (1996) etc.

The Law on Waste is the basic legal instrument concerning the management of non-radioactive solid waste. It classifies waste according to its origin as municipal waste or industrial waste, and according to its characteristics as hazardous waste or inert waste. The basic goals of waste management are to avoid and minimize the generation of waste; particularly hazardous waste should be managed in a controlled way. If possible, they should be reused for material and energy recovery prior to disposal. Waste should be disposed of in controlled landfills and areas contaminated by waste should be remedied. The Law also defines what should figure on the registers of industrial and hazardous waste. All imports, exports and transits are under the control

of the Ministry of Environmental Protection and Physical Planning. The import of hazardous waste is prohibited.

The Regulation on the conditions for handling hazardous waste determines the technical specifications of installations for the storage, treatment and disposal of hazardous waste. For thermal waste treatment utilities, the temperature of burning gases in the most unfavourable conditions must reach at least 850 °C. If the waste contains more than 1 percent halogenated organic compounds, the combustion temperature must be at least 1100 °C. There are no special air emission limits, apart from the regular ones.

Existing problems:

- Non-compliance legislation
- Instruments for financing waste management by enterprises not established
- Uncontrolled landfills pollute surrounding soil and groundwater
- No incentives for clean technologies
- Lack of environmental awareness among citizens and enterprises

Policy priorities:

- Adopt a waste management strategy
- Organize a system of waste management which clearly defines the stakeholders, their obligations and rights, a system of institutional support and an information system
- Establish a waste cadastre
- Identify waste devastated areas, define priorities for remedial actions
- Remediate areas devastated by waste according to the priorities defined in the framework of remediation programmes.

#### **IV. POPs EMISSION INVENTORY**

POPs emission inventory is maintained in the Republic of Croatia since 1996, in line with the international EMEP/CORINAIR methodology, officially accepted by the Executive Body to the LRTAP Convention. This report presents emission inventory for selected persistent organic pollutants for 1990 and 1998.

The observed persistent organic pollutants can be classified into three groups: pesticides, polycyclic aromatic hydrocarbons (PAHs), and dioxins and furans (Table 1).

**Table 1: Persistent organic pollutants**

Group	POPs
Pesticides	HCH – hexachlorcyclohexane (lindan)
	HCB – hexachlorbenzene
Polycyclic aromatic hydrocarbons (PAHs)	<b>Benzo(b)fluorantene</b>
	<b>Benzo(k)fluorantene</b>
	<b>Benzo(a)pyrene</b>
	<b>Indeno(123-cd)pyrene</b>
Dioxins and furans (DIOX/F)	PCDD – polychlorinated dibenzo-dioxins
	PCDF – polychlorinated dibenzofurans

### Pesticide emissions

Emission occurs in the application of plant protection agents in agricultural practice (pesticide emission in the synthesis and formulation processes is negligible). The new List of Toxins, which may be put on the market in the Republic of Croatia, permits use and sale of four pesticides of the listed substances. According to the poll carried out among the pesticide producers, hexachlorcyclohexane was used as an active substance in the production of insecticides in the amount of 13.2 tonnes in 1990, and, in 1998 the amount was 7 tonnes. Assuming that approximately 5 percent remained unused, the hexachlorcyclohexane emissions in 1990 amounted to 9.4 tonnes, whereas it decreased to 5 tonnes in 1998.

The pesticide HCH emissions trend is shown in the figure 1. It can be seen that there was an increase in 1998 in relation to 1997, but also a considerable decrease in relation to 1990, in the use of hexachlorcyclohexane an active substance in the production of pesticides.

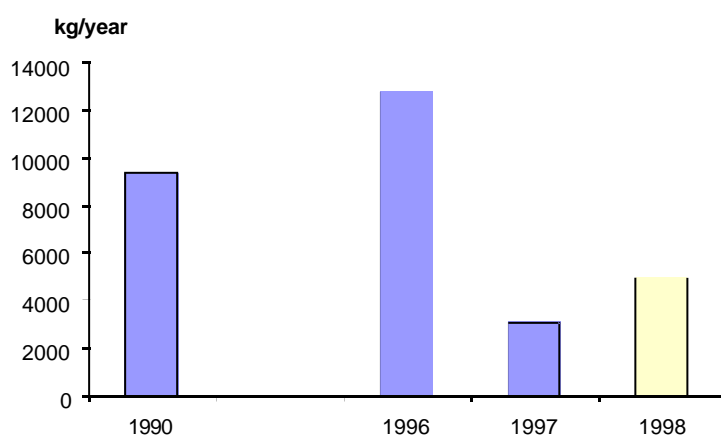


Figure 1: HCH emission trend in Croatia

### Emissions of polycyclic aromatic hydrocarbons

There are over 100 different polycyclic aromatic hydrocarbons. Four polycyclic aromatic hydrocarbons have been used for emission quotas purposes, in line with the Protocol recommendations: benzo(a)pyrene, benzo(b)fluorantene, benzo(k)fluorantene, indeno(1,2,3-cd)pyrene. The most significant emission sources are fuel combustion processes in households, coke production and aluminium smelting using Söderberg anodes. Tables 2 and 3 show polycyclic aromatic hydrocarbons emissions in 1990 and 1998 are shown per sectors.

**Table 2: PAH emissions per sectors in 1990**

<b>Emission of PAH kg/year</b>	<b>benzo(a) pyrene</b>	<b>Benzo(b) Fluorantene</b>	<b>benzo(k) fluorantene</b>	<b>indeno(1,2,3- cd) pyrene</b>
Combustion in energy production and energy transformation	420.2	153.0	141.7	172.0
Combustion in commercial, institutional and residential sectors and agriculture, forestry, fishing	4015.7	5292.8	1811.4	3053.5
Combustion in industry	2.4	16.0	16.6	11.5
Road transport	0.1	0.2	0.1	0.1
<b>Total</b>	<b>4438.4</b>	<b>5462.0</b>	<b>1969.8</b>	<b>3237.1</b>

**Table 3: PAH emissions per sectors in 1998**

Emission of PAH kg/year	benzo(a) pyrene	benzo(b) fluoranten e	Benzo(k) Fluorantene	indeno(1,2,3 -cd) pyrene
Combustion in energy production and energy transformation	4.4	18.9	3.7	7.0
Combustion in commercial, institutional and residential sectors and agriculture, forestry, fishing	2461.7	3235.3	1077.3	1764.3
Combustion in industry	1.3	7.6	8.0	4.3
Road transport	0.2	0.2	0.1	0.2
<b>Total</b>	<b>2467.6</b>	<b>3262.0</b>	<b>1089.1</b>	<b>1775.8</b>

Table 4 gives total emissions of the observed polycyclic aromatic hydrocarbons in separate years.

Table 4: Total PAH emissions

Emission PAH	1990	1998
t/year	15.1	8.6

*Compared to 1990, in 1998 there was a significant decrease of emission values (approximately 43 percent), caused by the decrease in the consumption of fuel wood, which is the largest PAH emission source, and by the termination of operation of the coke oven plant in Bakar. Figure 2. Shows the PAH emissions trend.*

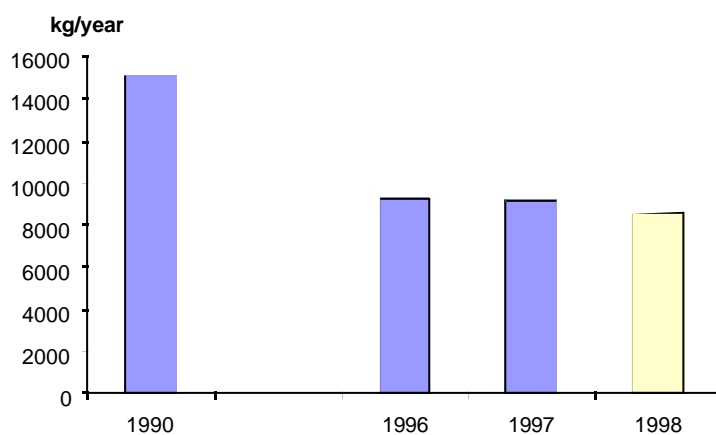


Figure 2: PAH emissions trend in Croatia

### Emissions of dioxins and furans

The highest dioxins and furans emissions are produced in the combustion of household fuel wood and in the thermal waste treatment installations (municipal, industrial and hospital waste). Other significant sources are steel production processes in electric arc furnaces, road transport and fuel combustion processes in energy output facilities (thermal power plants, co-generation plants and energy transformation facilities). Tables 5 and 6 show emissions per sectors in Croatia, for 1990 and 1998, calculated by the emission factors from CORINAIR guidebook.

**Table 5: Dioxins and furans emissions per sectors in 1990**

Sector	Emission gTEQ/y
Combustion in energy production and energy transformation	0.12
Combustion in commercial, institutional and residential sectors and agriculture, forestry, fishing	149.33
Combustion in industry	0.17
Production processes	28.66
Road transport	0.36
Other mobile sources and machinery	0.0008
Waste treatment and disposal	-
<b>Total</b>	<b>178.64</b>

**Table 6: Dioxins and furans emissions per sectors in 1998**

Sector	Emission gTEQ/y
Combustion in energy production and energy transformation	0.13
Combustion in commercial, institutional and residential sectors and agriculture, forestry, fishing	88.18
Combustion in industry	14.76
Production processes	7.34
Road transport	0.18
Other mobile sources and machinery	$< 1 \times 10^{-4}$
Waste treatment and disposal	0.17
<b>Total</b>	<b>110.77</b>

Compared to 1997, there was a 17-percent increase in emissions of dioxins and furans, due to the increased production of steel in electric arc furnaces and larger quantities of thermally treated industrial waste; however, the emissions are considerably lower (38 percent) than the 1990 ones. Figure 3 shows the dioxins and furans emissions trend in Croatia.

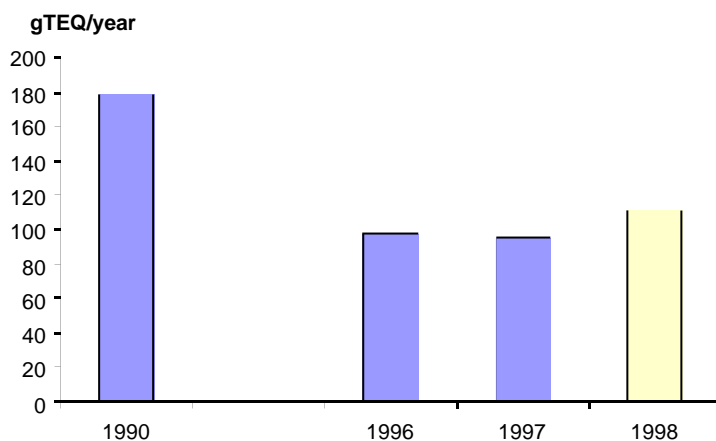


Figure 3: DIOX/F emissions trend in Croatia

### POPs emission legislation

Croatian air protection legislation is mostly harmonized with the EU and in line with the requirements of international treaties. It comprises effective legislative measures such as ambient air quality standards, BATNEEC-based emission limit values, monitoring requirements, permitting procedures including Environmental Impact Assessment, as well as an institutional network for implementation and inspection system at the local level.

Emission data collections prescribed by Rule Book on Environmental Emission cadastre (KEO) 1996, covering solid waste generation, air pollutant emissions and waste water discharges. Related to air pollution emission, KEO defines single and collective sources.

The discharge of emissions and the compliance with emission limit values set out in the By-Law on Limit Values of Pollutants Emissions from Stationary Sources into the Air (1997) must be determined by measuring the emissions.

The by-law prescribes general emission limit values (ELVs) for total particulate matter, inorganic and organic compounds and carcinogenic substances. Each substance is put in a risk category (I-IV) depending on its toxicity, persistence and accumulation potential and the technological possibilities for emission reduction. For some selected technological processes, e.g. production of non-ferrous mineral raw



materials, chemical industry, food-processing industry, heating installations, gas turbines, internal combustion engines, waste incineration plants, ELVs are prescribed for certain process-specific pollutants. Since 1 January 1998, all new or reconstructed stationary sources have to comply with the By-law. Existing sources have to comply with the prescribed ELVs by the year 2004. In the transition period, existing stationary sources may exceed the prescribed limit values by a factor of three.

Owners and users of air pollution sources are obliged to:

Report on their air pollution sources and any reconstruction of them to the county authority

Reduce the air emissions to be in compliance with the relevant legislation

Regularly monitor air emissions and keep records

Submit the data to the Environmental Emission Cadastre on a regular base.

Selected emission limit values:

Waste incinerating plants

ELV for dioxins and furans	0.1 ng/m <sup>3</sup>
ELV for vaporous or gaseous organic substances indicated as total carbon	10 mg/m <sup>3</sup>
Dioxins and furans should be measured two times per year, and total carbon continuously	

**Volatile organic compounds**

Stationary sources (Unit: mg/m <sup>3</sup> )	CH 20 (for mass flow of 100 g/h and more) Benzene 5
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Recommended (RVs) and limit values (LVs) of air quality are prescribed in a By-law. RVs and LVs are based on EU guide values, WHO guidelines and Swiss ambient air quality standards, while LVs are based on EU limit values, German ambient quality standards and WHO guidelines. RVs and LVs limit some carcinogenic substances from fuel combustion are based on recommended United Kingdom air quality standards.

## VI. FINAL REMARKS

In order to protect human health, the plant, water and animal life, cultural and material goods against pollution caused by persistent organic pollutants in the Republic of Croatia, the following activities need to be undertaken, as soon as possible:

- Work out Environmental protection strategy with action plan and financial needs
- Harmonize legislation with EU directives and guidelines
- Elaborate phase out programme for PCB-equipment elimination, in an environmentally sound manner
- Improve control and inspection of import, put on the market, handling and disposal of POPs
- Establish appropriate environmental protection information system including all relevant data of POPs
- Elaborate and implement Agriculture management plan
- Elaborate and implement Solvent management plan
- Raise public awareness about harmful impact of pesticide use
- Improve education of custom duties officers about recognizing products containing POPs
- Promote use of alternative products and processes contributing to decrease of POPs emission into the air
- Promote alternative agriculture
- Improve classification of toxins, labelling of products and their packaging
- Promote development and implementation of cleaner technologies
- Prevent illegal traffic and trade of hazardous substances.

#### References:

1. Cvitan, I., Cicek, J., Makoter, M.: Use, maintenance and replacement of condensers and energetic transformers containing PCB, Delit, Sisak, 1995
2. United Nations Environment Programme (UNEP): Proceedings of the Subregional awareness workshop on persistent organic pollutants, Kranjska Gora, Slovenia, May 1998
3. United Nations, Economic Commission for Europe: Environmental performance reviews for Croatia, New York and Geneva, 1999
4. Croatian electricity company, d.d.: Energy and Environment, Annual Energy Report, Zagreb, 1999
5. Ministry of Environmental Protection nad Physical Planning Republic of Croatia, Ekoneg holding, d.d., Zagreb: Emission pollutants inventory for the Republic of Croatia for the period 1990-1998, Zagreb, 2000

## CYPRUS

Considering the problems caused by POPs and other toxic chemicals, Cyprus has taken actions for the control and management of toxic substances and hence to avoid or minimize the possible effects of these chemicals on human health and the environment. Legislative measures have been taken, therefore, to regulate the import, manufacture and use of pesticides and other toxic chemicals including their by – products. The current state of national legislation and programme dealing with hazardous substances includes the following:

### 1. Pesticide legislation

In Cyprus, pesticides are controlled according to the provisions of a specific legislation, enacted in 1967 and implemented since 1973. This legislation was replaced by a new and more comprehensive legislation in 1993, known as the "Pest Control Products Law of 1993, N 1(I)/93" and the "Pest Control Products Regulations of 1993 and 2000".

The provisions of the framework Directives 91/414/EEC 78/631/EEC and 1999/45/EC of the European Union have been taken into account for the preparation of Cyprus national pesticide legislation and hence it may be considered to be in accordance with the EU regulations and the international procedures.

The Department of Agriculture is responsible for the implementation of the pesticide legislation. The required structure for pesticide registration exists in this Department, i.e. service for administration, evaluation of data and documents and testing of pesticides as well as laboratories for formulation quality control and residue analyses.

The main objectives of the pesticides legislation are the protection of the agricultural production, the consumers and the human health in general, as well as the environment by ensuring high quality and proper use of pesticides and minimizing any adverse effect from their use. The law and the relevant regulations provide for the marketing, registration, quality control and labelling of all pesticides in Cyprus. The term pesticide includes all chemicals used for control or prevention of plant pests and diseases intended for agricultural, household and public hygiene use.

According to this legislation, no person shall manufacture, advertise or offer for sale or use any pesticide unless the product has been registered.

#### 1.1. Pesticides Registration Procedure

Pesticide registration is the responsibility of the Pest Control Products Board, consisted of the representatives of the Department of Agriculture, Ministry of Agriculture, Natural Resources and Environment, Ministry of Health, Ministry of Commerce and Industry, as well as of representatives of the Farmers' Unions, the Importers and the Agriculturalists' Union.

The Pest Control Products Board, in determining if a pesticide should be registered, reviews the results of a variety of scientific tests submitted by the pesticide manufacturer. These tests include toxicology studies involving acute, subchronic and chronic toxicity, reproductive effects, teratogenicity, mutagenicity, carcinogenicity, skin and eye irritation and pharmacokinetic studies. Data concerning the behaviour of a pesticide in the environment, including residue tests must also be submitted. In addition, the Cyprus registration authority requires information on the physicochemical properties of the active ingredient and formulation. The manufacturer is also requested to submit a sample for chemical analysis. The sample is then subjected to quality control at the laboratory of the Department of Agriculture specially equipped and trained for this purpose. Routine quality control of a pesticide formulation includes the identification and quantification of the active ingredient, determination of any undesirable impurities such as heavy metals or suspected carcinogens and also examination of the physicochemical properties, such as heat and cold stability and depending on the formulation type, emulsion, acidity or alkalinity and flow ability.

The work of the Pest Control Products Board is facilitated by a technical committee. The team for pesticide residues evaluation and the team for the evaluation of the physicochemical properties of pesticides.

After all required data are submitted by the manufacturer and quality control of the sample shows compliance with the manufacturer's specifications and also of the United Nations Food and Agriculture Organization (FAO), the Pest Control Products Board will grant a registration if it is determined that the benefits associated with a pesticide's use outweigh any potential risks to human health and environment.

Toxicity classification, packaging and labelling are controlled and regulated according to the provisions of the national legislation, which is in agreement with the EU legislation.

#### 1. 2. Registered Pesticides

There are 269 pesticide active ingredients and 900 formulated products registered for use in Cyprus. The pesticide active ingredients, registered in Cyprus, are shown in the List 1, available on request.

#### 1. 3. Prohibition of Pesticides

Pesticides prohibited for import and use in Cyprus are shown in the List 2. These pesticides were prohibited in order to protect human health and the environment. As it is shown in the prohibition list all pesticides of the group of chlorinated hydrocarbons i.e. aldrin, dieldrin, DDT, endrin, chlordane, hexachlorobenzene, mirex, toxaphene and heptachlor, have been banned since 1980. These chemicals were imported and used in agriculture before 1980. They were not manufactured in Cyprus or exported to other countries. There are no any reservoirs of these chemicals.

The content of DDT and DDT related compounds, allowed in dicofol formulations, was also specified by decisions of the Pest Control Products Board taken on 28/01/1987 and 17/05/1999.

#### 1. 4. Pesticides Control

The registration of each pesticide specifies the commodities to which the pesticide may be applied, application rates and other use restrictions, which are shown on the approved label. The registration is granted for a period of five years and may be extended after the manufacturer submits an application for registration renewal. The registration authority may suspend the registration of a product or ban its use in view of official data that dictate such action be taken. Such data may become available through relevant decisions of the European Union, reports of the U.S.EPA, other national registration bodies, the International Registry of Potentially Toxic Chemicals (IRPTC) and major pesticide manufacturers.

Quality control of pesticide formulations is carried out before and after registration. This is an important part of the measures taken by the Department of agriculture for establishing the safe and efficient use of pesticides. Random samples are taken from pesticides shops and formulation plants by authorized personnel of the Department of Agriculture and are subjected to various physicochemical tests, including the presence of undesirable impurities in certain products, at the Department's Pesticide Analytical Laboratory. If a sample fails the quality control tests and does not comply with the relevant provisions of the legislation, its withdrawal from the market is requested and legal action may be taken against the manufacturer.

#### 1. 5. Control of Pesticide Residues

The Pesticide Residues Regulations of 2001, under the Food and Drugs Law of 1967, form the Cyprus statutory instrument for fixing MRLs in and on fruit and vegetables. The Ministry of Health is responsible for the implementation of this legislation (control of the agricultural products in the market and residue analyses). The Cyprus MRLs are in agreement with those fixed by the Codex Alimentarius Commission of the UN and WHO as well as those of the EU Directives.

The analytical laboratory of the Department of Agriculture enforces a programme in which agricultural products are checked at the time of harvest for pesticide residues. It also performs surveys and studies in order to collect data on pesticide use of special concern with emphasis on preventing the marketing of products that contain residues over tolerances. The laboratory carries out studies required for the registration of pesticides.

### **2. National management plan to control POPs**

By decisions of the Pest Control Products Board, all pesticides belonging to the group of chlorinated hydrocarbons were banned before 1980. Stocks were used on that time according to specified conditions. Imports are not allowed since then. It is also clarified that these chemicals were never been manufactured in Cyprus or exported from Cyprus to other countries.

### **3. By-products (dioxins, furans, hexachlorobenzene), release monitoring.**

An inventory related to emissions is under development by the Department of Labour. The Atmospheric Pollution Control Law 70/91 and the relevant Regulations and amendments provide for the control of dioxins/furans emissions. Emission limits for dioxins are specified on the permits issued by the Competent Authority for certain industrial installations, i.e. incinerators and cement kilns. The actions taken to

minimise these emissions include harmonisation of the Cyprus legislation to the corresponding EU directives on waste incineration. Carrying out stack emission measurements will perform checking of compliance for the specified dioxins emission limits.

The Inspection Service of this Department is carrying out ambient air quality measurements in Nicosia area since 1993, using three Mobile Stations fully equipped with automatic analyzers for SO<sub>2</sub>, NO/NO<sub>2</sub> /NO<sub>x</sub>, O<sub>3</sub>, PM<sub>10</sub>, CO, Pb measurements as well for the meteorological parameters W/S, W/D, T, RH, Solar Radiation. In addition, a fourth station is measuring background level measurements 35 Km southwest of Nicosia.

#### 4. Status of Cyprus's adherence to the Stockholm Convention and related instruments.

##### 4.1. Stockholm Convention.

Cyprus has not signed the Stockholm Convention although it takes actions for the control of POPs and minimizes the emissions of toxic substances (dioxins/furans).

##### 4.2. Rotterdam Convention

This Convention has been signed by Cyprus on 11/09/1998 but not ratified. Nonetheless, Cyprus applies the procedures for PIC for pesticides and other toxic substances.

##### 4.3. Basel Convention.

Basel Convention was signed and ratified by the Republic of Cyprus. It has been enforced since 1992 according to the requirements of the Convention. The Competent Authority is the Environmental Service of the Ministry of Agriculture, Natural Resources and Environment.

Any movement of hazardous waste to and from Cyprus is controlled and regulated by the Competent Authority. The required documents are filled as provided by the relevant documentation. The whole procedure is carried out in co-operation with the Competent Authority of the other country involved for the recovery or disposal of hazardous waste materials. The procedure is also in agreement with the EU Regulation 259/93 on waste shipment.

Customs are also involved in the enforcement of the Convention controlling the transport of waste materials.

#### 5. The dangerous substances (classification, labelling and packing of dangerous substances and preparations) – Regulations of 2002.

These regulations provide for the control and management of dangerous substances and include provisions for restrictions on use and placing on the market certain dangerous substances. This legislation harmonise Cyprus legislation with the respective EU directives 67/548/EEC, 76/769/EEC and 1999/45/EC.

**List 2. Pesticides prohibited in Cyprus - October 2001**

<b>Common name</b>	<b>Date of decision of the Pesticide Authorization Board</b>
<b>A. MERCURY COMPOUNDS</b>	
Mercuric oxide	
Mercurous chloride (calomel)	15.4.1982
Other inorganic mercury compounds	
Alkyl mercury compounds	
Alkoxyalkyl & aryl mercury compounds	
<b>PERSISTENT ORGANO-CHLORINE COMPOUNDS</b>	
Aldrin	08.12.1980
Chlordane	18.02.1988
Dieldrin	08.12.1980
DDT	01.12.1976
Endrin	Not submitted for authorization
HCH containing less than 99% of the gamma isomer	12.12.1987
Heptachlor	Not submitted for authorization
Hexachlorobenzene	Not submitted for authorization
Campechlor	Not submitted for authorization
10. Mirex	Not submitted for authorization
11. Toxaphene	Not submitted for authorization

**C. OTHER COMPOUNDS**

Ethylene oxide	27.12.1983	
Nitrofen	21.10.1981	
1,2 -dibromoethane (EDB)	20.10.1986	
1,2 - dichloroethano (EDC)	Not submitted	for authorization
Dinoseb, its acetate and salts	12.12.1987	
Binapacryl	12.12.1987	
Captafol	31.3.1989	
Dicofol containing less than 78% of p.p. dicofol or more than 1g/kg DDT & DDT related compounds	17.5.1999	and
(a) Maleic Hydrazide its salts, other than its choline, potassium and sodium salt.	17.5.1999	
(b) Choline, potassium and sodium salts of maleic hydrazide containing more than 1mg/Kg of free hydrazine expressed on the basis of the acid equivalent.	17.5.1999	
10. Quintozene containing more than 1g/kg of HCB or more than 10g/kg pentachlorobenzene	17.5.1999	
11. Chlordimeform	5.10.1976	
12. Leptophos	9.7.1987	
13. D.B.C.P.	05.11.1977	
14. 2,4,5 - T	22.10.1979	
15. 2,4,5 - TP	22.10.1979	
16. Sodium Cyanide	17.06.1981	
17. Fluoroacetamide	10.11.1991	
18. Chlorobenzilate	1.9.1982	severely restricted
	23.5.1997	total banned
19. Parquat as dimethyl sulphate	25.6.1976	
20. Boric acid	26.3.1993	
21. Monocrotophos	14.9.2001	
List2june2001		



## CZECH REPUBLIC

### Background

Czech Republic, being one of the most developed among the pre-accession countries to the European Union has made significant efforts to overcome the negative environmental effects of the rapid industrialization during the last four decades.

The public and the government are keen to reverse 40 years of environmental degradation, so environmental issues have high priority. Basic environmental policy, rights and duties are in the Environmental Protection Act of 1992 (Law 17/1992). Separate directives cover individual components of the environment--like air, water and soil. In general, recent laws largely follow EU norms.

The Ministry of Environment and its subordinate policing arm, the Czech Environmental Inspection (CEI), are the main authorities charged with setting and enforcing environmental standards.

The problem of POPs is highly relevant in the context of the CEE countries such as Czech Republic because these countries have paid very little attention to the problem so far. Measurements that were carried out to map the situation show a high degree of contamination in the environment especially by PCBs (polychlorinated biphenyls) and dioxins (polychlorinated dibenzo-p-dioxins and dibenzofurans). The main sources of POPs contamination include out-dated technologies used in the chemical industry, in the processing of waste by incineration, in hazardous municipal and hospital waste incinerators as well as the lack of knowledge on the part of the general population.

### Project objectives

The objective of the proposed project is to assist the Czech Republic to fulfil its obligation in the Stockholm Convention and prepare and endorse its National Implementation Plan on Persistent Organic Pollutants (POPs).

- Project outcomes and activities
- Outcome 1
- Co-ordinating Mechanism and Organizing Process Determined
- Verification that this outcome is achieved is as follows:
- Strengthened national focal point, that is capable of organizing the execution of the whole project;
- A strengthened coordinating committee capable of coordinating and monitoring of the project;
- Agreements, contracts among stakeholders effectively working in the project;
- Accepted work plan, with effective monitoring system, timeframe and budget;

- Strengthened institutional arrangements and better communication among the stakeholders and governmental entities;
- Better-informed public and decision makers on present activities in the Environmental sector;
- All the initial activities should be completed within 4 months.
- Assessment of needs of Focal Point to oversee overall execution

The Ministry of Environment made the decision that RECETOX-TOCOEN and Associates will be the focal point for the Stockholm Convention and will be the executing agency for this enabling activity project. Since 1997, research teams cooperating under the umbrella of RECETOX and of TOCOEN are using their common presentations for the acronym RECETOX - TOCOEN & Associates (R - T & A). RECETOX (Research Centre for Environmental Chemistry and EcoTOXicology) was established in 1994 in Brno. The Centre is a research unit of the Department of Environmental Chemistry and Ecotoxicology. The abbreviation TOCOEN is now interpreted as "TOxic COmpounds in the ENvironment" and projects are concerned with persistent environmental pollutants (PEPs). The goal of the centre is to contribute to the advancement of environmental chemistry, ecotoxicology and risk assessment in Czech Republic. The assessment of its expertise, present work, human resource and technical capabilities (detailed in Annex 1.) underlined that the Centre is fully capable of executing the project.

A National Project Coordinator will be appointed for coordination of the project and for better communication between the implementing agency, GEF and all Stakeholders. A national Technical Supervisor will also be appointed for the first 4 months to support the initiation of the project. An international expert will be appointed to be the Chief Technical Advisor for the project. He will be responsible for monitoring the execution of the project.

#### Determination of multi-stakeholder national co-ordinating committee

During the discussions with the Ministry of the Environment, it was agreed that the Intersectional Committee on Chemical Safety would be the steering committee for the enabling activities. The following ministries and civic societies are represented in the committee:

- Ministry of the Environment
- Ministry of Agriculture
- Ministry of Health
- Ministry of Defence
- Ministry of Industry
- Chemical Industry Associates
- NGO sector.
- Universities, Academy of Science, research institutions etc.

The committee has meetings on a regular quarterly basis to discuss issues related to chemicals, such as new draft legislations, action plans on storage, use and handle of chemicals, waste management, etc. This is the forum, where NGO sector can also raise questions and can comment on the discussion topics. The committee will keep its regular sessions throughout the project, but in some cases additional meetings will be held to facilitate the project.

Identification of main stakeholders, assigning responsibilities amongst government departments and other stakeholders and obtaining commitment of national stakeholders

RECETOX-TOCOEN and Associates have an overall view of the environmental protection sector. The agency is best suited to identify the main national and regional stakeholders due to its wide connections. Co-operation will be sought with NGOs for example with the Children of the Earth, which is the leading partner of the Ministry of the Environment in this sector. This NGO is one of the members of the International POPs Eliminating Network (IPEN).

R – T & A will call for tenders for sub-projects that will be finalized during the preparation of the work plan. Tenders will be prepared by a national lawyer and published in the Official Paper of the Ministry. Submitted tenders will be reviewed and evaluated by the Steering Committee. An evaluation system is going to be prepared by the Committee. It will include the review of all bidders' level of expertise and work done in this field. Approximately 20 tenders are expected and 5-8 NGOs will be selected for cooperation. The Focal Point will obtain agreements and contracts from the selected NGOs, consultants and experts. Since the focal point will oversee the overall execution of the project, the clear work plan with delegated responsibilities, with set timeframes and budget is mandatory for the cost effective execution.

Drawing-up overall work plan

R - T & A with the guidance of the Technical Supervisor will draw up the work plan. The Steering Committee, where NGOs are also represented, will review if necessary, comment and finally approve the work plan. Strong emphasis will be made on the private sector and civil society to ensure its involvement in the execution. All the responsibilities, timetables and budget (based on the tenders) will be clearly spelled out in order to guarantee a fast, safe and accurate execution of the project. The parallel executable activities will be underlined for timely effective implementation.

Inception workshop

The last activity of the preparation phase is an inception workshop where all stakeholders will be present for an open discussion and effective communication. The two-day workshop is an excellent opportunity for raising awareness at the country

level. This workshop will be held in Brno (April 15-16, 2002). The agenda will include the discussion of the activities that are needed to achieve the outcomes as well as the indicative timeframes. Approximately 50 people will be invited, mainly the representatives of contracted NGOs and experts as well as an international expert and decision makers. The agenda will include the discussion of the activities of the work plan as well as the indicative timeframes. All contracted NGO will be stressed to allocate the necessary financial and human resource capacity. A lecture will be held on POPs and new environmental sound technologies will be introduced as well as the possibility of phasing out these substances.

## Outcome 2

### POPs Inventory Established and National Infrastructure and Capacity Assessed

Verification that this outcome is achieved is as follows:

- Task teams constituted for inventories;
- More trained people on inventories and assessments of POPs;
- Better communication among stakeholders;
- More information and better inventories on production, distribution, use, stocks, contaminations and releases of POPs;
- Accurate information of the available national resources, capacities and infrastructure;
- Better information on available indigenous technologies;
- Clear information on the necessary changes in the legislation, monitoring, enforcing system;
- Better information on the exposure of the human population by POPs.

All the POPs inventories and assessments of national infrastructure and capacity will be finished in 7 months.

#### Activities for Outcome 2

Constitution of task teams responsible for inventories;

R - T & A will be responsible for setting up task teams for making the necessary inventories. After all activities are completed, Technical Reports will be prepared as outputs. The reports should contain detailed information on the present state of that field in the Czech Republic with inventories as appropriate. A summary should also be done with a brief list of activities required in compliance with the Stockholm Convention. This is very important for the prioritisation in the next step.

The following teams will be constituted:

- Support expert team for retrieving information from authorities such as the State Statistical Bureau, Czech Environmental Inspection or relevant ministries responsible for the inventories of export, import, use, distribution and inventories of all aspects of pesticides.
- Emission expert team for the inventories of PCBs, PCDD/Fs and HCB emission in the environment.
- Contamination expert team for assessing contaminated sites, obsolete stocks.
- Legislation expert team, for assessing infrastructure, enforcement, monitoring and R&D capacities.
- Health expert team for assessing the population exposure by POPs.

Training on inventory procedures;

The above-mentioned task teams under the umbrella of R-T & A has developed and evaluated inventory procedures. Since the Stockholm Convention has not indicated the preferred inventory procedures, the inventory methods for Czech Republic will follow the national guidelines. These guidelines, however, are compatible with the UN requirements. Short summaries are presented here, to have a clear view on the expertise of the research groups working in this field. These inventory procedures are and will be used to screen and monitor the environment.

An extensive training on the inventory procedures will be provided to all members of the expert teams mentioned above.

Releases to the environment

Stocks and contaminated sites; assessment of opportunities for disposal of obsolete stocks

POPs related human health and environmental issues of concern; basic risk assessment and size of exposed population.

The assessment of the disposal of obsolete stocks

Two international experts will be invited to hold training lectures. One of the trainings will focus on the identification and effective screening of contaminated sites, while the other one will give guidance on the inventory procedures, and preferred methods to follow in order to acquire internationally comparable data.

Preliminary inventory of production, distribution, use, import and export;

Preliminary inventory of stocks and contaminated sites; assessment of opportunities for disposal of obsolete stocks;

Preliminary inventory of releases to the environment

External independent review of initial national POPs inventories;

To facilitate the work during the inventory procedures, one meeting will be organized by R-T & A in Brno (May 16-17, 2002) for 20 persons to review the work done so far and to give advise on the questions raised during the first three months of the inventories. An external professional consultant will review the inventories on POPs. It can also be an NGO who has expertise in this field. The inventories should be sent to the expert reviewer as well as to all the representatives in the Steering Committee for comments. It would also be preferable if the first review should be done after the analysis of the preliminary data. Thereby the procedures can be refined and incidental problems as well as mistakes can be corrected.

A secure web server, with password protection will be initiated for the teams working on the inventory preparation. This will enable an easy access and maintenance of the data. Instead of e-mailing all data to each representative, downloading it from the web server will enable everyone to review and comment on the documents. Finally, all inventories will be accessible to the public.

Assessment of infrastructure capacity and institutions to manage POPs, including regulatory controls; needs and options for strengthening them;

Assessment of enforcement capacity to ensure compliance

Assessment of social and economic implications of POPs use and reduction; including the need for the enhancement of local commercial infrastructure for distributing benign alternative technologies/products;

Assessment of monitoring and R&D capacity;

Identification of POPs related human health and environmental issues of concern; basic risk assessments

### **Preparation of National Profile**

The National Profile for Czech Republic was prepared in 1998.

Outcome 3

Priorities Set and Objectives Determined

Verification that this outcome is achieved is as follows:

- Better understanding of the POPs related issues
- Accepted priority criteria
- Identified and updated national objectives
- Raised public awareness
- Better communication among the stakeholders
- Identified task teams for developing proposals according to the objectives

The proposed timeframe for all the activities related to the prioritisation is 4 months.

#### Activities for Outcome 3

Development of criteria for prioritisation;

Determination of national objectives in relation to priority POPs or issues;

Organization of a national priority validation workshop.

A workshop will be organized for a minimum of 20 participants for 3 days to validate the priorities and objectives set by the Steering Committee. The purpose of this meeting is to discuss the draft Prioritisation Report, which will be finalised after this meeting. This activity will establish a list of priority POPs related environmental issues and their root causes. The meeting will also consider the capacity and needs of the government to manage POPs. It will seek to identify examples of alternatives to POPs chemicals that have been successfully applied in the region as well as best practices and techniques to minimise releases of such substances into the environment, and the barriers to their adoption. This workshop will be utilized to raise general public awareness.

Based on the objectives decided by the Steering Committee at this workshop, 4-5 task teams will be appointed for developing proposals to address the priorities.

#### Outcome 4

National Implementation Plan and specific Action Plans on POPs Formulated

Verification that this outcome is achieved is as follows:

- Detailed NIP
- Trained teams for developing management options in the mirror of the objectives
- Detailed proposal for the adoption of alternative technologies for disposal of POPs
- Costs and benefits of the management options
- Action Plans on the most urgent and high priority issues
- Proposal with budget and timelines for the execution of the NIP.
- Information exchange and education strategy with budget

The formulation the National Implementation Plan and specific action plans will be finished in 6 months.

#### Activities for Outcome 4

Training and assign mandates to task teams to develop proposals for addressing priorities;

Identification of management options, including phasing out and risk reduction options;

Need for introduction of technologies, including technology transfer; possibilities of developing indigenous alternatives;

Assessment of the costs and benefits of management options;

Defining expected results and targets;

Development of a detailed implementation plan, including an action plan for unintentional by-products, PCBs and, where appropriate, for DDT and other POPs as prioritised;

Expert review of Implementation Plan;

Preparation of initial funding request package for implementation, including cost estimates and incremental costs;

Development of a national strategy for information exchange, education, communication and awareness raising

#### Outcome 5

NIP Endorsed by Stakeholders

Verification that this outcome is achieved is as follows:

- Refined NIP
- Proposed allocation of resources by relevant Ministries
- Raised public awareness
- NIP submitted to the Convention

The endorsement of the NIP should be completed within 3 months.

#### Activities for Outcome 5

Prepare an information document/report to be submitted to stakeholders for comments;

Lobbying high Government officials;

Organise workshops and circulate information to obtain commitment of stakeholders and decision-makers, including resources



**HUNGARY**

Current situation on legislative  
and regulatory activities on POPs  
in Hungary

by  
**Gábor A. KOVÁCS, councillor**  
Department for Integrated Pollution Control,  
Ministry for Environment,  
BUDAPEST, HUNGARY

Harmonization of EU legislation

As it was decided by the Hungarian Government,  
Hungary is committed to join to the European Union.

For this action it is indispensable to adopt the EU  
legislation as a minimum in the requirements.

The harmonization of the requirements of EU directives  
and other international agreements has happened  
between 1998 and 2002.

## Structure of the new hungarian POPs related legislation

### Coordinated by

- Ministry for Agriculture
  - Act on Plant Protection (2000)
- Ministry for Health
  - Act on Chemical Safety (2000)
- Ministry for Environment
  - Act on Environment Protection (1995) and its amendments
  - Act on Waste Management (2000)
- Ministry for Economic Affairs
  - Governmental Decree on export and import of goods and services (1990) and its amendments

## Decrees implementing the Act on Plant Protection

- Ministerial Decree on permitting of marketing and use of pesticides (2001)

Containing the list of banned pesticides/chemicals used in agriculture as:

aldri, DDT, dicofol, dieldrin, endrin, technical HCH and lindane, heptachlore, HCB, chlordane, toxaphene.

Other related POP pesticides were never used in Hungary.

[Council Directives 91/414/EEC and 79/117/EEC]

### Decrees implementing the Act on Chemical Safety

- Ministerial Decree on general rules of procedures and activities on dangerous materials (2000)
- Ministerial Decree on restrictions of use of certain dangerous materials (2000) [EU Dir. 76/769/EEC]
- Ministerial Decree on announcement of requirements of Rotterdam (PIC) Convention (2000)
- Ministerial Decree on risk assessment and risk reduction of dangerous materials (2001) – horizontal regulation
- Communication on registry from classified dangerous substances in the EU

### Decrees implementing the Act on Environment Protection and its amendments

- Governmental Decree on general rules for air quality protection (2001)
  - Ministerial Decree on emission limit values for stationary point sources and limit values for ambient air quality (2001)
  - Ministerial Decree on waste incineration (2002) [2000/76/EC]
- Governmental Decree on protection of surface water quality (2001)
  - Ministerial Decree on limit values for surface water quality protection (under preparation)
- Governmental Decree on protection of underground water quality (2000) [EU Dir. 80/68/EEC]
  - Ministerial Decree on limit values for underground water and soil quality protection
- Governmental Decree on sewage sludge utilisation in agriculture (2001)

## Decrees implementing the Act on Waste Management

- Governmental Decree on announcement of Basel Convention (1996)
- Governmental Decree on hazardous waste management (2001)
- Ministerial Decree on disposal rules of waste oils (2001) [EU Dir. 87/101/EEC, 75/439/EEC and other international agreements]
- Ministerial Decree on special disposal rules for PCBs/PCTs and contaminated equipments (2001) [EU Dir. 96/59/EC and EU Decision 2001/68/EC]
- Ministerial Decree on waste registry (2001) and its amendments (2002) [EWC compatible]

## Regulation implementing by the Governmental Decree on export and import of goods and services and its amendments

This decree gives the framework for export and import of goods and services determined that any export and import of for example polybrominated and polychlorinated biphenyls (PBBs/PCBs) have to be permitted with the special approvals of related authorities.

## Main current activity on POPs

### **ENABLING ACTIVITIES TO FACILITATE EARLY ACTION ON THE IMPLEMENTATION OF THE STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS (POPS)**

- The aim of this Project is to perform the enabling activities in order to assist the Hungarian Government in preparation and endorsement of its National Implementation Plan on Persistent Organic Pollutants.
- Parties: GEF – UNIDO – Institute for Environmental Management
- Time period: 24 month
- Accepted budget: 489 000 USD
- Current activity: signing of the Contract

## LATVIA

Geneva Convention's POPs Protocol and Stockholm Convention

Latvia signed:

The Protocol to the Geneva Convention on Long-range Transboundary Air Pollution (LRTAP) on Persistent Organic Pollutants in 1998;

The Stockholm Convention on Persistent Organic Pollutants in 2001.

Ratification of the Stockholm Convention is foreseen in the middle of 2004.

National legislation

In establishing environmental protection policy, Latvia takes into account and bases its legislation upon the basic principles specified in Articles 95 and 174-176 of the European Community Treaty.

The Ministry of Environmental Protection and Regional Development is the responsible institution for policy development and for elaboration of legislation related to environment protection sector.

The Ministry of Agriculture, the State Plant Protection Service in particular, is responsible for transportation, harmonising and implementation of the legislation for plant protection products, including prohibitions and restrictions for plant protection products.

### *General legislation*

Law on Environment Protection (adopted 06.08.1991)

Key objectives of the law are to ensure the following:

Qualitative environment for people;

Preservation of nature genotype, biotopes and landscape diversity;

Preservation and development of ecosystems;

Rational use of nature resources

Law on Pollution (15.03.2001; 96/61/EC);

The purpose of this Law is to prevent and reduce damage on human health, property and the environment caused by pollution, to counteract consequences of such damage, and:

- To prevent pollution or, where that is not possible, to reduce emissions to air, water and soil arising from polluting activities;
- To prevent or, where that is not possible, to reduce the use of non-renewable natural resources and energy at polluting activities;
- To prevent or, where that is not possible, to minimise the generation of waste;
- To provide for inventory and registration of contaminated and potentially contaminated areas lying within the national territory;
- To determine the measures for investigation of contaminated and potentially contaminated areas and for remediation of contaminated areas;

- To identify the persons, who shall cover the investigation costs of contaminated and potentially contaminated areas and the remediation costs of contaminated areas.

#### Chemical Substances and Products Legislation

The Law on Chemical Substances and Chemical Products was adopted in Latvia on 1 April 1998, and entered in force on 01.01.1999. The law transposes basic European Union requirements in the area of handling of chemical substances and products. It is a framework law that has subsequently been supplemented by a number of regulations to fully meet the objectives of the EC Directives 67/548/EEC and 88/379/EEC. These regulations are:

Regulations of the Cabinet of Ministers No. 158 “Regulation on Restrictions and Prohibits for Use and Marketing of Dangerous Chemical Substances and Dangerous Chemical Products” (25.04.2000, in force from 01.01.2001; directive 76/769/EEC and its amendments)

The certain dangerous substances and products (PCB, PCT, hexachlorobenzene (HCH), pentachlorophenol (PCP), Ugilec etc.) are restricted or prohibited by the Regulations No.158.

Regulations of the Cabinet of Ministers No. 418 “Procedure for Compilation and Submission of Safety Data Sheets on Chemical Substances and Chemical Products” (27.10.1998; article 10 of 88/379/EEC and directives 91/115/EEC and 93/112/EC);

This regulation prescribes the procedures for preparing and submitting safety data sheets on chemical products and chemical substances, and describes the requirements for information to be submitted on the safety data sheet (attachment) for chemical products and chemical substances.

Regulations of the Cabinet of Ministers No. 228 “Procedure for Classification, Labelling and Packaging of Chemicals Substances and Chemical Products” (29.06.1999, in force till 30.07.2002), directives 67/548/EEC and 88/379/EEC and their amendments;

Regulations of the Cabinet of Ministers No. 107 “Procedure for Classification, Labelling and Packaging of Chemicals Substances and Chemical Products” (12.03.2002, in force from 30.07.2002); directive 1999/45/EC;

Latvia plans acceding to the Rotterdam Convention till the end of 2002.

#### Legislation related to Plant Protection Products

Under Law on Plant Protection (17.12.1998; 91/414/EEC, 79/117/EEC) regulations of the Cabinet of Ministers No.107 “Regulations Regarding Prohibited Plant Protection Products” (21.03.2000) initially based on directive 79/117/EEC has been adopted. This Latvian Regulation forbids the same plant protection products, which are under requirements of Regulation 2455/92/EEC for example persistent chlorinated organic compounds (aldrin, chlordane, dieldrin, DDT, endrin, HCH, heptachlor, hexachlorbenzene, and toxaphene.), dicofol etc.

Other legislation related to Plant Protection Products:

Regulations of the Cabinet of Ministers No. 341 “Regulations on Authorisation of Plant Protection Products” (05.10.1999; 91/414/EEC, 78/631/EEC)

Authorisation of plant protection products in Latvia are taken according to the principle accepted in EU. All plant protection products authorised in Latvia contain active substances authorised in EU member states.

Regulations of the Cabinet of Ministers No. 315 “**Regulations on Placing on the Market, Storage and Use of Plant Protection Products**” (07.09.1999; 91/414/EEC, 78/631/EEC)

Marketing of plant protection products is allowed only for enterprises, which have obtained a special permit (licence), granted by Ministry of Agriculture. Use of plant protection products is allowed only for persons who have obtained Certificate, which confirms that the person has obtained minimum knowledge in field of plant protection.

Instruction of the Ministry of Agriculture “**Instruction on Procedure of Registration of Plant Protection Products in Republic of Latvia**” (05.02.1995; 91/414/EEC).

*Legislation related to Air Protection and Emissions into Air*

Regulations of the Cabinet of Ministers No. 219 “**On Air Quality**” (15.06.1999; 1999/30/EC; 92/72/EEC; 96/62/EC)

The aim of the regulation is to identify national environmental quality standards in regard to air quality as well as the procedure of evaluation of air pollution and air protection measures to prevent harmful impacts of air pollution on human health or environment, to eliminate or to mitigate such impacts.

The half-hourly average air emission limit values for Furans – 0.01 ng/m<sup>3</sup> – is prescribed in the Regulations No. 219.

Regulations of the Cabinet of Ministers No. 323 “**On Requirements for incineration of waste and for operation of waste incineration plants**” (17.07.2001; 2000/76/EC)

This regulation prescribes requirements for incineration of waste (hazardous waste, too) and for operation of waste incineration plants. Furans’ and Dioxins total limit values for:

- Waste incineration plants – 0.1 ng/m<sup>3</sup>;
- Waste co-incineration plants in cement kilns – 0.1 ng/m<sup>3</sup>
- Discharges of wastewater from the cleaning of exhaust gases from waste incineration plants – 0.3 ng/m<sup>3</sup>.
- Regulations of the Cabinet of Ministers No. 154 “**On the Evaluation, Prevention, Limitation and Control of the Emissions of Hazardous Substances from Incineration Facilities**” (25.04.2000)



The aim of Regulations is establish to procedure of assessment, elimination, restriction and control of air pollutant emissions caused by stationary air pollutant sources.

#### ***Legislation related to Water Protection***

Regulations of the Cabinet of Ministers No. 34 “**Regulation on Waste Water Emission Limit Values**” (22.01.2002)

#### **Draft Law “On Water Management”**

The purpose of this law is to establish a framework for the protection of surface water, transitional waters, coastal waters and groundwater

Latvia has ratified **Convention on the Protection of the Marine Environment of the Baltic Sea Area** (03.03.1994, in force from 17.01.2000)

In order to protect the Baltic Sea Area from hazardous substances, the Contracting Parties shall:

Prohibit, total or partially the use of DDT, PCB and PCT in the Baltic Sea Area and its catchment area;

Endeavour to minimise and, whenever possible, to ban the use of the aldrin, chlordane, dieldrin, endrin, heptachlor, pentachlorophenol, toxaphene etc. as pesticides in the Baltic Sea Area and its catchment area.

#### ***Waste Management Legislation***

**Waste Management Law** (14.12.2000, in force from 01.03.2001) 75/442/EEC, 91/689/EEC

The purpose of this Law is to prescribe procedures regarding waste management, in order to protect human life and health, the environment, and the property of persons.

**Law on Hazardous Waste** (30.03.1990);

Regulations of the Cabinet of Ministers No. 298 “**Regulations on Classification of hazardous waste and criteria of hazardousness**” (12.08.1997);

Latvia has ratified the **Basel Convention on the control of transboundary movements of hazardous waste and their disposal** in 1992.

#### **Registers and Lists in Latvia related to POPs**

The registers of chemical substances and chemical products (4-KP)

Data from enterprises, who produce, import and use chemical products and substances; data base from 1995 (Latvian Environment Agency, Division of Chemical Register)

Hazardous substances list (Latvian Environment Agency, Division of Chemical Register)

The register of Plant Protection Products (Plant Protection Service)

The list of Prohibited Plant Protection Products (Regulations No. 107 “Regulations Regarding Prohibited Plant Protection Products”)

List I and List II of dangerous substances into aquatic environment (Regulations No.34 “Regulations on Waste Water Emission Limit Values”)

**Activities related to Stockholm Convention**

Project Proposal of the Republic of Latvia for Enabling Activity funding for accession and implementation of the Stockholm Convention on Persistent Organic Pollutants has elaborated. The Project Proposal has submitted to a GEF Implementing Agency UNDP in March. The objective of the project is to create sustainable capacity and ownership in Latvia to meet its obligations under the Stockholm Convention, including preparation of a POPs National Implementation Plan. The National Implementation Plan describes how Latvia will meet its obligations under the Convention to phase-out POPs sources and re-mediate POPs contaminated sites. The project will enable Latvia to ratify the Stockholm Convention and become a Party to the same.

## REPUBLIC OF LITHUANIA

The Republic of Lithuania has not yet signed the Stockholm Convention on Persistent Organic Pollutants. Recently the Order of the Minister of Environment on issues related to the Stockholm Convention has been adopted.

Pursuant to the above Order, the Ministry of Environment is obliged to undertake the necessary arrangements and procedures leading to the signing of this International Treaty. Focal Point for the Stockholm Convention was appointed.

The Convention is to be signed by the end of May 2001. Nevertheless Lithuania formally is not a signatory of the Convention, however, there are some national legal acts, directly or indirectly regulating POP's-related activities in force.

Lithuania participates in regional activities, covering POP's issues.

Lithuania has ratified the Convention on the Protection of the Marine Environment of the Baltic Sea Area (the Helsinki Convention) and has been participating in the work of the Helsinki Commission (HELCOM), covering inter alia the issues regulated by the Stockholm Convention.

Altogether persistent organic pollutants, which are named as substances in the Stockholm Convention, threatening human health and the environment, are identified as of concern by HELCOM (HELCOM Convention 1992, Part 2, Banned substances, and Part 3, Pesticides).

Lithuania obliged itself to prevent the pollution of the Convention Area by continuously reducing discharges, emissions and releases of hazardous substances towards the target of their cessation by the year 2020, with the ultimate aim of achieving concentration in the marine environment near background values for naturally occurring substances, and close to zero for man-made synthetic substances.

Focal Point for HELCOM activities is appointed by the Order of the Minister of Environment and obliged to co-ordinate the implementation of the Helcom recommendations, including Recommendation 19/5 with regard to hazardous substances. The latter contains the list of substances selected for immediate priority actions, and POP's are among them.

According to the Helcom procedure, Lithuania periodically submits data on POP's releases to the environment departments and participates in various Helcom meetings.

Another regional activity is performed by the Baltic Environmental Forum (BEF). Subproject of the Baltic Environmental Forum "Data Collection Strategies on Chemicals' Flows and Use" (in framework of the Baltic States Regional Projects on Chemicals Control "BACCON 2") aims at estimating to which extent certain very hazardous chemicals (including POP's) still occur on the Baltic market and could be a threat to the Baltic environment or human health. The project also provides for estimating the extent to which existing, less hazardous alternatives are applied. The target substances are of international concern and they are on the agenda for marketing and use restriction at the EU level. The project team works with 30 companies from the Baltic States (approximately with 10 Lithuanian ones) gathering information and having the aim to prepare the 1<sup>st</sup> Baltic Hazardous Substances Report

to the Helsinki Commission (HELCOM) on use of certain hazardous industrial substances.

We are aware that despite the above-mentioned activities, we need to expend and improve the POP's regulation both at legal and implementation level.

Currently only several legal acts contain provisions on direct POP's (as a group or as a particular substances) regulation.

**The Resolution of the Government on Licencing Manufacturing, Wholesale Trade and Storage of Dangerous Chemical Substances and Preparations** (of 21 April 1999, No 452) lays down the requirements for granting a licence for manufacturing, wholesale trade and storage of certain chemical substances. The list of substances subject to licencing includes a number of POP's.

**The Order of the Minister of Environment on the Procedure for Issuing Permits to Import and Export Dangerous Chemical Substances** (of 28 August 2000, No 351) establishes the procedure for control of import and export of certain chemical substances in order to restrict the use of these substances in Lithuania. The list of substances, which are allowed to import having a permit, includes PIC substances containing POP's.

**The Order of the Minister of Environment on the Approval of Rules on Waste Import, Export and Transit** (of 25 October 2001, No 526) establishes the requirements for the hazardous and non-hazardous waste import, export and transit. The red list of waste, which are allowed to import having a permit includes waste substances and articles containing, consisting of or contaminated with PCB and/or PCT including any other polybrominated analogues of these compounds, at a concentration level of 50 mg/kg or more, as well as wastes that contain, consist of or are contaminated with any congener of polychlorinated dibenzo-furan and polychlorinated dibenzo-dioxin.

**Regulations on Mitigation of Discharges of Hazardous Substances approved by the Order of the Minister of Environment** (21 December, 2001 No 623) lay down the list of priority hazardous substances for water environment and their standards: the quantity of the material discharged from a production unit, waste water quality standards, water quality standards in a water body. The list includes: aldrin, dieldrin, endrin, hexachlorbenzene, DDT.

**Lithuanian Hygienic Norm HN 36:1999 on Banned and Restricted Substances** settles bans and restrictions on placing on the market and use of certain chemical substances and chemical products. Hexachlorobenzene and polychlorinated biphenyls are included herein.

**Lithuanian Hygienic Norm HN 63:2000 on Banned and Restricted Pesticides** - determines pesticides that are banned and restricted in Lithuania. Pesticides which contain aldrin, chlordane, dieldrin, DDT, endrin, hexachlorobenzene, heptachlor, mirex, PCB are not allowed to import, produce and use in the Republic of Lithuania.

**The Main Requirements for Waste Incineration (hereinafter referred to as LAND 19 – 99) approved by the Order No 342 of the Ministry of Environment of 27/10/1999** lay down the main technological requirements for the incineration of non-hazardous and hazardous wastes and the limit values for emissions of pollutants resulting from incineration into ambient air. According to this document, hazardous wastes may be incinerated at the facilities that are not intended for the incineration of hazardous wastes, provided that wastes are incinerated according to the requirements for the incineration of hazardous wastes (requirements of Dir. 94/67/EC). This legal act has set standards for PCB/PCT in waste oil used as fuel.

Maximum permissible concentrations of pollutants in ambient air are established in **Lithuanian Hygienic Norm HN 35-1998: Maximum Permissible Concentrations of Air Polluting Chemicals in Residential Areas** (of 24 December 1998). Polychlorinated dibenzodioxines and dibenzofuranes are covered in this norm.

Other national legal acts regulate the management of chemical substances either placed on the market or from antropogenic sources and to the same extent are applicable to POP's. These national acts are given below.

**Law on Environmental Protection** settles the main requirements for environmental protection.

**Law on Chemical Substances and Preparations** (of 18 April 2000) settles the provisions on the classification, packaging and labelling and notification of new chemical substances and their risk assessment, restrictions on the placing on the market or using of certain chemical substances and preparations as well as the rights and duties of producers, importers and other persons, which place them on the market or otherwise handle chemical substances and preparations. This Law shall apply to chemical substances and preparations, except for waste, radioactive substances and radioactive waste, explosives and pyrotechnic materials, medicinal products meant for human or veterinary use, narcotic or psychotropic substances, cosmetic products, foodstuffs, alcohol and tobacco products, animal feeding stuffs.

**Law on Waste Management** (16 June 1998, No. VIII-787) lays down general requirements for prevention, counting, collection, sorting, storage, transportation, recovery and disposal of waste in order to avoid its adverse effects on environment and human health. This Law shall apply to waste, except for emissions into air, waste water discharges to water bodies, the management of radioactive waste, dead animal bodies, agricultural waste.

**Law on Ambient Air Protection** (4 November 1999, No. VIII-1392) includes the restriction and control of emissions of all pollutants, including dioxins and furans.

**Law on Administrative Code** lays down specific norms, which provide administrative responsibility for violating the requirements for chemicals handling.

**Law on Monitoring** requires pollution sources monitoring.

**The Resolution of the Government on the Register of Dangerous Chemical Substances and Preparations** (of 28 May 2001, No 636) regulates collection, processing, maintaining and up-dating of data about dangerous chemical substances and preparations manufactured, imported, exported and used.

**The Resolution of the Government on Inventory of New Chemical Substances on the Lithuanian Market** (of 22 December 2001, No 1617) regulates carrying out of inventory of new chemical substances (on their own or in preparations) and compilation of a list of new chemical substances on the Lithuanian market.

**The Order of the Minister of Environment and the Minister of Health Care on Classification and Labelling of Dangerous Substances and Preparations** (of 19 December 2000, No 532/742) settles the requirements for the classification and labelling of dangerous chemical substances and preparations, lays down the criteria, applicable to the classification of dangerous chemical substances and preparations as well as to the rules of labelling of the package.

**The Order of the Minister of Environment on the Approval on Rules of Waste Management** (of 14 July 1999, No 217) lays down detailed requirements for hazardous and non-hazardous waste collection, transportation, recovery, disposal, recording, sorting and marking.

**The Order of the Minister of Environment on Rules of Integrated Pollution and Control Permit Issuing, Renewal and Annulment** (27 February 2002, No 80) establishes the procedure for issuing, renewal and annulment of integrated pollution and control permits for industrial activities. These Rules include pollution emission limit values in order to ensure the environment quality standards.

**The Order of the Minister of Environment on the Procedure for Issuing Permits to Use Natural Resources and for applying the Helsinki Commission (HELCOM) Recommendations** (23 January 1997) obliges enterprises to follow HELCOM recommendations concerning the reduction of hazardous substances that get into the Baltic Sea.

**The Order of the Minister of Environment, the Minister of Health Care, the Minister of Agriculture and Director General of Statistics under the Government on the Procedure for Submission and Further Distribution of Information on Dangerous Chemical Substances and Preparations Manufactured, Imported and Exported and Used in Manufacturing** (of 8 February 2002, No 52/77/44/30) settles the procedure for collection of data about chemical substances and preparations, sets obligation to provide information on dangerous substances and defines further distribution of information submitted.

**The Order of the Minister of Health Care on Requirements for Contents of the Safety Data Sheet and Its Submission to Professional Users** (of 19 December 2001, No 687) sets the requirements for contents of Safety Data Sheet and the procedure for its submission to professional users.

**The Order of the Minister of Health Care and the Minister of Environment on Testing of Chemical Substances and Preparations** (of 29 December 2000, No 762/556) settles the procedure for testing the properties of chemical substances and preparations that pose a potential risk to human health and the environment.

**The Procedure for Permitting the Use of Natural Resources and the Establishment of Limits for the Use of Natural Resources and Norms for Permitted Pollution of the Environment (hereinafter referred to as LAND 32-99) approved by the Order No 387 of the Ministry of Environment** of 30/11/1999 establishes the procedure for permitting system. The emission resulting from operation is regulated and controlled by permits issued to operators by the Regional Environmental Protection Departments (REPD) under the Ministry of Environment.

**The Procedure on the Reporting of Emissions into Air**, approved by the Ministry of **Environment, Order No.408 of 1999 12 20** requires reporting procedure for operators.

**The Regulation on State Laboratory Control, approved by the Ministry of Environment, Order No. 96 of 1995/06/02** establishes the right of State inspectors to inspect and monitor plants and obtain any information on monitoring from operators.

**MALTA**

## The Stockholm Convention on Persistent Organic Pollutants

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### MALTA'S POSITION



### Present Status

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- Malta has signed the Stockholm Convention in May 2001
- The convention is due for ratification through the parliamentary procedure





## Chemicals Legislative Framework

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- The Dangerous Substances and Preparations Regulations (L.N. 163 of 2001)
  - Transposes Directive 99/45/EEC
  - In force as from 30<sup>th</sup> July 2002 except for plant protection products and biocides (30<sup>th</sup> July 2004)



## Chemicals Legislative Framework

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- The Dangerous Substances and Preparations (Notification) Regulations (L.N.318 of 2001)
  - Transposes Directive 67/548/EEC
  - In force as from 1<sup>st</sup> January 2002 except for provisions relating to the EC market
  - Malta has imposed a ban on the marketing of the chemicals not appearing in the EINECS or ELINCS list and which have not been notified to Member States of the EU



## Chemicals Legislative Framework

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- The dangerous substances and Preparations (Risk Assessment) Regulations
  - Transposes Directive 93/67/EEC



## Chemicals Legislative Framework

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- The Dangerous Substances and Preparations (Restrictions) Regulations (L.N. 152 of 2001)
  - Transposes Directive 76/769/EEC
  - In force as from 1<sup>st</sup> July 2001
  - Bans PCB's (in 1985 known PCBs were collected and exported for controlled destruction)



## Pesticides - Legislation

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- Pesticides Control Act (Chapter 430 of the Laws of Malta)
  - The use of POPs as plant protection products or biocides is banned by this act



## POPs to be targeted

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- Pesticides
  - Aldrin, chlordane, DDT, endrin, heptachlor, mirex, toxaphene, HCB
- Industrial Chemicals
  - HCB, PCBs
- By-products of chemical processes
  - Dioxins and Furans



## Problematic areas

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- POPs used as industrial chemicals or as pesticides
- POPs (mainly furans and dioxins) arising from dumping of industrial and domestic waste
- POPs (mainly furans and dioxins) arising from waste incineration and other fuel-burning activities



## Future National Policy

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- Information and data collection
- Control and importation of dangerous and toxic chemicals
- Substitution using environmentally safe alternatives



## Chemicals Control Board

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- The board has been established in December 2001. Its main functions are:
  - to set up and maintain databases
  - to improve and co-ordinate surveillance and enforcement programs

**POLAND**

**Status of Legal and Policy arrangements on hazardous substances, including POPs in Poland**

**Subregional Workshop on the Implementation of the Stockholm Convention**

**Bratislava, 8-12 April 2002**

1

**Outline of the presentation**

- ◆1. Adherence status of Poland to multilateral agreements on hazardous substances, including POPs
- ◆2. Policy and Programmes related to POPs
- ◆3. Law related to POPs
- ◆4. Environmental priorities (NEP II) and programs
- ◆5. GEF POPs project
- ◆6. Poland's main obligations under the Stockholm Convention
- ◆7. The next steps

2



I. The status of Poland adherence to multilateral agreements on hazardous substances including POPs

3



**1. Stockholm Convention on POPs**

- ◆ Signed 23 May 2001
- ◆ Ratification planned

4

## 2. 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal

- ◆ Ratified 20 March 1992
- ◆ Status of implementation: The 1997 Waste Law Act and executive regulations, replaced by the new 2001 Waste Law Act 2001
- ◆ **The Basel Ban Amendment (Decision III/1)** (immediate export ban from Annex VII to non Annex VII countries for disposal, phase in export ban for recycling and recovery from 1998)
- ◆ Poland complies with most of its commitments, although there is a backlog in reporting
- ◆ Ratification planned 2002

5

## 3. 1998 Protocol on Heavy Metals to 1979 Convention on LRTAP

- ◆ Signed by Poland 24.06.1998. Ratification planned 2002
- ◆ Draft Strategy for the HM emissions control to implement the HM Protocol (December 2001)
- ◆ Reporting on emissions to the Secretariat from 1990

6



#### 4. 1998 Protocol on POPs to the 1979 Convention on LRTAP

- ◆ Signed by Poland 24.06.1998. Ratification planned 2002
- ◆ Draft Strategy for POPs emissions control and the implementation of the POPS Protocol (December 2001)
- ◆ Implementation: Poland submits reports to the Secretariat on POPs emissions

7

#### 5. Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC )

Not signed

8

## II. Policy and programmes related to POPs in Poland

- ◆ National Environmental Policy II (2001)
- ◆ Long-term Strategy for Sustainable Development: Poland 2025 (2000)
- ◆ National Programme of Preparation for the EU Membership (last update July 2001)
- ◆ Draft National Strategy for POPs emission control (Aarhus POPs Protocol and the Stockholm Convention) (December 2001)  
After completion of NIP(GEF Project) - the Strategy will need updating

9

## III. Law related to POPs in Poland

- ◆ the Constitution of the Republic of Poland (art. 5) (1997)
- ◆ the Act on Environmental Protection Law (April 2001)
- ◆ the Act on Wastes (April 2001),
- ◆ the Ordinance of the Minister of the Environment on catalogue of wastes (September 2001)
- ◆ the Draft Ordinance of the Minister of Economy on requirements on use and handling of PCBs, use and cleaning of the equipment containing PCB
- ◆ the Act on Fertilisers and Fertilisation (April 2000),
- ◆ the Act on Chemical Substances and Preparations (January 2001)
- ◆ the Act on Packaging and Packaging Wastes (March 2001)
- ◆ The Ordinance of the Council of Ministers on discharge to air of polluting substances from technological processes (September 2001)

10

## • Law related to POPs in Poland - cont.

- ◆ the Act on Economic Obligations of Operators in Management of Certain Wastes and on the Product and Deposit Charges (March 2001)
- ◆ the Act on Sanitation and Order Keeping in Municipalities
- ◆ the Act on Water Law (2001)
- ◆ the Act on the Protection of Arable and Forest Lands (1995)
- ◆ the Act on Protection of Cultivated Plants (1995, with 1999 amendments) (*there is need for new ordinance to introduce criteria for "persistence of organic pollutants"*)
- ◆ the Act on the State Inspectorate for Environmental Protection,
- ◆ the Draft Act on Biocide Products - submitted to the Parliament

11

## The Act on Chemical Substances and Preparations (January 2001)

- ◆ Rules for classification and labelling, the classification and labelling of some substances (a register of hazardous substances), characteristics charts
- ◆ Ban and limits on introduction to the use of and handle with some substances and preparations
- ◆ Closures preventing from opening by children, warning labels readable by touch
- ◆ Examination methods, quality of examinations - good practice in laboratory, new chemicals (European register of existing substances, registering of new substances and requirements for examinations, risk assessment),
- ◆ Regulations on export and import of some hazardous substances, qualifications of dealers.

12

## IV. NEP II - Environmental priorities and programs related to POPs

**Air pollution:** Emission prevention at source, modernization and changes in technology and fuel combustion processes

**Water:** Protection of surface and ground water against pollution (rivers, lakes, Baltic Sea shore waters) *Hot spots* removal (implementation of the Helsinki Convention)

**Soil:** Rehabilitation of degraded areas, integrated municipal and industrial waste management (management rationalization)

**Programs:** Rehabilitation of areas degraded by industry and army (military areas of former Soviet army and Polish army)  
 Removal of harmfulness of old and dangerous waste dumping sites  
 Neutralization of waste from cars (car wrecks, batteries, tires, plastic)  
 Implementation of local programmes for dangerous waste management

**Forests:** Problems: contamination and littering of forests  
Policy: Polish Policy for integrated forest resources protection (1994)  
 Arable and forest areas protection Law Act (1995)

13

## • Environmental priorities and programmes related to POPs - cont.

**Short-term Priorities of National Environmental Policy:**

- ◆ decrease in number of "hot spots"
- ◆ full implementation of the European Treaty establishing the association of Republic of Poland with European Communities and their member countries, and the National Preparatory Program for Membership, harmonization of Polish and EU law, reform of the mechanisms for environmental management
- ◆ full integration of Environmental policy priorities with sectoral policies and programmes
- ◆ legal and organizational base for the implementation of international environmental conventions
- ◆ improvement of the system of counteracting to the environmental emergency situations
- ◆ new efficient mechanisms, legal, economic, financial and planning methods and procedures for implementation of national environmental policy

14

## V. Today's situation: GEF Project on Enabling Activities to implement an early action for the implementation of the Stockholm Convention

- ◆ Application for the GEF funds June 2001
- ◆ Approval August 2001
- ◆ Signature of the contract December 2001  
Execution 2002-2003

### Main outcomes:

- ◆ Elaboration of NIP
- ◆ Involvement and cooperation of all stakeholders
- ◆ Proposal of a set of demonstration projects

15

## Elaboration of NIP

- ◆ national workshop for stakeholders
- ◆ inventory of existing situation in: production, use, import, export, emission to air and water, and wastes controlled by the Stockholm Convention,
- ◆ evaluation of country capacity: law regulations, organisational structures, monitoring, research and development, social and health effects, etc.
- ◆ setting national priorities for the implementation of the Convention
- ◆ NIP elaboration
- ◆ procedure for the implementation of the Project outcomes

16

## VI. Poland's main obligations under POPs Convention

Majority of the substances controlled by the Stockholm Convention are pesticides - not produced in Poland, banned use in agriculture and forestry

◆ Main issues related to the implementation of the Convention:

- phasing out the equipment containing PCB from use, its decontamination and destruction of stored PCB
- disposal of obsolete unofficial graveyards, containing old pesticides, disposal of industrial waste dumping sites in enterprises which in the past were producing substances controlled under the Convention
- reduction in dioxins and furans emissions into atmosphere from combustion processes

17

## VII. The next steps

- ◆ NIP completion
- ◆ The Stockholm Convention ratification
- ◆ Strategy for POPs reduction update
- ◆ Follow-up GEF/POPs project
- ◆ Start-up the implementation of NIP and the Convention
- ◆ Demonstration projects development and implementation

18

## REPUBLIC OF MACEDONIA

### Background

The Republic of Macedonia is located in the south-eastern part of the Balkan Peninsula, with area of 25,713 square kilometres and population of around 2 million inhabitants. It became independent in 1991. During the past decade the country has undergone a profound transition towards market economy. This development has been accompanied by rising of environmental awareness. As a significant part of the integration and reform process, in 1998, the Government of the Republic of Macedonia has established the Ministry of Environment.

### Organization of the Ministry of Environment and Physical Planning

The Ministry of Environment and Physical Planning is organized into five departments: Department of Regulation and Standardization, Department of Sustainable Development, Department of European Integration, Environmental Information Centre and the Department for Physical Planning, as well as three organizations that function under auspices of the Ministry: the State Environmental Inspection, the Agency of Environment and Physical Information System and the Fund for Environment and Nature Protection and Promotion.

Their main responsibilities of the Ministry are the following:

- Monitoring of the environment;
- Protection of water, soil, air and the ozone layer,
- Protection against noise and radiation,
- Preservation of biological diversity,
- Preservation of geological diversity, national parks and protected areas;
- Rehabilitation of polluted areas;
- Cooperation with scientific institutions for development of standards, norms, rules of procedure to regulate the environment protection;
- Development of a system of self-financing from independent sources, types and amounts of environmental compensations and other charges;
- Cooperation with civil associations, civil initiatives and other forms of civil activity;
- Inspection supervision within its scope of activity;
- Other activities specified by the corresponding law.

### National legislation related to environmental issues

National Action Plan for the Protection of the Environment (NEAP): basic strategic document for environmental protection and its promotion in the Republic of Macedonia.

Act on Environment and Nature Protection and Promotion: creation of a strong legal framework for implementation of the NEAP.

Law on Waste: the provisions of this law regulate collection, transportation, processing and disposal of wastes at landfills, landfill maintenance and waste traffic.

### **National legislation related to hazardous substances**

- Law on Traffic in Poisonous Substances (The SFRY Official Journal No. 43/82): the traffic and the usage of the following substances is banned: Aldrin, Dieldrin, Hexachlorobenzene, Hexachlorhexane, Chlordane, Chlordimeform, Leptophos, Sodiumfluoroacetate, and Lead arsenate.
- Law on Plant Protection: contains conditions that must be met by the interested companies and enterprises in order to produce substances for plant protection. The producers are obligated to make records on the produced and traded quantities of plant protection substances. The traffic of these substances is restricted with permanent, temporary or special permit issued by the Ministry of Agriculture Forestry and Water Economy.
- As of March 1997 the import of ozone depleting substances is restricted with a permit issued by the Ministry of Environment and Physical Planning;
- As of December 2001 the import of certain wastes (certain wastes classified by the Basel Convention included) is restricted with a permit issued by the Ministry of Environment and Physical Planning;

### **Ratified or signed international acts on hazardous substances**

- Vienna Convention on Protection of the Ozone Layer and Montreal Protocol on Substances that Deplete the Ozone Layer: ratified in 1994;
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal: ratified in 1997;
- UN Framework Convention on Climate Changes: ratified in 1997
- Stockholm Convention on Persistent Organic Pollutants: signed in 2001

### **Current situation regarding the POPs in the Republic of Macedonia**

The Republic of Macedonia is at the first stage of implementation of the action for POPs management. As indicated above, the import of certain POPs pesticides and industrial chemicals such as Aldrin, Chlordane, Dieldrin, DDT, Endrin, Heptachlor, HCB and Toxaphene has been banned in June 1998.

The substances that may be imported or used in the country with a special permission from the Ministry of Health are Endrin and Toxaphene.



As a result of the transitional drop in the economy, pesticide consumption has declined dramatically over the past 10 years. However, there is no information on release into the environment, no inventories and measurement on emissions has ever been conducted. Contaminated sites are not clearly identified.

There is also lack of information and data about the import and consumption of PCBs. They are mainly used as a component of the transformer oils in the Republic of Macedonia. Emission of PCBs, dioxins, furans (PCDDs, PCDFs) and hexachlorobenzene, as unintentional by-products is not registered.

By preparation of the inventories and POPs related assessment it is expected directions for their control and management to be defined.

### **National objectives and goals towards POPs management**

The major national target is to strengthen national capacity and to enhance knowledge and understanding among decision-makers, managers, producers, NGOs and the public on POPs management in order to meet obligations of the Stockholm Convention. The following activities will be strongly supported:

An action plan and appropriate measures for the phasing-out of POPs.

Strengthening existing POPs related regulative:

Collecting information on the impacts on human health and environment associated with POPs;

Organizing workshops on POPs to discuss risks, causes and possible preventive measures/alternatives;

Training programs for employees on safe handling of PCBs and DDT;

Education and awareness raising on POPs among the general public, national institutions, scientists, professionals, policy makers, producers, etc;

Identification of POPs in use and provision of safe storage of DDT and disposal of obsolete stocks of PCBs;

Defining the need of laboratories for continuous monitoring of the POPs effects;

Strengthening existing laboratories to facilitate the identification of contaminated sites.

The national action plan can be divided in several parts or steps:

- Preliminary inventories of sources and emissions of POPs, which will include:
- Production, distribution, use, import and export;
- Stocks and contaminated sites;
- Releases into the environment - identify the main locations where POPs are emitted into the environment.

POPs related assessments:

Identify the main locations where POPs are emitted and used;

Assess knowledge, attitudes and practices of industry in general with regard to POPs handling, storage and application;

Identify main uses and quantities of POPs, which have been prohibited and develop alternatives;

Create awareness among decision makers, managers, the industry, end-users and the general public on POPs so as to facilitate the identification of alternative chemicals (substitutes), and to provide formal and on-the-job training, where needed. This can best be achieved by making use of mass media such as the TV, the radio and the Press.

National implementation plan

After collection of data and findings from the inventories and assessment, it is envisaged a National Chemicals Management Profile for POPs to be prepared. It will be a crucial input into the development of specific action plans and strategies for the NIP.

The preparation phase will be followed by identification of frame of the NIP, which will contain the following topics:

- 1 Development of an action plans to reduce and/or eliminate PCBs, PCDD/Fs and HCB (unintentional by-products) emissions.
- 2 Strengthening of the existing regulative;
- 3 Development of new legislation for the pesticides and industrial chemicals that are in use and the ones to be imported.
- 4 Development of strategies for identifying stockpiles and products containing or contaminated with POPs by means of technical guidance, education and training;
- 5 Capacity building at concerned ministries to be capable of monitoring and enforcing POPs related issues;
- 6 Building capacity to develop appropriate strategies for identifying sites contaminated by POPs.
- 7 An action plan will be developed for research and development in the field of
- 8 Environmental import and fate of POPs,
- 9 Socio-economic and cultural impacts of POPs,
- 10 Effects and measurements of POPs on human health and the environment;

Development of an action plan to support communication, information exchange, and awareness raising through multi-stakeholder participatory processes.

The implementation of the activities will be conducted by the Ministry of Environment and Physical Planning, as an executing agency, in collaboration with the

Ministry of Agriculture, Forestry and Water Resources Management, the Ministry of Health, the Faculty and the Institute of Agriculture, and representatives from the NGO's the industry and trading companies.

### **Conclusion**

The above-described step-wise process will enable the Republic of Macedonia to meet the obligations of the Stockholm Convention and manage the elimination of POPs, especially:

Allow the Republic of Macedonia to meet its reporting obligations under the Stockholm Convention (Article 15 of the Convention);

Prepare the ground for the implementation of the Stockholm Convention in the Republic of Macedonia.

Strengthen national capacity to manage POPs and strengthen chemicals management capacity in general.

Maximise the Government commitment and facilitate ratification of the Stockholm Convention.

## ROMANIAN

On 23 May 2001, Romania signed the Stockholm Convention on Persistent Organic Pollutants (POPs). Its Ministry of Waters and Environment Protection together with 42 districts Environmental Inspectorates are the main authorities charged with setting and enforcing environmental standards.

In Romania the responsibility for fulfilment of new requirements and international obligations regarding POPs belongs not only to the Ministry of Waters and Environment Protection but also to the Ministry of Health and Family, Ministry of Industry and Resources, Ministry of Agriculture, Food and Forests and Ministry of Public Works, Transports and Housing.

**It is an ongoing process to ratify the Protocol on Persistent Organic Pollutants under the frame of the Convention on Long-Range Transboundary Air Pollution. Romania as the other signatory countries is interested in reducing POPs releases.**

The Global Environment Facility (GEF) has recently approved the POPs enabling activities project "Enabling activities to facilitate early action on the implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) in Romania" with the aim of developing the National Implementation Plan for Romania, strengthening national capacity and enhancing knowledge and understanding between decision makers, managers, industry, and the public on POPs.

By achieving this objective Romania will be prepared and enabled to meet the obligations of the Stockholm Convention on Persistent Organic Pollutants (POPs).

The Implementing Agency in Romania is the National Institute for Research - Development for Environmental Protection (ICIM).

The current status of POPs in Romania is reflected in the following table:

Name of POPs	Situation in Romania
DDT	Not produced anymore. Not used. Highly restricted since 1985. Banned according to Law 85/95.
Aldrin	Not produced. Not used. Forbidden since 1972.
Dieldrin	Not produced. Not used. Forbidden since 1972.
Chlordane	Not produced. Not used. Forbidden since 1972.
Endrin	Not produced. Not used. Forbidden since 1972.
Heptachlor	Not produced. Not used. Forbidden since 1972.
Hexachlorobenzene (HCB)	Produced in very small quantities. Forbidden in use, production and commercial purposes.
Mirex	Never registered. Never allowed to be used. Not produced.
Toxaphene	Not produced. Not used. Forbidden since 1972.
PCBs	Reglemented by Governmental Decision No. 173/2000 on the management and control of PCBs.

Dioxins and Furans	Ongoing process of elaborating regulations for the restricted use of dioxins and furans are being elaborated.
<u>Data Source:</u> Ministry of Industry and Resources Ministry of Waters and Environmental Protection Institute of Public Health – Bucharest	

**The Romanian legislation** is only partly in compliance with the acquis communautaire related to the environmental sector (mainly waste, waters, industrial pollution control and risk management, dangerous chemicals fields). The Ministry of Waters and Environmental Protection has begun the approximate legislation process with European Union regulation for environmental sectors.

The legal environmental Romanian framework on POPs is represented by the following acts:

Environmental Law No.137/95 which presents the regime of dangerous substances, hazardous waste, as well as of other wastes; this act will be amended in order to fit with the European legislation;

Water Law 107/1996, which presents the waste regime from the water resources protection point of view.

The most representative's legal acts in environmental field are the following:

## **WASTE FIELD**

### **Law No 426/2001 for the approval of Emergency Ordinance No 78/2000 on waste regime;**

Directive 75/442 was transposed by Law No 426/2001 for the approval of Governmental Emergency Ordinance (GEO) No 78/2000 on waste regime, which stipulates, among others:

- the definition of waste as well as the waste management, capitalisation, disposal and recycling operations.
- the authorisation of the waste management activities.
- the recording and control of activities concerning waste management.
- the obligations of waste producers, carriers and operators in the field of waste exploitation and disposal;

### **Governmental Decision No 155/1999 on the introduction of waste registration and the European Waste Catalogue**

Decision No 94/3/EC was transposed by Governmental Decision (GD) No 155/1999 on the introduction of the waste management activities record and of the European Waste Catalogue.

According to the Government Decision, the Ministry of Waters and Environmental Protection draws up annually the national database on waste, taking into account the data provided by the Environment Protection Inspectorates.

Governmental Decision No 173/2000 on the management and control of the polychlorinated biphenyls and other similar compounds.

Government Decision No 173/2000 on the regulation of the special regime for the management and control of the polychlorinated biphenyls and other similar compounds transposed the directive 96/59/EC on the disposal of polychlorinated biphenyl and polychlorinated terphenyls (PCB and PCT) into the Romanian legislation.

This legal act stipulates that all equipment containing PCB/PCTs in higher concentration than 500 ppm and volumes larger than 5 dm<sup>3</sup> will be disposed of until the end of 2006, and the equipment with content between 50 and 500 ppm and volume larger than 5 dm<sup>3</sup> may be used only until the end of 2010. According to the same GD, a Secretariat for PCB compounds should be set up within the administrative bodies of the local authority for environmental protection, until the second quarter of 2002. The organisation and function of the Secretariat will be approved by Order of the Minister of Waters and Environmental Protection.

According to the provisions of GD No 173/2000, the following actions will be taken:

the Secretariat will draw up a National Inventory of the equipment and materials containing PCBs, based on the inventories provided by the Environmental Protection Inspectorates, until September 30, 2002.

the companies will draft plans for the disposal of the equipment and materials containing the specified compounds – until December 31, 2002;

the receiving sites for long term PCB storage or disposal will be settled – by 2002;

after the approval of the receiving sites, the Secretariat for PCBs and the environmental protection local authorities will establish a programme for transferring the PCBs to the storage sites.

The newest legal act for environmental protection concerning the main organic pollutants is

Governmental Decision No 128/2002 for transposition of the Council Directive No 2000/76/EC on the incineration of waste.

Romania requests a transition period of 3 years, until 2010. The transition period is necessary for the construction of the incineration installations and for the implementation of the provisions concerning the emissions on air, water and soil pollutants, caused by the existing incineration and co-incineration installations.

The Romanian legal act will set the deadlines for complying with the limit values for certain pollutants (NO<sub>x</sub>, SO<sub>x</sub>, heavy metals, particulate, dioxins, furans) and will contain provisions regarding the permitting procedure for waste installations, as well as control procedures for the receiving of waste. This document will also include provisions on the monitoring and control of the incineration installations, as well as provisions regarding the closing of all the incinerators within medical units until the end of 2004.

Detailed information on stocks, contaminated sites and disposal opportunities

### Stocks

The DDT ( Dichlorodiphenyltrichloroethane) was one of the most popular pesticides in agriculture in the early 1980s in Romania. Although it was banned a long time ago, measurements taken from different environmental factors still attest its persistence. Though it is known that there are stockpiles of DDT, unfortunately, no accurate inventory has been made to document it, because the labels are either missing or unreadable on the drums.

According to a report on the stocks of unidentified obsolete banned phytosanitary products, elaborated by the Ministry of Agriculture, Food and Forests, the following stocks were identified at the national level:

Banned products	512.19 tonnes
Unidentified products	86.2 tonnes
Obsolete products	568.2 tonnes

Stockpiles of PCBs do exist, but no precise information is available on their disposal. An inventory regarding PCB-containing transformer oils is being compiled. According to Governmental Decision No. 173/2000 on the Management and Control of PCBs, in Romania:

The deadline for using equipment containing PCBs in concentrations between 50-500 ppm and volumes higher than 5 dm<sup>3</sup> is 31 December 2010;

The deadline for using equipment containing PCBs in concentrations higher than 500 ppm and volumes higher than 5 dm<sup>3</sup> is 15 September 2006.

Based on an inventory made by the Ministry of Industry and Resources the situation of PCB-containing equipment is as follows:

- The number of transformers containing PCB 60,300
- The number of capacitors containing PCB 734,500
- The quantity of PCB in capacitors 5,480 tonnes
- The quantity of PCB in transformers - It has not been evaluated yet due to the diversity of equipment.

### **Contaminated sites**

Information on contamination levels in water, sediments and soil are revealed by scientific studies carried out by National Institutes in the field. Despite the fact that many potential sources of POPs exist in Romania (according to an inventory on out of use or banned pesticides compiled by the Ministry of Agriculture, Alimentation and Forests each of the 42 counties of Romania have stockpiles of such pesticides), many of them are poorly studied.

In 1999, were identified 2,2 million tonnes hazardous waste representing ~3% from the total quantity of waste and pesticides deposits amounted to more than 1000 tonnes.

There are 156 different types of hazardous wastes identified in Romania, totaling a quantity 900,000 tonnes (2% of the total quantity of waste recorded in 2000).

In 2000, 156 types of hazardous wastes were identified in Romania out of the existing in the records of the European Wastes Catalogues. Most of these hazardous wastes are coming from the inorganic chemical industry, from the petrochemical industry, from the metallurgical industry, organic industry and from burning processes.

From the total amount of hazardous waste ~24% dangerous waste was recovered and 76% was disposed.

In 2000, has registered 83 installations with dangerous wastes dumps, limited in 30 districts, covering the land over 1450 ha.

### **WATER'S FIELD**

The GD No 188/2002 regarding the approval of emission limits concerning conditions of discharges in the aquatic environment. This act does not contain emission limits for all the 32 hazardous substances, mainly due to the existing old technologies whose resulting products have a concentration of hazardous substances (g/kg or g/ton of end-product), which do not comply with the quantities specified in the directive. These technologies will be improved by industry according to the BAT (Best Available Technique) principle.

Ministry of Waters and Environmental Protection Order No 377/2001 on the approval of reference objectives for surface water quality, Romania has begun to approximate and to experiment basis, the reference values for the surface water quality in the Danube basin.

The Ministerial Order provides the admissible limits for hazardous substances in the surface waters, although there are no emission limits set for all the substances (on product unit), provided by the water management licenses.

The newest legal act for environmental protection concerning the main organic pollutants is:



Governmental Decision No 118/2002 concerning the approval of the Action Program for reducing water and ground water pollution caused by the release of dangerous substances in the environment.

The Annexes of this act present the priority substances/ dangerous priority as well as the criteria used for identification of polluted waters with priority substances/ dangerous priority or exposed at such type of pollution and as a result, out of 35 dangerous substances are mentioned and limit values are already specified including several POPs mentioned in Stockholm Convention (like: hexachlorobenzene, DDT, PCBs, aldrin, dieldrin, endrin).

### **Industrial Pollution Control and Risk Management Field**

Order No 462/1993 of the Minister of Waters, Forests and Environmental Protection (MWFEP) on the approval of Technical norms regarding the emissions into air from stationary sources.

Beside this order that transpose only partially the provisions of the EU Directives, the Ministry of Waters and Environmental Protection continue to transpose other relevant regulations included in the *acquis* of this field.

### **Dangerous Chemicals Field**

Law No 451/2001 for the approval of Emergency Government Ordinance No 200/2000 on the classification, labelling and packaging of dangerous chemical substances and preparations;

Law No 85/95 for approval of Government Ordinance No 4/95 on the producing, placing on the market and the use of the phyto-sanitary products for combating diseases, pests and weeds in agriculture and forestry;

In addition, the Ministry of Waters and Environmental Protection together with the Ministry of Industry and Resources is going to elaborate new legislation to transpose the European legislation in this field.

Production distribution, use, export, import procedures of POPs

There exists a CODEX list of approved phitosanitary products in Romania, elaborated every two years by the Interministry Commission for the Registration of Phitosanitary Products. In Romania only products registered by this Interministerial Commission for the Authorization of Plant Protection Products are manufactured, sold and used. There is also a special regulation in effectiveness concerning the procedures for processing, distribution and use of those products in agriculture and sylviculture practices approved by a common Order of the Ministry of Agriculture, Food and

Forests, the Ministry of Health and of the Family and the Ministry of Waters and Environmental Protection.

### Monitoring of POPs

Monitoring the level of POPs concentration in environmental factors is the first step required in assessing their impact.

The monitoring of POPs in air is not yet introduced, because in this case it involves high costs and performance equipment for laboratory analyses.

The MWEF reported to the European Environmental Agency (EEA), Topic Centre for Air Emission, an inventory based on the CORINAIR methodology at national level concerning the pesticides, PCBs, polycyclic aromatic hydrocarbons (PAH) dioxins and furans.

The survey of potentially toxic pollutants is realized in Romania also by monitoring the pesticide levels in water and soil. Beginning with 1980, in Romania was established a monitoring program to gather information, on a regular basis, on POPs concentration levels in surface and ground water and. from 1998, the analyses regards also the POP's concentration in sediments.

The main POPs pesticides DDT, aldrin, endrin, dieldrin, heptachlor are monitored by means of samples taken from water, groundwater, sediments and soil on a regular basis.

At the same time the National Institute for Research - Development for Environmental Protection (ICIM) has started functioning as the National Reference Laboratory for Romania within the framework of the Danube River Protection Convention (ICPDR).

Its participation in the TNMN (Trans-national Monitoring Network) consists of information exchange concerning monitored levels of ICPDR priority pollutants in the Romanian part of the Danube River Basin and strengthening the sustainability of water quality management in the Danube Basin through the identification of sources and amounts of pollutants on the priority chemicals list of the EU.

During 1999-2000 a complex study focused on the Romanian stretch of the Danube River, the Danube Delta and the Black Sea. This study included the monitoring of PAHs, PCBs, chlorinated pesticides and PCDD/Fs in water, sediments and the biota.

## SLOVAK REPUBLIC

### Basic obligations:

- I Prohibit or restrict production and/or use of chemicals listed in Annex A
- II Restrict production and use of DDT (Annex B)
- III Management of import and export of chemicals in Annex A and B
- IV Reduce or eliminate releases from unintentional production (Annex C)
- V Reduce or eliminate releases from stockpiles and wastes

### Position of the Slovak Republic:

#### Legislation on POP:

Act No. 163/2001 on chemical substances and chemicals

Decree No. 401/2001 of the Ministry of Economy on procedure for import or export of certain hazardous chemicals (PIC procedure)

Ordinance No. 7/2001 of the Ministry of Economy: List of certain chemical substances and chemical preparations banned to introduce to the market and list of certain chemical substances and chemical preparations which are subject to PIC procedure

Decree No. 33/1999 of the Ministry of Agriculture on chemical preparations for plant protection

Regulation of the Government No. 473/2000 amending RG 92/1996 to the Act on Air Protection (emission limits for dioxines)

**Decree No.474/2000 of the Ministry of Environment** on the determination of the quantity of emitted pollutants, method and conditions of determination, monitoring and presentation of data on compliance with defined emission limits and general operational conditions and on technical equipment requirements for monitoring of emissions and polluting substances (Dioxines)

**Act No. 223/2001 on wastes**

**Decree No. 284/2001 of the Ministry of Environment establishing Catalogue of Wastes**

**I Prohibit or restrict production and/or use of chemicals listed in Annex A****II Restrict production and use of DDT (Annex B)**

<b>Chemicals</b>	<b>Production</b>	<b>Use</b>	<b>Import</b>	<b>Export</b>
<b>Aldrin</b>	None	Not registered for use Banned (Act 163/2001)	Banned (Act 163/2001, Reg. 33/99)	Banned (Act 163/2001)
<b>Chlordane</b>	None	Not registered for use Banned (Act 163/2001)	Banned (Act 163/2001)	Banned (Act 163/2001)
<b>Dieldrin</b>	None	Not registered for use Banned (Act 163/2001)	Banned (Act 163/2001, Reg. 33/99)	Banned (Act 163/2001)
<b>Endrin</b>	None	Not registered for use	Banned (Act 163/2001, Reg. 33/99)	Banned (Act 163/2001)
<b>Heptachlor</b>	None	Not registered for use	Banned (Act 163/2001, Reg. 33/99)	Banned (Act 163/2001)
<b>Hexachlorobenzene</b>	None	Not registered for use	Banned (Act 163/2001, Reg. 33/99)	Banned (Act 163/2001)
<b>Mirex</b>	None	Not registered for use	Banned (Reg. 33/99)	
<b>Toxaphene</b>	None	Not registered for use Banned (Act 163/2001)	Banned (Act 163/2001)	Banned (Act 163/2001)
<b>Polychlorinated Biphenyls</b>	None	Restricted (Reg. 67/2002) Elimination by 2010	Banned (Act 163/2001)	Banned (Act 163/2001)
<b>DDT</b>	None	Not registered for use	Banned (Reg. 33/99)	Banned (Act 163/2001)

### III Management of import and export of chemicals in Annex A and B

Regulation No.401/2001 of the Ministry of Economy to the Act 163/2001, sets PIC procedure for certain hazardous chemicals and substances, including most of the chemicals in the table.

### IV Reduce or eliminate releases from unintentional production (Annex C)

The Regulation of Government No. 473/2000, which sets emission limits for combustion of wastes, and Decree of Ministry of Environment No. 474/2000 on methods and conditions of determination, monitoring and presentation of data on compliance with emission limits regulate emissions of dioxins

This commitment requires preparation of action plan with evaluation of current and projected releases, inventory of sources, strategies to meet the obligations, schedule for implementation etc. Necessary data are relatively available, and we recently launched project with UNDP financed by GEF *Enabling Activity: Initial Assistance to Slovak Republic to Meet its Obligations under the Stockholm Convention on POPs*. One of the outputs of the project will be proposal of implementation plan as required by the Convention.

### V Reduce or eliminate releases from stockpiles and wastes

This point is considered to be most problematic for the Slovak Republic. Obligations concerning stockpiles and wastes of POPs are focused on finding appropriate strategies to identify existing stockpiles and products in use. Not only we have to refine our inventory of obsolete stock and wastes, we also have to find ways how to handle them and for which costs. Some "hot-spots" are already known, (one of the largest is stocks of unused PCB in the amount of approximately 1000 tons in one of the companies producing chemicals), others have to be revealed.

### Status of ratification of Stockholm Convention and other global conventions

Convention	Signature	Ratification	Note
Stockholm Convention on POP	22 May 2001	Expected in 2002	Proposal submitted to the Government
Basel Convention		1993	Succession Amendment to the Convention – accepted on 11 September 1998
Rotterdam Convention	1999	Expected in 2003	
CLRTAP - POP Protocol	24 June, 1998	28 May 1993 Expected in 2004	Succession

Convention on Biological Diversity	19 May 1993	25 August 1994	In force for the SR since 24 November 1994
UN Framework Convention on Climate Change	19 May 1993	25 August 1994	KP – Parliament has approved ratification on 19 March, 2002
Vienna Convention on Ozone Layer Protection		28 May 1993	Succession All amendments are in force for SR

## REPUBLIC OF SLOVENIA

Current chemicals legislation regarding Persistent Organic Pollutants is in the Republic of Slovenia still under preparation. Some of it is included in already implemented laws or sub-laws; some still need to be prepared. Already implemented legislation is written on in following order:

Law on Chemicals (OJ RS, No. 36/99) an umbrella law for chemical legislation.

- Govern the procedures and requirements for registering new and existing chemicals
- The administration of the chemicals register and exchange of information on chemicals
- Conditions for production, circulation and use of chemicals
- Classification, labelling and packaging of chemicals in respect of their level of hazard
- Conditions, obligations and measures for appropriate handling of chemicals

### **Executive regulations:**

- Rules on prohibition on placing on the market and use of certain dangerous substances and preparations OJ RS 73/99 (according to the EU Dir. 76/769/EEC):
- PCBs restrictions
- Rules on classification, packaging and labelling of dangerous substances OJ RS 73/99
- Rules on classification, packaging and labelling of dangerous preparations OJ RS 73/99
- Regulation on the Monitoring of Pesticides in Foodstuffs and Agricultural Products
- Act on ratification of Rotterdam Convention on the Prior Informed Consent procedure for certain hazardous Chemicals and Pesticides in International Trade OJ RS, No. 26/99

### **Executive regulation:**

Rules on implementation of PIC procedure OJ RS, No. 50/01 (according to the EU Dir. 2455/92)

1. Act on ratification of Stockholm Convention on Persistent Organic Pollutants (in preparation, in working programme of the Government of the Republic of Slovenia for the year 2002)

## **2. Act on Environment Protection OJ RS No. 32/93, 1/96, 9/99**

This Law comprises the basic provisions regulating the protection of human existence and the inseparably linked natural environment as a constituent part of regulation of development in the Republic of Slovenia.

To satisfy the environmental needs of present and future generations, the aim of environmental protection is the preservation, improvement, and development of the integrity, diversity, and quality of natural elements, natural ecosystems, natural resources, and the natural treasure they represent.

The regulation of development, the exploitation and use of space, and other activities affecting the environment must represent a balance between developmental and environmental needs as a basic condition of healthy and enduring development (i.e., sustainable development).

### **Executive regulations:**

Decree on safety precautions for working with substances containing polychlorinated biphenyls, polychlorinated naphthalene and polychlorinated terphenes OJ SRS, and No. 13/85

Decree on disposal of polychlorinated biphenyls and polychlorinated terphenyls OJ RS, No. 15/00

Rules on manipulation with waste OJ RS, No. 84/98

Rules on dumping of waste OJ RS, No. 5/00

Regulation on chemical state of surface water OJ RS, No. 11/02 (in accordance with EU Dir. 2000/60/EC Art. 7, 8 and Annex V, item 1)

Regulation on quality of underground water OJ RS, No. 11/02 (in accordance with EU Dir. 2000/60/EC Art. 8 and Annex V, item 2)

and others Act on ratification of Protocol to the Convention on Long-range Transboundary Air Pollution on Persistent Organic Pollutants (in preparation, in working programme of the Government of the Republic of Slovenia for the year 2002)

## **3. Act on Plant Protection Products OJ No. 11/01 (according to the EU Dir. 91/414/EEC)**

### Executive regulation:

Direction on prohibition or restriction of circulation or usage of plant protection products containing certain active substances OJ RS, No. 105/01 (according to the EU Dir. 79/117/EEC): - prohibition of certain substances (aldrin, dieldrin, chlordane, DDT and hexachlorobenzene) for placing on the market or use in plant protection products. Act on transport of Dangerous Goods OJ RS, No. 79/99



## **The Implementation of the Stockholm convention in the European Community by Mrs Leena Ylä -Mononen**



European Commission, DG Environment  
Unit C.3: Chemicals

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# **The implementation of the Stockholm Convention in the European Community**

Sub-regional Workshop to Support  
the Implementation of the  
Stockholm Convention, Bratislava,  
8-12 April 2002

Leena Ylä-Mononen, DNE  
DG ENV.C.3



European Commission, DG Environment  
Unit C.3: Chemicals

## **Status of signature and ratification**

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**The Stockholm Convention was signed in  
May 2001 by 15 EU Member States and the  
European Community**

- **In addition to the Member States, the EC  
will ratify the Convention as a regional  
economic integration organization**
  
- **shared competence between MSs and  
the Community**



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Unit C.3: Chemicals

## Ratification

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- **Ratification of the Stockholm Convention as a high priority**
- **Before the ratification the Community has to adopt the legislation needed for the implementation**
- **DG Environment Task Force:**
  - **identification of needs for introduction and upgrading of the legislation**
  - **preparation of the proposals for legislation**

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Slide 3



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## Implementation - Article 3

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### 10 already listed POPs

- No production, use or trade with the 10 intentionally produced POPs - compliance with the **objective** of elimination
- Strict legislation on PCB equipments phase out and waste management
- Ratification of the Rotterdam Convention in the process
- Need for certain changes in legislation in order to be in compliance with the **legal obligations** (complete bans on production and all uses)

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Slide 4



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## Implementation - Article 3

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- **Existing substances Art. 3(4)**
  - Risk assessment of existing substances, pesticides and biocides
- **Prevention of new POPs-like substances Art. 3(3)**
  - Need to change from pre-marketing schemes to pre-production schemes
  - White Paper on Chemicals Strategy 2001

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Slide 5



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# The new EU Chemicals Policy

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Slide 6



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New chemicals policy

One System


- ❑ **A single, coherent system for new and existing chemicals with the following three new elements:**
  - **Registration**
  - **Evaluation**
  - **Authorisation**                      **REACH system**
  
- ❑ **A tiered approach to chemicals with a focus on chemicals in high volumes or of great concern.**

A Tiered Approach

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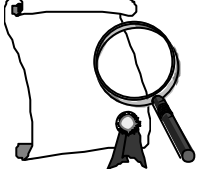

Slide 7



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## New Chemicals Policy - REACH

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<b><u>Registration</u></b>	<b><u>Evaluation</u></b>	<b><u>Authorisation</u></b>
> 1 tonne	> 100 tonnes and lower in cases of concern	CMR & POPs
		

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Slide 8



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## Next steps - targets

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### **New Chemicals Policy - Implementation**

**Early 2002: Commission drafts legal texts**

**Mid-2002: Legislative proposals sent to Council and Parliament in mid-2002**

**2004: Legislation in force**

**Further information and follow-up on Chemicals Strategy:**

**<http://europa.eu.int/comm/environment/chemicals/whitepaper.htm>**

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Slide 9



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## Implementation - Article 4

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- **By-products**

- **strict requirements exist for major industrial sources (IPPC Directive, waste incineration legislation etc.) - conformity with the Convention requirements**
- **Inventories on dioxin and furan emissions and identification of all relevant sources not yet complete**
- **NAPs: Member States competence; COM may launch additional, Community level actions**
  - Strategy on dioxins and PCBs

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Slide 10



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## Strategy on dioxins and PCBs

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### Communication on the Community Strategy to reduce the presence of dioxins and PCBs in the environment, animal feed and food

- adopted 24 October 2001
- Objectives:
  - to reduce human intake levels
  - to assess the current state of the environment and the ecosystem
  - to reduce the environmental effects

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Slide 11



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## Implementation - Article 6

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### Stockpiles and waste

- No stockpiles of present POPs
- Implementation of the Basel Convention -  
transfrontier movements strictly controlled
- Export ban of hazardous waste to non-OECD  
countries

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Requirement to destroy the POP content

Slide 12



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## European Commission and POPs

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- **Action against pollution caused by POPs a high priority in the Commission**
  
- **Several strategies and programs currently related to POPs and the Convention implementation**
  - New Chemicals Policy
  - Revision of other legislation
  - The 6th Environment Action Programme and development of thematic strategies
  - Strategy on dioxins and PCBs
  - International activities

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Slide 13



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## The EC and European third countries

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- **Enlargement**
  - technical and legal advice to the candidate countries
  - financial support to institution building and environmental instruments (i.a. Phare)
- **Regional environmental co-operation with Russia and other European third countries**
- **TACIS programme for grant-financed technical assistance**

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Slide 14



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## **Ratification & implementation**

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**The European Community and its Members  
States are strongly committed**

- **to a rapid and effective implementation  
"at home"**
  
- **to provide adequate technical and  
financial assistance to developing countries  
and countries with economies in transition**



**Persistent Organic Pollutants in Human Milk in Poland** *by Mr Pawel Glusznski*

## Persistent Organic Pollutants in Human Milk in Poland

Waste Prevention Association „3R”

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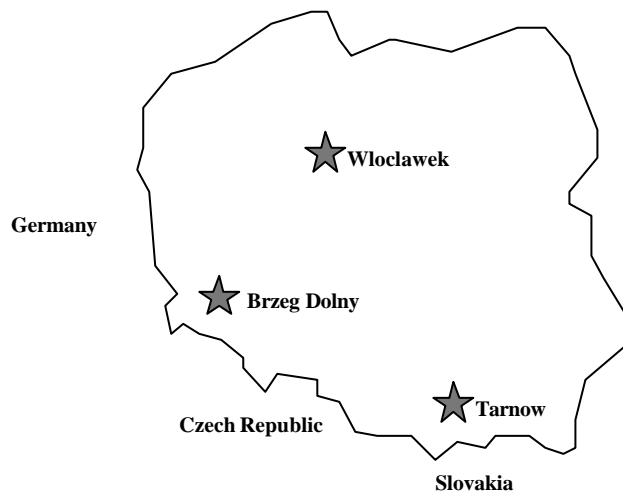
### Research reason

- Lack of up-to-day and complete human milk measurement for PCDDs/PCDFs contamination
  - Lack of analysis of all POP substances in a specific area, and group of risk
  - Reluctance of the management of the factories to provide information
- · · · · · · ·

## Site selection criteria

- Factories using chlorinated substances
- Factories from the „List 80” - biggest polluters
- Operating hazardous waste incinerators
- Lack of data on POPs pollution

## Location of the selected sites:



## *Brzeg Dolny - ZCh „Rokita”*

- Production of chlorine, chlorobenzene, trichloroethylene, and chlorinated pesticides
- Reported very high product contamination by dioxins:
  - wood preservative (PCP): 1200 mg/kg!
  - 2,4-D: 14,7 mg/kg | – 2,4-DP: 24,9 mg/kg
- 20,000 t. chlorinated waste at the factory dump site
- Operating hazardous waste incinerator

## *Tarnow*

- Nitrogen Factory (Zakłady Azotowe):
  - PVC, PCBs (1971-75)
  - vinyl chloride emission: 826 t/a<sup>1989</sup> → 17 t/a<sup>90s</sup>
  - hydrogen chloride emission: 300 ÷ 500 t/a
  - chlorinated waste burnt in the factory power plant
- Medical waste incinerator
- Sewage sludge incinerator (under construction)

## Wloclawek

- Nitrogen Factory (Zaklady Azotowe „Anwil”):
  - Largest PVC producer in Poland: 200,000 tonnes/a
  - vinyl chloride emission: 198 t/a<sup>1989</sup> -> 30 t/r<sup>00s</sup>
  - chlorinated waste incinerator: ~20,000 tonnes/a
- Medical waste incinerator

## Research procedure

- Following WHO guidelines
- 31 anonymous donors:
  - living at least 5 years in the town,
  - normal pregnancy period,
  - breast-feeding one child only,
  - between 3 and 7 week of lactation.
- One (pooled) sample per town
- Samples analysed by the certified laboratories

## Questionnaire results

	<i>Brzeg Dolny</i>	<i>Tarnów</i>	<i>Wloclawek</i>
<i>Aver. age of donor (y)</i>	29	23	27
<i>Aver. age of child (week)</i>	5	3,7	4,5
<i>Child sex</i>	5 g / 6 b	6 g / 4 b	8 g / 2 b
<i>Aver. weight of child (kg)</i>	4,29	4,18	3,42
<i>Medicines received</i>	no	no	no
<i>Toxic subst. exposure</i>	no	no	no
<i>Smokers</i>	2 / (3)	0	2

## Level of contamination: PCDDs/PCDFs + PCBs

<i>pg-TEQ/g lipids</i>	<i>Brzeg Dolny</i>	<i>Tarnow</i>	<i>Wloclawek</i>
<i>PCDDs/PCDFs</i>	12,42	12,05	12,98
<i>PCBs</i>	2,44	2,12	2,05
<i>PCDDs/PCDFs + PCBs</i>	<b>14,86</b>	<b>14,17</b>	<b>15,03</b>

**pg-TEQ/kg bw/day                      90,48      86,74      93,79**

WHO Standard: 1 - 4 pg-TEQ/kg bw/d

Level of contamination: HCB, HCH, DDT

<i>Substance (mg/kg)</i>	<i>NDP</i>	<i>Brzeg Dolny</i>	<i>Tarnow</i>	<i>Wloclawek</i>
<i>HCB</i>	0,04	0,0012	0,0011	0,0008
<i>SHCH</i>	0,005	0,0005	0,0007	0,0006
<i>DDT: sum p,p'-DDE i p,p'-DDT</i>	<b>0,01</b>	<b>0,052</b>	<b>0,027</b>	<b>0,029</b>

Summary

- **Reported concentration of POP substances several times exceed international and Polish standards of health safety, and protection**
- **Long time exposure of the population, and especially children, on high dose of POP substances causes irreparable damage to genetic and immunologic systems**
- **It is necessary to take a quick action to minimise POPs contamination in these three towns, and to carry additional measurements in other locations**

Report available from:

**[www.otzo.most.org.pl/en](http://www.otzo.most.org.pl/en)**