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ENVIRONMENT PROGRAMME
CHEMICALS

UNEP

PROCEEDINGS

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

Livingstone, Zambia
25-27 November 2002

GEF

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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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.

Cover photo courtesy of Dr. John Buccini

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1. INTRODUCTION

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. Altogether 151 countries have signed and 23 countries have ratified at present.

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 eighth workshop, organized in collaboration with the Environmental Council of Zambia, was held at the Zambezi Sun Hotel, Livingstone, Zambia, 25-27 November 2002. This work was also funded by the Canadian POPs trust fund. 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 18 countries within the Anglophone African region and representatives from intergovernmental and non-governmental organizations.

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 the process of developing and implementing National Implementation Plans (NIPs).

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 development of National Implementation Plans to fulfill the obligations of the Stockholm Convention.

2. WORKSHOP PROGRAMME

24 November (Sunday)

Arrival of participants, hotel accommodation

25 November (Monday)

08:30-9:00 Registration of participants

	I. OPENING SESSION	
	Session chair: Mr. Edward Zulu, Zambia	
09:00-10.00	Official opening of the meeting	
	• Welcoming addresses by hosts and organizers	Ms. Marina Nsingo, Minister of Tourism, Environment and Natural Resources, Zambia Mr. James Willis, Director, UNEP Chemicals Dr. Laurent Granier, GEFSEC
	• Introduction of participants	
10.00-10.30	**Coffee break**	
	II. BACKGROUND; THE CONVENTIONS	
10.30-12:30	Brief overview of the main obligations of the Stockholm Convention on POPs	Dr. John Buccini, Chair, POPs INC
	Brief overview of the obligations of the Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	Mr. James Willis, UNEP
	Brief overview of the main obligations of the Basel Convention on the Control of Transboundary Movement of Hazardous Waste	Mr. James Willis, UNEP
	Relations between the Stockholm and the Rotterdam and Basel Conventions at the national level	Mr. James Willis, UNEP

	Outcome of POPs INC-6 and ongoing inter-sessional work	Dr. Bo Wahlström, UNEP
12:30-13.30	**Lunch break**	
	III. CURRENT STATUS OF POPS IMPLEMENTATION IN THE SUBREGION, IN PARTICULAR WITH REGARD TO PROGRESS ON NATIONAL IMPLEMENTATION PLANS	
	Session chair: Mr. Tarek Eid Mohamed, Egypt	
14:00-15:40	Brief country presentations, focusing on recent actions to develop and implement National Implementation Plans for the Stockholm Convention on POPs including stakeholder involvement .	All
15:40-16:00	**Coffee break**	
16:00-17:00	Country presentations (continued)	All
	Industry and public interest NGO presentations focusing on stakeholder involvement in NIPs development and implementation	NGOs
17:00-18:00	Panel on stakeholder involvement Moderator: Mr. Craig Boljkovac, UNITAR	Mr. Sam Adu-Kumi, Ghana Mr. Samuel Banda, Zambia Mr. James Willis, UNEP Mr. Craig Boljkovac, UNITAR Prof. Chidi Ibe, UNIDO Mr. Silvani Mng'anya, IPEN

	26 November (Tuesday)	
	IV. SPECIFIC NATIONAL ISSUES RELATED TO THE IMPLEMENTATION OF STOCKHOLM CONVENTION OBLIGATIONS FOR POPS AND RELATED INSTRUMENTS	
	Session Chair: Mr. Rexford Osei, Ghana	
	Intentionally produced POPs	
09.00-09.20	Brief introduction to specific exemptions, DDT, PCBs with regard to the sub-region	John Buccini, Chair POPs INC
09.20-10.00	General discussion on issues, opportunities and obstacles in implementing obligations for intentional POPs, continued need for exemptions etc.	All
	Unintentionally produced POPs	
10.00-10.20	Brief introduction on source inventories etc.	John Buccini, Chair POPs INC
10.20-10.45	General discussion on issues, opportunities and obstacles in implementing obligations for unintentional POPs , status of source inventories, problems encountered etc.	All
10.45-11.00	**Coffee break**	
	Stockpile and Waste Issues	
11.00-11.20	Brief introduction to obligations for stockpiles and waste	John Buccini Chair, POPs INC
11.20-11.40	The African Stockpiles Program	Ellen Tynan, WB Adjei Tutu, UNECA
11.40-12.30	General discussion on issues, opportunities and obstacles in implementing stockpile and waste obligations in the sub-region	All
12.30-13.30	**Lunch**	

	V. GEF FUNDING OF NATIONAL, REGIONAL AND SUB-REGIONAL IMPLEMENTATION ACTIVITIES: NATIONAL IMPLEMENTATION PLANS AND BEYOND	
	Session chair; Mr. Wamusiru Mundaka, Uganda	
13.30-14.30	Brief introduction; overview of GEF Assembly outcome with regard to POPs	Dr.Laurent Granier, GEFSEC
	Questions and Answers: Accessing GEF funding for NIP development; procedural aspects and issues	
	VI. NATIONAL IMPLEMENTATION PLANS AND FUTURE NATIONAL ACTION AND REGIONAL AND SUB-REGIONAL CO-OPERATION FOR IMPLEMENTATION OF THE CONVENTION	
14.30-15.00	National Profiles and Action Plans	Mr. Craig Boljkovac, UNITAR
15.00-15.20	NIPs overview	Dr. Bo Wahlström, UNEP
15.20-15.40	NIPs related activities in the sub-region	Bo Wahlström, UNEP
15.40-16.00	Introduction to working groups; tasks and expected outcome	Bo Wahlström, UNEP
	Questions and answers related to WG tasks	
	Working Group discussions: 1. Development and implementation of NIPs; problems encountered, opportunities, issues, solutions (in regions and elsewhere), funding beyond NIPs. 2. Opportunities for sub-regional and regional co-operation in addressing specific issues related to the implementation of NIPs under the Stockholm Convention including activities beyond NIPs; 3. Integration of national, regional and sub-regional activities under the Stockholm Conventions and other chemicals conventions; Basel and Rotterdam conventions as possible tools for implementation of the Stockholm	

	Convention.	
16.00-19.00	Group discussions.	
	27 November (Wednesday)	
	Session chair: Ms. Thembisile Kumalo, South Africa	
09.00-12.00	Continued group discussions, summing up by chairs	
12.00-13.00	Drafting of report	
13.00-14.00	**Lunch**	
14.00-15.00	Working group presentations in plenary	
15.00-16.00	General discussion on: - obstacles and problems encountered in developing and implementing NIPs; comments from IA/EA - next steps in developing and implementing NIPs in countries of the sub-region - activities and needs beyond NIPs including sub-regional and regional activities	All
16.00-16.30	Closing remarks	Mr. Edward Zulu, Environmental Council of Zambia Dr. Laurent Granier, GEFSEC Mr. James Willis, UNEP
16.30	Closure of the meeting	

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4. SIGNATORY COUNTRIES AND PARTIES TO THE STOCKHOLM CONVENTION ON POPS AS OF 5 NOVEMBER 2002.

Anglophone Africa

Countries	Signatory	Not signatory	Party
Botswana			X
Egypt	X		
Eritrea		X	
Ethiopia	X		
Gambia	X		
Ghana	X		
Kenya	X		
Lesotho	X		X
Liberia			X
Malawi	X		
Mauritius	X		
Namibia		X	
Nigeria	X		
Seychelles	X		
Sierra Leone		X	
Somalia		X	
South Africa	X		X
Sudan	X		
Swaziland		X	
Uganda		X	
United Republic of Tanzania	X		
Zambia	X		
Zimbabwe	X		

5. WORKING GROUPS

Suggested issues and questions for working groups

1. Development and implementation of National Implementation Plans

1. Problems encountered, opportunities, issues, solutions related to:

- Determination of co-ordinating mechanisms and organization of process;
- Establishment of POPs inventory
- Assessment of national infrastructure and capacity;
- Setting of priorities and determination of objectives;
- Formulation of the NIP and specific Action Plans on POPs;
- Endorsement of NIP by stakeholders.

2. Funding beyond NIPs enabling activities
- Identification of specific areas
- Needs for funding from GEF and elsewhere;

2. Opportunities for sub-regional and regional co-operation

1. Specific issues related to development of NIP e.g.:

Intentional POPs, pesticides and industrial chemicals

- Building capacity to assess the need for specific exemptions, general exemptions and/or site-limited intermediate exemptions;
- Developing capacity for trade measures towards Parties and Non-parties;
- PCBs; Building capacity to implement Convention requirements and report on progress of phase-out every five years;
- Action Plans to control the use of DDT e.g. inventories on existing/produced DDT;
- DDT; research and development plans/needs.

Unintentional POPs

- Existing or planned source inventories or release estimates;
- Capacity building for development of BAT requirements for some new sources, promotion of BAT for existing and some new sources; and promotion of BEP for new and existing sources.

Stockpiles and wastes; strategies on:

- Identification, initiating inventories;

- ESM collection, transport, handling and transport;
- Meeting requirements for transboundary movement (N.B. PCB regime);
- Identify management options for ESM disposal;
- Building capacity to identify contaminated sites; and
- Links to the ASP project

General issues

- Developing the policy framework for implementation;
- Building capacity for reporting to COP on production, import, export;
- Support communication, information exchange and awareness raising;
- Illegal traffic in POPs; and
- Adequate legislation for POPs and other hazardous chemicals management.

2. Activities beyond NIPs e.g.:

- Development of alternatives to DDT;
- Disposal of PCB equipment;
- Co-operation on development of inventories e.g. PCB, sources of unintentional POPs;
- Disposal of POPs stockpiles and wastes;
- Work on chemicals outside the 12 POPs.

3. Integration of activities under the Stockholm Convention and other related instruments

- How to integrate activities under the three conventions at the national level, "clustering";
- Possibilities for integration at sub-regional/regional level;
- Regional/sub-regional centres for training, capacity building etc.;
- How to leverage resources from the implementation of the Stockholm Convention for implementing the Basel and Rotterdam Conventions.

Usefulness of UNEP activities and other activities in the sub-region

- Accra sub-regional workshop, September 2001;
- Other sub-regional activities, e.g. SADC PCB project, DDT project, CIEN, Dioxin/Furan Toolkit etc.
- Guidance material from UNEP and others.

Some suggestions to stimulate discussion

- For each of the major items, start with a roundtable of views from all countries;
- Identify common experiences and issues;
- Brainstorm for solutions to obstacles encountered;
- Describe briefly the overall situation in the sub-region and summarize conclusions and recommendations from the group discussion on each item.

Expected outcome

- Each Working Group should prepare a short report summarizing main issues and conclusions and recommendations;
- The report should be not more than 5 pages A4 (in Word) or 20 slides (in Powerpoint);
- The report should form the basis for the Day 3 discussion on
  - Obstacles and problems encountered in developing and implementing NIPs; comments from IA/EA;
  - Next steps in developing and implementing NIPs in countries of the sub-region;
  - Activities and needs beyond NIPs including sub-regional and regional activities.

Working Group 1

Group 1

1.	W.Mundaka	Uganda
2.	T.Nkwane	Botswana
3.	F.Kasongo	Zambia
4.	J. Qamara	Tanzania
5.	S.E Mnganya	Tanzania
6.	G.Asfaw	Ethiopia
7.	T.Kumalo	South Africa
8.	L. Sabally	Gambia
9.	M.Mwai	Kenya
10.	A.Fonti Kanu	Sierra Leone
11.	H.O Williams	Liberia
12.	P.S Makwinja	Malawi
13.	T.S Rayead	Mauritius
14.	O.O Babade	Nigeria
15.	A. El Hindi	Sudan
16.	Dennis Bella	Botswana

Problems

- Stakeholders not conversant with the issues
- Who are the stakeholders?
- Bringing in consultants to write the paper leaves out stakeholders input
- Getting stakeholders on board
- Fragmented institutions

Problems continued…

- Communication problems between implementing agency and governments
- Lack of knowledgeable personnel
- Reluctance of industries and even government officers to provide information
- Financial problems

Opportunities

- Utilise existing structures instead of forming new ones, e.g. Steering and Technical Committees
- Expand by involving more actors where necessary
- Develop TOR for the stakeholders
- Right selection of an implementing agency which can provide seed money to enable countries to take the necessary steps before the project starts

Solutions

- Identify NFP who will work with an implementing agency
- NFP should have capacity in terms of technical, legal backing and manpower

Solutions continued…

- Engage consultant to expand issues to stakeholders
- Develop TOR for the consultant
- Need for commitment from stakeholders to sustain projects
- Prepare a checklist of your stakeholders
- Ensure that core stakeholders are included
- Find mechanisms for sustaining the commitment, e.g.
  - sitting allowances
  - Involving them even in international meetings

Solutions continued…

- Get experience from other countries
- Get experts because stakeholders may not have all the expertise
- Bring all stakeholders in the system to
  - bring sense of ownership of the project
  - Enable easy Information gathering
- Involve the media for awareness purposes

Establishment of POPs Inventory-problems

- Frequency of meetings and time frame
- Lack of labelling making it difficult to identify chemicals

Opportunities

- Utilise University facilities such as laboratories to identify chemicals
- If not Implementing Agency should help

Establishment of inventories-solutions

- Requires trained personnel
- Few trainers
- Design appropriate methods for different kinds of stakeholders
- Methods should be easily understood
- Sensitise and empower custom officers on POPs
- Information requests should be done at a high level.
- Identify a NFP, desk officer should be visible
- Standardised methodologies and implementing agency should put you through the process

Assessment of national infrastructure and capacity

Problems	Opportunities	Solutions
Infrastructure damaged by wars	Utilise university facilities	Development of lab at subregional level
Infrastructure damaged by wars		Explore other fundingopportunities to replace damaged infrastructure

Setting up priorities and determination of objectives

Problems	Opportunities	Solutions
		Need to identify your objectives
		Understand your national situation
		Prioritise

Endorsement of NIP by stakeholderds

Problems	Opportunities	Solutions
Some stakeholders might be there for different interests	Since stakeholders were involved right from the onset, there will be no problem endorsing the plan	Steering committee chairperson should guard against such interests

Identification of specific activities

- Need to carry out researches on action plans
- Funding to carry out these researches
- Capacity building in the early stages of enabling activities
- Clearing the stockpiles
- Need for monitoring mechanisms and enforcement capacities

- Strengthening of relationship between implementing agency and governments
- Need to search for alternatives
- Creation of awareness at levels
- Availability of basic functional laboratories
- Introduction of BAT and BET practices

Opportunities for subregional and regional cooperation

- Cooperation in research and development
- Networking and information exchange
- Upgrading facilities in the region
- Harmonisation of administrative and legislative measures at subregional levels

Intentional POPs(1)

- Encourage countries to be parties to the chemicals Convention
- Need to build capacity
- Availability of alternatives to PCBs
- Effective communication system with industries
- Creation of awareness
- The relevant ministry to liaise with other relevant stakeholders to discuss the issue of PCB and chart the way forward

Intentional POPs(2)

- Identify, quantify and track PCBs equipment to establish locations
- Need for trade restrictions on certain products
- Lobbying issues through existing subregional and regional bodies eg SADC
- Computerisation of customs information
- Training of frontline workers (DDT)
- Research on use and alteratives to DDT

Intentional POPs(3)

- Conform to legal requirements for DDT
- Create standards regarding DDT levels
- Compliance with WHO specifications for DDT
- There should be transparency in action plans at subregional and regional levels
- Establish a working group that could review action plan at sub regional and regional levels

Intentional POPs(4)

- Voluntary actions plans other than the Conventions
- Need for further research on IVM and IPM
- Need for community participation
- Think of alternatives
- Consider rigorous malaria control system

Intentional POPs(5)

- Need for technical assistance and collaboration
- Integration of indigenous knowledge
- Dissemination of research findings
- Control use of DDT to protect natural ecosystems

Unintentional POPs(1)

- Estimate releases from source
- Need for capacity building- equipment and manpower
- More awareness raising required
- Proper municipal waste management

Unintentional POPs(2)

- Emphasize principle of no boundaries for POPs
- Attitudinal changes on issues regarding management of waste
- Enforcement of laws

Stockpiles and wastes; strategies(1)

- Create awareness raising workshop
- Involvement of all stakeholders
- Provision of adequate funds
- Zone the country for purpose of inventory
- Guidelines on collection of stockpiles
- Labelling of POPs chemicals is necessary
- Sharing experiences in the subregion and region

Stockpiles and wastes; strategies(1)

- Harmonisation of procedures
- Use recommended packaging guidelines
- Need to change people's attitudes as an option.
- Encourage sorting of waste at source
- Exchange of information and sharing of experiences is necessary

General issues

- Developing policy framework for implementation
  - Harmonisation
  - Mechanisms to communicate
  - Integrated waste management

Integration of activities under SC and other related Conventions(1)

- Encourage countries to be party to the Conventions
- Need for regular communication between NFPs of Conventions to coordinate their activities or have them under one ministry
- Review of legislation to accommodate requirements of the new Conventions
- Have regular regional and sub regional meetings for the three conventions

Integration of activities under SC and other related Conventions(1)

- Sensitise regional bodies so that they can have health /environment desks
- The three Conventions to utilise the existing regional Basel Convention training centre instead of developing new ones.
- Integrate programmes for the three Conventions

Usefulness of UNEP activities and other activities in the subregion

- Provided opportunity for better understanding of the SC
- Useful pilot projects
- Source of funds
- Provision of information

Usefulness of UNEP activities and other activities in the subregion

- Deposit UNEP material in libraries and on the internet for public access
- Useful material
- Need for regular distribution of documents not only when there is an occassion

Working Group 2

Group 2 Report

- ***1.Development and implementation of NIPs***
  - ***Problems encountered, opportunities***
    - Stakeholder Cooperation
    - Conflicting professional views, time, and attitudes can also be major stumbling blocks
    - Further it has been observed that often stakeholders don't appoint representatives that are in decision making positions

- ***Establishment of POPs Inventory***
  - Dioxins and Furans area a new area
  - Deficiency in logistics and availability of facilities such as laboratories or the appropriate laboratory equipment.

- ***Setting Priorities and Determining Objectives***
  - Non existence of National Profiles

- ***Recommendation(1)***
  - We recommend therefore that caution be exercised, and the correct criteria be emphasized when inviting participation of stakeholders to ensure participation of decision makers.
  - We recommend that training measures should be put in place to ensure the development of skills towards issues such as the development of inventories.

Recommendation(2)

- Regional centers for testing and training should be identified and exploited.
- A more coordinated approach should also be adopted that will allow utilization of programmes such as the Africa Stockpiles Program

2.Opportunities for sub-regional and regional co-operation

- To foster cooperation amongst Anglophone countries at the regional and sub regional levels to examine the opportunities that exist for assuring this cooperation
- Disparities in culture, tradition and practices
- Inadequate capacity to assess the need for specific exemptions, general exemptions and site limited intermediate exemptions
- Strengthen Inter-Ministerial relations between Trade and Environment government departments

❖***Obstacles***

- Lack of mechanisms for data and information exchange
- Cooperation should not be limited to language groups
- Inadequate National legislations to enforce the convention

❖***Recommendations***

❖Countries need to develop laws to meet the obligation of the Convention

- **3.*Integration of activities under the Stockholm Convention and other related instruments***
  - Experience exist in the region regarding harmonisation of legislation
  - Regional economic grouping should be use as vehicle for ensuring integration of activities (COMESA, ECOWAS, MRU, SADC etc)
  - ACMEN and NEPAD can be exploited to forester integration activities
  - Commitment needed at National level to coordinate activities of all related Conventions
  - Need to link countries expertise in region/ sub regional training centres

- ***Strategies***
  - Create synergy between Conventions (POPs, Basel, PIC)
  - Work with existing structures with common aim and objectives, e.g.,Ministries of Environment, Agencies, Councils,etc
  - Encourage Ratification Accession at sub regional and regional level of the Stockholm and related conventions

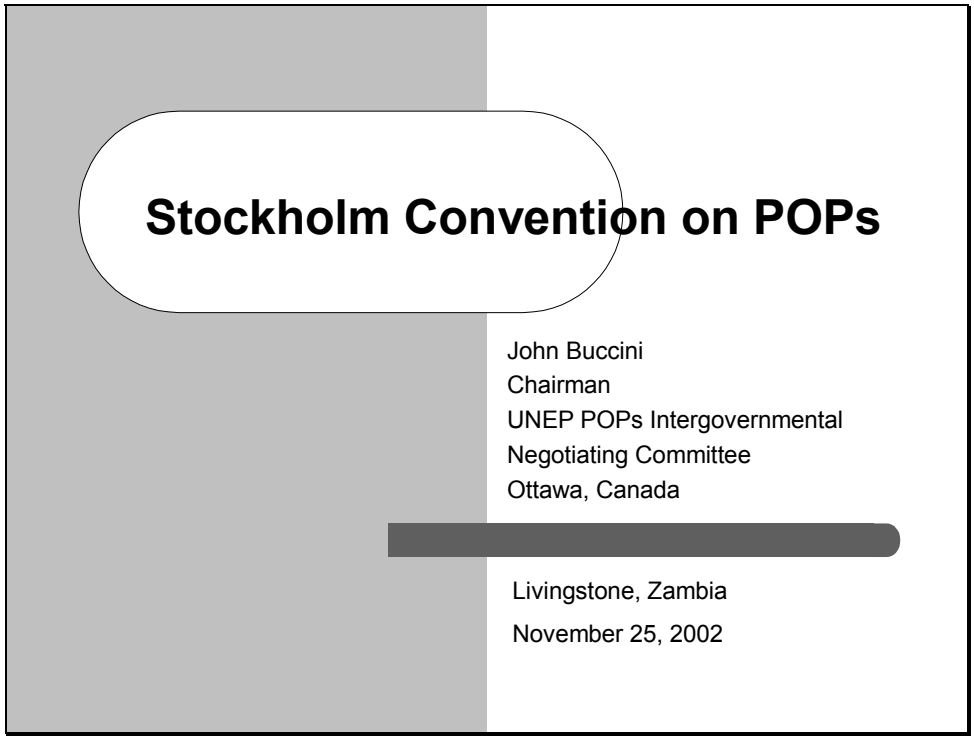
- ***Strategies (Cont..)***
  - Establishment of regional and subregional working groups through workshops and seminars
  - Strengthening of regional Basel Training Centres and capacity building at sub regional level

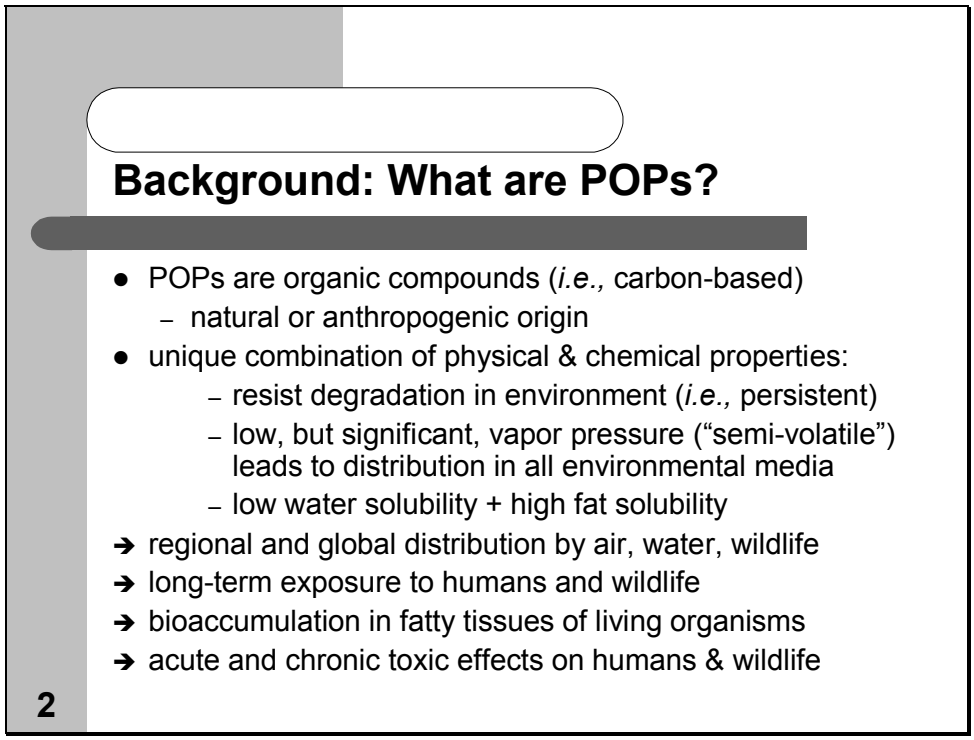
- **4. *Usefulness of UNEP activities and other related activities in the sub-region***
  - The general impression was that UNEP activities were quite useful and so also were other activities in the sub region
  - The Accra sub-regional workshop was also beneficial to the region
  - CIEN project is necessary for information exchange on chemicals and development of technical infrastructure

- ***Usefulness of UNEP activities and other related activities in the sub-region(contd)***
- UNEP has been instrumental in facilitating the execution of the country projects by serving as live wire between countries and Donors
- Guidance from UNEP has been invaluable in particular the Dioxin and Furan Toolkit
- Shortcomings of UNEP
  - Does not provide resources to deal with site contamination
  - UNEP is not an organisation,therefore its effectiveness is limited in terms of implementing projects hat relates to POPs

- **Recommendations**
  - UNEP should provide technical advice on how to clean-up contaminated-sites when POPs would have been phased out

Stockholm Convention on POPs *by Dr John Buccini*





Background: The "UNEP 12"

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

3

Convention Provisions

- **Objective = protection of health and environment**
  [P*recaution* 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

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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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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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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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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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 establishing such programs

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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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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 dying and finishing
  - several waste recovery and disposal practices
  - destruction of animal carcasses
  - crematoria

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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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POPs in Stockpiles

➔ **Goal = to ensure that stockpiles that consist of or contain a POP in Annex A or B are managed in a manner protective of human health and the environment**

- **Parties shall:**
  - develop and implement strategies to identify stockpiles
  - manage stockpiles in a safe, efficient and environmentally sound manner (ESM) until they are deemed to be wastes
    - *i.e.,* no remaining uses by Party
      - no '*specific exemption'* or '*acceptable purpose'*
    - does not apply to stockpiles that may be exported

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POPs in Wastes

➔ **Goal = to ensure that 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**

- **Parties shall:**
  - 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

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POPs in Wastes

- **Parties shall:**
  - dispose of wastes by destroying POP content or otherwise in ESM taking into account international rules
  - *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)
  - endeavour to develop strategies for identifying contaminated sites
    - remediation is not required by the Convention
    - if remediation is attempted, do it in ESM

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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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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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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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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
      - reports on monitoring, on regional and global basis
  - COP1 to establish POPs Review Committee
- UNEP will provide secretariat

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Convention Status

- During the signature period (23 May 2001-22 May 2002):
  - 150 countries + EU signed the Convention
- Ratification, acceptance or accession decisions:
  - 22 Parties (to date)
- INC-7 will be held July 14-18, 2003 (Geneva)
  - preparations for COP1
  - implement Stockholm resolutions
  - priority focus on NIPs & financial & technical assistance
- COP1 changes?
- Convention text & information are on UNEP POPs home page:

www.pops.int

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Overview of the Rotterdam Convention *by Mr. Jim Willis*

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

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

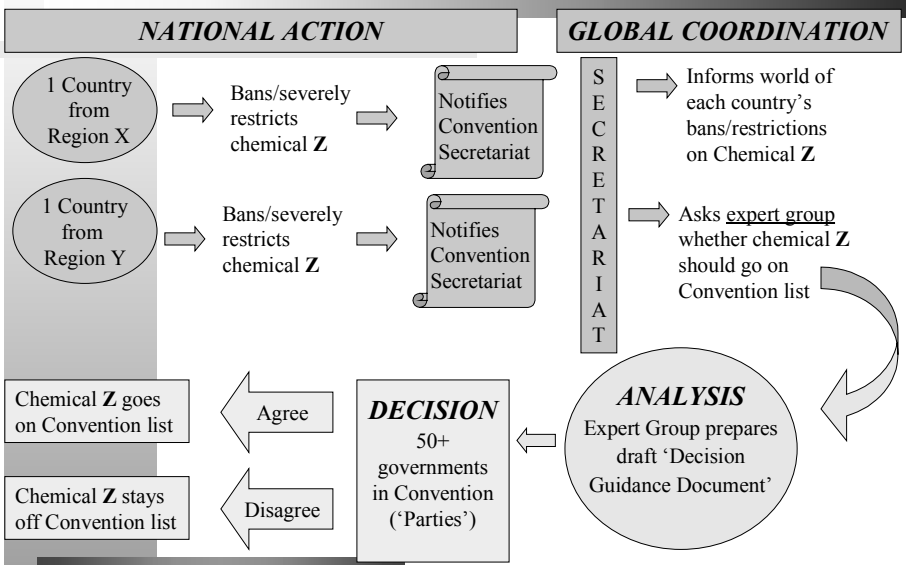
- **Information Exchange**
  - **provisions for the *exchange of information* among Parties about a very broad range of potentially hazardous chemicals that may be exported and imported**
- **The provisions include:**
  - **parties must inform other Parties of each national control action to ban or severely 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;**

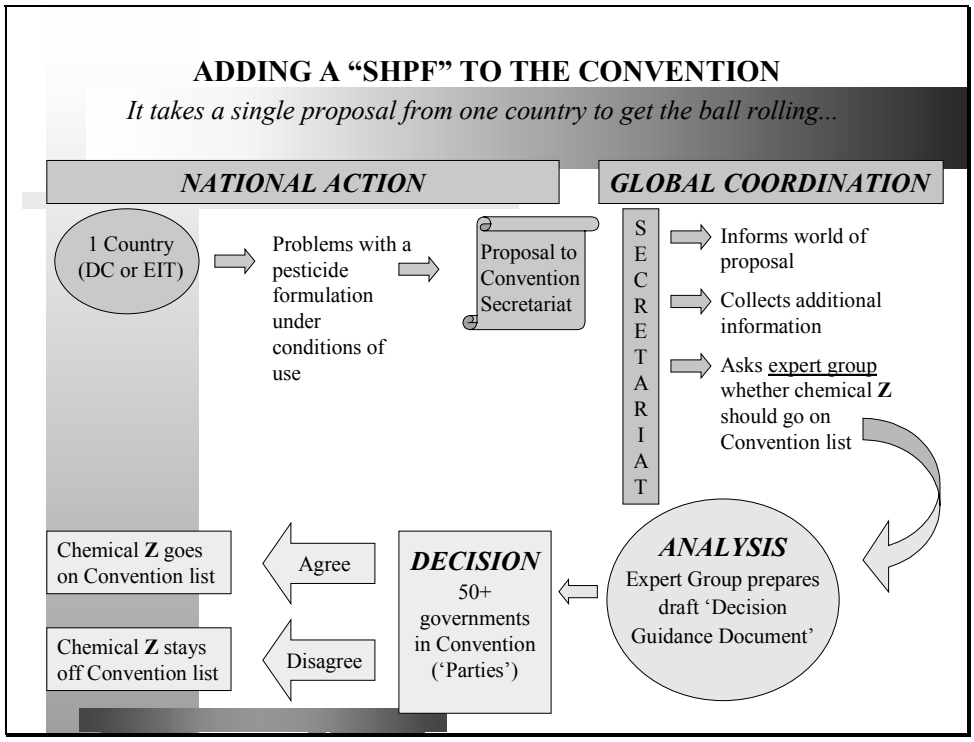
How It Works – Key Elements

- **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.**

ADDING A "BSR" CHEMICAL TO THE CONVENTION

It takes two countries from two different regions to get the ball rolling...





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 (DC/EIT)**
  - **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 Convention implementation**
- **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

- **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**
- **ICRC-3 (18-22 February, Geneva) proposed 3 new pesticides and all forms of asbestos (5 new forms) for addition**
- **INC-9 held 30 September – 4 October in Bonn added Monocrotophos**

AVAILABILITY OF DOCUMENTATION

Rotterdam Convention Website:

WWW.PIC.INT

Overview of the Basel Convention *by Mr. Jim Willis*

The Basel Convention - an overview

UNEP/GEF

Subregional Workshop on Support for the Implementation of the Stockholm Convention

UNEP

The Problem:

Large movements of hazardous wastes from *developed* countries to *developing* countries.

2

The Response: The Basel Convention

- **1989 Adopted**
- **1992 Entered Into Force**
- **2002 151 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 - <u>Control System</u>:*** Requiring written notification from State of export to State(s) of import/transit.

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

•***1999 - <u>Protocol on Liability and Compensation</u>:*** 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**
- **“Clustering”**

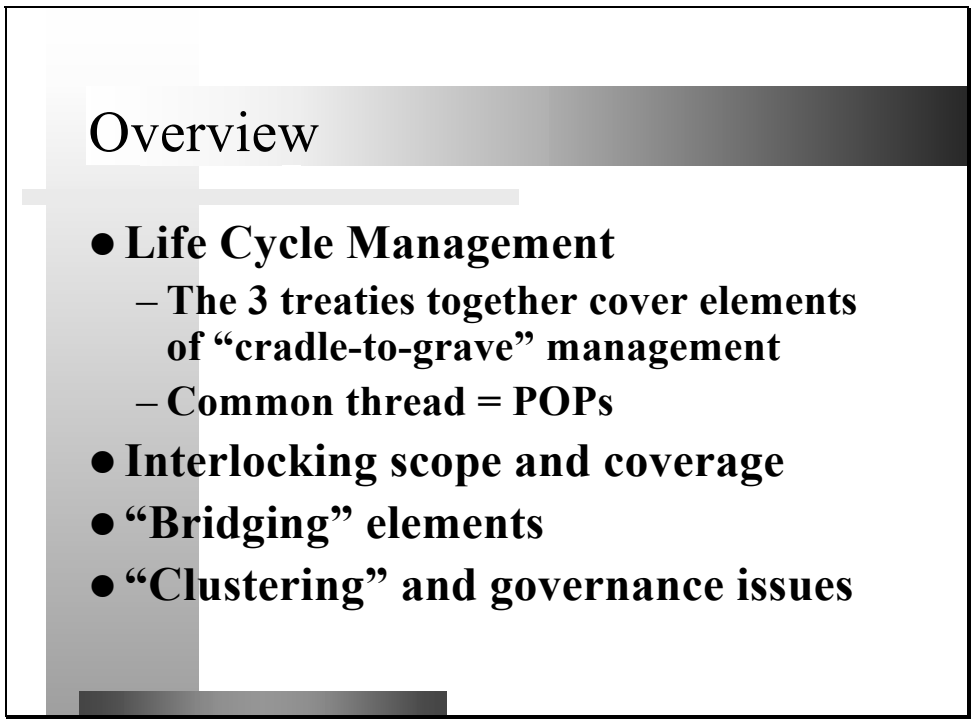
18

For Further Information

Visit the Basel Convention's Website:

http://www.basel.int/

Relationship of the Stockholm Convention to the Basel and Rotterdam Convention *by Mr. Jim Willis*



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"**
  - **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 traveling as chemicals)**
- **Preventing Stockpiles**
- **Fighting illegal traffic**
- **Supporting customs programmes**

Waste Management (1)

- **Destroying POPs wastes**
- **Stockholm Article 6(1)(d)**
  - **Covers direct relationships between Stockholm and Basel on POPs waste management and disposal**
- **Stockholm Article 6(2)**
  - **Destruction and irreversible transformation**
  - **Environmentally sound disposal**
- **Stockholm Resolution 5**
  - **technical guidelines for the environmentally sound management of persistent organic pollutant wastes**
  - **Under development by Basel TWG**

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)**

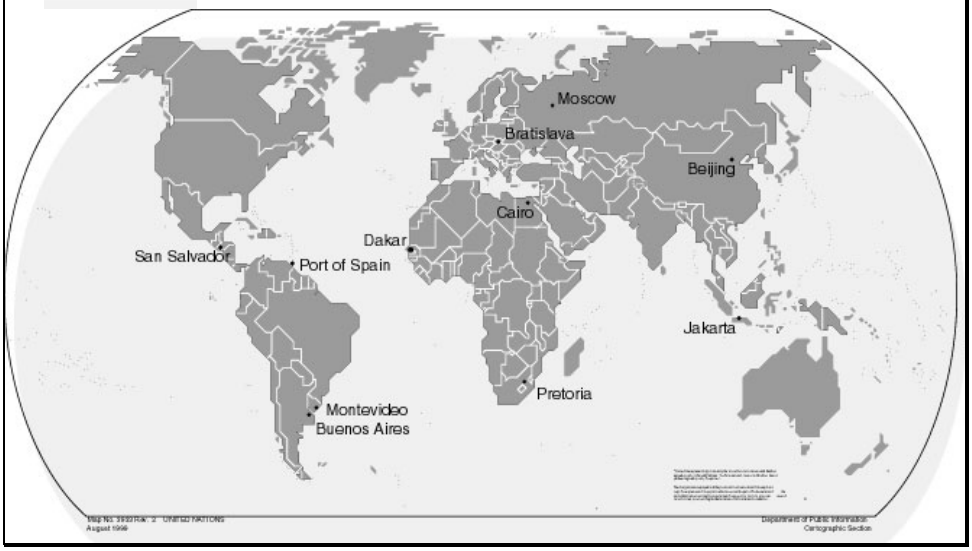
Technical Assistance/Technology Transfer

- **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**

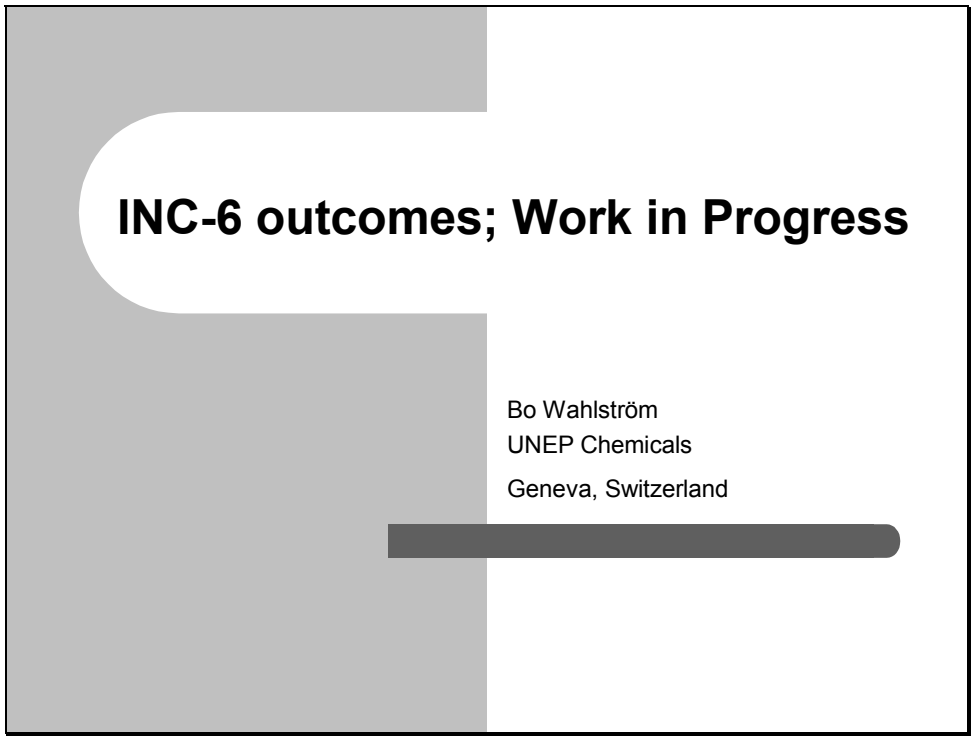
"Clustering"

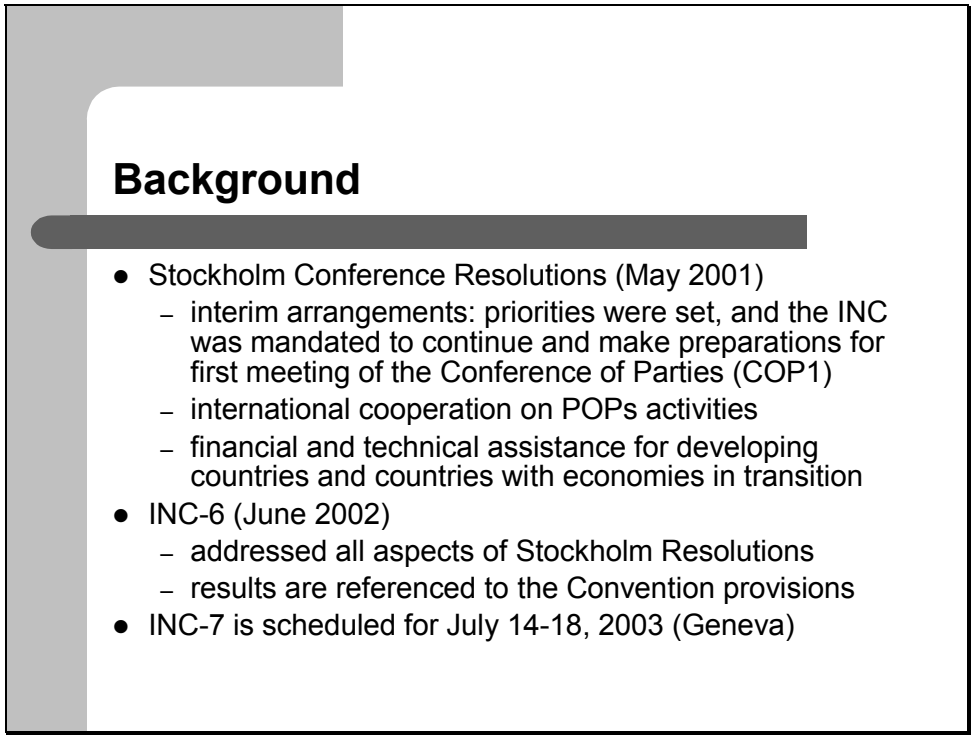
- **International Environmental Governance**
- **General support for related conventions to look for opportunities to work more closely together**
- **"Chemicals and Waste Cluster" identified**
- **Agreement to encourage conventions to move forward taken in Cartegena (GMEF) in February 2001**
- **Endorsed by WSSD**
- **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**

Outcome of the POPs INC-6 and ongoing inter-sessional Work *by Dr. Bo Wahlstrom*





Intentionally Produced POPs (Articles 3,4)

DDT:

- Secretariat, in cooperation with WHO, to propose (for INC7):
  - format for reporting information that Parties must submit every 3 years if they produce and/or use DDT for disease vector control
    - quantities used
    - conditions of use, and
    - relevance of DDT to Party's disease control strategy
  - guidance and information for COP to review the need for continued use of DDT in disease vector control
    - beginning at COP1, and then every 3 years

Intentionally Produced POPs (Articles 3,4)

Specific Exemptions:

- Secretariat to propose (for INC7):
  - format for country requests for specific exemptions
  - format for Register of specific exemptions, and
  - process for COP review of entries in the Register

Unintentionally Produced POPs (Article 5)

Guidance Document:

- Secretariat to prepare (for INC7) an updated and expanded version of a UNEP Chemicals guidance document on all unintentionally produced POPs (the "UNEP toolkit")
  - this guidance will be available for use by Parties in developing source inventories and/or release estimates for unintentionally produced POPs

Unintentionally Produced POPs (Article 5)

BAT and BEP:

- An expert group was established to develop guidance for Parties on best available techniques (BAT) and best environmental practices (BEP) (for approval by COP1)
  - this guidance will be used by Parties in developing and implementing their national action plans for unintentionally produced POPs
  - Members nominated at INC-6, balance between regions
  - The group will meet in March 2003 in the USA

POP Wastes (Article 6)

- Secretariat to prepare a report (for COP1) on POPs disposal guidelines that will be adopted under the Basel Convention, including an analysis of implications of these guidelines for Stockholm Convention
- INC6 stressed the need to continue and strengthen:
  - collaboration between secretariats of the Stockholm and Basel Conventions, and
  - coordination between authorities involved in these 2 conventions at the national level
- INC6 invited the Basel COP to consider inviting members of the INC to participate in partnership activities on POPs under the Basel Convention

Implementation Plans (Article 7)

- Secretariat to prepare (for INC7):
  - a draft *interim* guidance document to assist countries to develop their national implementation plans (NIPs), taking into account the different situations, needs and experiences of countries, and
  - guidance relevant to the review and updating of NIPs (following entry into force of the Convention)

  based on:
  - views of governments, and
  - comments provided on available draft guidance documents (prepared by UNEP, World Bank, GEF)

Addition of New POPs (Articles 8, 19)

- Secretariat to prepare (for INC7) draft terms of reference for the POPs Review Committee, which is to be established at COP1 to evaluate chemicals that will be nominated by Parties for addition to the Convention

Information Exchange (Article 9)

- Secretariat to prepare (for INC7) a detailed work plan and budget on the initiation and maintenance of a clearing-house mechanism for information exchange on POPs
- Governments may provide input (in 2002) on the design, development, operation and scope of such a clearing-house mechanism

Technical Assistance (Article 12)

Guidance, Priorities and Arrangements:

- INC will develop guidance (for COP1) on:
  - provision of technical assistance, as specified in Convention
  - all possible arrangements for providing such assistance
- Secretariat to prepare (for INC7) a report on priorities and arrangements for technical assistance based on:
  - views and information provided by governments (in 2002)
  - experience gained from the development of NIPs
  - relevant information and proposals developed throughout the INC process, and
  - information gathered from sub/regional workshops

Technical Assistance (Article 12)

Regional and subregional centres for capacity-building and transfer of technology:

- Secretariat to prepare (for INC7) a feasibility study, in consultation with Basel secretariat:
  - identify relevant needs of countries to be addressed by centres
  - assess the capacity of all existing centres
  - assess gaps & limitations of existing arrangements (including availability of technology for transfer) & ways to address them
  - review relevant experience gained by other multilateral environmental agreements (MEAs)
  - identify and analyze potential synergies between the Stockholm Convention and other MEAs
  - propose possible modalities for a network to facilitate and coordinate access to financial and technical assistance

Technical Assistance (Article 12)

Regional and subregional centres for capacity-building and transfer of technology:

- Secretariat to prepare (for INC7) case studies to facilitate capacity-building & transfer of technology in accordance with the Convention (subject to available resources):
  - seek cooperation with Basel secretariat and its regional centres
  - solicit input from governments, IGOs, NGOs, private sector and international financial institutions on how they might contribute, and
  - produce results that will contribute to the feasibility study on sub/regional centres

Financial Mechanism (Article 13)

Memorandum of Agreement with the GEF:

- Secretariat to submit (for INC7):
  - a report on:
    - existing memoranda of agreement between GEF and the governing bodies of other MEAs, and
    - experience gained from the use of such agreements
  - a draft memorandum of agreement between the COP of the Stockholm Convention and the GEF

Financial Mechanism (Article 13)

Guidance to the GEF:

- Secretariat to prepare (for INC7) a report on possible elements of guidance to the financial mechanism (GEF) including:
  - views submitted by countries (in 2002)
  - synthesis of the views received from countries, and
  - a review of the relevant experience gained from the provision of guidance to the GEF by the governing bodies of other MEAs

Financial Mechanism (Article 13)

Review of the Financial Mechanism:

- Secretariat to submit (for INC7) draft terms of reference, for consideration by COP1, for use in reviewing the financial mechanism established under the Convention

Financial Mechanism (Article 13)

Other Sources of Support

- Secretariat to prepare report (for INC7) on how the relevant funding institutions of governments, intergovernmental organizations, non-governmental organizations and other observers can provide support to the Convention activities

Reporting by Parties (Article 15)

- Secretariat to prepare (for INC7):
  - a report reviewing:
    - reporting obligations under the Convention, and
    - obligations, processes and formats for reporting under other MEAs
  - a proposal concerning the format and timing for Party reports under the Convention (for eventual submission to COP1)

Effectiveness Evaluation (Article 16)

- Secretariat to prepare report (for INC7) on its efforts to:
  - address needs for environmental monitoring and evaluation to evaluate effectiveness of the Convention
  - develop guidance on evaluation of effectiveness
  - identify basic data needs and data gaps
  - assess the capacity of existing effectiveness evaluation programs under other MEAs
  - initiate arrangements for providing comparable monitoring data, including facilitating arrangements where information is not available
  - compile guidance for the collection of relevant data

Non-compliance (Article 17)

- Secretariat to prepare reports (for INC-7) on the following subjects:
  - non-compliance regimes under existing MEAs
  - a compilation and synthesis of the views of governments and of MEA secretariats on non-compliance

Settlement of Disputes (Article 18)

- INC6 developed drafts of the following (for review at COP1):
  - rules on arbitration
  - rules on conciliation
- These will be further reviewed at INC7 in preparation for submission to COP1

COP Rules (Article 19)

- INC6 developed drafts of the following (for review at COP1):
  - financial rules for the COP
  - rules of procedure for the COP
- These will be reviewed at INC7 in preparation for submission to COP1
- INC-6 decided to enlarge the Bureau to two representatives per UN region, without precedence for COP

Secretariat (Article 20)

- INC6 agreed on the information that must be submitted by Parties that wish to host the permanent Convention Secretariat
- Secretariat to prepare a report (for INC7) based on the submissions received (by 30/11/2002) from interested Parties

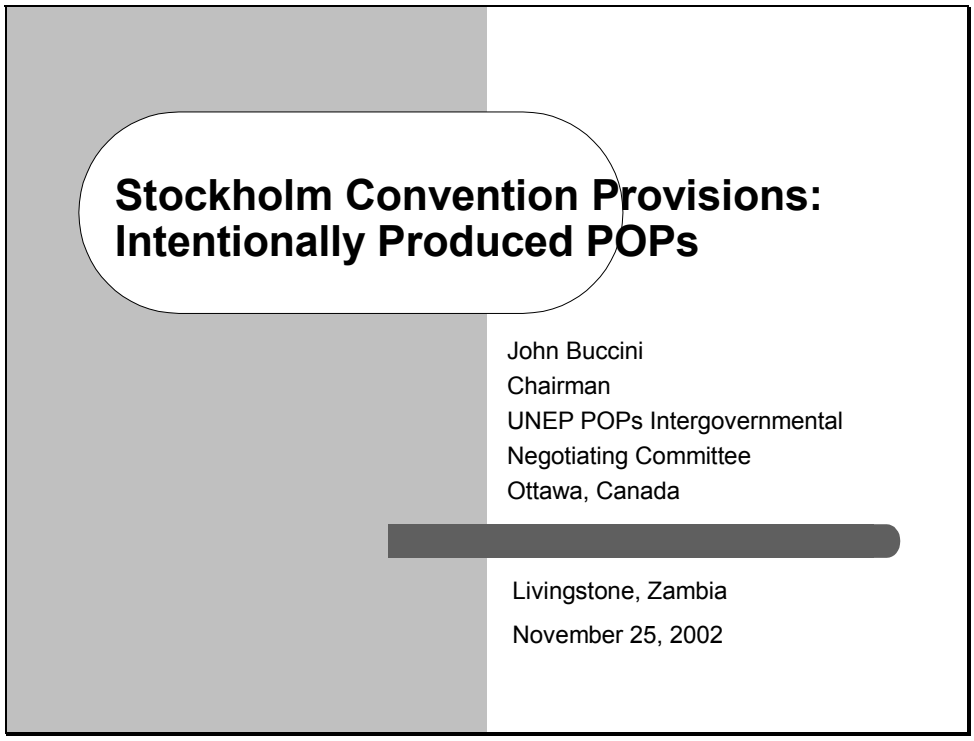
Liability and Redress

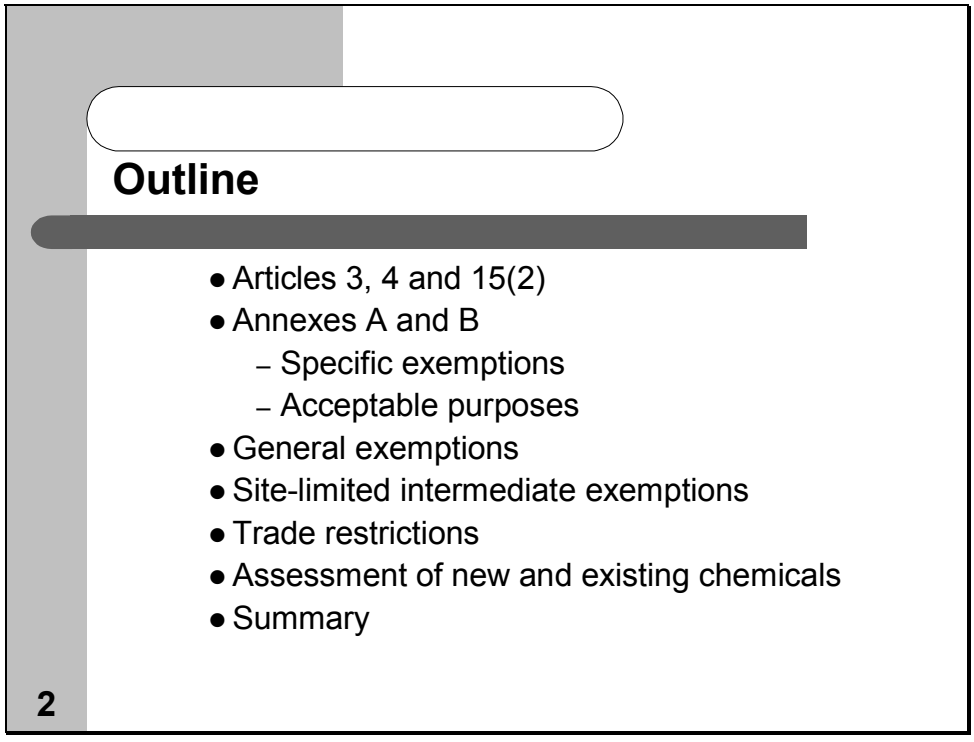
- One resolution at the Stockholm Conference recognized that it was timely to pursue further discussions on the need for elaborating international rules in the field of liability and redress
- Austria hosted a workshop in September 2002 on this subject
- Report will be available soon and submitted to INC7

Conclusions

- Continuing to make progress on POPs
- Increasing number of countries are becoming engaged in POPs activities
- Much work has been initiated, much yet to be done!
- INC-7 (July 14-18, 2003) will be a key meeting, with many decisions to be made for COP-1 and interim activities
- The key now is to maintain the momentum!

Stockholm Convention Provisions: Intentionally Produced POPs *by Dr John Buccini*





Intentionally Produced POPs (Article 3)

➔Goal = elimination of production and use of all intentionally produced POPs (*i.e.,* industrial chemicals and pesticides)

- **Parties shall, for a chemical in:** [para. 1]
  - Annex A, "prohibit and/or take the legal and administrative measures necessary to eliminate":
    - production and use, and
    - import and export: *i.e.,* trade is restricted [see para. (2)]
  - Annex B, "restrict its production and use"
    - "acceptable purposes" specified for these chemicals

3

Specific Exemptions

- Party may register for *specific exemption(s)* identified in Annexes A or B [Article 4]
  - by informing the Secretariat on becoming a Party
  - Parties will be listed in a publicly available Register
- **Duration** = 5 years, unless a Party specifies an earlier date
  - may be withdrawn by a Party at any time
  - may be extended for 5 years, subject to COP approval
- **Condition:** Parties using "specific exemptions" or "acceptable purposes" provisions ***must take measures to prevent or minimize human exposure and releases to the environment*** [Article 3, para. 6]

4

Specific Exemptions (Annexes A & B)

Chemical	Production	Use
Endrin	No	No
Toxaphene	No	No
Aldrin	No	Local ectoparasiticide Insecticide
Dieldrin	No	In agricultural operations
Heptachlor	No	Termiticide Termiticide in structures of houses Termiticide (subterranean) Wood treatment In use in underground cable boxes
PCBs	No	Articles in use in accordance with Part II of Annex A (All Parties)

5

Specific Exemptions (Annexes A & B)

Chemical	Production	Use
Chlordane	Restricted	Local ectoparasiticide Insecticide Termiticide Termiticide in buildings and dams Termiticide in roads Additive in plywood adhesives
HCB	Restricted	Intermediate Solvent in pesticide Closed system site-limited intermediate
Mirex	Restricted	Termiticide
DDT	Restricted	Intermediate in production of dicofol Intermediate

6

PCBs (Annex A, Part II)

- **All Parties shall cease production of new PCBs immediately (*i.e.,* entry into force)**
- **All Parties using the 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% & >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

7

PCBs (Annex A, Part II)

- **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/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

8

PCBs (Annex A, Part II)

- **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 > 50 ppm PCBs for reuse in other equipment (but may maintain/service same equipment)
  - make determined efforts to achieve ESM of wastes containing > 50 ppm PCBs ASAP, and **by 2028**
  - endeavour to identify articles with > 50 ppm PCB for ESM
  - report to the COP every 5 years on progress in eliminating PCBs [per Article 15]
- **COP will review progress toward the 2025/2028 targets at 5 year intervals, taking into account reports from Parties**

9

DDT (Annex B, Part II)

- **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
  - these Parties will be included in a special publicly available DDT Register maintained by the Secretariat
    - Parties may withdraw from 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

10

DDT (Annex B, Part II)

- **Each Party in the DDT Register shall:**
  - report every 3 years on: [Article 15]
    - quantities used
    - conditions of use, and
    - relevance of DDT to Party's disease control strategy
  - develop a national action plan 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

11

DDT (Annex B, Part II)

- **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

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General 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)]
  - Party must notify Secretariat of product remaining in use
  - Secretariat will make notification publicly available

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Site-limited Exemptions [Annexes A & B, note (iii)]

- HCB or DDT may be produced or used as closed-system site-limited intermediates that are chemically transformed in the manufacture of other chemicals that do not exhibit POPs properties
- 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*
- **Duration** = 10 years, but may be extended for 10 years, subject to COP approval

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Trade Restrictions (Article 3, para. 2)

➔ **Convention imposes trade restrictions for all POPs in Annexes A and B**

- **Imports and exports between Parties are limited to shipments:**
  - to Parties with:
    - "specific exemptions" under Annex A or B, or
    - "acceptable purposes" under Annex B
  - intended for environmentally sound disposal [Article 6, para. 1(d)]

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Trade Restrictions (Article 3, para. 2)

➔ **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 & environment by minimizing or preventing releases
    - comply with the requirements of Article 6, para. 1 concerning POPs stockpiles and wastes
    - comply with Annex B, Part II, para. 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

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Trade Restrictions (Article 15, para. 2)

Parties shall provide:

- 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: INC is developing proposals for COP on frequency & format of such reports

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Assessment of Chemicals (Article 3, para. 3 & 4)

- **Parties with regulatory and assessment schemes for industrial chemicals and 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]
- **Note: These provisions**
  - allow the early identification of possible POPs in chemical assessment programs, but
  - do not require Parties to set up such programs

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Summary

- **Considerations for ratification include:**
  - take legal & administrative measures to eliminate and/or restrict production and/or use of POPs in Annexes A & 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

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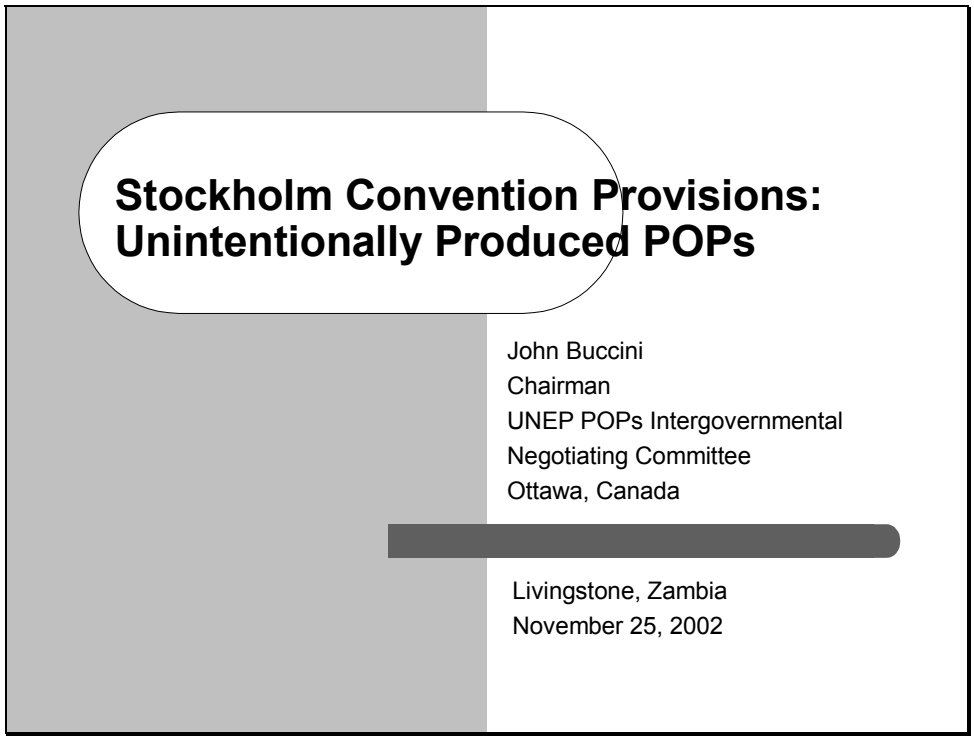
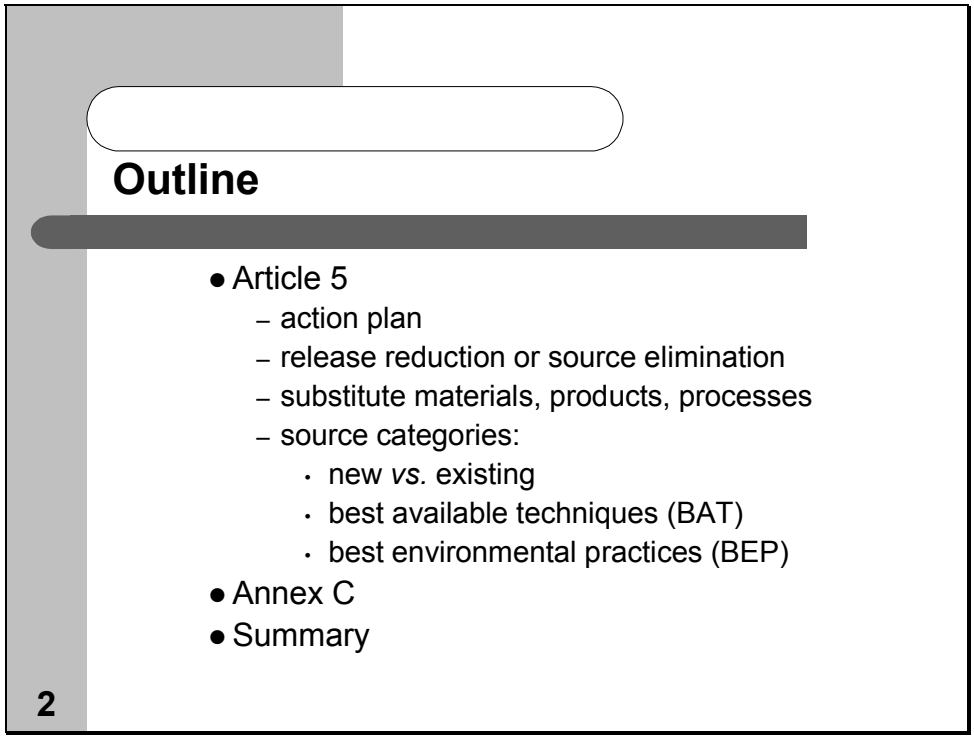
Summary

- **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

20

Stockholm Convention Provisions: Unintentionally Produced POPs *by Dr John Buccini*





Unintentionally Produced POPs [Article 5]

➔ **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)

3

Unintentionally Produced POPs [Article 5]

- **Parties shall, <u>at a minimum</u>, address:**
  - action plan
  - release reduction or source elimination
  - substitute materials, products, processes
  - potential sources of generation and release
    - new and existing sources
    - best available techniques (BAT)
    - best environmental practices (BEP)

4

Action Plan [Article 5, para. (a)]

- **An action plan shall:**
  - 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!

5

Action Plan [Article 5, para. (a)]

- **The action plan shall:**
  - evaluate current and projected releases, including development & maintenance of source inventories and release estimates (note 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
  - include a schedule for implementation of action plan
  - review success of strategies every 5 years
    - include this in reports to COP [Article 15]

6

Other Measures [Article 5]

- **Parties shall:**
  - promote application of available, feasible and practical measures to achieve *expeditiously* realistic and meaningful levels of release reduction or source elimination [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 [para. (c)]
    - note the general guidance in Annex C
    - guidelines will be adopted by COP

7

'High Potential' Sources of POPs

- **The following industrial source categories have the <u>potential for comparatively high</u> 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

8

'High Potential' Sources of POPs

- **For identified 'high potential' industrial sources (*including* those in Annex C, Part II) Party shall:**
  - for new sources warranting such action: [Article 5, para. (d)]
    - promote, and as provided for in an action plan, require use of best available techniques (BAT)
    - 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)
  - for existing sources, promote use of BAT & BEP [Article 5, para. (e)]

9

'Potential' Sources of POPs

- **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
  - smouldering of copper cables

10

'Potential' Sources of POPs

- **'Potential' sources (continued):** [Annex C, Part III]
  - chemical production processes releasing unintentionally produced POPs *(e.g.,* production of chlorophenols and chloranil)
  - textile and leather dying and finishing
  - shredder plants for the treatment of end-of life vehicles
  - waste oil refineries
  - destruction of animal carcasses
  - crematoria
- **For both <u>new and existing</u> industrial sources of these types, Parties must <u>promote</u> BAT & BEP** [Article 5, para. (e)]

11

Source Categories: Guidance [Article 5, para. (f)]

- **Parties should** take into consideration:
  - guidance on BAT and BEP in Annex C
  - guidelines that will be adopted by the COP
    - INC6 mandated an expert group to address this
  - definitions in Article 5:

    <u>Note:</u> Convention defines a <u>new source</u> as one for which the construction or substantial modification commences >1 year after:
    - Convention enters into force for Party, or
    - entry into force for Party of Annex C amendment

12

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

13

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

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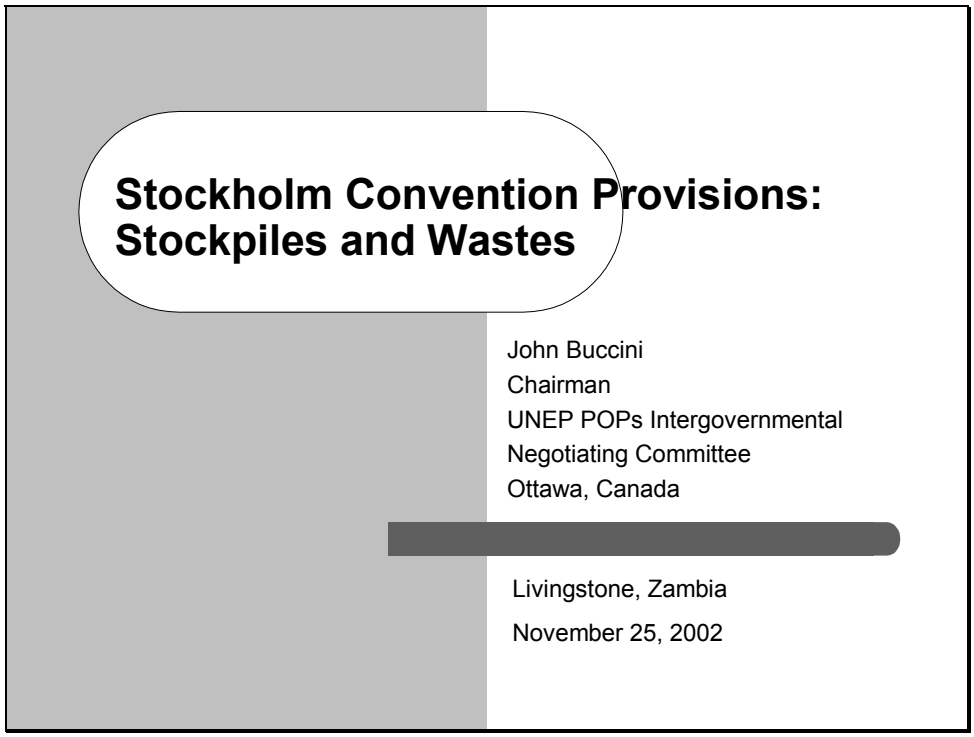
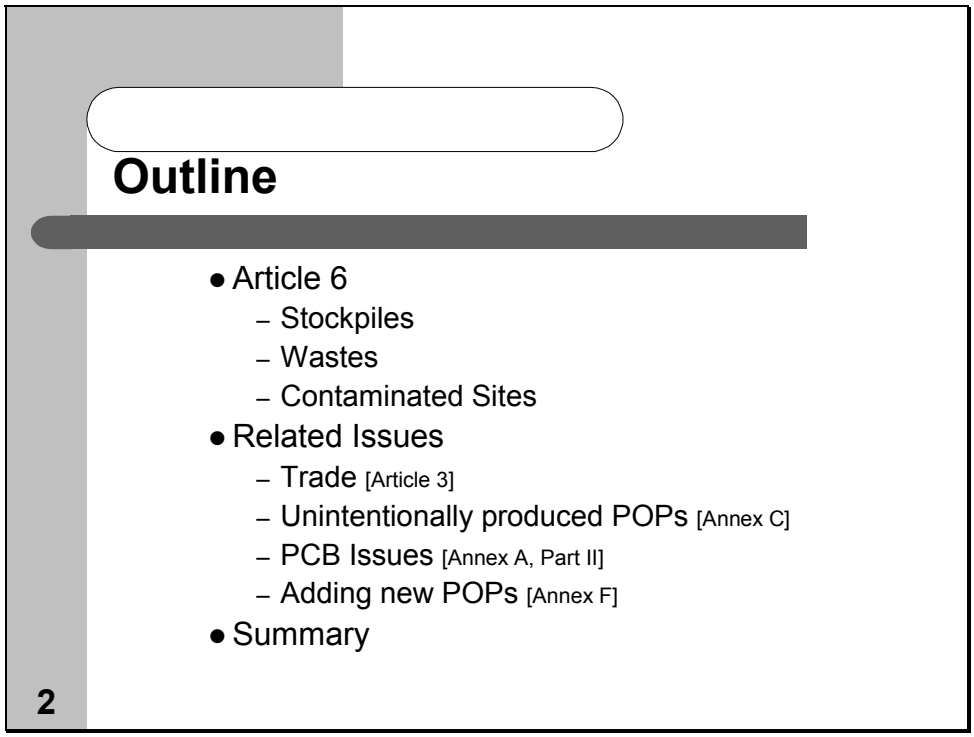
Stockholm Convention Provisions: Stockpiles and Wastes *by Dr. John Buccini*





POPs in Stockpiles (Article 6)

➔ **Goal = to ensure that stockpiles that consist of or contain a POP in Annex A or B are managed in a manner protective of human health and the environment**

- **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 [para. 1 (c)]
    - *i.e.,* no remaining uses by Party
      - no '*specific exemption'* or '*acceptable purpose'*
    - does not apply to stockpiles that may be exported

3

POPs in Wastes (Article 6)

➔ **Goal = to ensure that 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**

- **Parties shall:**
  - develop strategies to identify:
    - products & articles in use, and
    - wastes

    consisting of, containing or contaminated with a POP in Annex A, B or C [para. 1 (a)(ii)]

4

POPs in Wastes (Article 6)

- **Parties shall:** [para. 1 (d)]
  - take measures to 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.

5

POPs in Wastes (Article 6)

- **Parties shall:**
  - not allow recovery, recycle, reclamation, direct reuse or alternative uses of POPs [para. 1 (d)]
  - not transport wastes across international boundaries without taking into account international rules, standards and guidelines (*e.g.,* Basel Convention) [para. 1 (d)]
  - endeavour to develop strategies for identifying sites contaminated by POPs in Annex A, B or C [para. 1 (e)]
    - remediation is is not required by the Convention
    - if remediation is attempted, do it in ESM

6

COP Activities (Article 6)

- **COP shall cooperate with appropriate bodies of Basel Convention to establish:** [para. 1(e)]
  - levels of 'destruction' and 'irreversible transformation' [see para. 1(d)]
  - methods that constitute ESM
  - levels of POPs in Annexes A, B and C that are considered "low" [see para. 1(d)]

7

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, para. 1(d)], or
  - to Parties with:
    - "specific exemptions" under Annex A or B, or
    - "acceptable purposes" under Annex B

8

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 Convention requirements on stockpiles and wastes [Article 6, para. 1]
  - Exporting Party shall transmit certification to Secretariat within 60 days of its receipt

9

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: INC is developing proposals for COP on frequency & format of such reports

10

Related Issues: PCB

- **Parties using PCB specific exemption shall:** [Annex A Part II]
  - eliminate use of in-place PCB equipment **by 2025**
  - not export or import PCB equipment, except for ESM of waste
  - not recover liquids with >50 ppm PCB for reuse in other equipment (but may maintain/service same equipment)
  - make determined efforts to achieve ESM of wastes containing >50 ppm PCB *ASAP*, and **by 2028**
  - endeavour to identify articles with >50 ppm PCB for ESM
  - report to the COP every 5 years on their progress in eliminating PCB [Article 15]

11

Related Issues: Unintentional POPs

- **Annex C identifies industrial source categories with the potential for formation & release of unintentional POPs:**
  - **Part II: comparatively high potential**
    - waste incinerators
      - municipal/hazardous/medical wastes, and
      - sewage sludge
    - cement kilns firing hazardous wastes
  - **Part III: potential**
    - open burning of wastes (including landfill sites)
    - shredder plants for treatment of end-of-life vehicles
    - smouldering of copper cables
    - waste oil refineries

12

Related Issues: Unintentional POPs

- **Annex C, Part V (A) identifies general preventive measures to minimize production of POPs (BAT & BEP), including:**
  - use of low-waste technology
  - promote recovery & recycling of materials and wastes
  - improvements in waste management practices

13

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

14

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.

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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

16

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

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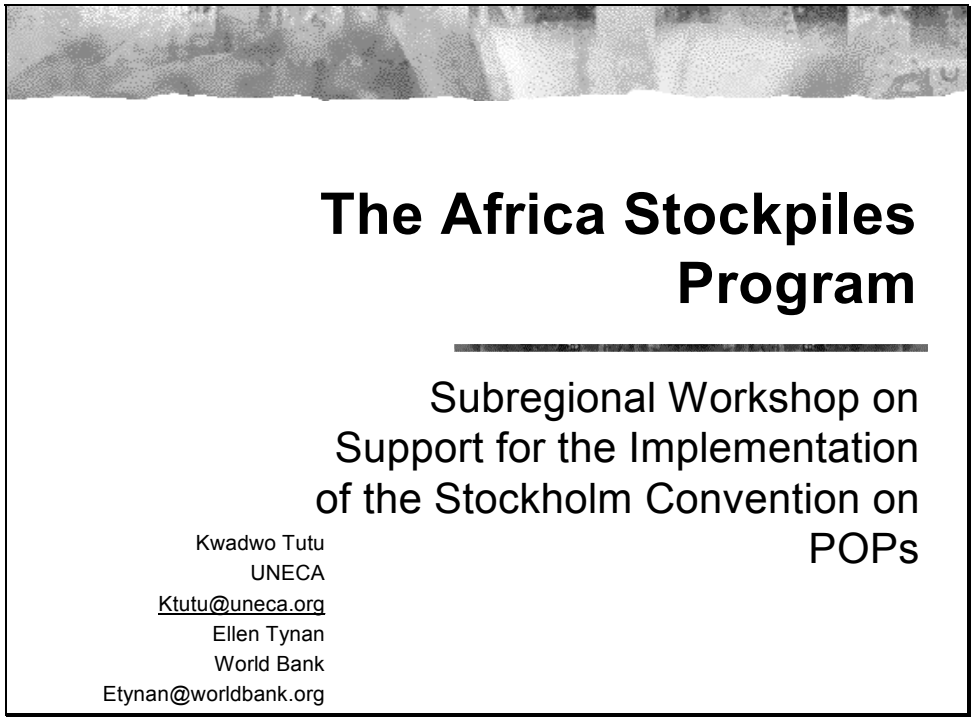
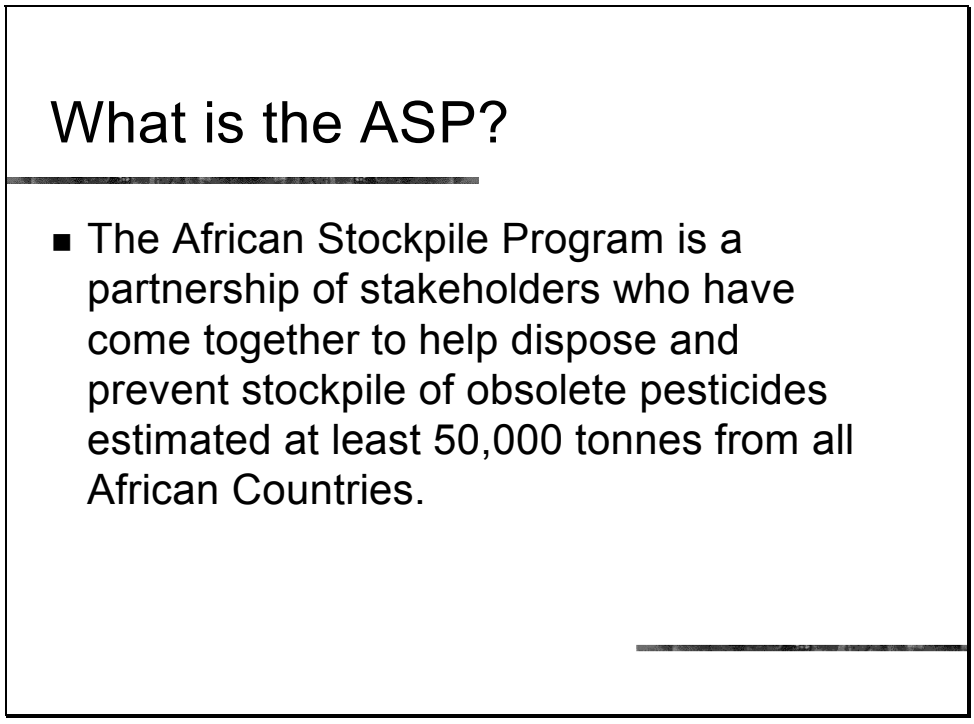
African Stockpiles Program *by Ms. Ellen Tynan and Mr. Adjei Tutu*





Partners

- FAO, UNIDO, UNEP Chemicals, WWF, World Bank
- PAN (UK and Africa), Secretariat for the Basel Convention,
- UNECA, AU, CropLife International, GEF and the countries.

The Problem

- The stockpiling of pesticides dates back to at least 40 years.
- At least 50,000 tonnes of obsolete pesticides

Nature of Accumulation

- Tens of thousands of tonnes of contaminated soils accumulated in African countries.
- Estimated 30 percent of the waste mixtures are POPs.

Adverse Impacts of Stockpile

- Social and economic development;
- human health
- ecosystem health
- water quality
- biodiversity, etc.

Why ASP

- Only 5% of estimated stockpile cleared after decade of hard work by FAO and others
- ASP will clear all obsolete stocks and put in place measures to prevent future accumulation.
- Most countries lack capacity to remedy the problem (labs, institutional capacity, $$) and need/want assistance to remove this serious threat

Objectives

- Rid all 53 African countries of stockpiled obsolete pesticides
- Clean-up / render harmless / dispose of associated wastes (i.e. used containers, contaminated soils)
- Establish / augment prevention programs to ensure sustainability of actions.

Prevention is as important as clean up

Why Pesticides Accumulate?

Accumulation results through the following channels

- Banning of products
- Inadequate stores and poor management
- Unsuitable products and packaging

Other Reasons

- Donations or purchases in excess of requirements
- Inadequate coordination among and within aid agencies
- Commercial interests and hidden factors.

Solution:

- Develop guidelines with and for:
  - Governments
  - Aid Agencies
  - Pesticide Industry
- Advise on other alternatives to pesticide use such as IPM

Characterization of stockpile.

- Obsolete and banned pesticides
- Empty and contaminated pesticide containers
- Heavily contaminated soils
- Buried Pesticides

The Project

- Period 15 years
- Implemented in 3-4 phases
- Estimated to cost $250 million
- $50-75 million for prevention
- $150-175 million for clean-up
- Implementation to begin in 2003.

Phase One:

- Period: 4 years

Countries:

- Botswana, Cameroon,
- Cote D'Ivoire, Ethiopia,
- Lesotho, Mali, Morocco,
- Mozambique, Namibia, Niger,
- Nigeria, South Africa,
- Swaziland, Tunisia and Tanzania.

Project Funding: First Phase

- The total estimated cost: US$60
- The GEF formally approved US$ 25 million

Co-financing

- Co-financing remaining US$ 35.
- Co-finance from Donors, Industry and ASP partners, including countries.

Country Ownership

- Program not donor-driven
- Countries to be engaged in project design, implementation and delivery.
- Initial workshop in Addis in April, 2002 for14 countries

Country Responsibilities

- Mobilize political support
- counterpart support
- develop project design
- Implementation
- awareness raising
- education
- outreach.

Stockholm Convention

Countries must be signatories to:

- Stockholm Convention

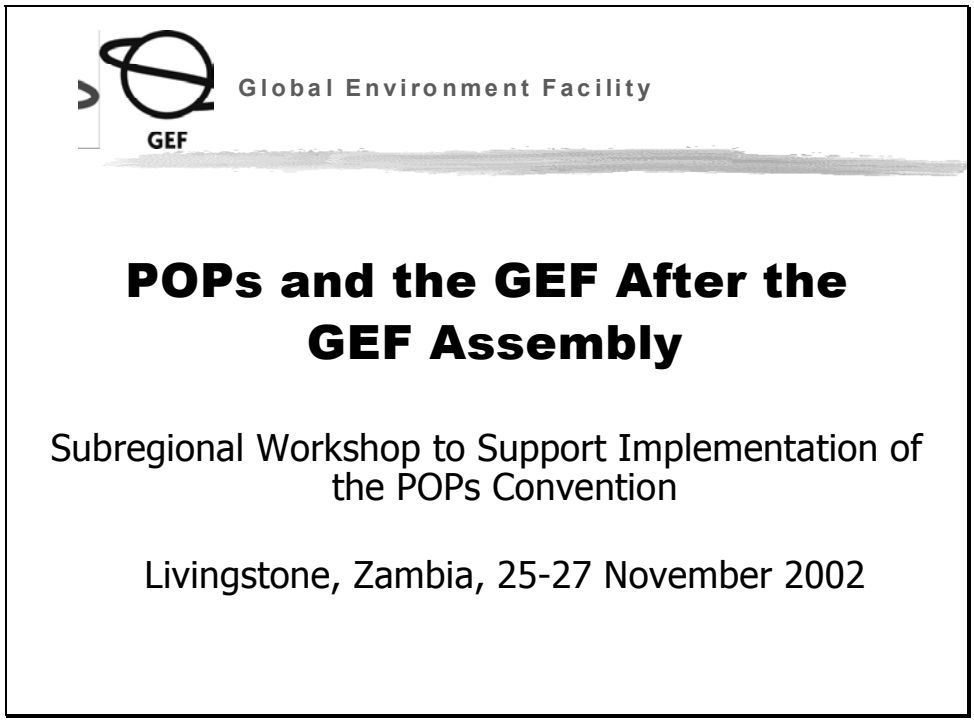
Other Conventions

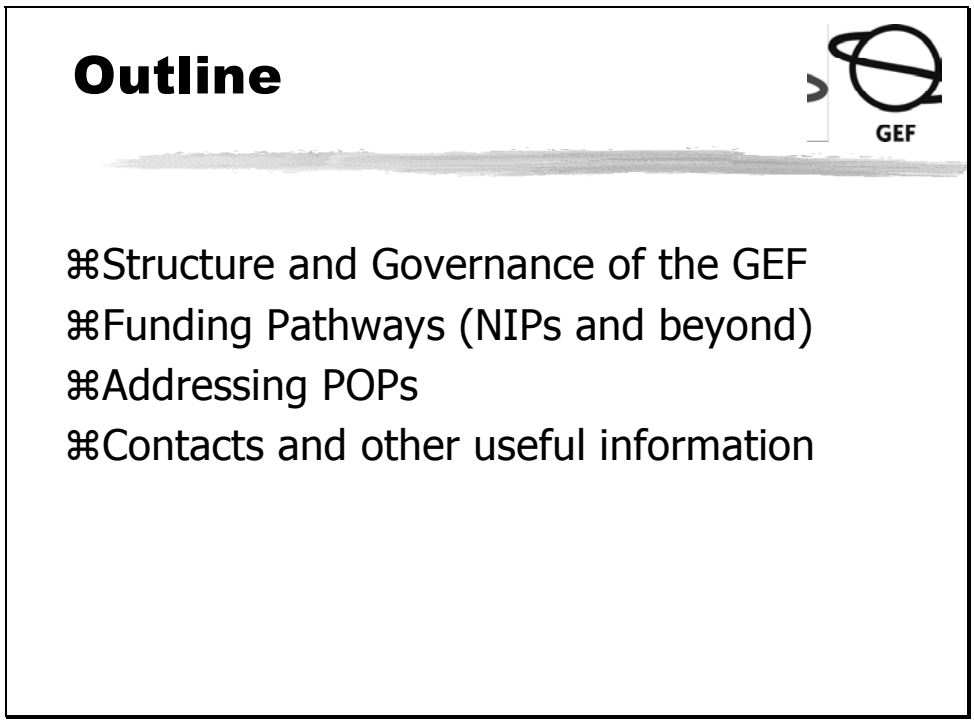
- Basel Convention
- Montreal Protocol
- Rotterdam Convention
- Bamako Convention

Benefits of chemical Conventions

- protect human health and the environment
- create awareness in countries about the hazardous nature of chemicals
- prevent dumping of hazardous wastes in Africa
- have access to resources and to chemical alternatives

Overview of GEF Assembly Outcomes with regards to POPs *by Dr Laurent Granier*





Global Environmental Focal Areas of the GEF

- Biodiversity
- Climate Change
- International Waters
- Ozone Depletion (countries in transition)
- Land Degradation
- Persistent Organic Pollutants

Global Environmental Conventions

- The GEF is the designated "financial mechanism" for the:
  - Convention on Biological Diversity
  - Convention on Climate Change
  - POPs Convention *(ad interim)*
- The GEF collaborates closely with other treaties and agreements to reach common goals (Regional Seas, CCD, Montreal Protocol, etc)

History of the GEF

⌘GEF Pilot Phase	1991 - 1994 US$ 1 billion
⌘GEF I	1995 - 1998 US$ 2.2 billion
⌘GEF II	1999 - 2001 US$ 2.8 billion
⌘GEF III	2002 – 2005 US$ 3 billion

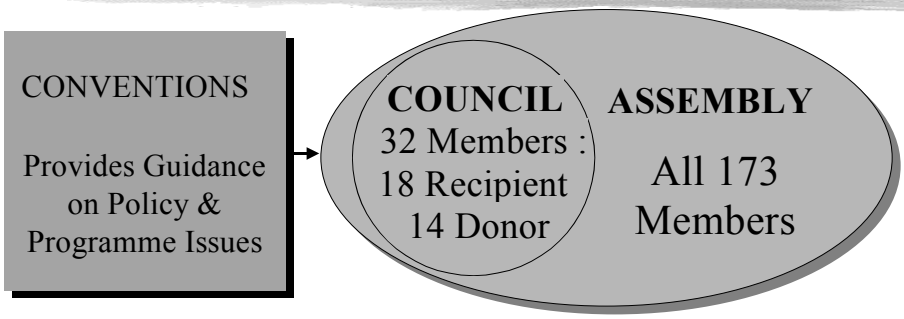
Portfolio of Projects

⌘> 1000 projects in 140 countries since 1991

⌘Approximately US$ 4 billion GEF Allocation
Approximately US$ 12.4 billion Co-financing

⌘Biodiversity: 40.5%
⌘Climate Change: 37%
⌘International Waters: 13.5%
⌘Ozone Depletion: 5%
⌘Multi-focal: 4%

Governance Structure

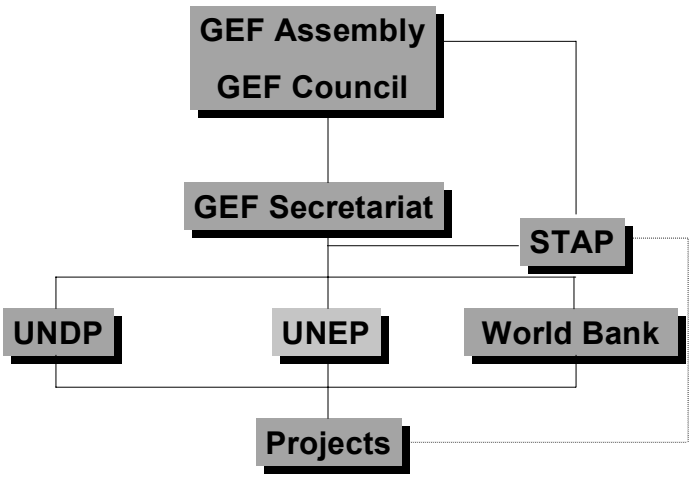


- **GEF Council** meets every 6 months to review and approve all projects, business plan, policies.
- **GEF Assembly** meets every 4 years to review general policies, operations, and amendments to the GEF Instrument.

Constituencies at Council Meeting

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

Operational Framework



Executing Agencies with Shared Responsibility for Projects

- FAO
- UNIDO
- African Development Bank
- Asian Development Bank
- European Bank for Reconstruction and Devt
- Inter-American Development Bank
- IFAD

Projects can be Executed by:

- Government Agencies
- UN Specialized Agencies
- Non-Governmental Organizations
- Bilateral Development Cooperation Agencies
- Private sector
- Institutes /Universities

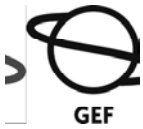
National Focal Points

- Political Focal Point (Council Member)
- Operational Focal Point
- Convention Focal Points

KNOW YOUR FOCAL POINTS!!!

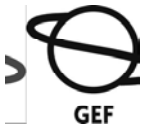
http://gefweb.org/participants/focal_points/focal_points.html

Funding Pathways



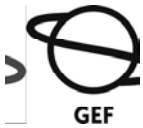
Funding Pathway	Funding level	~ Time required	Prep. funding
Full Project	$1 US million and up	6-24 months	up to $US 350,000
Medium Project	$US 50,000 – 1 million	6-12 months	up to $US 25,000
Small Grant	up to $US 50,000	3-6 months	up to $US $2000

Enabling Activities



- POPs "Enabling Activities" include the development of a National Implementation Plan for SC (Art.7)
- All GEF eligible countries party or signatory to the Convention can receive funding for this
- Select one of the GEF Agencies to assist: FAO, UNDP, UNEP, UNIDO, WB

Enabling Activities (II)

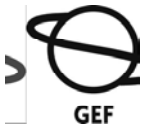


⌘Full funding of projects under US$ 500,000 under "expedited procedures"

⌘Guidelines: http://gefweb.org/Documents/C.17.4.pdf

⌘34 countries in Africa to date (Nov 02)

Addressing POPs



⌘1) NIPs
Capacity building and sharing experience

⌘2) Demonstration Projects
e.g. DDT alternatives, non-com alt.

⌘3) Implementation

Based on country priorities, in particular as identified through the NIPs
e.g. African Stockpile Program

Development of Operational Program

Countries receiving of about to receive GEF funding for NIPs in Africa (Nov 02)

Algeria	UNIDO	Malawi	UNIDO
Benin**	UNEP	Mali*	UNEP
Burundi**	UNIDO	Mauritania	UNEP
Central African Rep	UNIDO	Mauritius	UNIDO
Chad	UNIDO	Morocco	UNDP
Republic of Congo	UNIDO	Mozambique	UNEP
Côte d'Ivoire	UNEP	Niger	UNIDO
Djibouti**	UNIDO	Nigeria	UNIDO
Egypt	UNIDO	Sao Tome**	UNIDO
Ethiopia	UNIDO	Senegal**	UNEP
Gabon**	UNIDO	Seychelles**	UNIDO
Gambia	UNEP	South Africa	UNEP
Ghana	UNIDO	Tanzania	UNIDO
Guinea*	UNEP	Togo	UNIDO
Kenya	UNEP	Tunisia	UNEP
Lesotho	UNIDO	Zambia*	UNEP
Madagascar**	UNEP	Zimbabwe**	UNEP

* UNEP pilot project ** pending

Constituencies and Council members (11/02)

- **Member**: Dia Toure, Fatima (Senegal)
  Alternate: t.b.d
  Countries: Burkina Faso, Cape Verde, Chad, Guinea-Bissau, Mali, Mauritania, Niger, Senegal, The Gambia
- **Member**: Echirk, Djamel (Algeria)
  Alternate: Hilali, M´hamed (Morocco)
  Countries: Algeria, Egypt, Morocco, Tunisia
- **Member**: Keah, Mathias B. (Kenya)
  Alternate: Mududli, Mary. (Uganda)
  Countries: Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mauritius, Sudan, Tanzania, Uganda
- **Member**: Maloiso, Edward (Botswana)
  Alternate: Moleko, Lebohang K. (Lesotho)
  Countries: Botswana, Lesotho, Malawi, Mozambique, South Africa, Swaziland, Zambia, Zimbabwe
- **Member**: Naah Ondoa, Sylvestre (Cameroon)
  Alternate: Doungabe, Gustave (Central African Republic)
  Countries: Burundi, Cameroon, Central African Republic, Congo, D.R. of Congo
- **Member**: Okopido, Imeh Titus (Nigeria)
  Alternate: Worou, Theophile (Benin)
  Countries: Benin, Cote d'Ivoire, Ghana, Guinea, Nigeria, Sierra Leone, Togo

http://gefweb.org/participants/Council/council_members/council_members.html

Contacts

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- UNEP/GEF: bahar.zorofi@unep.org
- WB: steve.gorman@worldbank.org
- UNIDO: z.csizer@unido.org
- FAO: niek.vandergraaff@fao.org

Accessing approved GEF projects on the internet

- http://gefweb.org
- Click on PROJECT DATABASE
- Or go directly to http://www.gefonline.org/home.cfm
- There you can use filters: by country, focal area, Agency etc

Developing National Profiles and Action Plans for the Stockholm Convention *by Mr. Craig Boljkovac*

Developing National Profiles and Action Plans for the Stockholm Convention

United Nations Institute for Training and Research

Subregional Workshop on Support for the Implementation of the Stockholm Convention on POPs
Livingstone, Zambia, 25-27 November 2003

Training and Capacity Building Programmes in Chemicals and Waste Management

UNITAR
Palais des Nations
1211 Geneva 10

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.

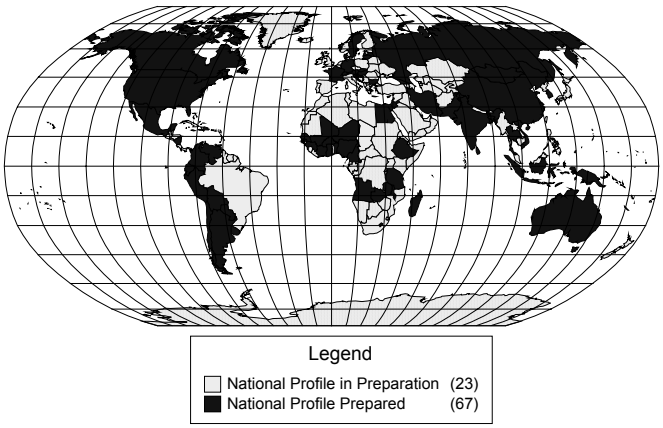
A National Profile includes Information on…

- 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

UNITAR

Developing National Profiles and Action Plans for the Stockholm Convention 3

National Profile Preparation Worldwide



UNITAR

Developing National Profiles and Action Plans for the Stockholm Convention 4

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.

UNITAR

Developing National Profiles and Action Plans for the Stockholm Convention 5

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

UNITAR

Developing National Profiles and Action Plans for the Stockholm Convention 6

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

Possible Benefits of Preparing a National Profile

- Important component of an Integrated National Programme for the Sound Management of Chemicals
- Support reporting under international reporting schemes, including the Stockholm Convention on Persistent Organic Pollutants
- Information gathered for the National Profile constitutes a critical first step by providing a baseline of available POPs-related infrastructure which can serve as the basis for a more specific situation analysis required for detailed action on POPs

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

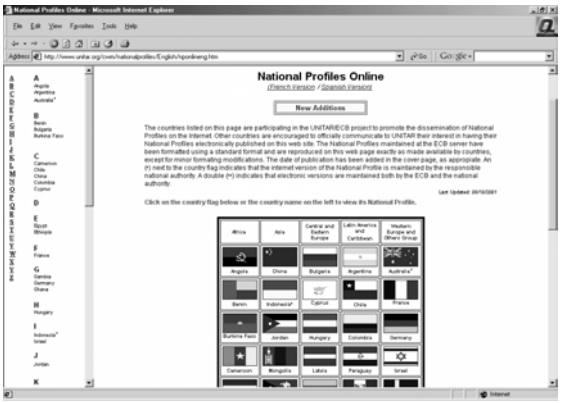
- POPs-specific companion guidance is also under development for country use

UNITAR

Developing National Profiles and Action Plans for the Stockholm Convention 9

National Profiles CD-ROM and Homepage

www.unitar.org/cwm/nationalprofiles/



UNITAR

Developing National Profiles and Action Plans for the Stockholm Convention 10

Action Plan Development

Development of Action Plans as a systematic framework for comprehensive planning under the Stockholm Convention – through the development of National Implementation Plans – is being used in some countries

The methodology is currently being pilot tested (and is available as a draft guidance document) through a Swiss-funded UNITAR project involving Ecuador, Sri Lanka and Senegal. Ecuador is also one of a set of pilot countries participating in a UNEP-led, GEF pilot project on National Management Needs for POPs

Developing National Profiles and Action Plans for the Stockholm Convention 11

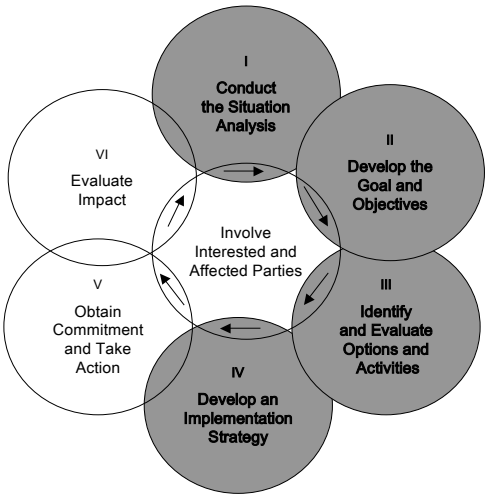
Action Plan Development

Ghana, Zambia and South Africa are also using the Action Plan methodology to develop detailed implementation plans on priority chemicals and Chemical Hazard Communication

UNITAR has harmonised its efforts in Ecuador with the work of UNEP. Plans are being made to undertake training activities for Action Plan development to the remaining GEF pilot countries

Developing National Profiles and Action Plans for the Stockholm Convention 12

Key Phases of Action Plan Development and Implementation for a Priority Topic of National Chemicals Management *



UNITAR

Developing National Profiles and Action Plans for the Stockholm Convention 13

Developing Risk Management Plans for Priority Chemicals – a direct application of the Action Plan Methodology

The Stockholm Convention involves, *inter alia:*

- action on individual chemicals/groups of chemicals
- the identification and substitution of less harmful alternatives
- related capacity-building activities

Based on a 1999 pilot project involving Cameroon, Chile, The Gambia and Tanzania, detailed guidance to assist countries in developing risk management plans for priority chemicals has been developed by UNITAR in co-operation with the International Programme on Chemical Safety (IPCS)

Related project work is under way in Ghana and the guidance is being considered for use in the context of the Rotterdam PIC Convention

UNITAR

Developing National Profiles and Action Plans for the Stockholm Convention 14

Developing Risk Management Plans for Priority Chemicals – a direct application of the Action Plan Methodology

This guidance can assist countries in developing and implementing actions on POPs and other chemicals

A Guidance Document, currently being finalised with the assistance of UNEP and which will be available for countries by 2003:

- provides information on the main principles and concepts of risk assessment and risk management
- makes suggestions for a flexible, step-wise process for the development of a risk management plan for priority chemicals
- offers practical examples of risk reduction options

UNITAR/IOMC Support for NIP Development

- UNITAR stands ready to assist countries with developing or updating a National Profile and/or Action Plan Training as part of Stockholm Convention NIP development, subject to submission of a formal request
- Cooperation ongoing with GEF implementing/executing agencies such as UNEP, UNDP, and UNIDO
- UNITAR assistance for National Profiles to countries undertaking or considering NIP development include: Armenia, Barbados, Bulgaria, Chile, Comoros, Ecuador, Guinea, Iran, Kenya, Lebanon, Malaysia, Mali, Mauritania, Micronesia, Papua New Guinea, Senegal, Slovenia, Tunisia and Zambia.

Overview of National Implementation Plans *by Dr. Bo Wahlstrom*

National Implementation Plans- An overview

UNEP/GEF

Subregional Workshop on Support for the Implementation of the Stockholm Convention

UNEP

Obligations:

- Article 7: National Implementation Plan to be prepared within two (2) years of entry into force for a Party
- Will set priorities for future activities
- Provide an overall framework for implementation of SC and periodic reporting to COP on implementation

2

Available Funds

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

3

Steps for expedited procedures

- Choose a GEF Implementing (WB, UNDP, UNEP)/ Executing Agency (FAO, UNIDO, RDBs) that you are comfortable with.
- Finalise proposal with IA/EA. IA/EA to exercise quality control.
- Seek Country's Operational Focal Point endorsement.
- Proposal is submitted to the GEF Secretariat by IA/EA on behalf of Country.

4

Steps for expedited procedures

- Proposal is circulated to other IA/EA for comments.
- GEF Secretariat may request additional information / clarifications etc.
- the GEF CEO and Chairman approves proposals < US$ 500,000.
- Country and IA/EA sign project document which is the legal basis for disbursement of funds from the IA/EA.

5

Eligibility Criteria

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

6

Possible Elements of a NIP:

- Preliminary inventories of POPs in Annexes A and B
- Action Plan for reduction of releases of POPs in Annex C
- Action Plan for DDT, as appropriate
- Build capacity to implement and report on PCB phase-out
- Preliminary assessment of stockpiles and wastes

7

Possible Elements of a NIP:

- Build capacity to report on production,import and export
- Build capacity to assess the need for and/or extension of specific exemptions (and other types as well)
- Build capacity to identify contaminated sites
- Support communication, information exchange and awareness raising through multi- stakeholder process

8

Step-wise process

- Step 1: Determination of co-ordination mechanisms and organization of process
- Step 2: Establishment of POPs inventory and assessment of national infrastructure and capacity
- Step 3: Setting of priorities and determination of objectives

9

Step-wise process

- Step 4: Formulation of a National Implementation Plan and specific Action Plans on POPs
- Step 5: Endorsement of the National Implementation Plan by stakeholders

10

STEP 1: Coordination & Organization of Process

- Identification of national institution/unit to serve as Focal Point;
- Identification and sensitization of main stakeholders;
- Strengthening government commitment;
- Determination of multi-stakeholder national coordinating committee;

11

STEP 1 : Coordination & Organization of Process

- Obtain commitment of national stakeholders
- Assess Focal Point needs (technical, human resources, etc.)
- Draw-up overall work plan
- Organize inception workshop
- Identify/assign responsibilities to governments, departments and other stakeholders re. POPs management aspects

12

Step 2: POPs Inventory, Assessment of Infrastructure & Capacity

- Preparation of National Profile
- Constitution of task teams
- Training on setting up an inventory
- Preliminary inventory of production, distribution, use, import and export
- Preliminary inventory of stocks and contaminated sites & opportunities for disposal
- Preliminary inventory of releases to the environment

13

Step 2: POPs Inventory, Assessment of Infrastructure & Capacity

- Independent review of initial national POPs inventories;
- 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;

14

Step 2: POPs Inventory, Assessment of Infrastructure & Capacity

- Assessment of social and economic implications of POPs use and reduction
- Assessment of monitoring and R&D capacity
- Identification of POPs related human health and environmental issues of concern

15

Step 3: Setting of Priorities and Determination of Objectives

- Development of criteria for prioritization, taking into account health, environmental and socio-economic impact and the availability of alternative solutions;
- Determination of national objectives in relation to priority POPs or issues (could be general and/or specific objectives);
- Organization of national priority validation workshop.

16

Step 4: Formulation of a NIP and Specific Action Plans

- 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;

17

Step 4: Formulation of a NIP and Specific Action Plans

- Assessment of the costs and benefits of management options;
- Defining expected results and targets;
- Development of a detailed implementation plan, including action plans for un-intentional by-products, PCBs and, where appropriate, for DDT and other POPs as prioritised;

18

Step 4: Formulation of a NIP and Specific Action Plans

- 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, taking into account risk perception of POPs by the public, particularly the least educated.

19

Step 5: Endorsement of the NIP by Stakeholders

- Prepare an information document/report to be submitted to stakeholders for comments;
- Lobby high Government officials;
- workshops and circulation of information to obtain stakeholders and decision-makers commitment, including on resources

20

Capacity Building support for Enabling Activities

- Familiarization workshops at sub-regional level
- Assessment of capacity building priorities that needs to be addressed to better prepare NIPs
- Specialized training, based on country driven needs
- Mechanisms to facilitate exchange of information and experiences among countries

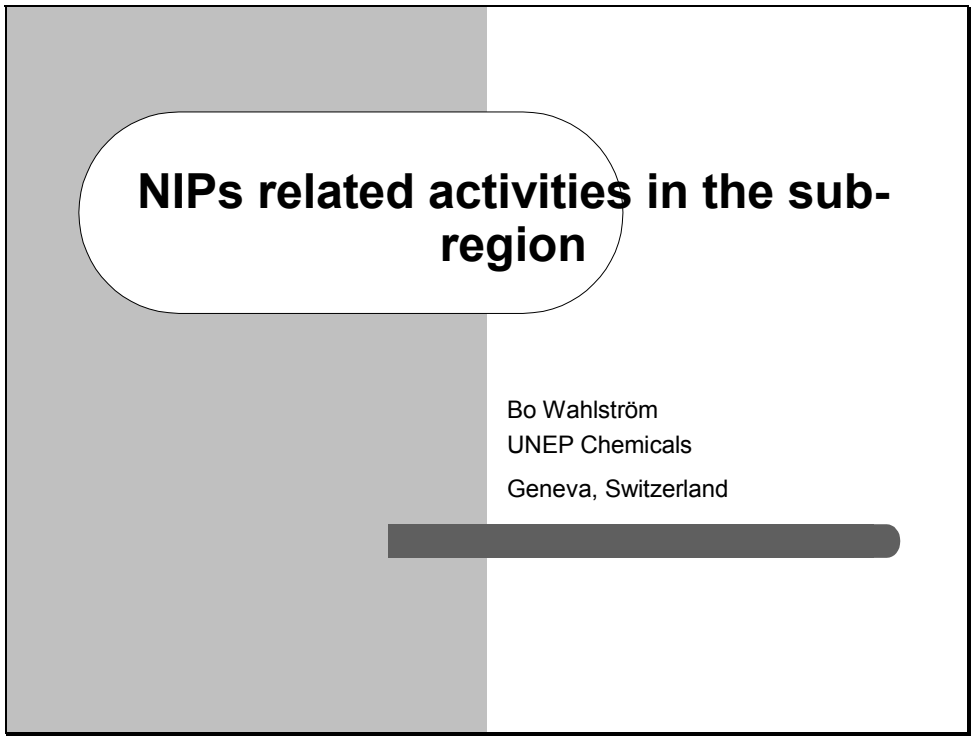
21

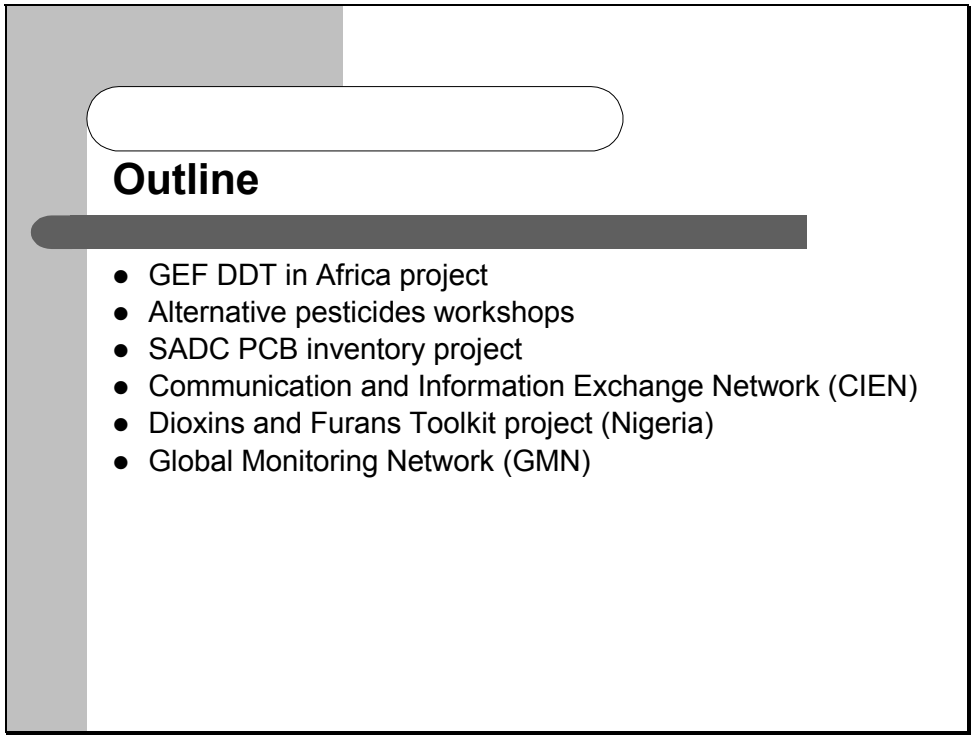
NIPs status in Anglophone African Countries

Country	Agency	Status	Approval date
Egypt	UNIDO	Approved	September 02
Ethiopia	UNIDO	Approved	July 02
Gambia	UNEP	Approved	May 02
Ghana	UNIDO	Approved	October 01
Kenya	UNEP	Approved	October 01
Lesotho	UNIDO	Approved	April 02
Liberia	UNIDO	Pending	
Malawi	UNIDO	Approved	September 02
Mauritius	UNDP	Approved	September 02
Nigeria	UNIDO	Approved	November 01
Seychelles	UNIDO	Approved	November 02
South Africa	UNEP	Approved	September 02
Tanzania	UNIDO	Approved	November 01
Zambia	UNEP	Approved	April 02
Zimbabwe	UNEP	Pending	

22

NIPs Related Activities in the Subregion *by Dr. Bo Wahlstrom*





Signatories and Parties

- Africa

GEF DDT PROJECT IN AFRICA

- PDF-B approved early 2002
- Budget: $698,000
- Countries: Eritrea, Ethiopia, Madagascar, Namibia, South Africa and Swaziland
- Estimated total budget: 6-8 million US $ (50% co-funding)
- Executing agency: WHO-ROA
- Co-funding: WHO, ICIPE

GEF DDT PROJECT IN AFRICA

- Other countries involved: Angola, Botswana, Mozambique, Zambia and Zimbabwe with experience in using alternatives to DDT
- Duration of project: 12 months
- Linkages:
  - African Stockpiles Programme (ASP)
  - DDT phase-out in Mexico and Central America
  - Roll Back Malaria Initiative (RBM

GEF DDT PROJECT IN AFRICA

Expected outputs of PDF-B:

- Co-ordinated framework
- Consensus among stakeholders on processes and activities for the full project
- Six national needs assessments and a regional report identifying common requirements, capacity building needs and recommendations to address them
- Six country reports/workplans with priorities and time schedules on action to reduce/eliminate DDT
- Completed GEF Project Brief with co-financing and incremental costs

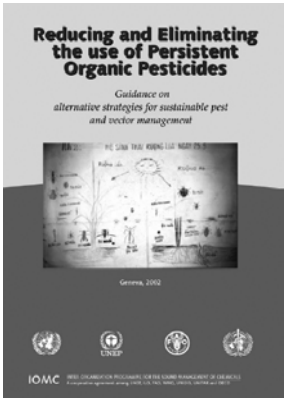
UNEP's Activities in the sub-region related to POPs Pesticides

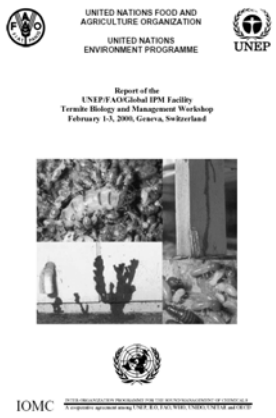
- UNEP in cooperation with WHO and FAO
- Sustainable approaches to reduce/eliminate POPs pesticides
- Sub-regional Workshops
- Guidance materials
- Information system on alternatives, expertise and studies/action plans to reduce/eliminate POPs

Capacity Building Workshops on POPs Pesticide Alternatives

- Issues related to the reduction/elimination of POPs pesticides
- Sustainable alternative approaches in pest and vector control – IPM and IVM
- Inter-sectoral collaboration;Environment, Health and Agriculture
- Integration of IPM & IVM to achieve synergism and mutual benefits

UNEP Information material on POPs Pesticides





SADC PCBs project

- Will assist the 14 member countries of the Southern Africa Development Community (SADC) to develop national inventories of polychlorinated biphenyls (PCBs):

  Angola, Botswana, Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe

SADC PCBs project

- Aims to complement each country's Stockholm Convention NIP projects by providing more intensive support in addressing the PCBs problem.
  - Close coordination with NIP projects needed.
- Undertaken on a cooperative regional basis in order to allow participating countries to:
  - benefit from each other's experience; and
  - develop harmonized approaches where appropriate.

SADC PCBs project

- Funded by Canada, Switzerland, France and the UNEP POPs Trust Fund.
- Environmental Council of Zambia (ECZ) will host the project's regional coordinator.
- Basel Convention Regional Centre (Pretoria) will also contribute.
- To commence early in 2003 with an initial regional workshop in Zambia.

Communication and Information Exchange Network (CIEN)

- Joint UNEP Chemicals/USEPA project; USA, Canada and Switzerland funding
- Objectives
  - Awareness, promotion and training in chemicals management
  - Strengthening of capacity in direct support to governments chemicals management
    - Assistance to governments in building their chemical information exchange capacity through establishment of National Information Centers
    - Development of databases and meta databases

Communication and Information Exchange Network (CIEN)

- Output
  - Access to the wealth of information on chemicals and specialized data bases
  - Building of country data base
  - Provide gateway to scientific, technical, economic and legal information
  - Enhance communication and share experience between stakeholders at all levels
  - Internet as a tool for strengthening the capacities of countries to manage chemicals and enhancong communication and cooperation at the national and international level

Communication and Information Exchange Network (CIEN)

- Project implementation steps
  - Stakeholders meeting
    - Identify needs and priorities for chemical information access
    - Discuss equipment location funded under the project
    - Improved awareness of environmental problems among decision makers, government officials and civil society
    - Development of a permanent dialogue at the regional, national or local level
    - Creation of exchange between stakeholders and a positive participatory process
    - Co-operation based on transparency and openness

Communication and Information Exchange Network (CIEN)

  - Workshops on Chemical Information Exchange Network
    - Training on Chemicals information access via the Internet
    - Training on how to work and build a national network
- Project outputs:
  - Sources of information on chemicals and how to access it via the Internet.
  - Cost-effective way of Internet access
  - Synergies between stakeholders involved in chemical management
  - Increased information flow and identification of gaps and areas of need
  - Identification of linkages with other players and on-going activities
  - Promotion of information technology as useful tool in communications
  - Identification of the needs for future consultations
  - Partnership and cooperation at each level within country
  - Dissemination of information at each level
  - Response to population needs related to the information on chemicals

Dioxin and Furan Toolkit, National Projects- Nigeria

- Inventory project on dioxins and furans
- Start April 2001
- Funding from UNEP Chemicals
- Managed by Federal Ministry of Environment, Nigeria
- Utilizes UNEP's Toolkit for the identification and quantification of dioxin/furan sources in the country;
- Meeting with stakeholders October 2001;
- Initially, 3 industrial areas will be inventoried
- Need for awareness raising workshops
- Final report expected for November 2002.

Dioxin and Furan Projects in Africa

- UNEP project "Dioxin Inventory in a Sub-Saharan Country with Particular Focus on Specific Local Practices
- Funded by Canada through the World Bank
- The project will:
  - establish a dioxin/furan inventory with the Toolkit
  - identify typical local practices that may generate dioxins and furans
  - take samples and analyze them for dioxins/furans.

Dioxin and Furan Project in Africa (2)

- Performed jointly with the Secretariat of the Basel Convention;
- Country selection is underway
- Expected outputs:
  - Dioxin and furan inventory for a sub-Saharan African country;
- – High quality emission factors for activities not quantified so far;
- – Report to the POPs INC.

Global Monitoring Network; Background

- Lack of data on chemicals levels in the environment
- Adequate monitoring limited to OECD countries, Arctic, Baltic, North Sea, Great Lakes
- Analysis, evaluation and assessment of threats from individual chemicals difficult without sufficient data
- Monitoring needed for effectiveness evaluation of measures taken in SC
- GMN established by UNEP

Global Monitoring Network

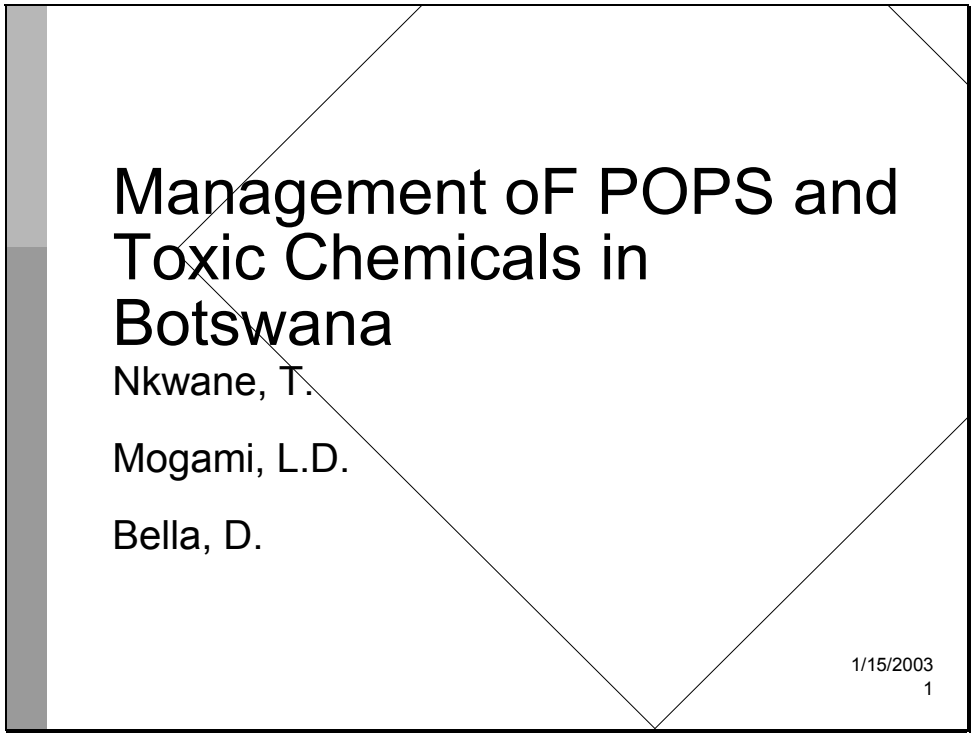
- Existing global, regional, and national programmes
- In Africa, Egypt and Ghana
- Advisory Group, members from different regions and international/regional/national monitoring programmes
- Workshop to Develop a Global POPs Monitoring Programme to Support the Effectiveness Evaluation of the Stockholm Convention on POPs in March 2003
- Participants from existing programmes and regions where further monitoring is essential

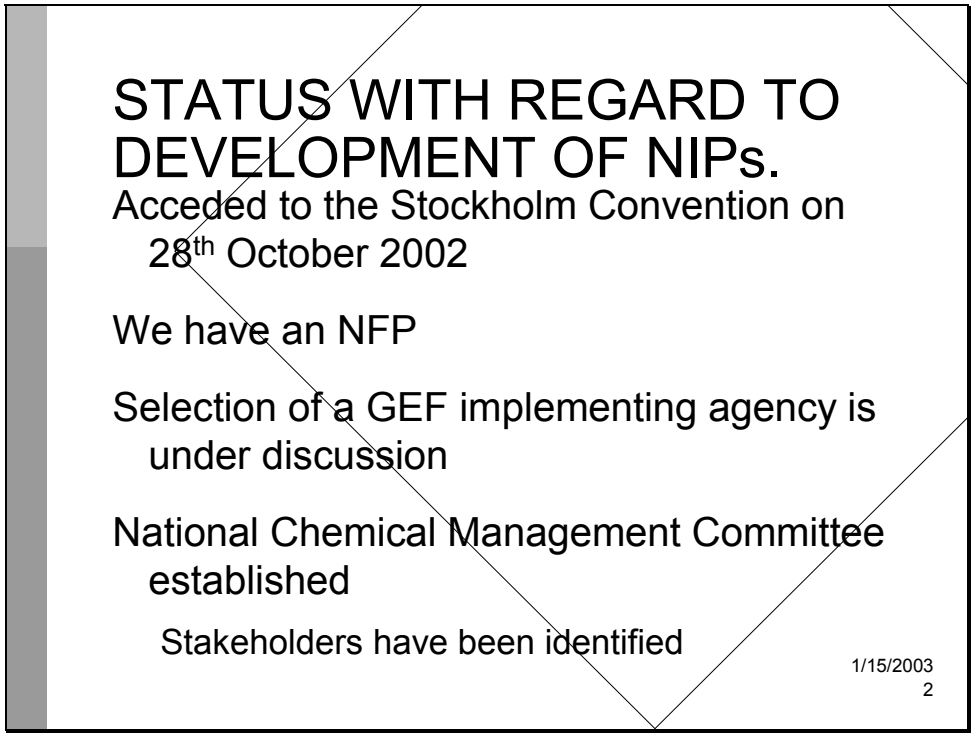
Global Monitoring Network

- Web site with links to relevant programmes (/www.chem.unep.ch/gmn). Suggestions for further additions welcome
- A discussion group on monitoring issues; possible to register at ww.chem.unep.ch/gmn/04_discgroups.htm

6. COUNTRY REPORTS

BOTSWANA





POPS USE IN BOTSWANA *Pesticides…*

- Surveys and site visits carried out in Botswana indicate that Chlordane is commonly used for termite control in buildings and roads.
- DDT has not been used for malaria control since 1999.
- DDT has been replaced by Deltamethrin, which has yielded positive results.

1/15/2003
3

POPS USE IN BOTSWANA Obsolete *Pesticides…*

- In March 2002, 315 tons of Government warehoused obsolete pesticides were repackaged.
- Removal for final disposal has begun and completion is expected by the end of November.
- Only 137kg is Aldrin a POP pesticide.

1/15/2003
4

POPS USE IN BOTSWANA *Pesticides…*

- Botswana participated in the "Environmentally Sound and Sustainable Management of Obsolete pesticides in Southern Africa Project.
- National Inventory completed and 44 tons of Obsolete pesticides were identified.
- Only about 30l is chlordane

1/15/2003
5

Pops Use In Botswana

- With Chlordane being the only identified POP so far in Botswana, site visits are being carried out to industries to identify suitable alternatives
- Inventories are yet to be undertaken to quantify PCB occurrence.
- Unintentional POPs; Dioxins and Furans are a Possibility from hospital incinerators and landfill fires. The magnitude is yet to be established.

1/15/2003
6

Current Action Status On POPS – Existing Measures

- Agrochemicals Act effected in May 2000 but not yet implemented due to administrative processes. In the meantime awareness campaigns are continuing countrywide.
- Waste Management Act enacted in 1998 regulates wastes in accordance with the Basel Convention.
- Proposed Environmental Management Act

1/15/2003
7

Current Action Status On POPS – Existing Measures

- The proposed National Chemicals Legislation will regulate all chemicals including industrial and household chemicals.
- A national chemical database has been established to monitor the use of chemicals in Botswana.
- Draft EIA legislation

1/15/2003
8

Current Action Status On POPS – Existing Measures

- In addition public education campaigns are ongoing targeting the general public, farmers and industries on safe use and handling of chemicals. Politicians and policy makers are also targeted.

1/15/2003
9

Planned Measures for Action

- Participation in the SADC PCBS Project.
- Training of Inspectors and Customs Officials on Transportation of Hazardous Waste – February 2003.(Organised by Basel Convention, Pretoria)
- Draft National Action Plan on Chemicals has been developed. This does not directly address the POPs issues.

1/15/2003
10

Conclusion

- Assistance is required in the preparation of a National Implementation Plan of the convention.
- Assistance is also required as to what steps to take to participate in the Africa Stockpiles Project

1/15/2003
11

Conclusion

- Botswana is concerned about the health of the nation and the protection of the environment.
- In signing these conventions GoB seeks to participate in the on-going international work on chemicals management globally and regionally in order to utilize the expertise and resources provided by the relevant conventions, and contribute international efforts on POPs and management of other toxic chemicals.

1/15/2003
12

EGYPT

Ministry of State for Environmental Affairs

Egyptian Environmental

Affairs Agency

Eng. Tarek Eid Mohamed

Director of Hazardous Substances Dept.

Chem. Ahmed Gamal

Livingstone
25-11-2002

Introduction

- **POPs are organic compounds, natural or anthropogenic origin, resist degradation in environment, low-but significant- vapor pressure leads to distribution in all environmental media, low water solubility.**
- **Acute and chronic toxic effects on humans health and environment.**
- **Regional and global distribution by air, water.**
- **Long-term exposure to humans and environment.**

Livingstone
25-11-2002

Stockholm Convention Aim:

Protection of human health and environment

Livingstone
25-11-2002

	chemicals	Pesticide	industrial	By-Product
1	Aldrin	✓		
2	Chlordane	✓		
3	Dieldrine	✓		
4	Endrine	✓		
5	Heptachlor	✓		
6	Mirex	✓		
7	Toxaphene	✓		
8	DDT	✓		
9	Hexachlorobenzene	✓	✓	✓
10	PCBs		✓	✓
11	Chlorinated dioxins			✓
12	Chlorinated furans			✓

Livingstone
25-11-2002

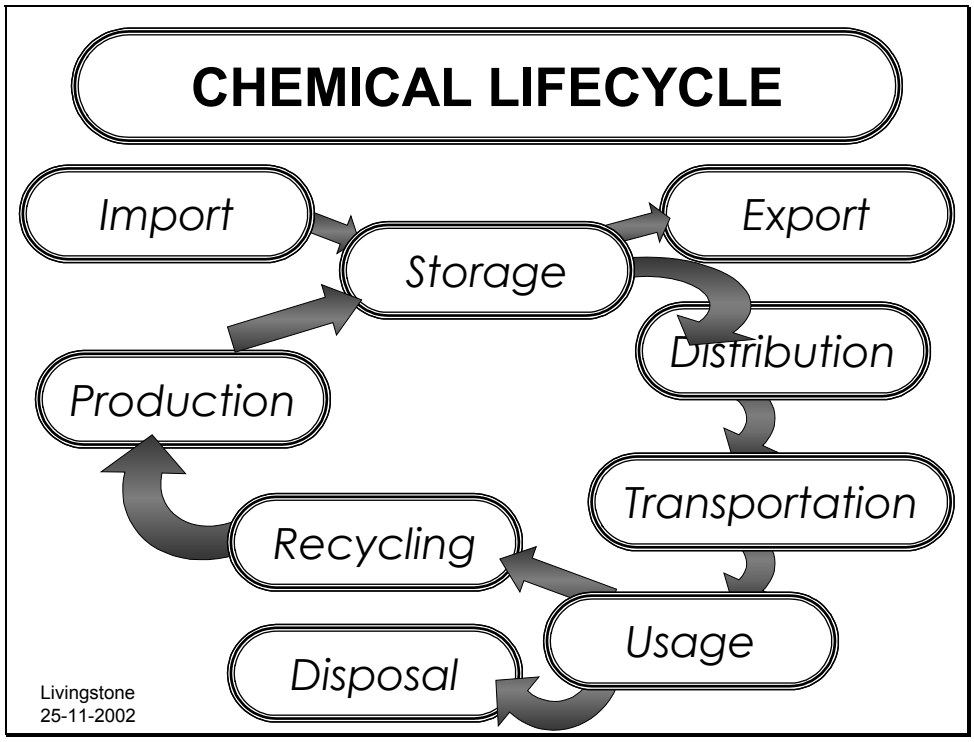
Status of Egypt

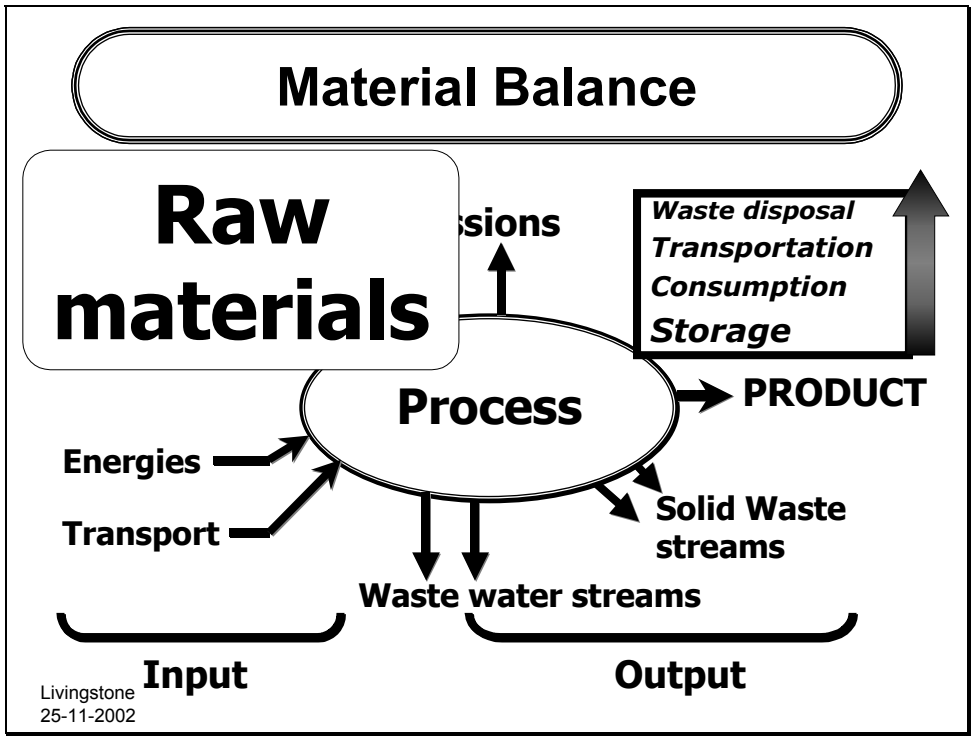
Livingstone
25-11-2002

Hazardous Substances Policy

" This policy is to identify and mitigate hazards of chemicals and aiming at the protection of the Egyptian environment and human health from the risks of hazardous substances, whether they are imported or generated inside.This protection covers all stages of production, handling, storing, and safe disposal. In addition, substitution of hazardous by non/less hazardous alternative materials during the production process, whenever possible. This can be achieved through the adoption of cleaner production approach."

Livingstone
25-11-2002


CHEMICAL LIFECYCLE
Import
Export
Storage
Distribution
Production
Transportation
Recycling
Usage
Disposal
Livingstone
25-11-2002


Material Balance
Raw materials
ssions
Waste disposal
Transportation
Consumption
Storage
Process
PRODUCT
Energies
Transport
Solid Waste streams
Waste water streams
Input
Output
Livingstone
25-11-2002

1-Egypt issued Law number 4 of 1994 promulgating the environment Law and its Executive Regulation

<u>One of the main objectives of law no. 4 is</u>;

To protect the human health and the environment from the harmful effects of hazardous substances

Livingstone
25-11-2002

<u>This law regulate</u> ;

- **the condition and the order of import, manufacture, trade, export, and use of hazardous substances.**
- **the state control of all activities.**
- **The rights and duties of handler of hazardous substances.**

Livingstone
25-11-2002

2-International Conventions

1-Basel convention

Egypt ratified the convention in 1993

2-Stockholm Convention

Egypt signed the convention in 2002

3-Rotterdam Convention

Egypt is preparing to sign the convention

Livingstone
25-11-2002

chemicals		Situation in Egypt
1	Aldrin	Use banned in 1996
2	Chlordane	Use banned in 1996
3	Dieldrine	Use banned in 1996
4	Endrine	Use banned in 1996
5	Heptachlor	Use banned in 1996
6	Mirex	Use banned in 1996
7	Toxaphene	Use banned in 1996
8	DDT	Use banned in 1996
9	Hexachlorobenzene	Controlled by MoI
10	PCBs	Controlled by MoE&EEAA
11	Chlorinated dioxins	Controlled by MoH&EEAA
12	Chlorinated furans	Controlled by MoH&EEAA

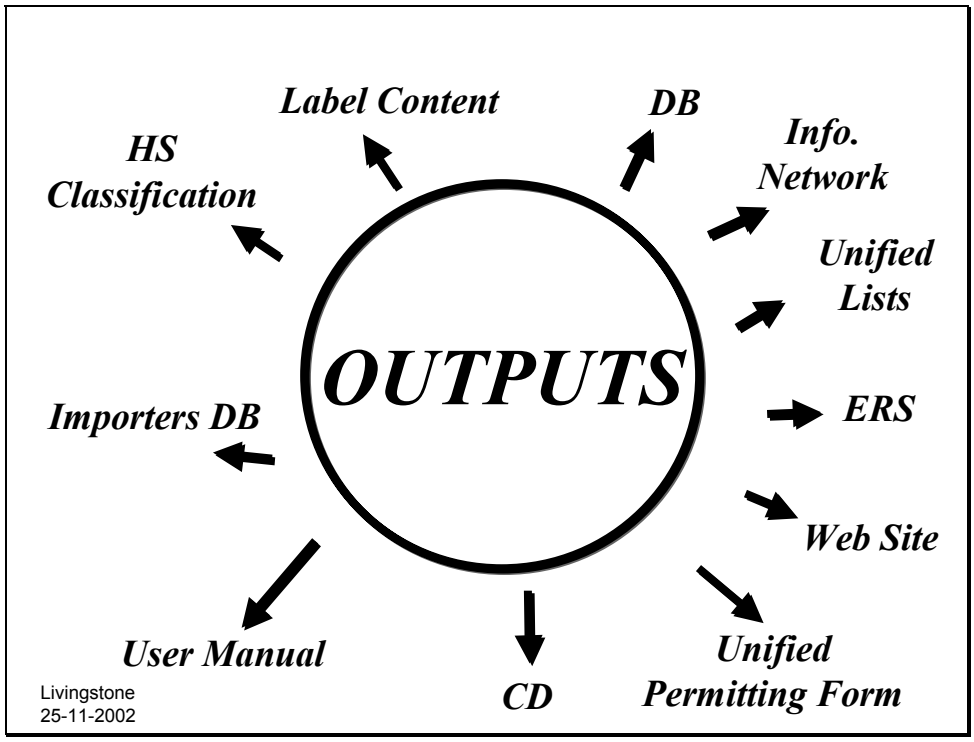
Livingstone
25-11-2002

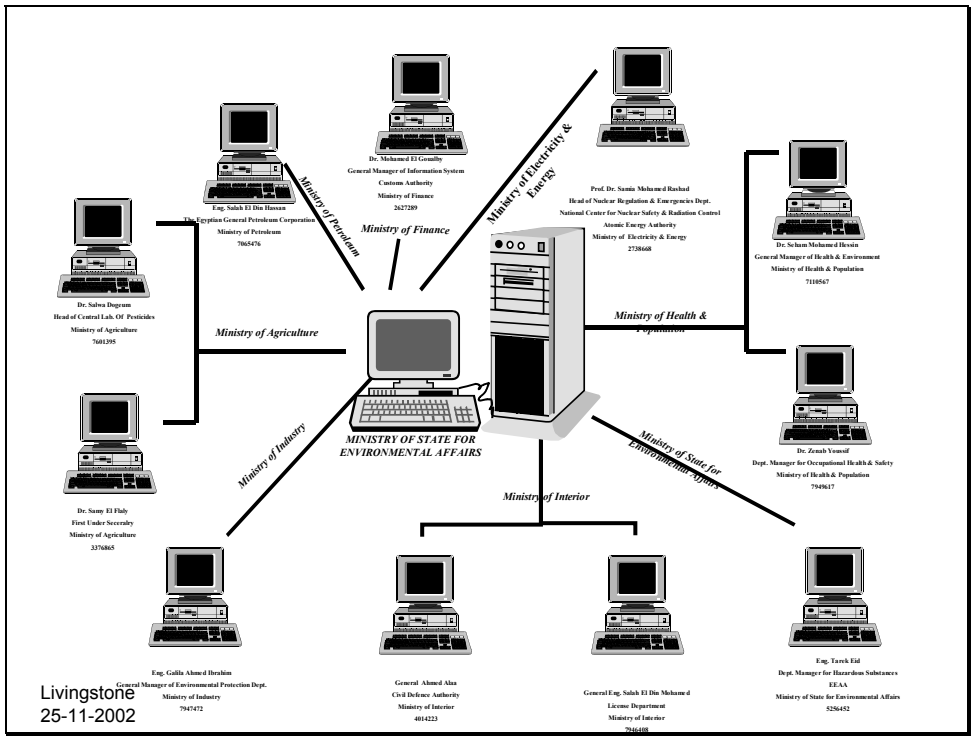
3-Establish a national committee for international convention dealing with hazardous substances and waste (Basel, POPs, PIC)

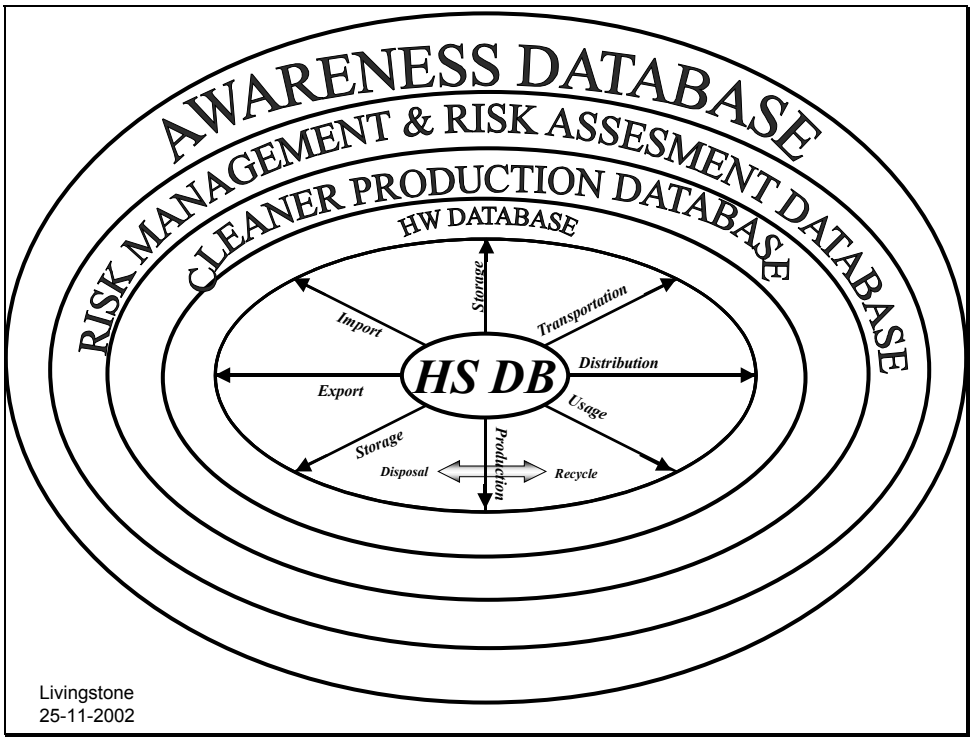
Livingstone
25-11-2002

4- **Establish the Egyptian Hazardous Substanes Information and Management System(EHSIMS)**

Livingstone
25-11-2002


Label Content
DB
HS Classification
Info. Network
Unified Lists
OUTPUTS
Importers DB
ERS
Web Site
User Manual
CD
Unified Permitting Form
Livingstone
25-11-2002


Ministry of Petroleum
Ministry of Finance
Ministry of Electricity & Energy
Ministry of Agriculture
Ministry of Health & Population
Ministry of Industry
Ministry of State for Environmental Affairs
Ministry of Interior
MINISTRY OF STATE FOR ENVIRONMENTAL AFFAIRS
Livingstone
25-11-2002



Stockpiles and waste

- **there is no stockpiles known.**
- **implementation of Basel Convention stricktly controlled.**

Livingstone
25-11-2002

ETHIOPIA

Background

Ethiopia is located in the Horn of Africa between 3^0N and 15^0N Latitude and 33^0 E and 48^0 E longitudes. It has a total area of 1,127,127 km^2. According to 1984 population senses, it had a population of 40,7 Million. Now, it is estimated to be 67 Million.

The country has got a federal government structure constituting nine regional state governments and two chartered cities administered by councils.

Ethiopia is one of the developing African countries facing a considerable amount of environmental problems. The major of which are land degradation and pollution. Our present concern lies on persistent organic substances, which are the problems in aggravating the degree and seriousness of pollution in the country.

The industrial sector, despite its small contribution to GDP, supplies consumer goods both to domestic and International markets. The chemical needs of the country are met by imports from other countries. Until recently, record keeping of chemical production, imports and use was very poor. It was vital to undertake a countrywide survey and formulate a controlling mechanism as to observe the International and National obligations as well.

Observance of International laws

Ratification of the Stockholm Convention

Ethiopia signed the POPs Convention in May 17/ 2002. In order to alleviate the issue of pollution and control of hazardous chemicals in the country, different measures have been taken by the government. One of those is, the issuance of a decree N^o 20/1990 for the registration and control of pesticides. In this decree, article 3 is read as "No person may manufacture, import, sell or use of pesticide not registered. " Based on this legal instrument a special advisory committee is established in the ministry of agriculture, which is a designated body at the national level.

As the legislation clearly envisaged, a national pesticide registration committee comprises five government institutions. This committee is the sole body.
These are:

The ministry of Agriculture
Ministry of Health
Quality standards Authority
Environmental protection Authority
Agricultural Research Organization.

That would prepare list, facilitate registration by collecting evaluating data relating to pesticides recognized to be efficacious through domestic research past use or other wise.

2.2. Ratification of the Basel convention

Ethiopia ratified the Basel Convention for the Trans boundary Movement of Hazardous wastes and their destruction in April 2000 by means of Proclamation No. 192/2000. The immediate reason for the country's need to be a party to this convention arose due to the need to dispose off abroad the obsolete pesticides that have accumulated in the county for the last three or four decades. This is a manifestation of the country to- wards the adherence of international laws and the effort made towards its implementation.

Rotterdam Convention

Ethiopia has been taking part in the negotiations of the Rotterdam Convention on the prior Informed Consent Procedure for certain Hazardous Chemical and pesticides in International Trade. As it is stated in Art. 3 of the Convention it applies to:

Banned or severely restricted chemicals and
severely hazardous pesticide formulations.

Accordingly, all the eight POPs pesticides are prohibited to be registered within the country. These include, Addrin, Deldrin, Chlordin, Mirex, heptachlor, Texaphane and DDT. Among the eight POPs pesticides, DDT is the only pesticide imported by special order of the Ministry of Health for malaria control. Recently, there is a project designed to make research against DDT and replacement plan by other less hazardous and more efficient chemical. This project involves six African countries including Ethiopia. This project, which is called DDT Alternative is making its effort to find a better solution in this area.

This convention has an important role in the countries where proper and adequate infrastructure to monitor the import and use of the chemicals is lacking.

National Legislations and Institutions

3.a. The issue of environment have got a great consideration in the country since 1995. The constitution of the Federal Democratic Republic of Ethiopia gives guarantee to citizens the right to have clean and healthy environment. For the realization of this basic right an institutional arrangement it sought and the present Environmental Protection Authority (EPA) is established by virtue of proclamation N^{o}. 9 of 1995.

3.b. The mandate of EPA is to ensure the constitutional right of citizens in regulating and harmonizing the socio economic activities in a manner that protects the well being of the public. Moreover, assuring the sustainable development and resource base. In order to meet its obligation, EPA has organized pollution control department with the

objective of carrying out survey and preparation of the national profiles for the management of chemicals in Ethiopia.

Practical advancements and current status in relation to National Implementation plan for POPs.

4.1. The prevention and disposal of Obsolete pesticides stocks Project

The inventory of obsolete pesticides undertaken by FAO in 1998 confirmed the existence of some 1,500 tones of the said pesticides and some 1000 tones of contaminated soil and other substances at 900 different locations or stores in the country some of which are in containers or stores at an advanced stage of decay or dereliction, posing either actual or potential harm to human health, the biota and to the rest of the environment. Presently a project (is well underway, thanks to a joint fund provided by USA and the Royal Netherlands Government) to see to the disposal of these pesticides that have been accumulating in the country for the last thirty or more years. The main element of the project is the shipment and final destruction of these hazardous wastes in a country where this capability exists.

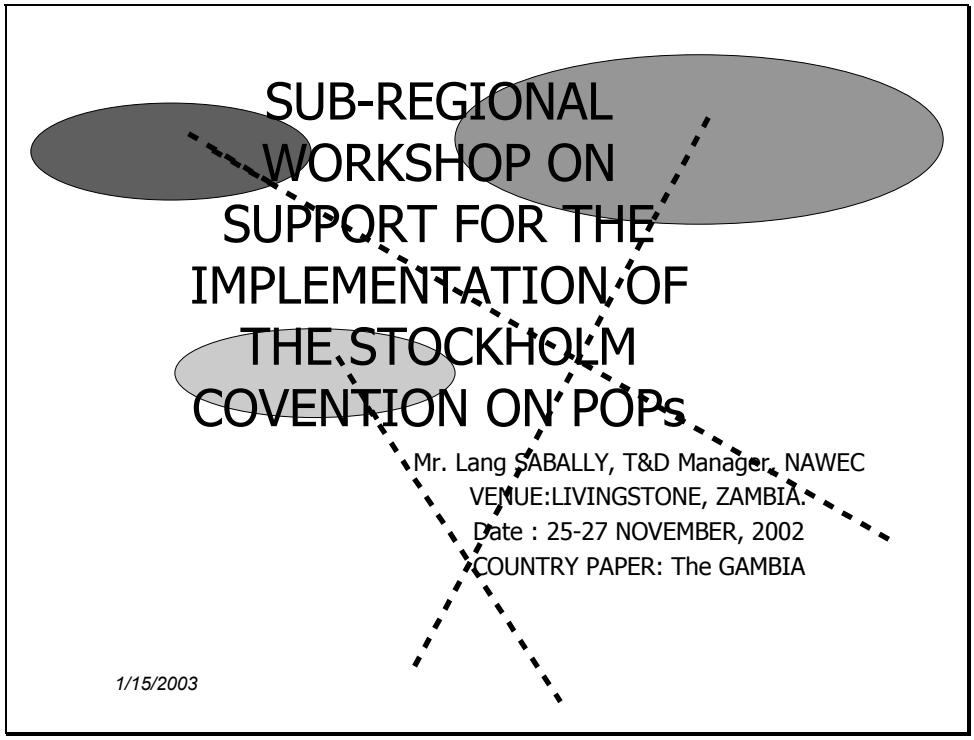
According to article 7 of the convention, parties to the convention are expected to develop Implementation plan for its obligation under this convention. Accordingly, As it is clearly elaborated in Johannesburg, South Africa. Ethiopia is also prepared the proposals and submitted to the appropriate government organ and waiting the approval by the same. (MEDAC)

Inception workshop will be conducted. (Using the resource)

Conclusion

POPs are global problems. They need global solution. In general the practice of environmental management and protection is not the responsibility of a single organization or country. The responsibility lies on government, non-governmental organization, the private sector and the public at large through out the world. All the mentioned groups should come close together and cooperate to work hard to protect the environment and achieve the objective of sustainable development. Countries have to coordinate their effort in order to achieve their common goal, which is sustainably habitable environment.

GAMBIA


SUB-REGIONAL WORKSHOP ON SUPPORT FOR THE IMPLEMENTATION OF THE STOCKHOLM COVENTION ON POPs
Mr. Lang SABALLY, T&D Manager, NAWEC
VENUE:LIVINGSTONE, ZAMBIA.
Date : 25-27 NOVEMBER, 2002
COUNTRY PAPER: The GAMBIA
1/15/2003


The Stockholm convention aims at the CONTROL and ultimate PHASING OUT of Persistent Organic Pollutants (POPs). The Gambia signed the Convention and thereafter embarked on a series of preparations for its IMPLEMENTATION.
Current Status of the National Implementation Plan of the Stockholm Convention in The Gambia.
Status of the Gambia's adherence to the Stockholm Convention.
1/15/2003

THE Gambia signed the Stockholm Convention in May 2001; ratification process is on. The Gambia has signed and ratified other conventions that are closely related to the Stockholm convention as shall be shown in the following presentation.

1/15/2003

Status of the NIP in the Gambia.

- In preparation for the implementation of the convention the following coordinating mechanism has already been put in place in The Gambia:-
- a NATIONAL COORDINATING COMMITTEE (NCC).
- a NATIONAL IMPLELMENTATION COMMITTEE (NIC).
- A PROJECT COORDINATION UNIT(PCU).
- ACCOMPLISHMENTS:
- The two must familiar POPs in the Gambia are DDT and PCBs. Work has already been done on each these POPs.

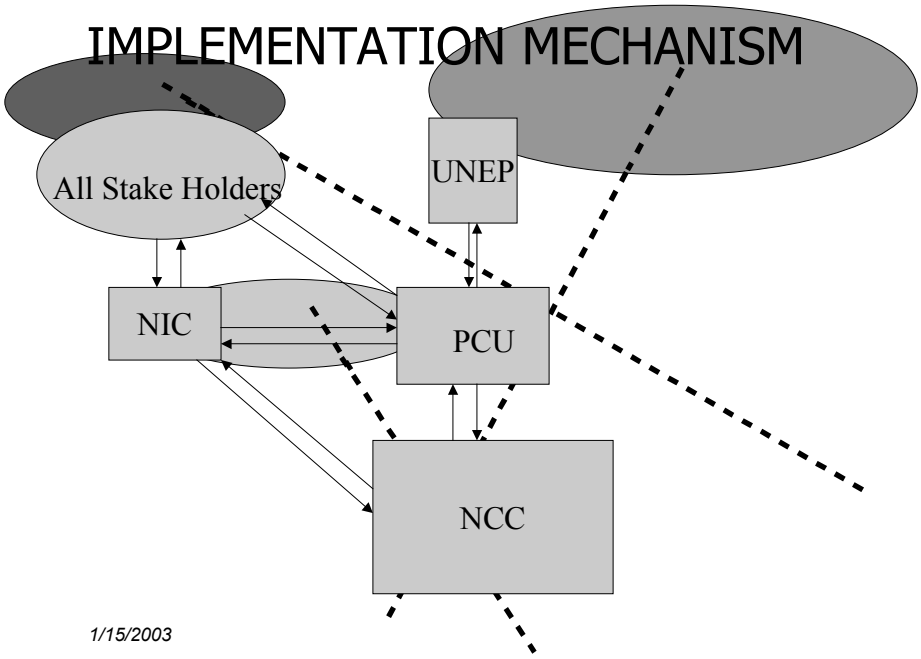
1/15/2003

Status of Gambia's adherence to the Stockholm Convention.

- The Gambia signed the following conventions closely related to SC :
- BAMAKO acceded 06/1997
- BASEL acceded 03/1998
- ROTTERDAM acceded 02/2002
- STOCKHOLM signed 05/2001
- S/holm ratification in process.
- Montreal Protocol on substances that deplete the Ozone Layer was ratified in 1990

1/15/2003

IMPLEMENTATION MECHANISM



1/15/2003

On DDT:

DDT, together with other pesticides, was banned in 1997,

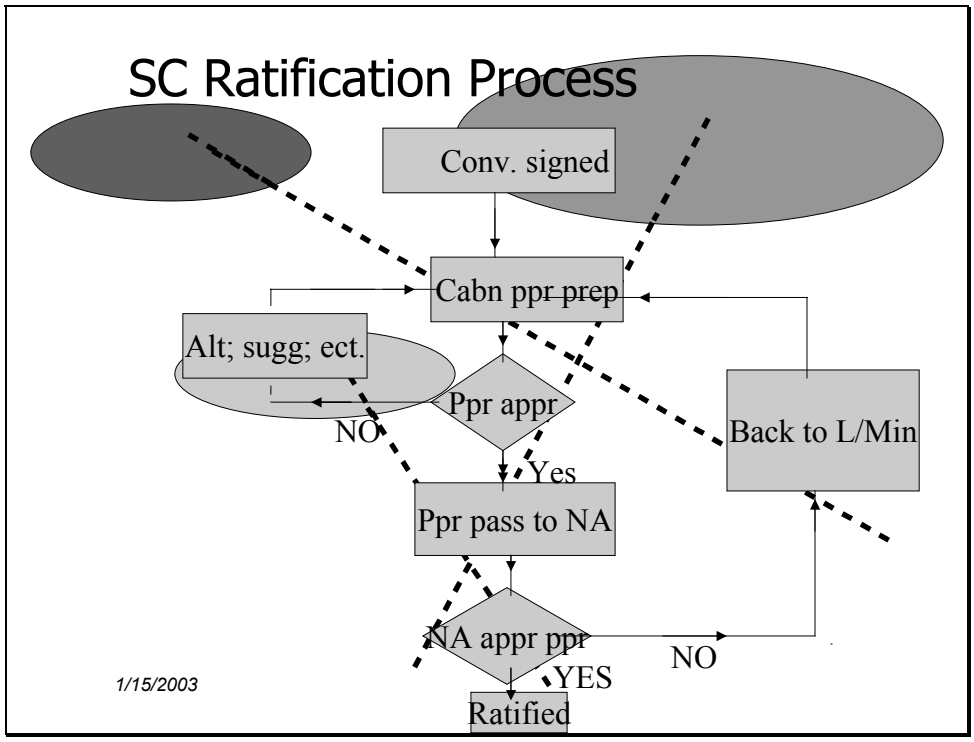
An Inventory created in 1998, stock made and shipped to UK for high temperature incineration in 1999.

1/15/2003

On PCBs:

- A case study on PCBs is ongoing, jointly conducted by the NEA and NAWEC.
- With assistance from an international consultant provided by GTZ an INVENTORY is being created.
- Database created with 229 Tx , 69 tested about 30% of which are found to contain PCB.
- Arrangement is being made to test the remaining 197 Tx in the Database.
- A training W/Shop on PCB management and storage was conducted by the expert involving NEA and NAWEC personnel.

1/15/2003


SC Ratification Process
Conv. signed
Cabn ppr prep
Alt; sugg; ect.
Ppr appr
NO
Yes
Back to L/Min
Ppr pass to NA
NA appr ppr
NO
YES
Ratified
1/15/2003

GHANA

Introduction/Background
The Stockholm Convention on Persistent Organic Pollutants (POPs) was opened for signature and adoption at a Diplomatic Conference in Stockholm, Sweden on 22nd May 2001. The objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants. Ghana has signed and adopted the Convention.

The Diplomatic Conference expressed concern about the detrimental effects of POPs on human health and the environment by declaring its commitment to the implementation of the Stockholm Treaty and adopted a number of resolutions. Such resolutions include one on an interim arrangement, which, inter alia, appeals to states and regional economic integration organizations to participate in and apply in full the provisions of the Convention during the interim period, prior to the entry into force of the Convention on an interim basis.

Article 7 of the Stockholm Convention requires Parties to prepare National Implementation Plans (NIPs) and assess their countries capacity to implement the plans. The NIPs will also form the basis for a phase out/reduction programme and ultimate elimination of POPs at the country and global levels.

The Global Environment Facility (GEF) has been designated as the principal entity entrusted with the operations of the financial mechanism on an interim basis (article 14), and is required to support the execution of the preparation of NIPs.

The United Nations Industrial Development Organization (UNIDO) is the GEF Implementing Agency for the POPs Enabling Activities in Ghana. The project duration is two (2) years with an estimated budget of US$497,000.

Project Objective(s)
The overall objective of the enabling activities project is to strengthen the national capacity and capability to deliver a comprehensive assessment of the threats posed by Persistent Organic Pollutants (POPs) to human health and the environment.
In the immediate and long term the project seeks to:

- Identify the main locations where POPs are emitted and used;
- Assess knowledge, attitudes and practices of industry and the general public, with regard to POPs handling, storage and application;
- Identify main uses and quantities of POPs which have not been prohibited and develop alternative use (e.g. waste transformer oils);
- Intensify efforts in the implementation of the Stockholm Convention on POPs and to create awareness amongst decision makers, managers, industry, end-users and the general public on POPs so as to facilitate the identification of alternative chemicals (substitutes).

Organizational Structure

Project Management Team: The project management team comprises national programme director (NPD), a national project coordinator (NPC) and a national legal advisor (NLA).

Identification of main stakeholders and obtaining commitment to co-operate within the project framework
The following national stakeholders institutions have been identified for active participation in the project:

- Government Sector Ministries and Agencies: Agriculture, Customs, Environment, Finance, Health, Industry and Trade, Labour, Planning and Transport
- Non-Governmental Organization Sector: Environmental Interest Groups, Pesticide Industry Associations, Industrial Chemicals Associations, Public Interest Groups
- Academic and Research Sector: Research Institutions, Universities
- Media: Print and electronic media
- International and Bi-lateral organizations: United Nations Institutions in Ghana, Country Resident Representatives

The above-mentioned stakeholders took active participation in the National Inception Workshop where they were sensitized on POPs issues.

Establishing the National Steering Committee
A seventeen (17)-member steering committee has been appointed and inaugurated under the auspices of the Minister of Environment and Science. Representation cuts across sectors mentioned under section 2.2. It is chaired by Mr. Edward Nsenkyire, the Chief Director, Ministry of Environment and Science who is also the is GEF Political Focal Point.

Drawing-up Overall Workplan
A detailed Project Implementation Plan, GF/GHA/02/003 was prepared by the project management team during the project preparation phase. This was presented to the steering committee and participants at the Inception Workshop. Detailed Terms of References (ToRs) have been prepared for five Task Teams, which have been mandated to develop inventories under Phase 3 of the project (NIP Inventory and Assessment of National Infrastructure and Capacity). The Task Teams have prepared detailed activity work plans.

Project secretariat/Project Focal Point
Environmental Protection Agency (Chemicals Control and Management Centre) of the Ministry of Environment and Science serves as the Focal Point of the project. This is consistent with the Environmental Protection Agency Act, 1994 (Act 490) and the Chemicals Control and Management Act, 1996 (Act 528).

Task Teams
The following Task Teams have been established by the Project Steering Committee to undertake specific assigned tasks such as inventories; and preparation of Technical Reports containing detailed information on the present state of the particular field of POPs under scrutiny:

(i) Research Team:
Undertaking inventories on production, export, import, use and distribution on POPs pesticides, Polychlorinated Biphenyls (PCB) containing equipment and industrial/consumer chemicals. This will be done through gathering and retrieval of information from relevant authorities such as the Ghana Statistical Service, the EPA, Ministry of Trade and Industries, Association of Ghana Industries, other ministries, NGOs, research and academic institutions as well as other relevant stakeholder institutions.

(ii) Contamination/Emission Expert Team:
Conducting inventories on stocks, contaminated sites and assess disposal opportunities. Membership includes a team member from the Research Team in order to ensure optimal coordination. The team will also conduct inventories for PCBs, PCDDs/PCDFs (Dioxins and Furans) and HCB (Hexachlorobenzene) releases into the environment. It will sample and test for POPs based on its preliminary data; and will collect data from the Research Team and calculate total emissions based on nationally developed factors or international standards.

(iii) Legal Expert Team: The team is mandated to assess the infrastructure and enforcement capacity to ensure compliance of the institutions involved in the POPs management including regulatory controls. It will also assess the monitoring and R&D capacity in Ghana.

(iv) Health Expert Team: The health team is expected to assess the population's exposure to POPs; review the present activities and work done in the field of POPs in the country and based on the preliminary information of the releases and contaminations will spot-check the population at the selected sites; and identify POPs related human health issues of concern and conduct basic risk assessments.

(v) Education and Public Awareness Team: the team is expected to develop a national strategy for information exchange, education, communication and awareness raising; Preparing action plans for:
- Awareness raising among policy and decision makers with regard to POPs;
- Awareness raising among the general public regarding information on POPs such as
    - Basic information
    - Contact details of the relevant bodies dealing with POPs
    - Human health and safety
    - Inventories and emissions
    - Contaminated sites
    - Possible exposure to human population and the environment

The team is expected to provide information by means of articles, Internet Websites and public advertisements; and develop new strategies for:
- Education programme for teachers, medical doctors, students etc

- Training programmes for employees of industry handling/ working with POPs.

National Inception Workshop
The workshop was held on 12th September 2002 in Accra. Dignitaries at the workshop included the Honourable Minister of Ministry of Environment and Science (MES), Prof. D Fobih; the Ag. Executive Director of EPA who is also the National Programme Director (NPD), Mr. J. A. Allotey; the Regional Programme Advisor (RPA) and UNIDO Representative Prof Chidi Ibe; the Ag. Director-General of CSIR Prof. Ayensu and the National Project Coordinator (NPC) Mr. S. Adu-Kumi. Also in attendance was Dr. Quartey, the Coordinator of the Global Environment Facility (GEF) Small Grants Programme. Participants at the workshop constituted a broad spectrum of national stakeholders involved in sound management of chemicals such as government sector, non-governmental sector, public interest groups, industry and the media.

Training on inventory procedures
International experts were invited to organise training programmes which took place in Accra from 21 to 23 October 2002. Tasks Teams were trained in using appropriate methods for the cost effectiveness and rapid collection of the necessary information on:
Release to the environment;
Stock 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.

Training focused on the identification and effective screening of contaminated sites; provided guidance on the inventory procedures, and preferred methods to follows in order to arrive at internationally comparable data.

Ratification of Stockholm Convention on POPs
The country's ratification process is almost completed. Cabinet has approved a memorandum submitted to it by the Hon. Minister of Environment and Science. This has been approved by parliament and awaits final communication to the interim secretariat of the Stockholm Convention by the Ministry of Foreign affairs.

Conclusion
Ghana considers the Stockholm Convention on POPs as an important global instrument towards the sound management of chemicals. This has been demonstrated by the country's contribution towards the negotiating meetings that culminated in the Convention in Johannesburg, South Africa in December 2000. Ghana was also fully represented at the Diplomatic Conference in Stockholm, Sweden in May 2001. The country's ratification process is almost completed. The enabling activities project is on course and there are clear indications that by mid 2004 a comprehensive NIP would have been submitted to the interim secretariat of the Stockholm Convention. Sensitization of the general population is being intensified at all levels.

KENYA

Current Status on POPs Management in Kenya.

- Subregional Workshop to Support the Implementation of the Stockholm Convention on Persistent Organic Pollutants,

Livingstone, Zambia
25-27th November, 2002
Report by: M.W.Mwai.
Kenya POPs Office.

Kenya POPs Office

- Kenya signed the POPs Convention on 23/5/2001
- Established the Ministry of Environment as the POPs focal point
- Developed Project on enabling activities for development of a National Implementation Plan On Stockholm.
- Proposal forwarded through UNEP to GEF.
- Project signed on 27/12/2001
- Kenya POPs project Office officially established from –1st April, 2002.

Activities undertaken to date.

- National Coordinating Committee(NCC) members identified:
  - -Relevant government departments
  - -Research Institutions
  - - Industry Associations
  - -Agrochemical Associations
  - -NGOs, etc.
- 1st NCC meeting held – 9th April, 2002

- Training of officers for inventory taking of pesticides carried out by FAO experts, 1-3rd April, 2002.
- Expert Group leaders identified
- POPs expert groups formed for:
- -industrial
- Pesticides
- Wastes
- Stockpiles
- DDT
- Socio-economic concerns

Preparations for developing a NIP

- 2nd NCC meeting organised
- Expert group leaders organised to address sectoral aspects of POPs
- The POPs office prepared document on reference materials for the expert groups on Industrial and Wastes
- 1st meeting of the experts on Industrial and Wastes organised to develop institutional and individual roles.
- 1st stakeholders workshop organised for 55 people

- awareness

- T-shirts bearing POPs awareness message prepared and distributed
- A brochure bearing POPs awareness message prepared and distributed
- Workplan for the period July-December,2002, emphasis on inventory taking developed

Proposed Activities to the end of year, 2002

- Prepared draft TORs for inventory taking exercise for each sector as per the convention
- The above TORs presented to the NCC for adoption
- Experts selected and others in process of recruitment

Ongoing Activities as per the workplan for the rest of the year,2002

- Recruitment of consultants for the inventories
- Training of Inventory taking for development of a National Chemicals Profile with emphasis on POPs profile through collaboration UNITAR experts
- Carrying out of the inventories
- Make the first draft on the National Implementation Plan.

Related Multilateral Environmental Agreements.

- **Stockholm Convention:**
  - Signed on 23/5/2001
  - Not yet ratified
  - Preparing for inventories to enable finalisation of the cabinet memorandum on ratification of the Stockholm Convention
  - Importation of some of the pesticides POPs banned
  - Use of DDT restricted for public health uses only

Basis for NIP on POPs

- Status of Kenya's on Implementation of the POPs convention
- - Awareness raising workshops organised and conducted
- Has banned or restricted use of most POPs
- Stopped use of PCBs in our new transformers.

Basel Convention

- Acceded on 01/6/2000

Status on its Implementation

- Has designated MENR, as a the focal point
- Convention obligations incorporated in the Environmental Management and coordination Act, 1999
- Coordinated exportation of Hazardous waste from private institutions for proper disposal
- Coordinates authorisation for transit waste from other countries
- Held Awareness raising workshop on the convention for senior policy makers through collaboration with the BCRC, 17/11/2001

Rotterdam Convention

- Signed on 25/9/1998
- Not yet ratified
- Status on its Implementation
- Two offices designated as authorities on the convention:
  - MENR
  - Pest Control Products Board

  Has banned, restricted or controlled some chemicals and forwarded the same to the secretariat.

LIBERIA

Liberia signed the GEF endorsement letter for the project on the 28th January 2002. On May 23rd, 2002 Liberia accepted the Stockholm Convention on Persistent Organic Pollution (POP) by acceding to the convention and became one of the first countries to join the convention.

POPs implementation started with the preparation of the POP Enabling Activity Project Proposal by the National Environmental Commission of Liberia (NECOLIB) and the United Nations Industrial Development Organization (UNIDO), the GEF implementation agency.

The National Environmental Commission of Liberia (NECOLIB) was established in 1998 to oversee environmental activities in Liberia. The creation of this Commission was in recognition of the fact that the environment needs to be protected from the alarming rate of environmental degradation. The establishment of the Commission enabled the government of Liberia to signed an Environmental Project Document with the United Nations Development Program (UNDP) with the following objectives:

1. Strengthen the National Environmental Commission
2. Promote Environmental Outreach programs nationally
3. Develop a National Environmental Management policy
4. Set up a structure for the creation of an Environmental Protection Agency (EPA)
5. Prepare an environmental Legislation and produce an environmental Policy.

The Environmental Bill is now waiting the approval of parliament.
To further the POP program, a Focal Point was appointed and will be responsible for coordinating the development and implementation of the NIP. A local consultant is also working with the project. The Enabling Activity Project was expected to have commenced but there was a change in the GEF FOCAL Point and a new one, who is now the Executive Director of NECOLIB, was designated. Due to this change, there was a delay in the submission of the project Document to the GEF according to the UNIDO FOCAL POINT FOR POPs.

The Project has an assigned UNIDO consultant who will work with the National Project Coordinator.

Data Base:
A preparation of a data base for POPs and other hazardous chemicals have started in collaboration with the University of Liberia

NEEDS ASSESSMENT:
The technical and human resources of the national executing agency is being assessed. This will be completed before the project commences

POP NATIONAL COMMITTEE:
A POP National Committee has already been formed comprising the following: Ministry of Planning, Health, Agriculture, Finance Commerce and Industry, University of Liberia, some private sector entities and non government organizations.

WORKPLAN:
A work plan is being drawn up and will be ready when the Enabling Activity Project commences.

Stackholders Involvement:
The identification and sensitisation through awareness programs of the main stackholders have commenced

MALAWI

1.0 Background

In line with the requirements of Agenda 21, Malawi prepared a National Environmental Action Plan (NEAP) in 1994. The NEAP identified several key environmental issues as follows: soil erosion, deforestation, water resources degradation, fisheries depletion and loss of biodiversity. The NEAP noted that estimated that the discounted economic cost of such environmental degradation amounts to over 10 percent in the formal Gross Domestic Product (DREA, 1994).

Following the development of the NEAP, a National Environmental Policy was developed in February 1996. An Environment Management Act was later developed in August 1996. The Act establishes the overall policy and legislative framework to guide the review of sector policies. Various other legal instruments have since been put in place including the Pesticides Act of 2000.

Environmental Affairs Department (EAD) is the authority charged with the coordination of environmental policies and programmes in Malawi. It is also responsible for monitoring development activities in he country and ensuring that their implementation is compatible with the principles of sustainable development. With regard to Persistent Organic Pollutants (POPs), EAD has been selected as the POPs focal point.

2.0 Legal Framework

While various pieces of legislation have been put in place to reduce pollution, POPs are not recognized in the current legislation. There are no set emission limit values for unintentional POP by-products. No POP emission by-products have been measured and no inventories of their releases have been undertaken. In addition, there is no regular environmental monitoring of POPs and environmental awareness is poor. Environmental standards are in the process of being developed.

Malawi signed the Stockholm Convention on 22 May 2002. Malawi has also signed the Basel Convention and the Rotterdam Convention.

3.0 Current status of POPs

Malawi has already prepared a National Chemical Management Profile (NCMP) to assess and diagnose the existing infrastructure for the sound management of chemicals. Among other things, the profile identifies enforcement of Occupation Safety Health and Welfare Act 1997 as being weak. It further notes that most people who handle hazardous substances do not wear the necessary protective clothing and are not trained or provided with obligatory information of the potential health hazards associated with hazardous or toxic material. The findings of the NCMP will serve as input into the development of specific action plans and strategies for the National Implementation Plan (NIP).

Significant amounts of POPs such as PCBs, DDT, Aldrin, Chlordane and Heptachlor exist in the country and are mostly not regulated. The current status of POPs in Malawi is reflected in the following table:

Table 1: Regulation of Pesticides

Name of pesticide	**Situation in Malawi**
DDT	Not regulated yet as a pesticide
Aldrin	Not regulated yet
Dieldrin	Not regulated yet
Chlordane	Not regulated yet
Endrin	Not regulated yet
Heptachlor	Not regulated yet
Hexachlorobenzene	Not regulated yet
Mirex	Not regulated yet
Toxaphene	Not regulated yet
PCBs	Not regulated yet
Unintentional by-products are currently not recognised in the legislation neither are they monitored	

4.0 Status of National Implementation Plan

A project proposal for POPS enabling activities to facilitate implementation of the Stockholm Convention on POPs in Malawi has been prepared and submitted to GEF for funding. The main outcome of this project will be a National Implementation Plan. The project will be implemented by UNIDO who will provide assistance for the development and implementation of enabling activities.

5.0 Stakeholder Identification and Participation

A number of primary stakeholders have been identified as follows: Ministry of Natural Resources and Environmental Affairs, Ministry of Agriculture and Irrigation Development, Ministry of Labour and Vocational Training, Ministry of Health and Population Services, Ministry of Finance, Ministry of Commerce and Industry, University of Malawi, Electrical Supplying Commission of Malawi (ESCOM), Malawi Bureau of Standards, Chemical Association of Malawi, and Malawi Revenue Authority. Non-governmental organizations, other various sectors of the industry that use, distribute and dispose POPs will also be involved in making decisions and executing the project.

6.0 Constraints

In complying with requirements of the Stockholm Convention the following constraints need to be addressed as a matter of priority:

- Present legislation on import/export monitoring and enforcement has to be updated according to the Stockholm Convention;
- Safe storage and disposal of obsolete stocks of PCBs, DDT, Aldrin, Chlordane and Heptachlor is required;
- Lack of information on polluted or contaminated sites therefore an inventory needs to be undertaken.
- No regular monitoring of any of the POPs compounds and a strategy needs to be developed for improved laboratory practices.
- Lack of environmentally sound disposal opportunities of POPs, therefore action plan should be developed for possible technology upgrade or transfer.

MAURITIUS

Management of POPs Chemicals in Mauritius

Mauritius signed the Stockholm Convention on POPs in May 2001

1

POPs PESTICIDES

1. Aldrin
2. Chlordane
3. DDT
4. Dieldrine
5. Endrin
6. Heptachlor
7. Hexachlrobenxene
8. Mirex
9. Toxaphene

•The above list of chemicals are not banned through legislations but
•The import of these POPs chemicals are not allowed by the Pesticides Control Board since the early eighties

2

- POPs chemicals were used in Mauritius since the nineteen fifties to protect the fields from invasion by grasshoppers
- DDT was used for vector control
- In the recent years there has been increasing use of other groups of pesticides in the fields in Mauritius

3

STATUS OF POPS CHEMICALS IN MAURITIUS

4

DDT

•OCCASIONAL USE : for Vector control
•QUANTITY USED: 50-100 KG PER YEAR
•FREQUENCY OF APPLICATION: twice a year (January and June) in harbour and airport areas
•CONTROL AGENCY: Malaria Unit at the Ministry of Health

5

PCB

•List of technical specifications and maintenance of transformers and capacitors in the network is kept by the Central Electricity Board
•Reports show that no PCBs have been imported for minor uses, such as paint additives or lighting capacitors
•No PCB has been used by the sugar industry in the year 1998 as shown by a survey carried out by the Ministry of Environment

6

HCB

•Not intentionally imported into the country

•HCB pollution must be avoided by assessing its use in dyes by the Textile Industry

7

DIOXINS AND FURANS

•Major stationary sources of dioxins and furans:
- 4 incinerators used for electricity generation
- Burning of sugarcane fields
- Uncontrolled burning of green wastes and debris in the post-cyclone period
- Smouldering of electrical cables

•No open burning of solid wastes or dumps exist in Mauritius

8

LAWS REGULATING HAZARDOUS CHEMICALS AND WASTES IN MAURITIUS

1. The Inflammable Liquids and Substances Act - 1954
2. The Explosives Act - 1959.
3. The Pesticides Control Act - 1972.
4. The Chemical Fertilisers Control Act - 1980.
5. The Pharmacy Act - 1983.

9

LAWS REGULATING HAZARDOUS CHEMICALS AND WASTES IN MAURITIUS (Ctd)

6. The Merchant Shipping Act - 1986.
7. The Environment Protection Act - 2002.
8. The Occupational Safety, Health & Welfare Act - 1988.
9. The Consumer Protection Act 1991.

10

GENERAL

- Environmental Protection Act - 2002
- Legislation dealing with management and protection of the environment
- Includes the National Environment Commission
- Regulates in most areas of environmental protection the hazardous waste, effluent and emissions

12

GENERAL (Ctd)

- Pesticide Control Act of 1972
- Regulates the placing on the market of pesticide substances
- This act will be substituted by the Dangerous Chemical Control Act
- It will regulate chemical substances in general including dioxins, furans and PCBs.

12

CONVENTION IN WHICH MAURITIUS FORMS PART

•Basel Convention on Transboundary Movements of Hazardous Waste and their Disposal (1989)
•Bamako Convention on the Ban of Import into Africa (1991)
•Control of Transbounday Movement
•Management of Hazardous Waste within Africa

1

CONVENTION IN WHICH MAURITIUS FORMS PART

•Rotterdam Convention (1997) for the prior Informed Consent procedure for Banned or Restricted Chemicals in International Trade
•Vienna Convention on the Protection of the Ozone Layer (1985)
•Montreal Protocol on Substances that deplete the Ozone Layer (1987)

1

Way Forward

- Preparation of a National Profile to assess the National Infrastructure for Management of Chemicals
- A project 'POPs enabling activities' has been drafted for submission to GEF for financing
- The project will help Mauritius to prepare a 'National Implementation Plan' to fulfill the requirements of and to be able to ratify the Stockholm Convention

13

NIGERIA.

Nigeria is a State with a coastline of a approximately 853km and lies between latitude 4^{o} 10' to 6^{o} 2' N and longitude 2^{o} 45' to 8^{o} 5' E. The Nigerian coastline stretches from the Western border with the Republic of Benin to the Eastern border with the Cameroon Republic. It is bounded in the North by Niger Republic and Chad Republic in the South by the Atlantic Ocean. It has a population of above 120M.

The Stockholm Convention on Persistent Organic Pollutants is essentially aimed at protecting human health and the environment. The convention which is global in scope and multimedia in coverage identifies twelve substances for initial global action. These substances which are categorized as Pesticides, Industrial Chemicals, Chemical by-Products, some are unintentionally formed and released to the environment in combustion and chemical processes.

The International Community in May 2001, adopted and opened for signature, a legally binding instrument for implementing action to reduce and eliminate releases of the initial list of twelve chemical substances known to have adverse effects on human health and the environment.

Nigeria also signed in May 2001 and adopted the Stockholm Convention and has set in motion the necessary process for its ratifications.

A consultative meeting on the inventory of dioxins and furans in Nigeria was held in October 2001 between various stakeholders with the support of UNEP Chemicals.

Nigeria in Abuja on the 18th and 19th August 2002, organised a National Inception Workshop on enabling activities to facilitate implementation of the Stockholm Convention on Persistent Organic Pollutant (POPs), with support from the United Nations Industrial Development Organization (UNIDO), Vienna as the GEF Implementing Agency.

Participants at the workshop were drawn from relevant Ministries both Federal and State, Industries, Universities, NGO's, CBOs and International Organizations.

The workshop fashioned out a work plan for implementation of the Stockholm convention on POPs and a Multi-stakeholder National Co-ordination Committee on POPs was also inaugurated. An academia was nominated to chair this committee.

The work plan includes but not limited to the following:

- Determine Co-ordination Mechanism and Organise Process;
- Assessment and Strengthening of Federal Ministry of Environment's (FMENV's) needs to oversee execution of the Project;
- Establish POPs Inventories and Assess National Infrastructure;
- Preparation of National Profile of Sound Management of Chemical;
- Training on Inventory procedures;

- Priority setting and objectives determination;
- Determination of national objectives in relation to priority POPs issues;
- Organizing a workshop to validate national priorities;
- Formulating a National Implementation Plan, and specific Action Plans on POPs;
- Identification of management options, including phasing out and risk reduction options;
- Endorsement of NIP by stakeholders;
- Federal Ministry of Environment to prepare information to government and stakeholders for comments.

As a follow up to this, A training workshop of Task Teams on inventories on Persistent Organic Pollutant (POPs) was also held in Abuja, 12th – 14th August 2002. This training was organized to make the commencement of phase (2) of the project.

This phase of activities involve training of Task Teams on inventories, analysis of selected samples, preliminary inventory of production, distribution, use, import/export, stocks and contaminated sites, assessment of infrastructure, enforcement, monitoring and research and development capacity.

This training workshop is a significant step in the country's efforts to build capacity for data generation and analysis for sound management of Persistent Organic Pollutant.
Participants were drawn from selected relevant Ministries, Non governmental organization, Research Institute and Universities.

Field trips to the Kaduna Refinery and United Textile Mills in Kaduna, the National Power Plant in Abuja was undertaken.

Other Programmes aimed at sound POPs management being implemented by the country includes Chemical Tracking/ Toxic Waste Dump Watch, Registration of Chemical/ Pesticides, Pest Control and Fumigation, Hazardous Wastes/Toxic Chemicals, Awareness – raising and Industrial/ Hazardous Chemicals Assessment and Database.

Furthermore, the government through the Federal Ministry of Environment (FMEVN) in conjunction with UNEP Chemicals is executing the Dioxin and Furan Inventory Projects. It is also jointly executing the biomedical and hospital wastes project with the secretariat of the Basel Convention and the World Health Organization.

Approval has also been given by UNEP Chemicals to commence action on the African Stockpile Programme (ASP) of obsolete chemicals.

The Nigerian Government is committed to executing the Enabling activities successfully so that the global community can be rid of the twelve identified POPs and others in an environmentally sound manner.

Nigerian is also signatory to the following conventions on chemical management

- Basel Convention on the control of Transboundary Movements of Hazardous Wastes and their disposal;
- Rotterdam Convention on the Prior Informed Consent Procedure (PIC) for certain chemicals and Pesticides in International trade.
- Stockholm Convention on Persistent Organic Pollutants (POPs).

SIERRA LEONE

1.0. INTRODUCTION

Basic Information on Sierra Leone

Sierra Leone has an area of 72,325 km2 extending between latitude 65°55' and 10°00'N and between longitudes 10°14' and 13°17'W. Its biographical affinities are Guinea – Congolian with Afromontane elements on higher ground and a Guinea – Congolian/Sudanian Transition Zone in extreme north. As for vegetation, lowland forests, although much cleared, cover important regions in the south and east, while the rest of the country is a patchwork of secondary forests.

Mangrove swamps used to extend over the entire coast but much has been cleared for rice cultivation. Freshwater swamp forests back the mangroves in the lowlands and there is an extensive lagoon system along the southern coast (Hughes & Hughes 1991).

Its hydrographic profile includes a service of rivers, which run from the Guinean Dorsal Hills: the Kolente or Great Scarcies, the Little Scarcies, Rokel, Jong, Sewa, Moa and Mano Rivers. Other streams in the lowlands include the Ribi, Kukuli, Gbangbaia and Waanje Rivers. Basic data on Sierra Leone is given in Table 1.

Table 1 Basic Data on Sierra Leone

Land Area:	72,325Km2
Population Estimate (mid – 1991)	4.3 Million
Population Density (No/km^2)	59
Natural Population Increase (annual %)	3.7
Per Capita Gross National Product (1989)	US$ 220
Total Debt (1989)	US$ 1,057 Million
Real GDP Growth (86-90) (annual % change):	0.44
Food Production per Capita 86-89 (1979-81 = 100):	90
Access of Safe Water (%) (85-88):	42
Major Sources of Foreign Exchange: Agriculture, wood production, fisheries, minerals.	

Source: Various

Sierra Leone with a small open economy has suffered prolonged deterioration and accompanying low standards of living despite vast resource endowment (minerals, marine, human and arable land). After recording a marginal positive growth rate of about 1.8% in 1984, the economy was near collapse by the end of the 1980s. Since then, the country has yet to register marked increased in the growth rates of output to improve the standard of living of the majority of its 4.7 million population.

War related activities have caused extensive damage to an already inadequate-economic and social infrastructure leading to a further deterioration in the living

standards of hard-pressed population. Gross Domestic product per capita, estimated at US$237 in 1990, declined by about 40% during the subsequent decade, to about US$142 in 2000. The conflict compounded the adverse legacies from long periods of economic decline and mismanagement including deteriorated capacity and weak institutions. The dismal performance of the economy has had an adverse effect on human and social development.

In Sierra Leone Persistent Organic Pollutants come from a variety of sources mainly from imports, as they are not manufactured locally. These pollutants pose threats to human health and the physical environment. These threats come from site contamination, disposal opportunities, inefficient waste management and lack of sustained monitoring programmes.

Persistent Organic Pollutants (POPs) are characterized by their low water solubility/high solubility in bio-accumulation in fatty tissue as they move up the food chain. The nature of their resistance to photolytic, chemical and biological degradation enables them to persist in the environment for a long period of time and travel long distances from the emission sources. These toxic contaminants can be passed on to the next generation through breast milk and often found in a variety of food products with millions of people potentially exposed to dangerous levels.

The convention in (POPs) was adopted and opened for signatures at a conference on plenipotentiary held from 22nd to 23rd May, 2001 in Stockholm, Sweden, 92 states and the European community (New EU) signed it at a ceremony on 23rd May 2001.

Sierra Leone has been putting in place infrastructures for the implementation of this convention.

The paper focuses on the above issues amongst others as well as discussing the legal and institutional framework for environmental protection and management and the country's capacity to implement the Stockholm convention on Persistent Organic Pollutants (POPs).

2.0. DESCRIPTION OF THE LEGAL, REGULATORY AND ADMINISTRATIVE FRAMEWORKS FOR THE IMPLEMENTATIONS OF PERISISTENT ORGANIC POLLUTANTS (POPs).

Organizational Structure for Environmental Management at the National Level

There is an overall institutional and legal framework for the management and protection of our environment in the national context. The responsibility for the management and protection of the environment presently lies with the Department of the Environment ofthe Ministry of Lands, Country Planning Forestry and the Environment (MLCPFE).
The political head of the Department of the Environment at present is the Minister of Lands, Country Planning, Forestry and the Environment (MLCPFE).

The administrative head is the Permanent Secretary who is responsible for co-ordinating the functions of the departments within the Ministry viz. Department of Lands and Country Planning (DLCP), Department of Surveys and Lands (DSL) Department of Forestry (DOF) and the Department of the Environment, (DOE). He is also the Principal Adviser to the Minister and the Vote Controller of the Ministry's budget.

The Department of the Environment (DOE) has developed with World Bank Support, the National Environmental Action Plan (NEAP). It is presented into two volumes.
Volume 1 analysis the environmental issues in Sierra Leone and the recommended interventions.
Volume 2 contains the investment proposals.

A National Environmental Policy (NEP) has been prepared. The goals, objectives and strategies of the (NEP) are outlined below:

Policy Goals

The goal of the National Environmental Policy is to achieve sustainable development in Sierra Leone through sound environmental management.

Objectives

- To secure for all Sierra Leoneans a quality of environment adequate for their health and well-being;
- To reserve and use the environment and natural resources for benefit of present and future generations;
- To restore, maintain and enhance the ecosystems and ecological processes essential for the functioning of the biosphere; to preserve biological diversity and the principle of optimum sustainable yield in the use of living natural resources and ecosystems;
- To raise public awareness and promote understanding of the essential linkages between environment development and to encourage individual and community participation in environmental improvement efforts.

Strategies

The strategies will be pursued in order to achieve the policy goals and objectives:

(a) To establish and/or strengthen environmental protection standards, monitor changes in, and publish relevant data on, environmental quality and resource use;
(b) To make prior environmental impact assessment (EIA) of proposed activities which may significantly affect the environment or use of a natural resource and to provide relevant information, in a timely manner, to persons likely to be significantly affected by a planned activity and to grant them equal access and due process in administrative and judicial proceedings;
(c) To promote environmental management through the creation of administrative and infrastructural support with appropriate financial backing;

(d) To co-operate in good faith with other countries and agencies to achieve optimal use of transboundry natural resource and effective prevention or abatement of transboundry environmental protection.

The legal basis for the implementation of the NEAP and for Environmental Management and Protection in Sierra Leone is the Environmental Protection Act, 2000.

The Environmental Protection Act (EAP) 2000 empowers the Environmental Protection Department to perform the following tasks amongst others:

- Screen projects for Environmental Impact Assessment (EIP)
- Issuance of Environmental Impact Assessment Licences
- Formulate or promote the formulation of, and monitor the implementation of environmental policies, programmes, projects standards and regulations.

The EPA 2000 also provides for the establishment of an Environmental Protection Board with the following functions:

(a) Facilitating coordination, cooperation and collaboration among government ministries, local authorities and other agencies in areas of environmental protection;
(b) Review national and sectoral policies and make such recommendations or proposal it make think necessary to the Minister.
(c) Review environmental impact assessments prepared pursuant to this Act and make appropriate recommendations to the Director
(d) Investigate or cause to be investigated, any activity, occurrence or transaction which it considers is likely to have or result in harmful consequences to the environment and advise on measures necessary to prevent or minimize such consequences;
(e) Advise the Minister on areas of environmental protection and control requiring special or additional measures indicating the priorities and specific goals to the achieve;
(f) Undertake or cause to be undertaken specific studies and research aimed at developing strategies for the protection of the environment and make appropriate recommendations to the Minister; and
(g) Consider any other matters, which the Minister may refer to and make appropriate recommendations or proposal thereon.

Recently, procedures for an environmental impact assessment (EIA) have been developed. The environment protection board has approved the environment assessment procedures for Sierra Leone and the date of commencement for its implementation is the 1st of November 2002.

Sectoral guidelines are also being prepared to facilitate the preparation of sectoral EIAs.

A number of government ministries are also involved in environmental and management and protection activity by virtue of their responsibilities.

Other Government Organisations

At present, the following Ministries are in one way or another associated with POPs.

- Ministry of Lands, Country Planning, Forestry and the Environment
- Ministry of Transport, Communications
- Ministry of Mineral Resources
- Ministry of Agriculture and Food Security
- Ministry of Marine Resources
- Ministry of Tourism and Culture
- Ministry of Works and Technical Maintenance
- Ministry of Energy and Power
- Ministry of Education, Science and Technology

The activities of these ministries are regulated by their various acts and determined generally by their policies.

All the above sectoral regulations do not specifically address the issues of pesticide production import, storage, use and disposal. There is also very little capacity to audit the emission values of POPs in the various spheres.

At times, jurisdictional rights of these Ministries overlap. Thus, attempts should be made to harmonise laws to simplify enforcement.

Ministry of Lands, Country Planning, Forestry and the Environment

At present, the Ministry of Lands, Country Planning, Forestry and the Environment is charged with the responsibility of conserving and managing Sierra Leone's natural environment. It is also responsible for addressing land acquisition and transfer, land ownership and use, national development in a planning capacity and to provide advisory services to the public on land matters also responsible for physical planning and management of the forestry resources.

Ministry of Transport and Communication

This Ministry is mandated to deal with issues related to transport on land, air and sea as well as local and international communications.

Ministry of Mineral Resources (MMR)

This Ministry is charged with the responsibility to supervise mining operations in the country. It issues licences for all mining operations, enforces laws and provisions contained in the Mining Act and its amendments. It is responsible for enforcing provisions in the new mining act relating to the rehabilitation of mined out areas. The main institutional conflicts are; (1) the extent to which the Ministry has jurisdiction over marine areas with respect to marine based mineral resources, offshore dredging

and its impact on marine resources and (2) the overlap of water quality monitoring with the interest of the Ministry of Marine Resources.

Ministry of Agriculture and Food Security

This Ministry is mandated to develop agriculture and provide food security.

Ministry of Marine Resources

This Ministry is responsible for the exploitation and management of our marine resources.

Ministry of Tourism and Culture

The responsibility to promote and develop the country's tourist industry lies with this Ministry. It is also charged with the duty of protecting the country's heritage: monuments, cultural and historical sites.

Ministry of Works and Technical Maintenance

The duty of road construction and maintenance as well as public building lies with this Ministry. It enhances the improvement of road networks by securing bilateral and multi-lateral agreements with donors for funding.

Ministry of Energy and Power

The development of the energy sector and water supply are functions of the ministry. It is expected to develop the energy resources and enhance current production to meet the needs of the community as well as provide adequate facilities and maintenance of existing ones.

Ministry of Education, Science and Technology

This Ministry is responsible for educational activities and the development of Science and Technology countrywide.

Other Stakeholders

The ministries of Agriculture and Food Security, Health, Trade and Industry, Finance, Energy and Power, Transport and Communications, Defence, Port and Airport Authorities, Bureau of standards, University of Sierra Leone and the Department of the Environment, of the Ministry of Lands, Country Planning and the Environment will be the primary stakeholders. Other stakeholders include Non-governmental Organisation (NGOs), sectors of industry that use, produce, distribute and dispose persistent organic pollutants.

Non-Governmental Organisations (NGOs)

There are only a few Non-governmental organizations (NGOs) in Sierra Leone with interests in environmental and resource management. Some of these are interested in the natural conservation and monitoring of the country's wildlife and natural habitats.

Organisational Structure for Environment Management at the Local Level

At the local level, the environmental functions are carried out by provincial officers of the DOE of the MLCPFE through its Assistant Environmental Officers in the Northern, Southern, Eastern Provinces and an officer for the Western Area. It is envisaged that these officers will be part of the area town planning committees set within Town Councils.

At present the main tasks of the Assistant Environmental Officers operating at provincial levels basically include monitoring of environmental programmes and projects, evaluation of environmental degradation and compilation of reports. At present Town Councils, including the Freetown City Council (FCC) with statutory powers as a Local Authority (LA) does not participate in any arrangement affecting environmental management in accordance with the National Environmental Protection Act, 2000. However, as the Act is implemented these Councils will start playing pivotal roles. The City and Town Councils however have environmental units/committees, which focus mainly on health and sanitation issues.

International Conventions

Sierra Leone is a signatory to a number of international conventions, treaties and protocols.

These conventions have components that border on pollution assessment and monitoring procedures and guidelines.

The Department of Environment itself is the focal point for the Global Environment Facility (GEF).

3.0. PRESENT STATE OF PERSISTENT ORGANIC POLLUTANTS (POPS) IN SIERRA LEONE.

General Information

Polychlorinated Biphenyls (PCBs)

In Sierra Leone, PCBs enter the country indirectly through imported electrical appliances, hydraulic oils, impregnators etc.

In Sierra Leone, PCBs are emitted during the burning of synchronous condensers, capacitors, and transformers as well as through damage of utilities e.g. refrigerators and other electrical appliances. They can also be released from damaged impregnators.

They can also be emitted through the combustion of fossil fuels, waste burning, road transport and industrial processes involving pyrogeneous burning.

Production, Distribution, Use, Export, Import of POPs.

In Sierra Leone, pesticides are not manufactured locally. Importation and sale of pesticides and application equipments is undertaken by commercial organizations. Over the years, the former Shell Company (now Safecon) principally acted as an import agent of pesticides for some overseas manufacturers. However, other companies and agents e.g. Mobil and mainly foreign businessmen continue to serve as import agents for pesticides as well.

Pesticides imported into the country are used by government institutions, private enterprises, local communities and individuals.

The main government institutions, which make use of pesticides, are those related to agriculture and health. These institutions follow a process of tendering before orders are placed. These orders are sometimes secured by agents who are not familiar with the risks involved in the trade of pesticides.

In the agricultural sector the former Sierra Leone Produce Marketing Board (SLPMB) used to procure some pesticides and sprays for producers of cash crops (particularly cocoa and coffee) purchased and marketed by the Board. In 1979/80, The Ministry of Agriculture secured pesticides under special emergency conditions to deal with outbreaks of army worms.

The Ministry of Health has been involved in the use of pesticides in its campaign against river blindness caused by the black fly (Simuliicae) and Malaria. The pesticides used for these purposes were malathiam and izal.

The Pest Control Unit of the Ministry of Health and Sanitation is also involved in the distribution of pesticides to institutions and also carries out requests from public and private enterprises as well as from individuals to fight against pest infestations and attacks.

The current legislation related to POPs in Sierra Leone is summarized in the following table:

Table 1 Current Legislation Related to POPs in Sierra Leone.

Name	Current Regulation (banned, restricted etc).	Date of Effect
DDT	Allowed to be used for vector control	
Aldrin	Used as an insecticide and in seed treatment	
Dieldrin	Used as an insecticide	
Chlordane		
Endrin	Ditto	
Heptachlor		
Hexachlorobenzene	Unintentional production in wood preservative dyes and synthetic rubber	
Mirex		

Toxaphene		
PCBs	Used in transformers and as wood preservatives	
PCBs Emission	As by-products of industries	
Dioxins, Furans	As by-products and in incomplete incineration of municipal wastes	
HCB Emission		

Note: There are at present no pesticide laws to regulate the use of the aforementioned pesticides in the country.

4.0 DETAILED INFORMATION ON THE STOCKS, CONTAMINATED SITES AND DISPOSAL OPPORTUNITIES.

Stocks

At present it is believed that there are no significant stockpiles of PCBs Sierra Leone. It should however be noted, that there are no available data or published data on the inventory of pesticides or pesticide containing equipments in Sierra Leone.

It is also possible that government ministries such as Health and Sanitation, Agriculture and forestry, energy and power, private enterprises, mining companies and local institutions may have in store limited amounts of pesticides for public health emergencies, crop yield improvement and domestic pest control purposes.

Contaminated Sites

Countrywide surveys with the aim of identifying possible contaminated sites and determining the levels of contamination have not been done. There are also no environmental standards for landfills and water groundwater contamination by PCBs, DDTs and other types of POPs.

Disposal Opportunities

The main bulk of wastes disposed at the official dump sites in the country are of domestic origin. These contain materials, which are potentially hazardous such as batteries, pesticides, cleaning solvents, bleaching agents and pressurized gas containers.

Disposal opportunities for hazardous wastes in Sierra Leone are very modest or even non-existent. The Ministry of Health and Sanitation is responsible for waste collection and disposal but badly handicapped by lack of logistics, personnel and disposal facilities e.g. incinerator.

In Sierra Leone, there is no specific site for the disposal of hazardous wastes. They are often disposed of in established dumpsites in the country, which have no special facilities for their disposal.

Alternative Technologies

Alternative technologies have not yet been employed in the management of ways. Although the health sector is in the process of having small capacity incinerators for clinical wastes.

Hazardous Waste Management

Information on hazardous waste collection, storage and disposal is poor. A database on hazardous wastes has not been developed and environmental inspections in that regard had been rather modest. The registration, filling and reporting rules on hazardous wastes have not been fully developed.

5.0. DETAILED INFORMATION ON THE RELEASES TO THE ENVIRONMENT.

The activities that have significant impact on the emission of POPs in the Sierra Leone context are given in table 2.

Table 2 Activities that have significant impact on the emission of POPs in Sierra Leone.

ACTIVITIES	RATING
Open burning of waste, including burning of landfill sites;	XXX
Fossil fuel-fired utility and industrial boilers;	X
Firing installations for wood and other biomass fuels;	XX
Specific chemical production processes releasing unintentionally formed persistent organic pollutants, especially production of chlorophenols and chloranil;	X
Crematoria;	X
Motor vehicles, particularly those burning leaded gasoline;	XX
Destruction of animal carcasses;	XX
Textile and leather dyeing (with chloranil) and finishing (with alkaline extraction);	XX
Shredder plants for the treatment of end of life vehicles;	X
Smouldering of copper cables;	X
Waste oil refineries.	X

KEY

X - Not significant
XX - Moderately significant
XXX - Significant

Releases into the Atmosphere

There is not the crudest estimate of emission of POPs into the atmosphere in Sierra Leone. Presently, there are no methodologies for emission estimation and reporting for various persistent air pollutants including POPs. No emission inventory of POPs released into the atmosphere has been carried out in the country.

Releases into the Hydrosphere

Releases into the hydrosphere (brackishwater and marine). There has been no attempt to monitor the releases of POPs into the hydrosphere in Sierra Leone. The situation is similar to that of the atmosphere above with the absence of emission inventories and guidelines.

Releases on Land

There is no reliable information on soil contamination from releases of POPs. Literature has not revealed that such studies have been done or are being done. Emission inventories have also not been done for land-based sources of POPs.

6.0. MONITORING SYSTEM

Monitoring is required to assess the effect of POPs emission on the environment and to determine steps to reduce emission levels and to establish national standards amongst others.

There is no national institution charged with the responsibility of monitoring air quality and emission values and no emission control network has been established. There is no laboratory in the country equipped with the required modern analytical facilities. However, the Institute of Marine Biology and Oceanography, Fourah Bay College, University of Sierra Leone has been identified as the research institution that will be involved in the research activities associated with the project.

A Director heads the Institute and the staff comprises of Senior Research Fellows, Research Fellows and Assistants as well as Laboratory and Field Technicians. Its research facilities include laboratory space, modest equipment and computer facilities. Traditional analytical techniques are mainly used in analysis of environmental data.

The responsibility to monitor water quality is primarily that of the Health Ministry but it also falls on a number of institutions belonging to various ministries and organizations. Efforts are being made to co-ordinate their operations as provided by the EPA, 2000. There are no permanent programs.

Soil monitoring is traditionally the responsibility of the Ministry of Agriculture. Some soil research is carried out by the Institute of Agricultural Research (IAR) of Njala University College but there is no specialized institution charged with the responsibility, of monitoring soil quality on a permanent basis.

7.0. CAPACITY BUILDING

Both human resource and physical institutional capacities have to be built. Training on inventory procedures and monitoring will be required as well as the strengthening of the focal point and research institutions in terms of equipment, vehicle etc.

The proposed project is expected to help build the country's institutional research capacity to deal with issues relating to the control and management of Persistent Organic Pollutants in particular and to the improvement of environmental

7.1 Current Status of Persistent Organic Pollutants Implementation in Sierra Leone with regards to progress on National Implementation plans (NIP)

The preparation of the Pops enabling activity project proposal by the department of the environment of the Ministry of Lands, Country planning and the environment and the United Nations Industrial development organization (UNIDO) the GEF implementation agency heralded the start of the implementation programme in Sierra Leone.
The following legal and institution frameworks are in place:

a) The Department of the Environment.
b) The Environment protection set 2000
c) The National Environmental action plan (NEAP)
d) The National Environment policy (NEP)
e) The National Environment protection board

These structures have been described earlier.

To enable the POP program, a UNIDO focal point had been appointed which is the Environment protection Department (EPD) and will be responsible for coordinating the development and implementation of the National Implementation Plan (NIP). The project document to the GEF had been submitted through the UNIDO focal point for Pops.
The project has already an assigned UNIDO consultant who will work with the National project coordinator.

Data Base:
A Data Base for Pops and other hazardous chemicals is being prepared in collaboration with the University of Sierra Leone.

Needs Assessment
An assessment of the technical and human resources of the National executing agency is being carried out and expected to be completed before the commencement of the project.

National Committee
A National Committee is being formed to coordinate the project:
* It will comprise members from Government Organizations such as the following: Trade and Industry, Health and Sanitation, Agriculture and food Security,

Development and Economic Planning etc. law Officer department; Non-Governmental Organizations, the private sector and the University of Sierra Leone.

Work Plan
A work Plan is being drown up and is expected to be completed before the commencement of the enabling activity projects.

Stakeholders Involvement
Identification of stakeholders assisting programs
* Copy to Institutional setting

8.0. CONCLUSIONS AND EXPECTATIONS

In the foregoing, a number of issues that are of concern to Sierra Leone have been raised and these include the following:

1) Identification of stocks of PCBs
2) Identification of contaminated sites
3) Disposal facilities for hazardous wastes
4) Development of a database for hazardous wastes
5) Lack of sufficient information on releases of POPs into the environment
6) Lack of a sustainable national monitoring program
7) Build capacity to tackle all of the above and for the successful implementation of the Stockholm convention on Persistent Organic Pollutants.

It is to be noted however that, these concerns are in no way exhaustive. The above issues are expected to be addressed by the upcoming project as well as strengthen international collaboration.

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SOUTH AFRICA

SUBREGIONAL WORKSHOP ON SUPPORT FOR THE IMPLEMENTATION OF THE STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS (POPs)

25-27 NOVEMBER 2002
LIVINGSTONE, ZAMBIA

Presented by

Ms Thembisile Kumalo
Ms Nendy Gaseitsiwe

Department of Environmental Affairs and Tourism
South Africa

POPS-Outline of Presentation

- Introduction
- Status of POP in South Africa
  - Management of DDT in South Africa
  - Management of PCBs in South Africa
- Policy, Legal and Regulatory framework
- African Stockpile Programme
  - Past and Current clean up
- Future Actions

Introduction

- South Africa is a party to the Basel, Rotterdam and Stockholm Conventions
- GEF has approved South Africa's proposal for enabling activities to develop NIPs and the project will start in January 2003
- GEF has approved selection of South Africa one of the recipient countries for ASP stockpile cleanup project

Status of POPs in South Africa

Compound	Regulation
Aldrin	Banned 1992
Chlordane	Restricted to Citrus
DDT	Banned 2000 restricted to Malaria
Heptachlor	Banned 1976
Dieldrin	Banned 1983
Endrin	Banned 1980
PCBs	Used in transformers
HCB & Dieldrin	Banned 1983
Mirex	Not used in S.Africa
Toxaphene	Banned 1970

Management of DDT

- South Africa has been exempted to use DDT strictly for malaria vector control
- There is a regulatory mechanism to manage DDT under the Law Reform process
- The structure will involve all government dept that handle DTT:
  - Dept of Trade and Industry - controls imports & export of chemical
  - Dept of Agriculture – registers all pesticides
  - Dept of Health – uses DDT for malaria control
  - Dept of Environmental Affairs and Tourism – reports to the Stockholm Convention Secretariat on production and use

Management of PCBs

- South Africa has applied for exemption for the use PCBs in transformers
- ESKOM is the major supplier of electricity in South Africa
  - Have created a database on PCBs use in South Africa
  - Collected and disposed of PCBs contaminated transformers in Finland

Policy, Legal and Regulatory Framework

- Current legal instruments regarding chemicals management and hazardous substances exist and are managed by different state departments
- South Africa is strengthening its national legislation and developing guidelines for Sound Management of Hazardous materials and chemicals

Legal Instruments pertaining to Chemicals Management

- Constitution of the Republic of South Africa (Act 108 of 1996)
  - Section 24 of the Constitution gives every citizen the right to:
    - An environment that is not harmful to their health or well being
- White Paper on Integrated Pollution and Waste Management deals with:
  - Pollution prevention and Waste management
- Environment Conservation Act (Act 73 of 1989)
  - Section 21: Identification of activities (subsection 2(1) waste and sewage

Legal Instruments cont…..

- **Environment Conservation Act (Act 73 of 1989)**
  - Section 21: Identification of activities (subsection 2(1) waste and sewage
- **National Environmental Management (Act of 1998) (NEMA**
  - To ensure sustainable and equitable use of air, water and soil by empowering all
- **Atmospheric Pollution and Prevention Act (Act 45 of 1965)**
  - Section 44: Regulation of a scheduled process – prevent and control of air pollution from chemical processes and non-hazardous and hazardous waste incineration plants and waste sites. Also control of dust from landfill activities.

Legal Instruments cont….

- **Transportation of Dangerous Goods Act:**
  - Includes packaging, transportation of dangerous goods including hazardous waste and chemicals
- Hazardous Substances Act (Act 15 of 1973):
  - **Section 3A(1): Group IV hazardous substances- permission is required to produce, acquire, dispose, import or export, etc.**
- **Fertilizer, Farm Feeds, Agricultural & Stock Remedies Act (Act 36 of 1947)**
  - Section 3: To provide registration process for hazardous chemicals used in Agriculture

African Stockpile Programme

- An estimates of 3000 – 5000 tonnes of obsolete pesticides in South Africa
- DEAT will coordinate all programmes associated with the implementation of the ASP
- ASP activities will create opportunities to address broader hazardous waste management issues

Development of local knowledge base

- Main objective is to:
  - raise awareness,
  - broaden knowledge base and
  - initiate technology transfer in the area of chemicals management
- Activities scheduled in order to achieve this are:
  - Awareness on the human and environmental effects of hazardous chemicals such as POPs;
  - Initiate study tours and hands-on training programmes on different technologies and/or alternatives for each chemical sector;
  - Developing training materials and guidelines for chemicals management;
  - Facilitate interactions between government officials, industry and the communities

Development of local knowledge base cont….

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Past and current clean ups

- In 1999 Dept of Agriculture initiated stockpile clean up project
- Estimated 5% of the stockpiles were disposed off
- DEAT will lead projects of these nature in future

Challenges

- Effective enforcement and compliance mechanisms with regulations and standards
- Identification of gaps and weaknesses on the current laws governing the management of chemicals
- Harmonisation of fragmented legislation
- Finding alternatives use to POPs especially pesticides that are effective and cost effectiveness
- Phasing out use of PCBs by 2010
- Development of an outreach/information dissemination program

NIPs linkage with other projects

- DANIDA
- ASP
- NEPAD
- Globally Harmonised System (GHS)
- SADC PCB project
- National Profile
- Country driven DDT project (GEF funded)

Future Actions

- Launch of a NIPs Inception and ASP workshop
- Strengthen partnerships with UNEP/WHO/FAO and all relevant stakeholders
- Build capacity for chemicals and hazardous waste management

SUDAN

Agriculture is the leading economic sector in Sudan, contributing about 40% of the country's GDP. The main crops are cotton, sorghum, groundnut, millet, wheat, gum Arabic, sesame and sugar cane..
Not surprisingly given the importance of its agricultural sector, Sudan has over the years utilized various pesticides now classified as persistent organic pollutants (POPs). These include many, if not all, of the nine such substances currently being addressed under the Stockholm Convention.
Chlorinated hydrocarbons were first used as pesticides for the control of cotton pests in the various cotton-producing development schemes of the mid-20th Century. For example, DDT was used extensively for cotton pest control from the 1940s to the 1980s. Endrin was also widely used, in particular for the control of whitefly, another cotton pest. Similarly, Aldrin, Chlordane, Dieldrin and Toxaphene, were used for control of various insects and other pests.

The first chemical among this group to be banned was Endrin, which due to its severe impacts on tractor workers in particular, was banned in 1965. This was followed by the banning of Toxaphene, in 1982. Between 1993 and 1994, severe restrictions were placed on the use of Aldrin, Chlordane, Dieldrin and Heptachlor, which were thenceforth only permitted for use in termite control. It appears that these substances may not been imported at all in recent years, as substitute products were identified.

The use of DDT has been confined to the area of disease vector control – notably malaria– since the imposition of restrictions on its use in agriculture in 1993. The remaining agro-chemical POPs currently covered by the Stockholm Convention – Mirex and Hexachlorobenzene – are ‘not registered.’
The import, use and distribution of pesticides is regulated by the Pesticides Act of 1994. There are 6 by-laws that regulate this. The National Pesticides Council (NPC) is the patron of the Act. The permanent undersecretary of the Ministry of Agriculture chairs the NPC.
Despite the above efforts at legislation, regulation and co-ordination, certain problems persist related to pesticide POPs, including the following:

Present legislation on import/export monitoring and enforcement has to be updated to meet the obligations under Stockholm Convention.
There is a lack of information on polluted or contaminated sites;
There are still obsolete stocks of some POPs, particularly pesticides, which require prompt action for their safe storage and disposal. In 1998 a preliminary inventory was conducted to identify the kinds and amounts of obsolete pesticides in the country. This inventory revealed the presence of 90 tons of POPs, mainly in cotton production schemes. The total amount of obsolete pesticides is estimated to be 600 tons of all kinds. The storage system is poor as all the chemicals are piled together. Hence contamination with POPs is inevitable. Contaminated soils in the various sites, according to the inventory, total approximately 6000 m^3. It appears that at present there are no any safe means for disposal in the country due to inadequate facilities and poor technical know-how.
Lack of public awareness results in inadequate hazardous waste management.

Outside of the agricultural sector, knowledge and information about POPs and their effects is even more limited. Information, legislation and regulations are lacking to address those POPs – including hexachlorobenzene, PCBs, dioxins and furans – produced as unwanted by-products of industrial processes.
Several actions have been taken since the signature of Sudan to the convention at conference plenipotentiaries in Stockholm in May 2001. It worth mentioning that Sudan has participated in almost all INC meetings for development of the convention, and hence fully committed to it
Immediately Following thearrival of the Sudanese delegation, several actions have been taken:
The Minister of Environment and physical Development has issued a press release in all mass – media for the purpose of public information and awareness.

The Minister has also raised a report to the Council of Ministers who responded by circulating the Ministers report to all concerned parties. Moreover, the Minister of Council Affairs has instructed the Ministry of Environment and Physical Development to convene a series of meetings and workshops for all anticipated stakeholders, including NGOS, to inform each, of its role and obligations under the convention. The meetings were conducted and stakeholders were duly informed and committed.
The legal authorities have also been informed, and a positive response was received from them.
Also, to further engage the public, and to ensure public participation, a general meeting has been held to discuss the status of all conventions related to chemicals, 'PIC, POP, Basel,…etc.'.Members and officials of the National Assembly actively participated in this meeting, and offered to give a strong support during the Assembly's discussions regarding the ratification of these conventions.
Moreover, symposia and training courses were held, which tackled the issue of POPs among other issues of safe handling and use of pesticides.
An enabling activity proposal for drawing up the NIP has been prepared by the national consultants, reviewed by UNDP consultants, and finally endorsed by the local project Assessment Committee for submission to GEF for funding, in order to start the NIP development.

SWAZILAND

Subregional Workshop to support the Implementation of the Stockholm Convention on Persistent Organic Pollutants (POPS) Livingstone, Zambia, 25th – 27th November, 2002.

The Stockholm Convention, whose intention is to eliminate the production the production of use certain hazardous Persistent Organic Pollutant (POPs) currently nine pesticides; one industrial one and two bi-production, has not been signed and ratified.

Basel Convention, which restrict transboundary movements of toxic wastes, either through trade or dumping, and ensure environmental sound disposal of the obsolete materials has not been signed or ratified.

However, we have since written a letter to the Foreign Affairs Ministry requesting both Stockholm and Basel Conventions for accession

3. The Rotterdam Convention which provides an early warming (Prior Informed Consent) on certain hazardous chemicals in international trade, currently comprising about 27 chemicals, has not been signed and ratified

TANZANIA

THE UNITED REPUBLIC OF TANZANIA

STATUS OF STOCKHOLM CONVENTION IMPLEMENTATION

Current Situation

- POPs Pesticides are controlled under the plant Protection Act (1997).
- Currently, the list of pesticides registered and approved for general use does not include POPs;
- DDT has been banned except for Malaria control;
- Open burning of industrial, municipal and hospital wastes result into production of dioxins and furans

Previous Activities undertaken

- Preparation of the National Profile on Management of chemicals
- Inventory of obsolete pesticides;
- Risk Assessment training
- Inventory of PCBs.

Status of implementation of the Stockholm Convention:

- Signed the Convention on 23rd May 2001;
- Developed Project on enabling activities
  - Inception work done
  - Training of experts on inventory conducted.
- Ratification process started

Forthcoming activities of the project

- Establishment of POPs inventory;
- Priority setting;
- Development of NIP;
- NIP endorsement .

UGANDA

Introduction:

Uganda is a small country with a total surface area of 241,038km^2. Approximately70% of this total area is high potential agricultural land. The present population of Uganda is estimated at 26 million people with a growth rate of well over 3 percent annually that should result in the population almost trebling in 30 years. This high growth rate is expected to continue and it has been predicted that Uganda's population will hit the 55 million mark by 2025. This means that there will be increased pressure on resources to produce even larger amounts of food.

The dominant position of the agriculture industry in the Ugandan economy is demonstrated by the fact that it accounts for 43% of GDP, 80% of export earnings and employs 80% of the population.

The agriculture sector is dominated by small-scale farmers who account for up to 94% of the farm holdings in the country that average 2.5 ha per family. Traditional cash crops grown are coffee, tea, cotton, tobacco and sugarcane while non-traditional cash crops include cocoa, vanilla and flowers. Food crops normally grown include bananas, maize, sorghum, finger millet, beans, sweet and Irish potatoes, sim-sim (sesame), cassava and groundnuts.

The wide range of cash and food crops supported by the near optimal ecological conditions therefore harbour a wide range of pests which include insects, pathogens, weeds, vectors and vermin which cause losses at various stages of crop growth and growth and maturity that amount to an average of 30-50 of annual production.

In an attempt to alleviate the enormous crop losses, pesticides have been used to protect or cure the crops. These pesticides have proven to be excellent tools for increased agricultural practices.

In an effort to ensure good agricultural practice, the government of Uganda has taken measures to control direct proper usage of pesticides so as to achieve efficacy, safety for applicators (man in most instances), public health and the environment. The control measures are based on a legislation, which ensures that pesticides are registered before sale and distribution; only authorized applicators can be used and the field and laboratory test are controlled. There are sanctions when rules are violated; periodic re-registration and toxicological assessments to update specification and categories of applicators, age limits, registrations in marketing and sales and the stipulation of safety equipment factors that must be spelled out.

HISTORICAL USE OF PESTICIDES IN UGANDA

In Uganda, pesticides use started with DDT applications on cash crops. The crops, which were sprayed include coffee, cotton and tobacco on the side of crop agriculture. On the public health side the mosquito was the major target while the Tsetsefly was the concern on the veterinary side.

The pesticide usage over time in Uganda is limited indeed but it must be mentioned here that in the past there has poor record of usage. The table below shows the usage over time and in general shows an increase over time.

Table 1: Pesticide consumption in Uganda

Year	Quantity (Metric tones)	Number of formulations
1967	585.3	-
1968	572.0	-
1969	764.0	-
1970	928.0	-
1971	11426.0	-
1985	105.0	-
1986	524.0	-
1988	674.0	-
1989	1334.0	36
1990	620.0	25
1991	856.0	26

Source: Bazirake, C.B. 1993

PESTICIDES REGULATION IN UGANDA

In 1989 the Agricultural Chemicals Statute to control and regulate the manufacture, storage, distribution, use, import and exportation of agricultural chemicals was promulgated and came into force. However, despite the existence of this legislation, a number of restricted and banned pesticides (such as DDT) still find their way into small farms, vendors and small distributors who it is suspected smuggle them from neighbouring countries.

Pesticide Trade, Distribution and Marketing

The Government of Uganda was once the single most important importer of agricultural inputs particularly pesticides. The role however ceased in the early 1990's when the economy was liberalized and this function was taken on by the private sector largely.

The consequence of this is that farmers no longer benefit from the extensive government distribution system, which provided them with cheaper and subsidized retail costs. Farmers therefore are more careful and economical in their use of pesticides.

Prior to importation, a dealer is required to apply for and obtain an import permit from the Agricultural Chemicals Board for each consignment imported. Such a dealer must be registered with the Board. A copy of the permit is forwarded to the customs department of Uganda Revenue Authority who then allows that particular

consignment of pesticide(s) into the country. Such pesticides are supposed to be stored and distributed through registered premises that are regularly inspected.

Consequences of importing pesticides in bulk-Improper Re-Packaging

Pesticides are normally imported in bulk or relatively large packs and this presents a problem to the open market because the end users (farmers) often have small plots of crops, which require small quantities of pesticides. Thus most pesticides end up being repacked into smaller containers that farmers find easier to purchase.

Repackaging presents health and environment problems because individual distributors do much of the repackaging. They do this with out affixing proper identification labels and instructions for use of hazard warnings.

Public Health Concerns

There is no specific data on pesticides poisonings recorded, however it is understood that organophosphates constitute the worst acute danger because of their relatively high toxicity coupled with farmers enthusiasm to use them.

Paraquat use was previously linked with import among male workers in addition to skin damage. Ingestion of dressed seeds is another source of poisoning as is the re-use of inadequately rinsed containers for water, juice and other drinks.

Monitoring the existence of the Prior Informed Consent (PIC)

Uganda has been actively participating in the negotiations for the International Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade. Uganda is in advanced stages of acceding to this important convention.

Stocks of Obsolete Pesticides

Current stocks of obsolete pesticides approximate to 124 tonnes (FAO inventory in 1999) see table below. Some quantities were however able to be used following tests that confirmed their potency.

Pesticide	Quantity (kg or litre)
Pirimiphos-methyl (Actellic)	34,106 kg
Alachlor + atrazine	180 lts
Ametryne	370 lts
Bentazon + propanyl	10,910 lts
Bentazon + atrazine	5,000 lts
Bromacil	46 kg
Bromodiolone	1,068 kg
Carbaryl	2,520 lts
Carbosulfan	1,160 kg
Chlorpyrifos	93 lts
Chlorpyrifos	370 kg
Cypermethrin + dimethoanate	330 lts

Dalapon	2,000 kg
Dimethoate	5,230 lts
Fentrothion	750 lts
Fluometuron	23,699 lts
Glufosinate –ammonium	1,120 lts
Glyphospahte	1,270 lts
Malathion	15,750 kg
Metolachlor + atrazine	140 lts
Pendimethalin	1,353 lts
Phosphamidon	4,841 lts
Oxadiazon	15,144 lts

Source: FAO inventory 1999

Status of Integrated Pest and Vector Management Programmes in Uganda
In general much of IPMs potential in Uganda is still unrealized. Pesticide use in tea, coffee and other crops is considerable and farmers rely on intensive pesticide use to produce cotton as well as horticultural crops. Lack of resources means that the use of alternative control methods often ends with pilot projects. However the Ministry of Agriculture is actively promoting the use of IPM as a real option in agriculture. This is going to be focused on even more under the current national Plan for the Modernization of Agriculture (PMA).

With regard to vector control, the government tsetse control programme has had success with the introduction of and use of traps as well as use of sterile techniques. Previously reliance was on ground and aerial sprays to knock down the fly population.

STATUS OF POPs PESTICIDES IN UGANDA

- POPs pesticides still used in Uganda; None
- Previously Dieldrin; DDT; Aldrin; Endrin used to be used but their use has been officially discontinued. Regulatory status is severely restricted and they are no longer registered by the Agricultural Chemicals Board and they are no longer registered. Regulatory status is severely restricted and they are no longer registered by the Agricultural Chemicals Board for import and use in Uganda;
- There are no known stocks of any of the POPs pesticides in Uganda. No inventory done. This does not however mean that they are not there;
- Previous users of the mentioned POPs pesticides were small scale agriculturalists as well as large scale agriculturalists;
- Difficulties in phasing out POPs pesticides include: changing the attitude of farmers who hitherto had been used to a particular pesticide; smuggling of phased out pesticides from neighbouring countries that have not restricted the same products. Points to need for regional cooperation and networks;
- Some specific information needed for the promotion of alternatives to POPs pesticides includes information on efficacy; target pests; levels of literacy amongst farmers who must be made aware etc;
- Uganda has an IPM programme and the Ministry of Agriculture has extension workers who are training the farmers at the grass roots on IPM

methods. Under the new Government Plan for the Modernisation of Agriculture (PMA), IPM is to be propagated as well;

- Uganda has an official pesticides policy under the agicultureal chemicals statute and regulations that clearly spell out conditions of manufacture, storage, distribution, trade, use, import and export of any pesticide;
- Regional and international programmes, protocols, networks etc that Uganda participates in: EAC, PIC, POPs, Basel, IFCS and Montreal .

BRIEF ON POPs ENABLING ACTIVITIES

The Stockholm (POPs), Convention has available funds to the tune of US$ 500,000 to assist developing countries and countries with economies in transition to initiate enabling activities in line with the obligations arising out of the Stockholm Convention. These funds are only available once countries have signed the Stockholm Convention **without necessarily ratifying it.** Uganda up to today has not signed or ratified this Convention.

The Global Environment Facility (GEF) as the interim financial mechanism has invited eligible countries that are interested in benefiting from this opportunity to initiate a request to access funding for enabling activities from the GEF. This would have to be done through an Implementing Agency selected from one of the following approved agencies:

(i) UNEP
(ii) UNIDO
(iii) UNDP
(iv) FAO

The enabling activities include:

- Formulation/development of National Implementation Plans;
- Undertaking of POP's inventory and assessment of national infrastructure and capacity;
- Information dissemination and consultation.

Importantly, as already alluded to, eligibility for accessing these funds is restricted (and understandably so) to Countries that have signed the Stockholm Convention.

A brief on the Convention and a Cabinet Paper have already been drafted and will soon be forwarded for Cabinet approval and hopefully Cabinet following discussion will authorize that Uganda accedes to the Convention.

Uganda through the GEF Focal Point (PS-ST Ministry of Finance) selected UNEP as the Implementing Agency for the enabling activities and already a draft proposal has been developed between UNEP (Mr. Laurent Granier) and NEMA (Andrew Othieno).

A proposal entitled "POPs enabling activities of Uganda" to pave the way for development of a National Implementation Plan has already been developed and discussed with UNEP. This will be funded as soon as Uganda accedes to the Convention.

The objective of this Enabling Activities proposal is to strengthen national capacity and to enhance knowledge and understanding amongst decision makers, managers, industry, NGOs and the public at large on POPs to develop a National Implementation Plan. By achieving this objective Uganda will meet the obligations of the Stockholm Convention and be enabled to manage the elimination of Persistent Organic Pollutants (POPs). The project will:

(i) Allow Uganda to meet its reporting obligations under the Stockholm POP's Convention;
(ii) Prepare the ground for the implementation of the POP's Convention in Uganda;
(iii) Strengthen national capacity to manage POP's and strengthen chemicals management capacity generally.

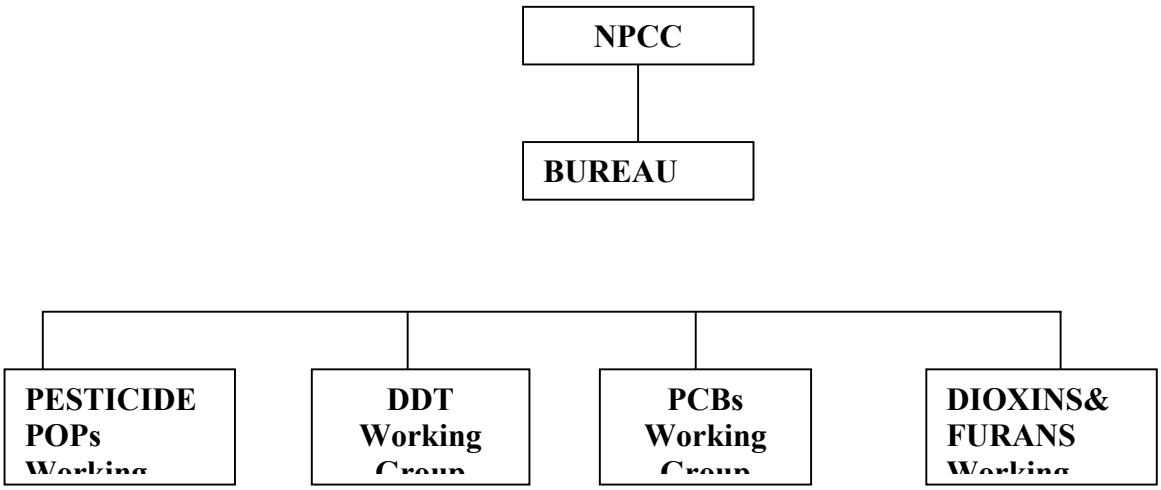
ZAMBIA

Report on the activities carried out by the bureau of the NIPs for POPs, Zambia

Calendar of activities

DATE	ACTIVITIES
August 14	• Launching of the National Implementation Plans for POPs in Zambia at the Lusaka Intercontinental Hotel. • A walk to signify the commencement of NIPs activities.
August 15 -16	• First NPCC Meeting at Mulungushi Conference Centre. Attendance 39 Specialists. Main activities of the inception workshop were: (a) Introduction to the Stockholm Convention 2001 (b) Presentations on: (i) the National profile (ii) the pesticide POPs use in Zambia (iii) PCBs use and Zambia initiative (iv) Unintentionally produced - Dioxins/Furans (v) Performance of DDT for vector control (c) Formation of working groups (sectors) (i) *Agricultural POPs* Task to monitor the existence, performance of the following POPs: Aldrin, Dieldrin, Chlordance, Endrin, HCB, Heptachlor, Mirex, and Toxaphene. (ii) *Restricted use of DDT* Task to monitor use, performance of DDT for vector control in particular on mosquitoes. (iii) *PCBs Working Group* Task to monitor the existence, performance and use of PCBs eg. In electrical equipment etc. Group to be based at the Copperbelt province (iv) *Dioxins and Furans Working Group* Task to monitor the production/releases of these unintentional by products. Creation of the preliminary work plans by each working group.

ADMINISTRATIVE STRUCTURE



THE BUREAU

Comprises of:
1. The chair of NPCC as chairperson
2. The Secretariat (National Coordinator)
3. The Agency - ECZ
4. The Chairpersons for the four working groups

The Role of the Bureau

- Ensure that the overall work plan is strictly adhered to by working groups
- Forum for discussing cross cutting issues e.g. Data analysis, legislation, public awareness, budgets etc.
- Approves Quarterly budgets for working group
- Prepares for the NPCC meeting
- Forum to know the operational constraints of working groups. Seeks solution strategies from other working groups.
- Monitors the performance of the budget
- Monitors the performance of each working group vis-à-vis targets
- Makes recommendations to NPCC, UNEP, UNITAR, etc. where necessary

WORKING GROUPS

- There are four (4) working groups (Pesticide POPs, DDT, PCBs and Diosins/Furans)

Characteristics of a Working Group

Largely made up of stakeholders with he working knowledge of the POP; includes users, policy makers, private sector, academia, customs officers, etc.

Operational Pattern

- Use of quarterly work plan extracted from the overall 2 years National Implementation Action Plan.
- Budget, also revised to quarterly basis.

Status of Activities of the Zambia NIPs

We have just accomplished first quarter of the 2 year Development plan.

Milestones:

These are set in form of objectives with desired outcomes.

Objective 1 : **Mainly inventory of POPs in the country**

Activity: Data collection importation, use, quantities of stocks in use or obsolete, disposal procedures.
Data Analysis

Strategy:
- Use of questionnaires, checklists to identify the type of POP
- Interview of users
- Visual checks of outlets e.g. pharmacies, farms, building construction
- Establishment of a database on type of POPs, geographical sites where the POPs are in use.

Desired Outputs:

- *Database creation and inventory*
- *Monitor types of alternatives to POPs currently in use*

Objectives 2,3 etc

To be carried out in the second quarter. These include:

- Determination of levels of contamination of the POPs review of existing legislation of POPs where possible strengthen aspects on importation, policing, restriction of the POPs etc.

- Review health, environmental effects of the alternatives

- Public awareness strategies: roles of the press.

- Socio-economic issues involving POPs,

- Monitoring and Evaluation of strategies.

Constraints of the First Quarter: *(Inventory and Data Collection)*

- Slow feedback to questionnaires
- Poor communication system in the country
- Reluctance by client to release information
- Poor record keeping by clients
- Illegal imports of POPs limits the viability of information.
- Limitations of knowledge of technical names in use e.g. Dioxin and funds by respondents.

Agro-based Pesticides POPs

There are eight (8) out of the 12 POPs
[Aldrin, Chlordane, Dieldrin, Endrine, HCB, Heptachlor, Mirex, Toxaphene]

Preliminary inventory indicates that only *Chlordane* is in use in Zambia for ;

(a) termite control in building construction
(b) pesticide control in coffee farming
(c) wood protection industry

- However, the use and presence of the other seven (7) POPs is still under investigation.

The National Profile

- Zambia National profile was accomplished in November 1996 (6 years old)
- Has aged and a number of thing have now been overtaken by events.
- Chapter 2 and 3 of the National Profile makes a scant mention of the use, importation and the pollution of the ground water and adverse effects on the ecosystem by POPs.
- A thorough analysis of the use, quantities effects (health and environmental) by POPs need to be included in the National profile.
- Infusion of POPs into the national profile to go simultaneously with *overall review* of the national profile.

ZIMBABWE

Abstract:

Zimbabwe has a working pesticide registration scheme. Pesticides are used in agriculture and in public health programmes to control pests and vector borne diseases that are found on food and commercial crops and as infestations in domestic and commercial buildings and on man and domestic animals. Therefore, pesticides constitute an important input into crop and livestock production and public health delivery system. These pesticides include POPs some of which have been phased out while others remain registered only for restricted uses as they await to be phased out once replacements that are viable are identified.

The use of DDT was discontinued in agriculture except for the control of the tsetse fly, a vector of trypanosomiasis in cattle and sleeping sickness in man. DDT was suspended in the control of the malarial vector mosquitoes but retained under emergency circumstances when there is an upsurge in the populations of mosquitoes.

Introduction

- The Stockholm Convention was signed in May 2001 and Zimbabwe is currently in the process of ratifying it together with the Basel Convention and Rotterdam Convention.
- As a requirement of both the Rotterdam and Stockholm Conventions, most of the POPs have been banned or severely restricted via the Hazardous substances and Articles Act; Group I Notice.
- The National Implementation Plan was formulated by the major stakeholders and finalized with the help of UNEP in September 2002.

Implementation

- As a prerequisite and way forward to the GEF-NIP project, a multi sectoral chemical safety committee was formed in November 2002. The committee is chaired by the Hazardous Substances Department and consists of the following members;

  - Ministry of Justice, Legal and Parliamentary Affairs
  - Ministry of Agriculture
  - Zimbabwe Revenue Authority (Customs)
  - Ministry of Environment and Tourism – (National Focal Point)
  - Confederation of Zimbabwe Industries
  - Government Analyst Laboratory
  - Blair Research Laboratory
  - Central Statistics Office
  - Consumer Council of Zimbabwe
  - Non-governmental Organisations

- Sectors were identified that will receive the internet training in December 2002 under the Chemical Information Exchange Network Project.
- The Chemical Safety Committee will also finalise the NIP before actual implementation takes place.
- The Environment Management Bill was passed through Parliament is just waiting for Presidential approval for it to become law. This will see the formation of the Environment Management Agency possibly in 2003.
- In conclusion this gives a summary of activities that have taken place in an effort to put in place mechanisms for the implementation of the Stockholm Convention.