DRAFT

International Action on Persistent Toxic Substances:
POPs and Heavy Metals

GLBTS Integration Workgroup Meeting
Windsor, Ontario
Wednesday February 21st, 2007

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Presentation Outline

- **Purpose and Scope of the Presentation**
- **What Are the Issues with POPs and Heavy Metals?**
- **POPs:**
  - Introduction to the Convention on Long-Range Transboundary Air Pollution
  - POPs Protocol
  - Stockholm Convention
- **Heavy Metals:**
  - Heavy Metals Protocol
  - Global Mercury Programme
  - UNEP work on Lead and Cadmium
- **Arctic Council work on Persistent Toxic Substances**
- **Observations and Conclusions**

Purpose and Scope of the Presentation

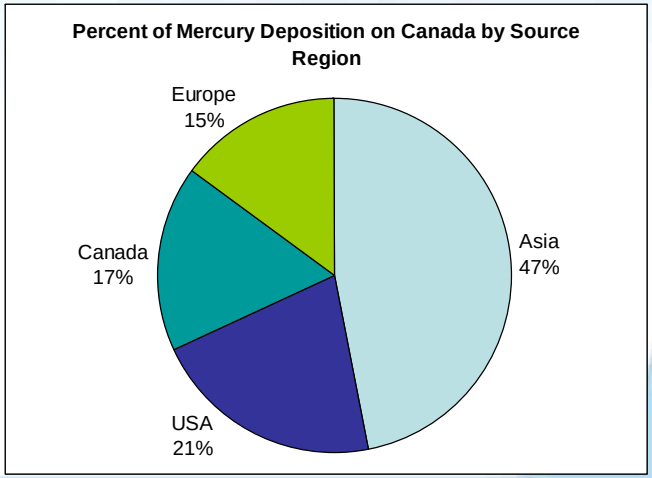
- **Purpose**
  - Provide information on key international actions on persistent organic pollutants (POPs) and heavy metals (mercury, lead and cadmium); and
  - Suggest possible opportunities for the Great Lakes Binational Toxics Strategy

- **Scope :**
  - Global level : United Nations Environment Programme
  - Regional levels :
    - United Nations Economic Commission for Europe
    - Arctic Council

What Are the Issues?

Key Issue : Adverse impacts on human and ecosystem health

- **POPs**
  - Globally distributed by long-range atmospheric transport.
  - In North America, accumulate in Great Lakes, as well as Arctic and alpine ecosystems.
- **Mercury**
  - Global atmospheric emissions dominate deposition on Canada
  - Other global priorities are mercury supply, demand, waste management, final storage and contaminated sites
- **Lead and Cadmium**
  - Local and regional uses and emissions



Introduction to the LRTAP Convention

- **The UNECE Region**
- **The LRTAP Convention:**
  - History
  - Structure : Executive Body and Subsidiary Bodies
  - The Protocols
  - Current Work

unece.org/env/lrtap/

POPs Protocol

Protocol Objective

Ultimate objective is to eliminate any discharges, emissions and losses of POPs.

In force since October 2003; 28 Parties as of Nov 2006

Basic Obligations include:

- Prohibits production and use of some substances, restricts use of others
- Provisions for dealing with POP wastes
- Obliges Parties to reduce their emissions of dioxins, furans, PAHs and HCB below their levels in 1990 (or an alternative year between 1985 and 1995)
- Lays down specific limit values for the incineration of municipal, hazardous and medical waste

Current Focus of Work

- Scoping the possible revision of POPs Protocol in the context of recent sufficiency and effectiveness review, and other work

Stockholm Convention on POPs

- **Objective:**
  - To protect health and environment by reducing or eliminating persistent organic pollutants (POPs)
- **Obligations cover:**
  - control measures: production, use, import/export, emissions and disposal of POPs
  - phase out of existing PCB uses
  - environmentally sound management of POP wastes
  - processes to add new chemicals and evaluate the effectiveness of the Convention
  - actions to reduce unintentionally produced POPs (UPOPs)
  - development of a national implementation plan
  - actions to conduct science, research and monitoring
- **Entered into force May 17, 2004, currently 141 Parties**
  - Canada has signed and ratified. U.S.A. has signed but not yet ratified

Stockholm Convention on POPs

- **Global Monitoring Plan**
  - The Convention includes a provision for effectiveness evaluation.
  - Comparable regional monitoring data will be collected to conduct evaluations, building on existing human health and environmental monitoring programmes to the extent possible.
  - ad hoc technical working group established to coordinate and oversee implementation of the global monitoring plan.
    - Dr. Tom Harner of Environment Canada is a member
  - No new work required for North American information
    - Reporting will use summary monitoring data from existing programs, such as Great Lakes (e.g., IADN), NAFTA Commission for Environmental Cooperation (CEC)

Stockholm Convention on POPs

- **POPs Review Committee (POPRC)**
  - Conducts technical reviews of candidate substances for inclusion in the Convention
  - Candidate substances currently under consideration:

1. Octabromodiphenyl ether (OctaBDE)
2. Pentachlorobenzene;
3. Short-chained chlorinated paraffins (SCCP);
4. Alpha hexachlorocyclohexane (α -HCH);
5. Beta hexachlorocyclohexane (β -HCH).
6. Pentabromodiphenyl ether (PentaBDE);
7. Chlordecone;
8. Hexabromobiphenyl;
9. Lindane (Gamma hexachlorocyclohexane) or (λ -HCH);
10. Perfluorooctane sulfonate.

Heavy Metals Protocol

- **Protocol Objective**
- **In force since December 29, 2003; 28 Parties as of Nov 2006**
- **Basic Obligations include:**
  - Reducing total annual emissions of lead, cadmium and mercury from 1990 levels
  - Application of best available techniques and limit values
  - Application of product control measures
  - Consideration of product management measures
  - Development and maintenance of emissions inventories

Heavy Metals Protocol

- **2006 sufficiency and effectiveness review covered:**
  - Effects of deposition of heavy metals
    - Atmospheric transport, ambient concentrations and deposition
    - Levels in environmental media and biota and comparisons with effects indicators of significance
    - Results of modeling and mapping of critical loads in Europe
  - Assessments of technological developments
    - BAT, ELV, products and product groups
  - Overview of emissions
- **Selected conclusions of the review**
- **Current Work:**
  - Technical exploration of options to further reduce emissions
  - Assess health and ecosystem benefits of further measures
- **A look ahead …**

Global Mercury Programme

- **2001 : Global Mercury Assessment**
- **2003 : Global Mercury Programme; awareness raising**
- **2005 : Continued programme; voluntary partnerships; summary of supply, trade and demand information**
- **Partnership areas :**
  - Artisanal and small scale gold mining
  - Chlor-alkali sector
  - Coal combustion
  - Mercury air transport and fate research
  - Products

chem.unep.ch/mercury/

Global Mercury Programme

The 2007 decision:

- acknowledges progress made but current efforts are not sufficient
- outlines priorities in reducing risks from releases of mercury
- urges governments to gather information on means to reduce risk caused by supply of mercury
- requests reports on atmospheric emissions and contaminated sites
- expands/enhances partnerships within an overall framework
- establishes a working group to review and assess options for enhanced voluntary measures and new or existing international legal instruments

UNEP work on Lead and Cadmium

- **2001 and 2003**: decisions on lead in gasoline and other products/wastes
- **2005**: review of scientific information on lead and cadmium, focusing especially on long-range environmental transport
- **2007 decision**:
  - urges filling information gaps in the reviews
  - requests an inventory of existing risk management measures
  - encourages governments to reduce risks posed to human health and the environment

Arctic Council Work on PTS

- **Arctic Council Action Plan**
  - POPs
    - Priority issues include obsolete pesticides, PCBs, brominated flame retardants (BFRs)
      - Support for projects in Russia to deal with obsolete pesticides, PCBs
      - Canada and U.S. are the biggest users of BFRs
  - Mercury
    - Forum for exchange of information and ideas among Arctic countries facing similar mercury issues
    - Focus on developing and implementing demonstration projects in Russia

Observations

- **Possible Opportunities for GLBTS**
  - POPs
    - Risk management for candidate substances for control under UNECE POPs Protocol and Stockholm Convention, BFRs?
    - Waste management practices to deal with end of life products
  - Mercury
    - Regional workshop in advance of the working group meeting? Partnership engagement (which ones)? Input to information requests and working group discussions?
  - Cadmium
    - Consider providing information for data gaps or for inventory of existing risk management measures

Conclusions

POPs

- **Current areas of high interest are: global monitoring of POP levels and trends; addition to chemicals for international control; anticipated renegotiation of UNECE Protocol.**

Mercury

- **Will remain a focus of intense global discussions as well as regional action**

Cadmium (and Lead)

- **Keep an eye on UNECE discussions**
- **Global level : exchange of information and best practices**