

Introduction to the Stockholm Convention on Persistent Organic Pollutants (SC)

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Provision of services related to training, assessment and reduction of PCDD/Fs releases from
metallurgical industries in Turkey

Iskenderun Anemon Hotel, Turkey, 22 March, 2017



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Introduction to Stockholm Convention

Stockholm Convention – objectives, responsibilities of signature country;

Stockholm Convention – considerations in the implementation;

POPs Review Committee. National Implementation Plan

Global monitoring plan

Effectiveness evaluation

SC Guidelines

POPs in Turkey – country situation, POPs Inventory report;

National Implementation Plan of the SC



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Global Chemicals Policy Goals: from Stockholm 1972, Rio 1992 and Johannesburg 2002

Stockholm principle 13:

“States should adopt an integrated and coordinated approach to their development planning so ... that development is compatible with the need to protect and improve environment for the benefit of their population.”

Rio Agenda 21, Chapter 19:

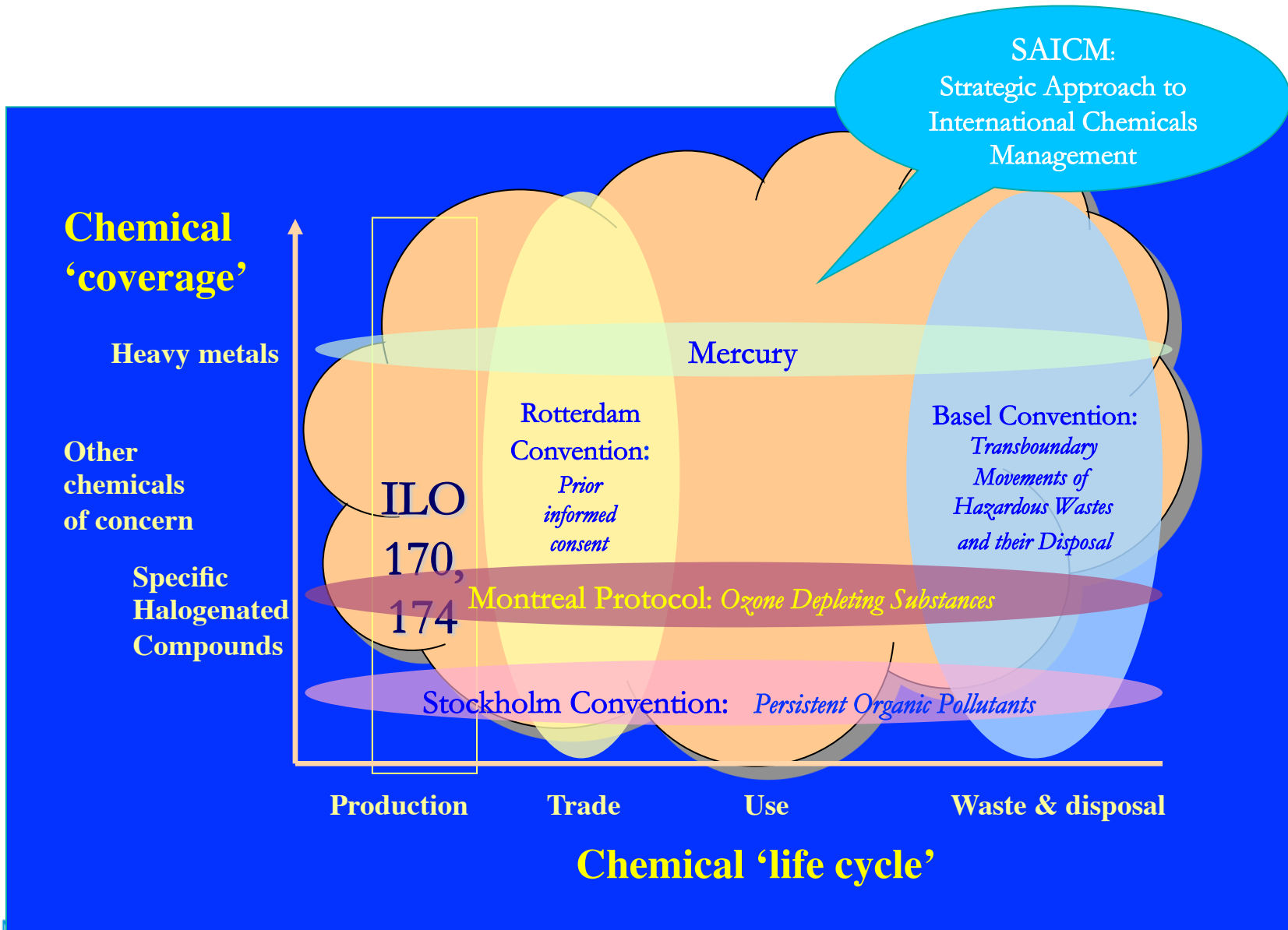
Environmentally Sound Management Of Toxic Chemicals,
Including Prevention Of Illegal International Traffic In Toxic
And Dangerous Products

World Summit on Sustainable Development (WSSD 2002)

“By 2020 chemicals are to be used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment”



Words to Actions: Treaties to Partnerships





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BASEL CONVENTION

Controlling transboundary movements of hazardous wastes and their disposal

ROTTERDAM CONVENTION

Sharing responsibility in the trade of hazardous chemicals

STOCKHOLM CONVENTION

Protecting human health and the environment from persistent organic pollutants (POP)



BASEL CONVENTION



ROTTERDAM CONVENTION



STOCKHOLM CONVENTION

Global agenda to prevent and control releases of persistent toxic contaminants



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Chemicals covered by the three conventions

- ↪ **Basel** covers hazardous wastes that are explosive, flammable, reactive, poisonous, infectious, corrosive, toxic or ecotoxic
- ↪ **Rotterdam** covers 43 pesticides and industrial chemicals that have been banned or severely restricted for health or environmental reasons
- ↪ **Stockholm** covers 14 pesticides, and 8 industrial chemicals and by-products

Common Link




Most POPs are covered by all three Conventions

Many pesticides are subject to the three Conventions

The three chemicals conventions

- ↪ Common objective
“To protect human health and the environment”
- ↪ Covers “cradle-to-grave” management
- ↪ Basel Convention on Control of Transboundary Movement of Hazardous Wastes and their Disposal adopted in 1989
179 Parties
- ↪ Rotterdam Convention – international trade of certain hazardous chemicals adopted in 1998
153 Parties
- ↪ Stockholm Convention on persistent organic pollutants adopted in 2001
179 Parties

Scope and coverage of the three conventions

	 Basel Convention	 Rotterdam Convention	 STOCKHOLM CONVENTION
Regulating for chemicals/wastes use (restrictions/bans)	X	X	X
Import/export controls	X	X	X
Evaluation and hazard assessment		X	X
Waste management	X		X
Hazard/risk communication	X	X	X
Replacement/alternatives		X	X
Environmental releases/emission reporting			X
Technical assistance	X	X	X
Financial assistance	x		x

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What does the Convention aim at?

Protecting human health and the environment from
persistent organic pollutants



www.pops.int

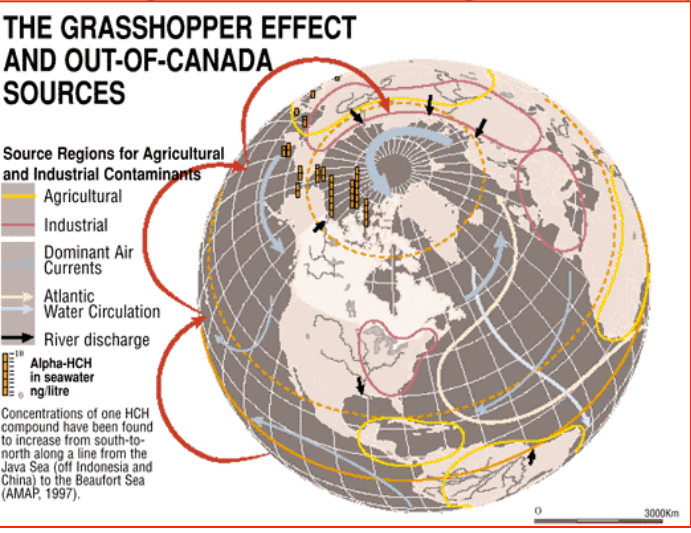


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POPs



International impacts



BASEL CONVENTION

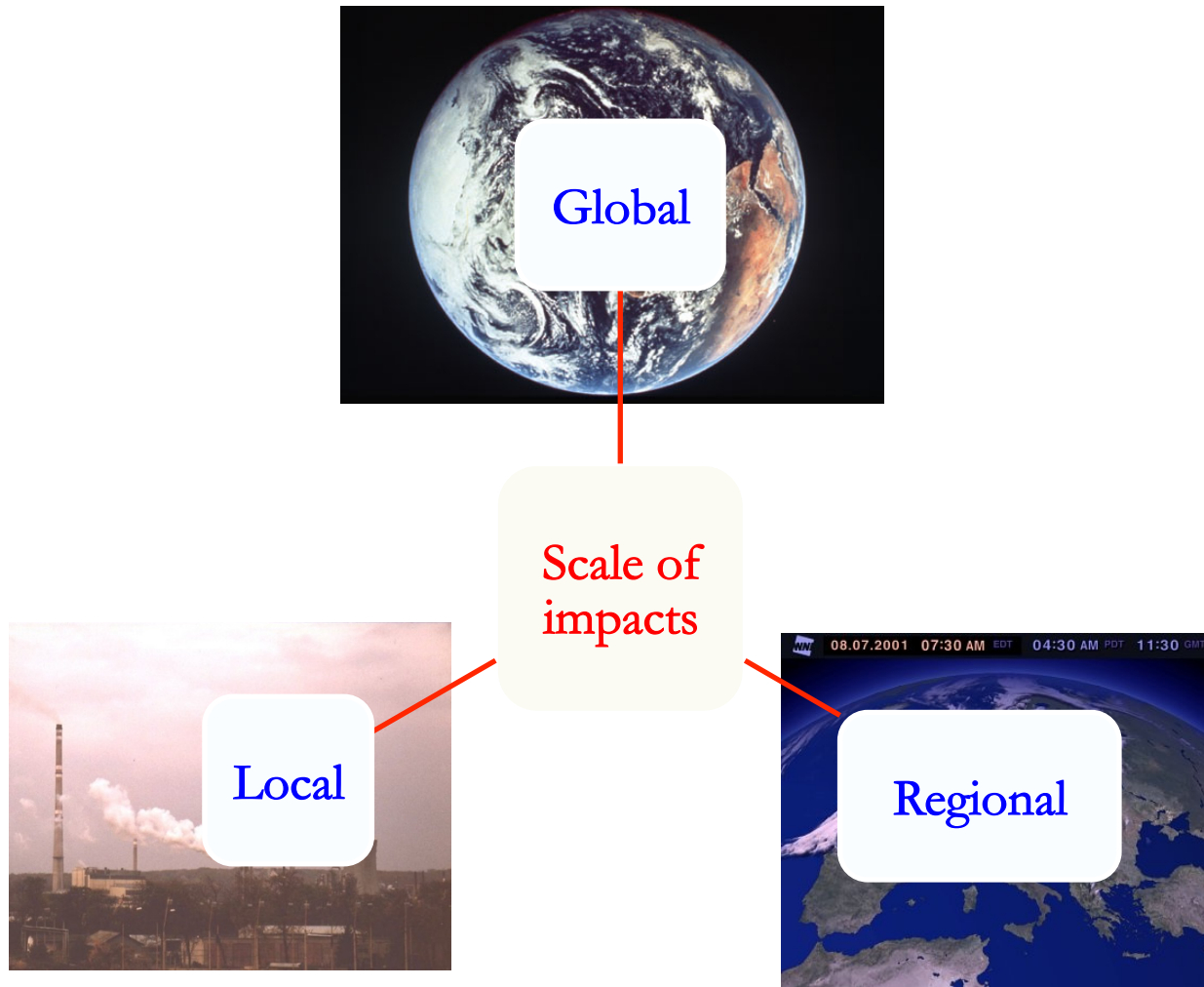


ROTTERDAM CONVENTION



STOCKHOLM CONVENTION

Scale of impacts



The objective of SC

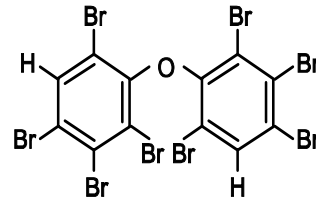
It differentiates between three categories of POPs:

- ↪ Intentionally produced POPs that are slated for elimination;
- ↪ Intentionally produced POPs are to be reduced and ultimately eliminated, except where there is a specified “acceptable purpose,” such as disease vector control, or exempted usage, in which case the production and/or use of the substance is restricted; and
- ↪ POPs that are unintentionally produced as the result of human activity and which are slated for continued minimization and, where feasible, ultimate elimination of total releases derived from anthropogenic sources.

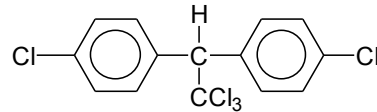
Persistent Organic Pollutants

Main groups:

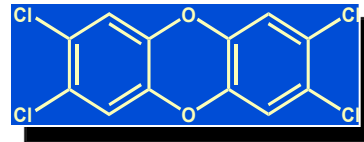
↪ Technical chemicals



↪ Pesticides



↪ Industrial by-products



↪ Wastes

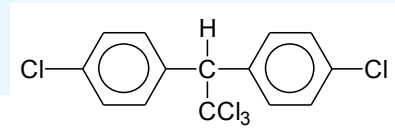


↪ Obsolete POPs

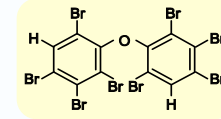
↪ Contaminated sites



IP and UP POPs

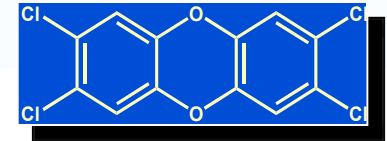


↪ **Intentionally produced (IP):** Chlorinated pesticides, transformer/capacitor oils (PCB), polybrominated flame retardants, ...



↪ **Unintentionally produced (UP):** Dioxins/furans (byproducts in thermal processes)

Elimination of wastes (IP) - destruction
(conservation)



Elimination of stockpiles (IP) -
destruction (conservation)



Elimination of byproducts (UP) - prevention
and destruction

Decontamination (IP + UP) - remediation of soils, sludges,
water, sediments, ...



12 original POPs

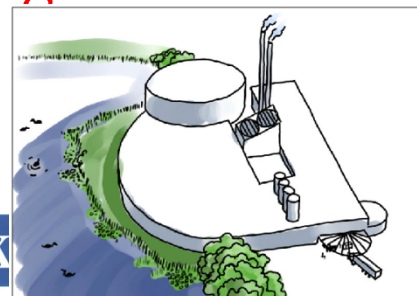
Chemical	Pesticides	Industrial chemicals	Unintentional production	Annex
Aldrin	+			A
Dieldrin	+			A
Endrin	+			A
Chlordane	+			A
DDT	+			B
Heptachlor	+			A
Mirex	+			A
Toxaphene	+			A
Hexachlorobenzene (HCB)	+			A/ C
Polychlorinated biphenyls (PCBs)		+	+	A / C
Polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs)			+	C
			+	C

10 new POPs (added May 2009, 2010)

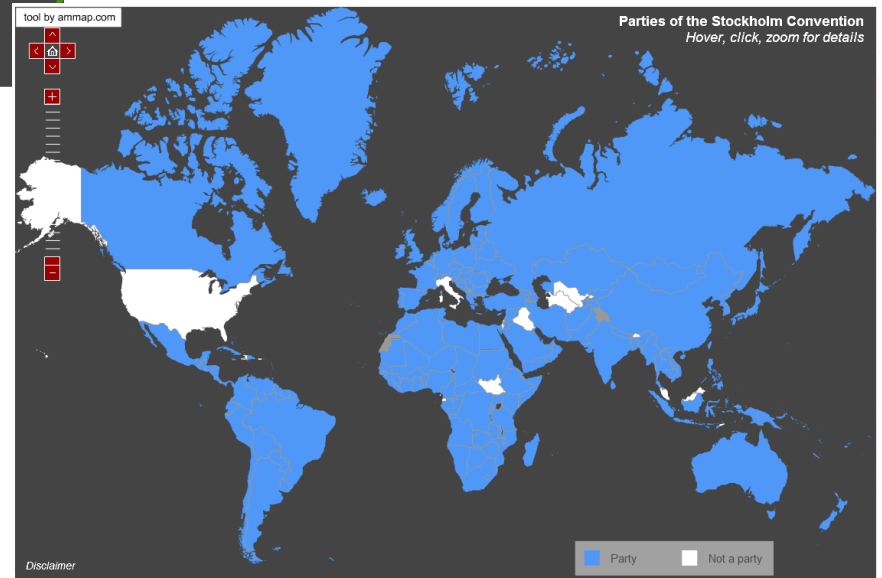
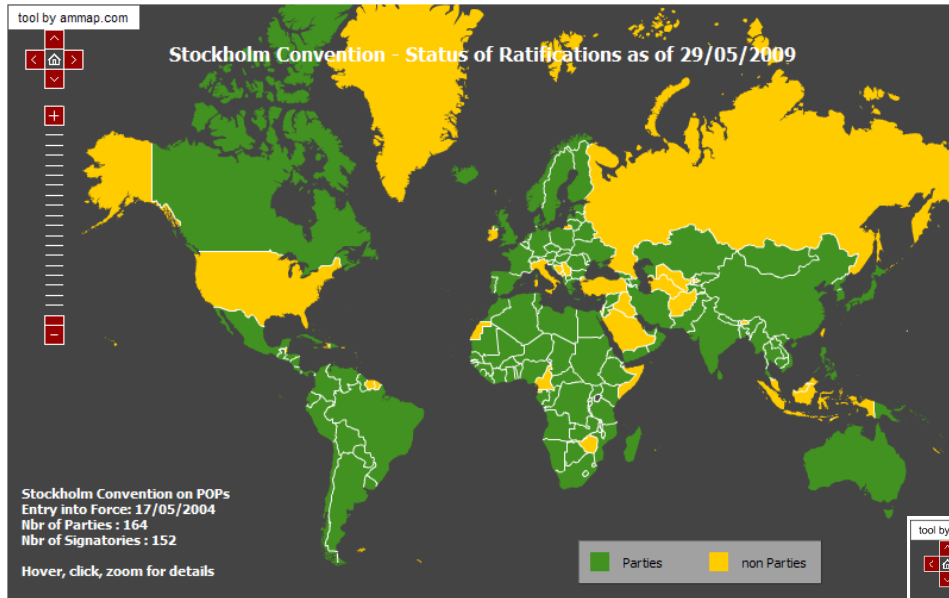
Chemical	Pesticides	Industrial chemicals	Unintentional production	Annex
Chlordecone	+			A
Lindane	+			A
Alpha hexachlorocyclohexane	+			A
Beta hexachlorocyclohexane	+			A
Endosulfan	+			A
Commercial pentabromodiphenyl ether		+		A
Commercial octabromodiphenyl ether		+		A
Hexabromobiphenyl		+		A
Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride	+	+		B
Pentachlorobenzene	+	+	+	A, C

How does it work?

- ↪ Eliminate or restrict the production, use, import and export of POPs
- ↪ Reduce releases from unintentional POP production
- ↪ Promote BAT/BEP to reduce POP emissions
- ↪ Eliminate POPs stockpiles and wastes
- ↪ Target additional new POPs for action
- ↪ Mechanism for financial and technical assistance
- ↪ Information exchange by Clearing House Mechanism



Worldwide distribution of Parties



What is the status of the Convention?

- ↪ adopted on 22 May 2001
- ↪ entered into force on 17 May 2004
- ↪ 164 Parties to date (31 May 2009)
- ↪ 6 COPs have already been convened
 - ◆ COP-1, May 2005, Punta del Este, Uruguay
 - ◆ COP-2, Geneva, May 2006
 - ◆ COP-3, Dakar, Senegal, May 2007
 - ◆ COP-4 Geneva , Switzerland, May 2009
 - ◆ COP-5, Geneva, Switzerland, April 2011
 - ◆ COP-6, Geneva, Switzerland, May 2013
- ↪ Was amended to add 9 new chemicals at COP 4 + 1 at COP 5

How does the Convention do it?

- ↪ Elimination (POPs listed in annex A)
- ↪ Restriction (POPs listed in annex B)
- ↪ Continued reduction (POPs listed in annex C)
- ↪ Management of stockpiles and wastes
- ↪ Preparation of NIP
- ↪ Listing of new chemicals
- ↪ Promotion and research
- ↪ Technical assistance and Financial mechanism
- ↪ Exchange of information
- ↪ Reporting
- ↪ Effectiveness evaluation

Benefit of SC for global chemical management

- ↪ Capacity building
- ↪ Research and development
- ↪ Access to funding
- ↪ Legislative framework
- ↪ Technological improvement
- ↪ Awareness raising

For more information

The screenshot shows the homepage of the Stockholm Convention Clearing House (CHH) website, chm.pops.int. The website features a navigation menu with tabs for 'Basel Convention', 'Rotterdam Convention', 'Stockholm Convention', and 'Synergies'. A prominent callout bubble highlights the URL chm.pops.int. The main content area includes a featured article about the 'Twelfth meeting of the Persistent Organic Pollutants Review Committee (POPRC.12)' held in Rome, Italy, from 19 to 23 September 2016. Below this, there are several news items: 'China ratifies the Stockholm Convention 2013 amendment on HBCD', 'Ministers to be invited to attend high-level segment of the 2017 Triple COPs', 'Uruguay playing lead regional role in sound management of chemicals and waste', and 'Outcomes of the twelfth meeting of the Chemical Review Committee (CRC) and the twelfth meeting of POPs Review Committee (POPRC)'. The website also has a 'The BRS Blog' section with an article by Kerstin Stendahl and a 'Highlights' section featuring a '5 GENDER EQUALITY' graphic. The bottom of the page shows a Windows taskbar with various application icons and a system tray with the date 23.10.2016 and time 10:14.

chm.pops.int

Stockholm Convention on POPs

Some key articles

Article number	Theme
3	Intentional production and use
4	Exemptions
5	Unintentional production
6	Wastes
7	Implementation Plans
8	Listing of chemicals
15	Reporting
16	Effectiveness evaluation

Tools

- ↪ **Standardized Toolkit** for Identification and Quantification of Dioxin and Furan Releases: Air, Water, Land, Products, Residues
- ↪ **Guidelines** for the Identification of PCBs and Materials Containing PCBs
- ↪ **Food contamination** monitoring and assessment programme
- ↪ **Brief Guide** to analytical methods for measuring lead in paint
- ↪ **Brief guide** to analytical methods for measuring lead in blood
- ↪ **Guidance** for Estimating Exposure to Mercury to Identify Populations at risk

Implementation plans (art. 7)

- ↪ **All Parties** to prepare a NIP
- ↪ **Provide** an indication on how the Party will implement its obligations under the Convention
- ↪ **Identifies** the priorities
- ↪ **Identifies** technical and financial needs for the Party in implementing its obligations
- ↪ **Process** for development and implementation promotes stakeholder engagement

The NIP should include

- ↪ **Baseline assessments** of POPs situation and available resources
- ↪ **Gap analysis** to establish country-specific needs, barriers
- ↪ **Priorities** with realistic objectives
- ↪ **Actions** addressing the identified barriers and gaps
- ↪ **Work plan and finances**
- ↪ **Coordination and responsibility** assignment,
- ↪ **Monitoring and effectiveness** evaluation

The NIP documents

UNEP/POPS/COP.1/INF/13: “Interim guidance for developing national implementation plans for the Stockholm Convention”



Commitment required

- ↪ Approval of inventories
- ↪ Establishing priorities (justification for donor support)
- ↪ Development of action plans & strategies
- ↪ Endorsement of the NIP

Inter-ministerial coordination !!!



Types of change

External factors

- ↪ Changes in obligations arising from amendments to the Convention
- ↪ COP decisions that may affect how a Party implements the Convention (e.g. adoption of guidance)
- ↪ Changes in availability of financial and technical assistance
- ↪ Changes in access to infrastructure

Internal factors

- ↪ Reporting under Article 15
- ↪ Change in national priorities
- ↪ Significant change in national circumstances
- ↪ Inventories of POPs, after improvement or updating, indicating a change in the scope of the problem addressed

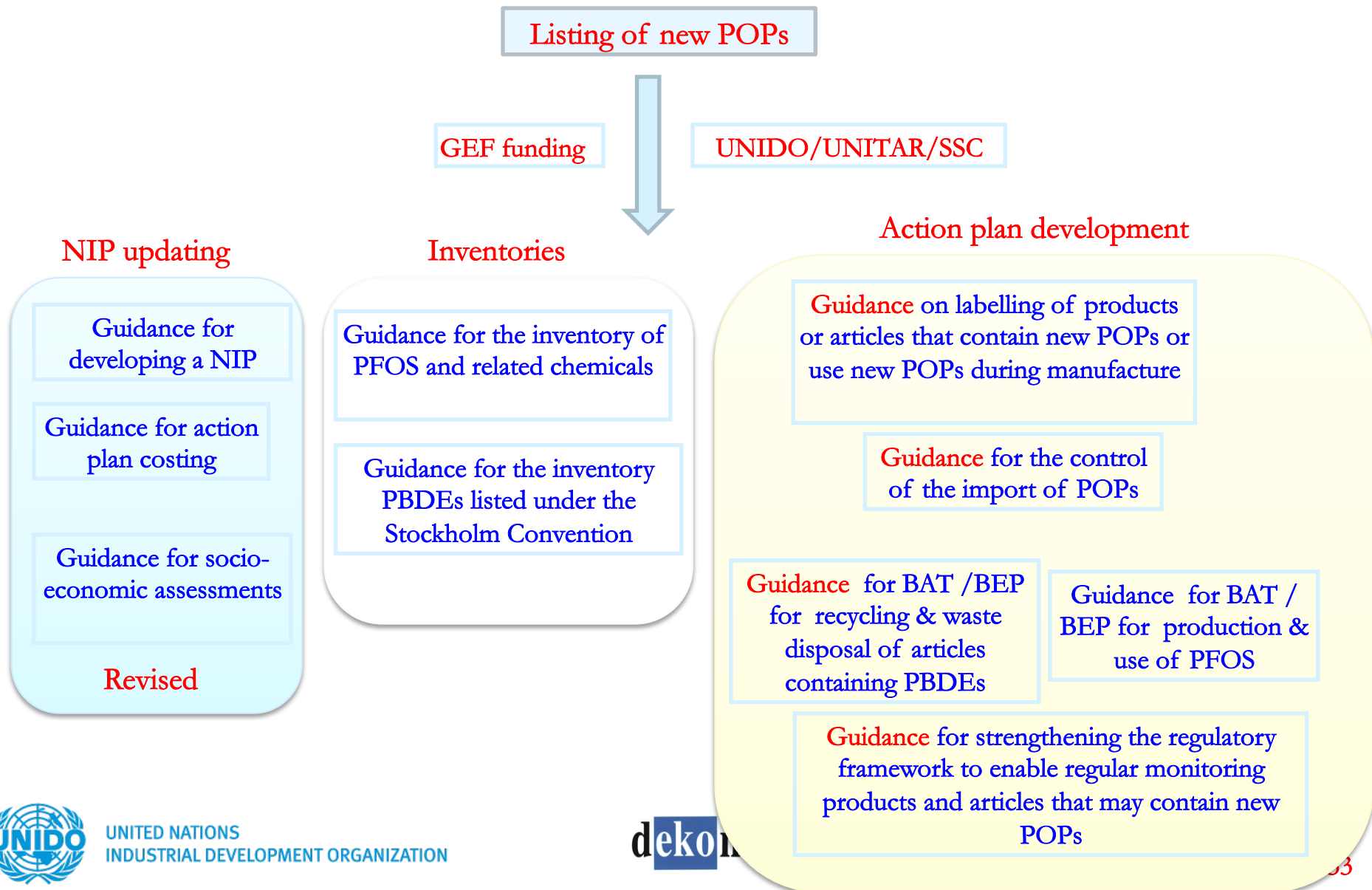
New chemicals added to the Convention:

9 new POPs in 2009

1 new POP in 2011 + 1 in 2014

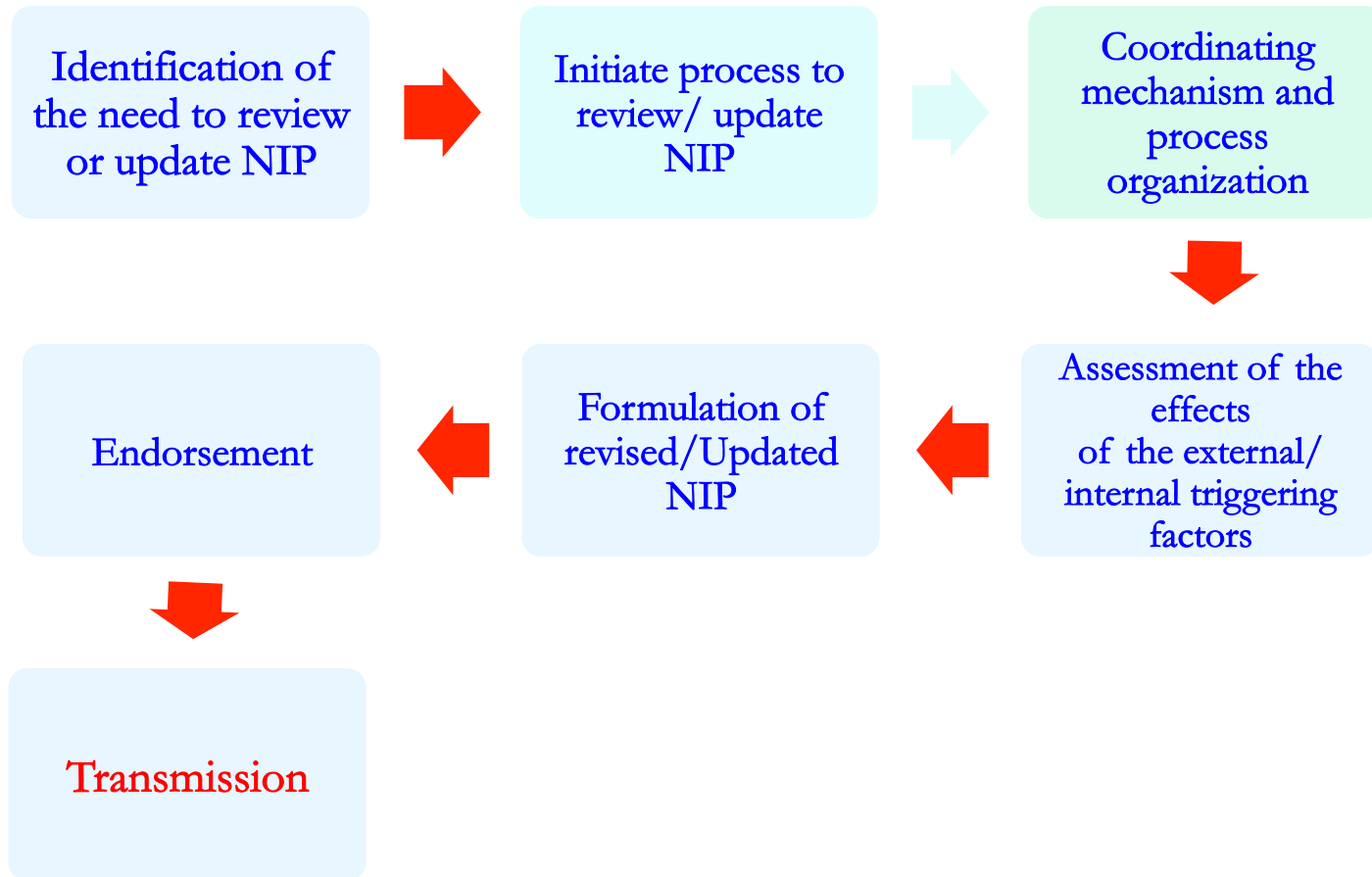


Guidelines on updating of NIPs have been developed



Elaborated process for reviewing and updating NIPs

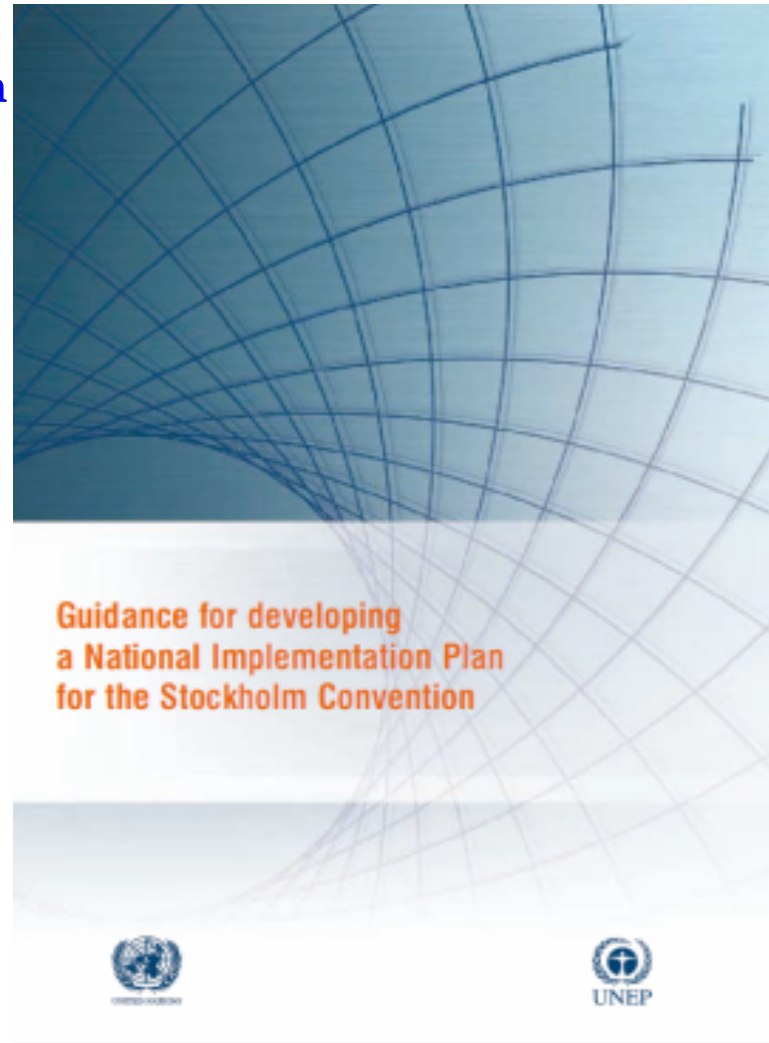
Annex to decision SC-2/7



Guidance for developing and updating a NIP

- ↪ **Guidance for developing** a National Implementation Plan for the Stockholm Convention
- ↪ **Guidance for the review and updating** of NIPs (annex to decision SC-1/12)
- ↪ Elaborated process of reviewing and updating national implementation plans (annex to decision SC-2/7).

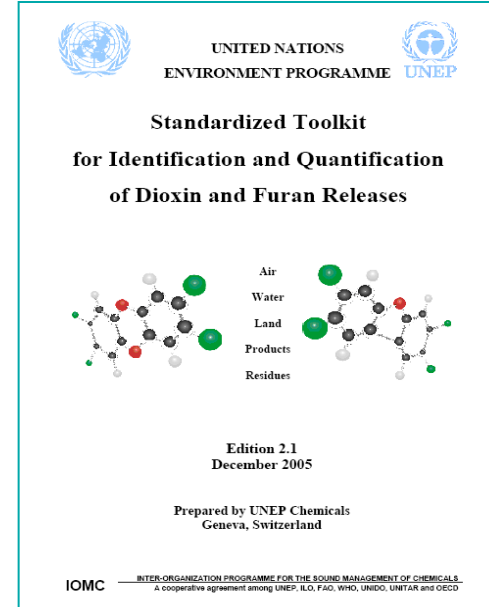
Revised



Resources for action plan development

Existing guidelines:

- ↪ BAT/BEP for Annex C chemicals
- ↪ Toolkit for quantification of dioxin and furan releases
- ↪ Waste disposal of POPs (Basel Convention)
- ↪ Guidance for action plan costing



New Guidance on:

- ↪ Regulatory framework for monitoring of new POPs
- ↪ Control of import
- ↪ Labelling
- ↪ BAT/BEP production & use of PFOS
- ↪ BAT/BEP recycling & waste disposal PBDEs



What is an action plan?

- ↪ A “road map” for the implementation of activities addressing an identified priority issue
- ↪ Can also be referred as “project planning”
- ↪ AP has a clearly defined start and end
- ↪ AP development can be ongoing process (accommodating changes as new information emerges)



Outline of an action plan

- ↪ Objectives
- ↪ Background
- ↪ Actions
- ↪ Timelines
- ↪ Budget
- ↪ Coordination
- ↪ Monitoring, evaluation



Terminology

Priorities:

- ↪ Broad areas, where **actions are required** (e.g.: Environmentally sound PCB management, Phase out of DDT, public awareness on POPs, Regulatory strengthening, etc.).

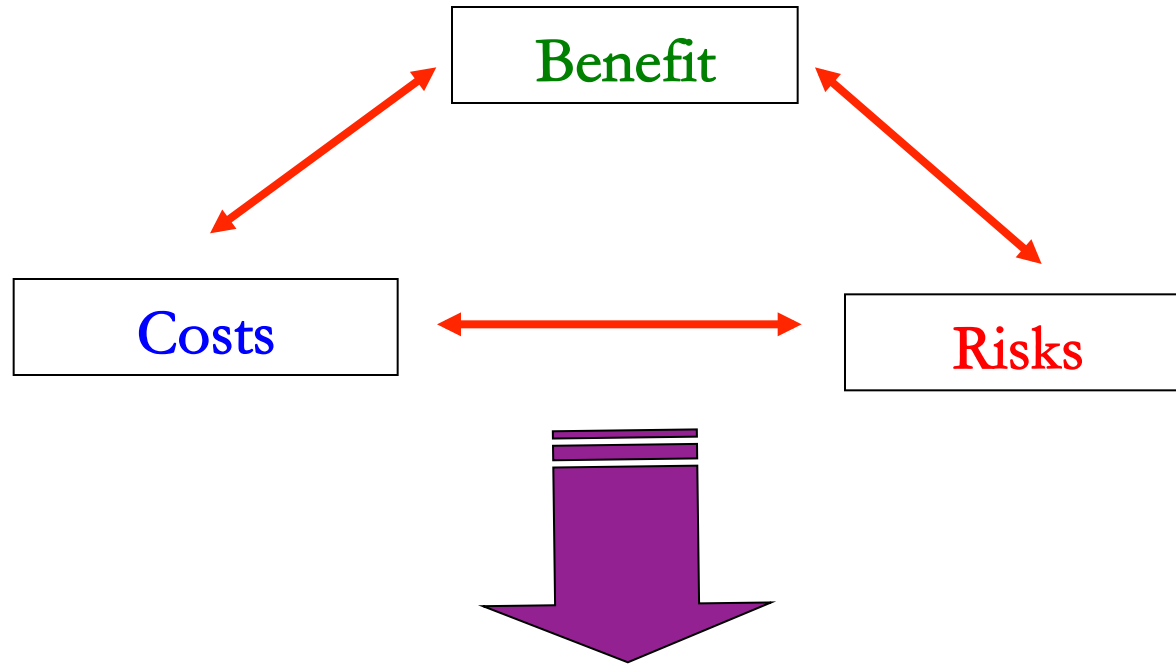
Criteria:

- ↪ Tool, which helps rank the **priority areas** (e.g.: urgency, cross-cutting nature with other plans and strategies, finances, etc.).

Objectives:

- ↪ **Explicit and measurable target or a status, which can be reached by a series of actions** (e.g.: PCBs are completely phased out by 2025, total annual Annex C POPs releases are reduced by 3% by 2010, etc.).

Basic definitions



None from this element could not be changed without changes of other

Alternative evaluation have to include relationship between benefit and risk, which can be done due to some remediation

General comments to NIP evaluation – 1st phase

Inventories:

- ↪ A lot of uncertainties in the inventories

NIPs:

- ↪ Lot of formalism
- ↪ Absolutely unrealistic conclusion prepared using the copy-paste of Guidelines
- ↪ Absolutely unrealistic financial considerations
- ↪ No country financial contribution, only waiting on the international support
- ↪ Bad ratio between the financial input and process outputs
- ↪ Very low level of NIP measures realisation
- ↪ Departmentalism in the countries
- ↪ No intra and interministerial co-operation
- ↪ Weak realisation

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Annexes of the SC

Annex A

ELIMINATION

<http://chm.pops.int/Portals/0/download.aspx?d=UNEP-POPS-COP-CONVTEXT-A.En.pdf>

Annex B

RESTRICTION

<http://chm.pops.int/Portals/0/download.aspx?d=UNEP-POPS-COP-CONVTEXT-B.En.pdf>

Annex C

UNINTENTIONAL PRODUCTION

<http://chm.pops.int/Portals/0/download.aspx?d=UNEP-POPS-COP-CONVTEXT-C.En.pdf>

Annex D

INFORMATION REQUIREMENTS AND SCREENING CRITERIA (*POPs screening criteria*)

Annex E

INFORMATION REQUIREMENTS FOR THE RISK PROFILE

Annex F

INFORMATION ON SOCIO-ECONOMIC CONSIDERATIONS



Annexes of the SC

Annex A (Elimination)

Each Party shall prohibit and/or take the legal and administrative measures necessary to eliminate its production and use of chemicals in Annex A subject to the provisions of that Annex

Annex B (Restriction)

Each Party shall restrict its production and use of chemicals in Annex B in accordance with the provisions of that Annex

Annex C (Continuing minimization)

Each Party shall take measures to reduce the total releases derived from anthropogenic sources of each of the chemicals listed in Annex C, with the goal of their continuing minimization and, where feasible, ultimate elimination

Elimination of POPs (Art. 3)

Each Party shall prohibit and/or take the legal and administrative measures necessary to eliminate its production and use of chemicals in Annex A subject to the provisions of that Annex.



Elimination: Annex A

Annex A: Elimination of production and use of chemicals

- ↪ Alpha hexachlorocyclohexane, Aldrin, Beta hexachlorocyclohexane, Chlordane, Chordecene, Commercial octabromodiphenyl ether, Commercial octabromodiphenyl ether, Dieldrin, Endrin, Heptachlor, Hexabromobiphenyl, Hexachlorobenzene (HCB), Lindane, Mirex, PCBs, Pentachlorobenzene, and Toxaphene

Specific exemptions: (*Article 4: Register*)

- ↪ Aldrin, Chlordane, Dieldrin, Heptachlor, HCB, Lindane, Mirex

General exemptions:

- ↪ For unintentional trace contaminants: quantities in articles before entry-into-force of the Convention and laboratory-scale research quantities
- ↪ For HCB: closed-system limited intermediate

Elimination: Annex A Part II (PCBs)

- 1) **Cease production** of new PCBs *immediately*.
- 2) **Eliminate** use of in-place PCB equipment by 2025.
- 3) **Achieve** environmentally sound disposal of PCB wastes as soon as possible and not later than 2028.
- 4) **Report** every five years on progress of PCB elimination to the COP

Restriction: Annex B

Each Party shall restrict its production and use of chemicals in Annex B in accordance with the provisions of that Annex.



Currently listed: DDT, PFOs



Production and use of chemicals in Annex B is eliminated, except for “acceptable purposes”

For DDT

Parties shall:

- ↪ Eliminate production and use unless they have notified the Secretariat of their intent to use it

If so, they must:

- ↪ Restrict such production/use to disease vector in accordance with WHO recommendations
- ↪ Provide information on use to the Secretariat every three years

COP shall:

- ↪ Encourage Parties using DDT to develop and implement an action plan to ensure that DDT use is restricted to disease vector control, and implementation of suitable alternatives

Continued reduction: Article 5 Annex C

Measures to reduce or eliminate releases from unintentional production

- ↪ Develop and implement an action plan to evaluate and address releases
- ↪ Promote alternatives and BAT/BET for priority sources of releases
 - ✦ When applying BAT/BEP, Parties to consider guidelines adopted by COP

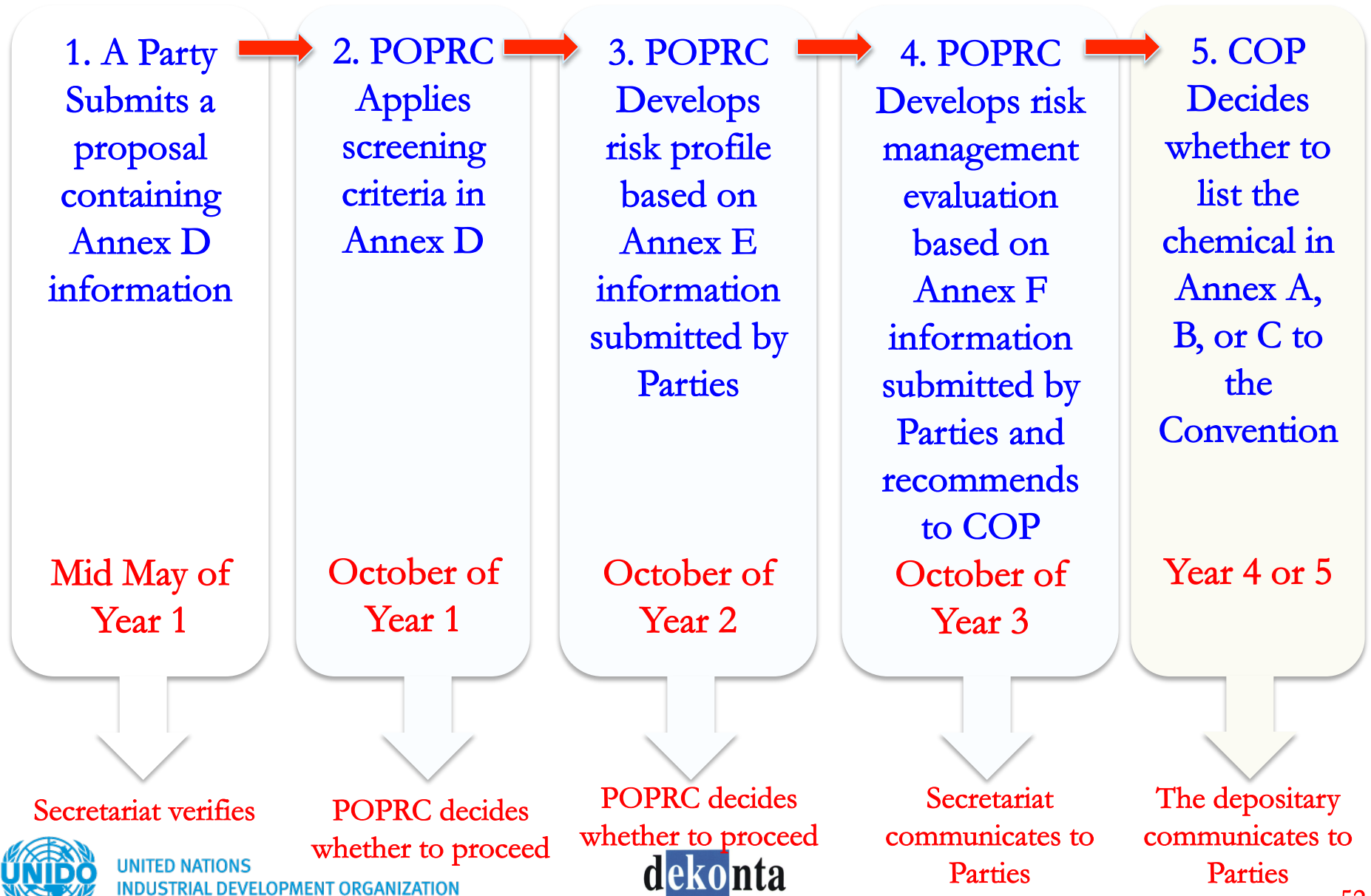
Annexes of the SC - examples

→ Listed in Annex B (Restriction) with Specific exemptions and Acceptable purposes

- Listed in: Annex A (Elimination)
- Production: Total ban - No exemption
- Use: Total ban - No exemption
- Listed in: Annex C (Unintentional production)

- Listed in: Annex A (Elimination)
- Production: Total ban - No exemption
- Use: Total ban of use in new products and articles
- Exemption for recycling of articles: May allow recycling of articles that (may) contain the chemicals

Article 8: Listing of new POPs



How to submit a proposal



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