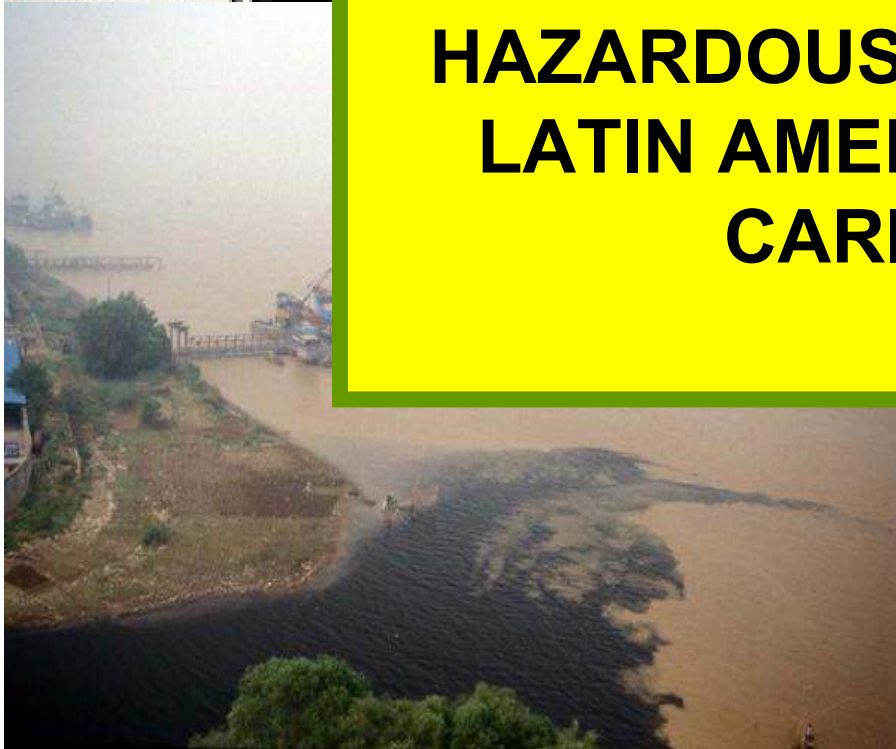




**OAS-CIDA Project “Supporting Trade-Related
Capacity Building in Environmental Management”**

COMPONENT I

**SOUND MANAGEMENT OF
HAZARDOUS CHEMICALS IN
LATIN AMERICA AND THE
CARIBBEAN**





GENERAL OBJECTIVE:

Support the implementation of the Stockholm Convention, and foster the principles of the Strategic Approach to International Chemicals Management (SAICM)



The Component supports the improvement of regional approaches to the sound management of chemicals, which are achieved by:

- i) addressing challenges in the sound management of chemicals in the agricultural and mining sectors in Latin America and the Caribbean,**
- ii) identifying gaps on the management of toxic and bio-accumulative substances,**
- iii) detecting priority information and institutional needs.**

ACTIVITIES

Information sharing

- 1) Development of a hemispheric network which will include private and public actors;
- 2) Development of an on-line database on the use of PTS (including POPs) for Latin America and the Caribbean;
- 3) Compilation of existing legal and management systems, and of institutional capacities;

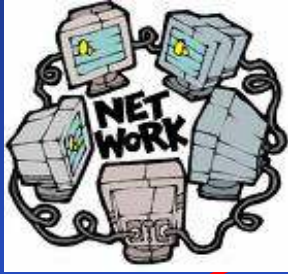
Outreach, Communication, Participation

- 4) Identification of opportunities to sustain a regional program for the sound management of chemicals;
- 5) Organization of sub-regional technical meetings, with the participation of different sectors and relevant international and regional organizations;
- 6) Collaboration and exchange with different groups through outreach activities;

Strategic Planning

- 7) Development of a Regional Action Plan for the Sound Management of Hazardous Chemicals.

<http://www.oas.org/dsd/Quimicos/Default.htm>



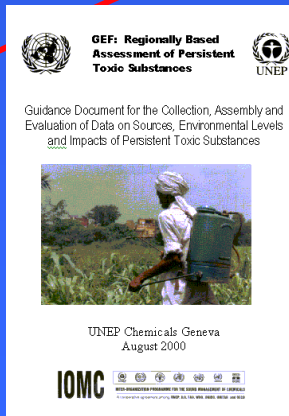
Network of Focal
Points -
Questionnaires

Stockholm
Convention NIPs and
National Profiles



Online PTS
and Heavy
Metals
Database,
including legal
and
institutional
aspects

Definition of
main Strategic
Directions



The on line Data Base on Persistent Toxic Substances and Heavy Metals in Latin America and the Caribbean

SCOPE: A tool for the assessment and integrated, life-cycle management of hazardous chemicals and wastes (POPs, Heavy Metals and other PTS), that is helpful in the decision-making process.

Data-base CRITERIA:

Compilation of information at the regional level

Generation of information at regional level

Generation of new information at national level

From production



To trade and transportation



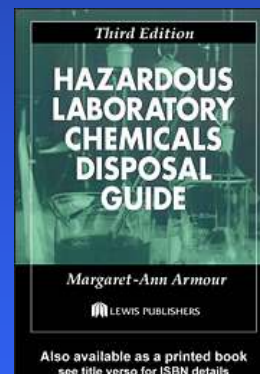
To storage



To use



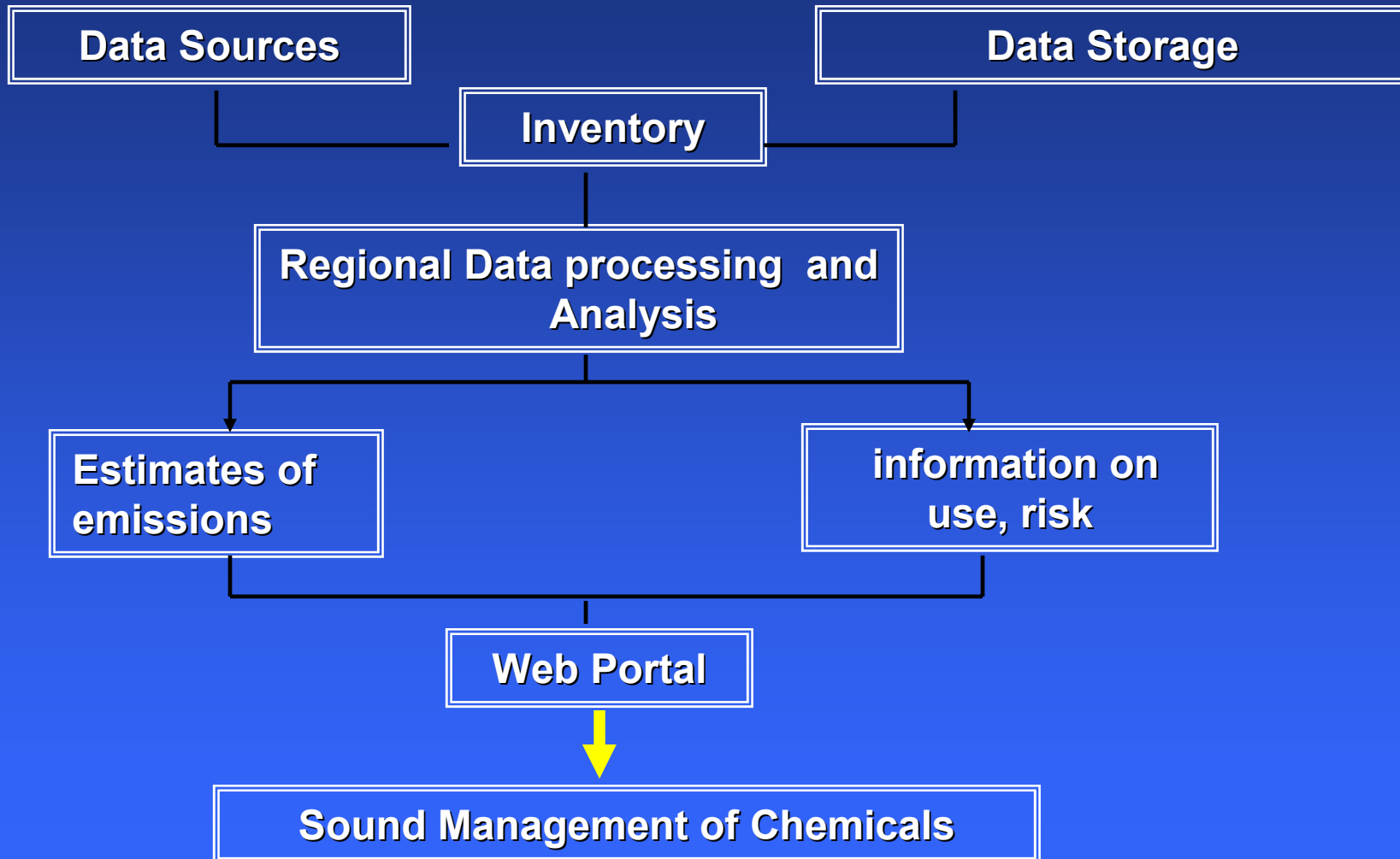
To disposal



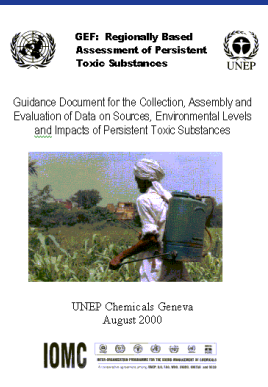
To restoration of contaminated sites

managing the chemicals cycle

Data Base on PTS



Main Sources of Information



- ❖ Regional PTS Assessments (UNEP, 2002)
- ❖ 16 National Profiles
- ❖ 9 National Implementation Plans
- ❖ Docs from Nat. and Reg. Agencies
- ❖ PTS related projects in various countries
- ❖ Questionnaires to the countries



Sources of Data: National Inventories PCB

example from Argentina

Power Transformers in Córdoba

	≤ 50 ppm	50 – 500 ppm	≥ 500 ppm	Not analyzed	TOTAL
TOTAL	6 439	397	34	1	6 871
PERCENTAGES	93.72	5.78	0.49	0.01	100

Questionnaires to the countries

example from Chile

Ferrous and non-ferrous Metals Production	Presence	Quantity	Unit
Ferrous production in high-tech ovens	YES	4 348 000	Tons/year
Coke produced with technology for control of atmospheric contamination	YES	448 000	Tons/year
Iron and steel high-tech production	YES	1 013 149	Tons/year
Metal smelting with warm air	YES	11 306	Tons/year
Copper production in primary smelters	YES	5 329 563	Tons/year

Questionnaires to the countries

example from Antigua and Barbuda – Open air burning

Types of Biomass Incineration	Presence	Quantity	Unit
Forest fires (bush fires)	YES	50	Total number in 2006
Meadow and heather fires (grass fires)	YES	75	Total number in 2006
Burning of contaminated agricultural waste in fields	UNKNOWN	n/a	n/a
Burning of non-contaminated agricultural waste in fields	UNKNOWN	n/a	n/a
Total Biomass incinerated in burnings/fires/forest fires	-----	125	-----

Data analysis for the LAC countries:

- ❖ Significant data gaps: on specific information for substances, production, emissions, metadata
- ❖ Different classifications (no HS)
- ❖ Discrepancy among countries in the accuracy of data gathering
- ❖ Problems in the compilation of data: inter-institutional cooperation, data aggregation, working methodologies, etc. --- NIPs have similar format but different data aggregation

Data Base Structure

48 PTS:

36 Pesticides

7 Industrial comp.

3 Heavy Metals

1 Organometallic

1 unintentional generat.

Classification

Chemical Info

Environmental fate

Country Info

Legal/Istitut. Info

Trade Info

Different
combi -
nations

Algorithms *

“Link Tables” *



NEW
INFORMATION!!

STP emitted by the industry

COUNTRY	PTS	INDUSTRY	USE	CANT.	UNITS	SOURCE
CHI	D & F	Mining	Metallurgy	2828	gEQT /year	NI, 2002
CHI	D & F	Mining	Other processes	292	gEQT /year	NI, 2002
CHI	D & F	Transport	Engine operation	2794	gEQT /year	NI, 2002
CHI	D & F	Timber	Paper	9165	gEQT /year	NI, 2002
CHI	D & F	Textile	Fabrics, leather	1969	gEQT /year	NI, 2002
CHI	PCB	Mining	Metallurgy	54	liters	NI, 2003
CHI	PCB	Manufacture	Equipment	20	liters	NI, 2003
CHI	PCB	Transport	Engine operation	14	liters	NI, 2003
CHI	PCB	Chemical	Input material, equipment	6	liters	NI, 2003
CHI	PCB	Electric	Equipment	5	liters	NI, 2003
CHI	PCB	Manufacture	Equipment	1,5	liters	NI, 2003
ECU	D & F	Mining	Metallurgy	14,7	gEQT /year	NIP, 2005
ARG	D & F	Mining	Metallurgy	102,97	gEQT /year	NI, 2001
URU	D & F	Mining	Metallurgy	3894	gEQT /year	NI, 2000

PTS emitted through bad practices

COUNTRY	BAD PRACTICE	PTS
Bolivia	Lack of maintenance of equipment	PCB
Bolivia	Forest burns	Dioxins and Furans
Bolivia	Bad/insufficient management of waste	Pesticides, metals, others
Chile	Open air burning	Dioxins and Furans, metals, others
Chile	Unprotected workers	Pesticides, metals
Nicaragua	Waste incinerators	Dioxins and Furans
Nicaragua	Re-use	PCB
Argentina	Illegal traffic	Pesticides
Trinidad and Tobago	Buried waste	Pesticides, metals, PCB
Ecuador	Informal activities	Mercury
Ecuador	Accidents	PAH (hydrocarbons)
Costa Rica	Accidents	PCB

Other data- sheets...

Generated Chemical Waste

COUNTRY	WASTE	AMOUNT (Tons/year)
Costa Rica	PCBs	216
Costa Rica	Waste solvents	224
Costa Rica	Farmacological waste	164
Costa Rica	Lead recycling wastes	438
Costa Rica	Waste chemical/pesticide containers	1098
Chile	Sanitary waste	665
Chile	PCBs	158
Ecuador	Inorganic liquids	27403
Ecuador	Waste chemical/pesticide containers	1160
Ecuador	Waste solvents	6281

Contaminated Sites in Nicaragua

PLACE	PTS	DESTINY	AMOUNT
León	DDT	water	
León	Aldrin, Endrin	water	
León (Aerop. Godoy)	Toxaphene	water	25-35 mg/l
León	Parathion	water	
Managua	DDT	water	
Managua	Aldrin, Endrin	water	
Managua (Lago)	Toxaphene	water	0.001-0.008 ppm
Managua	Parathion	water	
Lago Xolotlán	Toxaphene	animals	0.15 - 19.5 mg/kg
Chinandega	Toxaphene	water	0.2-25 ppb / 12 mg/l
Chinandega	Toxaphene	animals	
Chinandega	Toxaphene	humans	
Chinandega	Aldrin, Endrin	humans	
Chinandega	DDT	humans	
Chinandega	DDT	water	
Chinandega	Parathion	water	
Chinandega	Aldrin, Endrin	water	
El Picacho	Toxaphene	water	18 mg/l
El Picacho	Toxaphene	soil	5600 mg/kg
El Picacho	DDT	soil	
Chinandega	Toxaphene	soil	16 mg/kg
Sébaco	Toxaphene	soil	9 mg/kg
rio Atoya	Heptachlor	water	7.5 mg/kg
rio Sasama	Heptachlor	water	7.5 mg/kg
estero Naranjo	Toxaphene	animals	
Estero Naranjo	DDT	animals	
rio Atoya	Heptachlor	humans	
León (Aerop. Godoy)	Toxaphene	soil	3500 mg/kg
León (Aerop. Godoy)	DDT	soil	
León (Aerop. Godoy)	Endosulfan	soil	
El Picacho	various	air	
Paz Centro, León	Toxaphene	water	12 mg/l
Telica, León	Toxaphene	water	0.1-0.6 mg/l
Managua (Lago)	Toxaphene	sediment	0.09-1.4 ppm

*SOURCE: Sitios Contaminados con COP en Nicaragua, MARENA, 2004 © 2007 OAS

Classification of PTS according to their use

NAME	USE CATEGORY	GENERAL USE	SPECIFIC USE
Aldrin	Agrochemicals	Pesticides	Insecticides
Aldrin	Agrochemicals	Pesticides	Wood preservative
DDT	Agrochemicals	Pesticides	Insecticides
DDT	Sanitary	Vector control	Insecticides
Chlordane	Agrochemicals	Pesticides	Insecticides
Chlordane	Domestic	Pesticides	Insecticides
Dieldrin	Agrochemicals	Pesticides	Insecticides
Dioxins (various)	By-products	Chemical	
Endrin	Agrochemicals	Pesticides	Insecticides
Endrin	Agrochemicals	Pesticides	Rodenticides
Dibenzofurans (various)	By-products		
Hexachlorobenzene	Agrochemicals	Pesticides	Fungicides
Hexachlorobenzene	By-products	Chemical	Chlorinated compounds
Heptachlor	Agrochemicals	Pesticides	Insecticides
Heptachlor	Sanitary	Vector control	Insecticides
Mirex	Agrochemicals	Pesticides	Insecticides
Mirex	Industrial	Plastics	Flame retardant
Mirex	Industrial	Painting	Flame retardant
Mirex	Industrial	Electrical	Flame retardant
Polychlorinated biphenyls	Industrial	Manufacture	Hydraulic fluid
Toxaphene	Agrochemicals	Pesticides	Insecticides
Toxaphene	Agrochemicals	Vector control	Insecticides
Lead	Fuel		Additives

Final list of substances to be incorporated in the Database on Persistent Toxic Substances and Heavy Metals

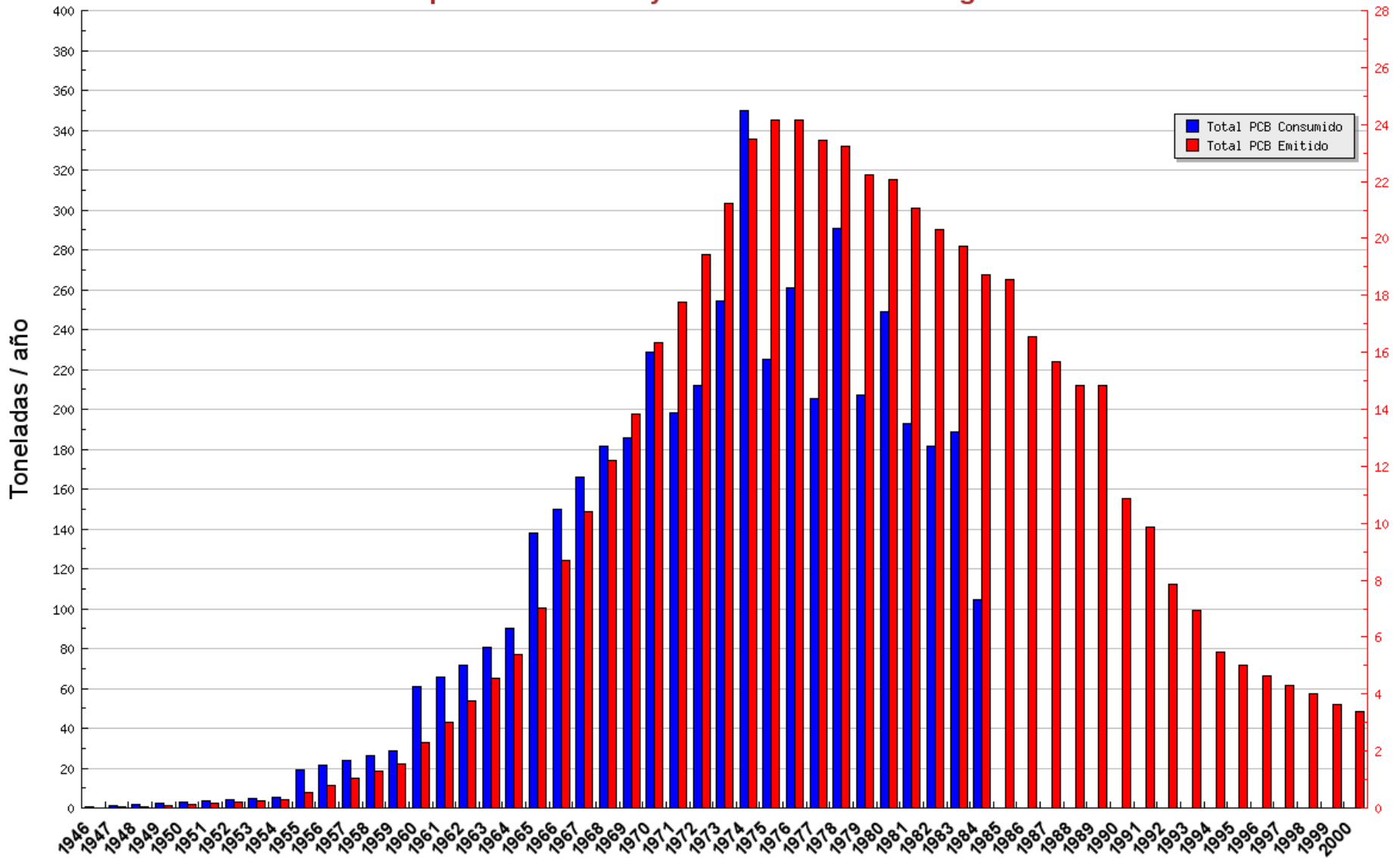
Number	Name	Type
1	Asbestos	OC
2	Chlordane	OC
3	DDT	OC
4	Endrin	OC
5	Heptachlor	OC
6	Toxaphene	OC
7	Mirex	OC
8	Dieldrin	OC
9	Endrin	OC
10	Hexachlorobenzene	OC
11	Polychlorinated Biphenyls	OC
12	Furans	OC
13	Polycyclic aromatic hydrocarbons	OC
14	Organophosphorus	OC
15	Parathion	OC
16	Malathion	OC
17	Chlorobenzene	OC residues
18	Polycyclic aromatic hydrocarbons	OC residues
19	Polycyclic aromatic hydrocarbons	OC residues
20	Polycyclic aromatic hydrocarbons	OC residues
21	Chlorinated paraffins	OC residues
22	Organophosphorus	OC residues
23	Polycyclic aromatic hydrocarbons	OC residues
24	Organophosphorus	OC residues
25	Organophosphorus	OC residues
26	Organophosphorus	OC residues
27	Organophosphorus	OC residues
28	Organophosphorus	OC residues
29	Organophosphorus	OC residues
30	Organophosphorus	OC residues
31	Organophosphorus	OC residues
32	Organophosphorus	OC residues
33	Organophosphorus	OC residues
34	Organophosphorus	OC residues
35	Organophosphorus	OC residues
36	Organophosphorus	OC residues
37	Organophosphorus	OC residues
38	Organophosphorus	OC residues
39	Organophosphorus	OC residues
40	Organophosphorus	OC residues
41	Organophosphorus	OC residues
42	Organophosphorus	OC residues
43	Organophosphorus	OC residues
44	Organophosphorus	OC residues
45	Organophosphorus	OC residues
46	Organophosphorus	OC residues
47	Organophosphorus	OC residues
48	Organophosphorus	OC residues
49	Organophosphorus	OC residues
50	Organophosphorus	OC residues

Mejores prácticas disponibles

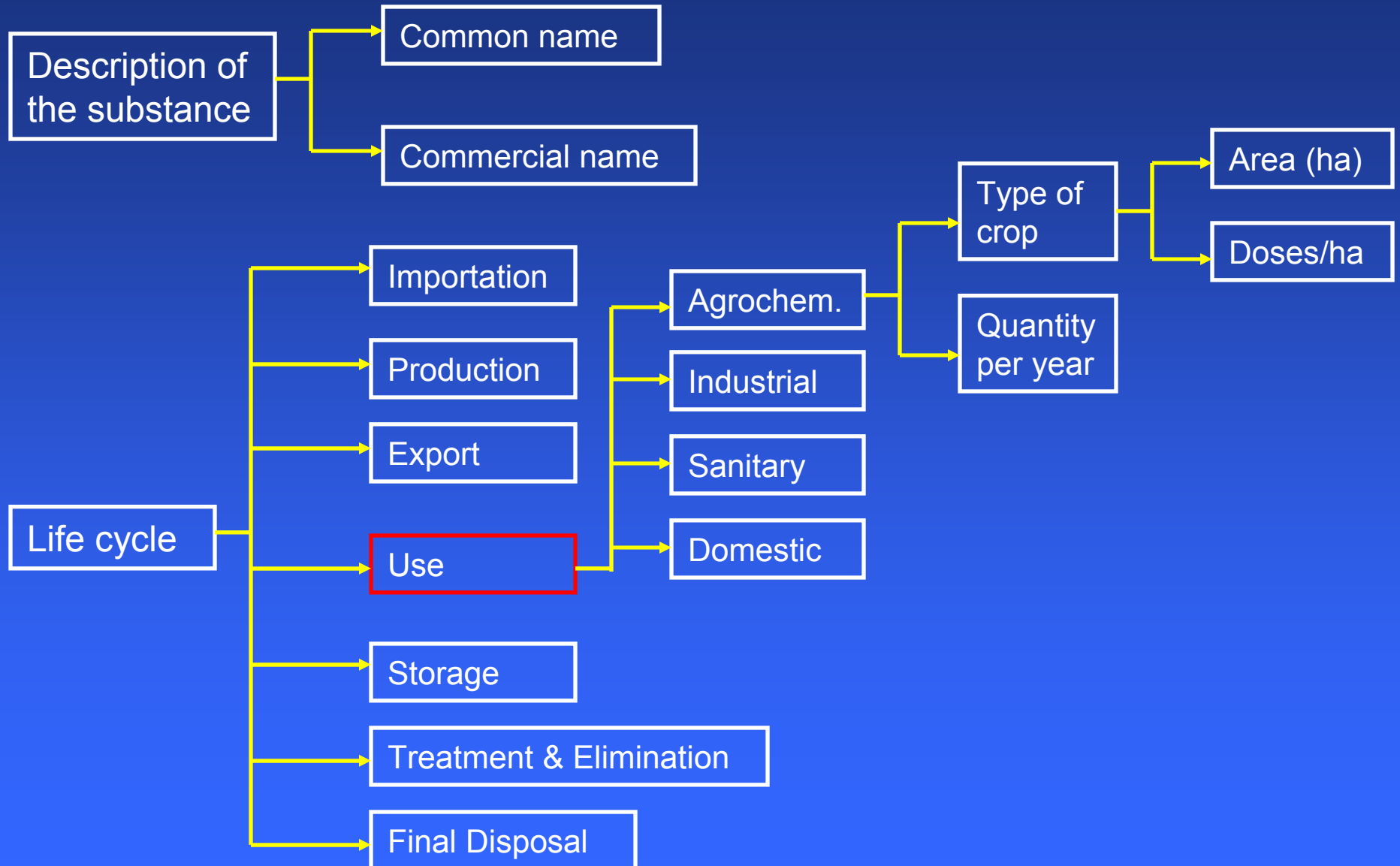
Crear conciencia pública y sensibilización	Crear conciencia pública y sensibilización que causan algunos químicos a gestión ambientalmente racional de estos contaminantes
Para el inventario de D&F	Para el inventario de D&F
Para el comercio interestatal	Para controlar el comercio interestatal
Para el personal	Iniciativa del sector privado para información del personal
Artículos, estudios sobre COPs	Artículos, estudios sobre COPs
Consultas sobre capacidades de laboratorios a nivel nacional	Consulta sobre capacidades de laboratorios a nivel nacional
Contiene el NIP, Bases de datos, Información sobre COPs	Contiene el NIP, Bases de datos, Información sobre COPs
Disposición final adecuada de los residuos	Disposición final adecuada de los residuos
Desecho responsable de envases	Desecho responsable de envases
Inventariación y mapeo	Inventariación y mapeo
Inventariación y mapeo	Inventariación y mapeo
Comunicación, sensibilización y capacitación	Comunicación, sensibilización y capacitación
Obliga al productor/importador a contar con sistemas de gestión de envases.	Obliga al productor/importador a contar con sistemas de gestión de envases.
Acción propuesta para evitar y atender mejor casos de accidentes	Acción propuesta para evitar y atender mejor casos de accidentes
Gestión ambiental de las empresas, en el sector privado	Gestión ambiental de las empresas, en el sector privado
En el sector privado	En el sector privado
Establece procedimientos correctos de manipulación y disposición de plaguicidas	Establece procedimientos correctos de manipulación y disposición de plaguicidas
En instituciones de investigación, principalmente en las Universidades	En instituciones de investigación, principalmente en las Universidades
Control de la calidad del agua por el Estado	Control de la calidad del agua por el Estado
Enfocado en las fuentes fijas de contaminación	Enfocado en las fuentes fijas de contaminación

Estimaciones de the Use and Emissions of PCB per year

Comparación de Usos y Emisiones de PCBs - Argentina



Data Base Structure



The Portal www.stpla.org

STP Latino América > Descripción de proyecto - Mozilla Firefox

Archivo Editar Ver Historial Marcadores Herramientas Ayuda

http://www.stpla.org/bpais.php

Lunes, 8 de Octubre de 2007 - 19:11 Hs

Portal de Sustancias Tóxicas Persistentes Latino América y el Caribe

Inicio > Búsqueda > Por país

Búsqueda de Sustancias por País

Para generar la búsqueda favor seleccione el país deseado y luego el botón Buscar.

Seleccione el País

Antecedentes

Manual del Usuario

Búsqueda

- Por País
- Por Sustancia

Sitios de Interés

Advertencias

Administrador

Inicio

STP Latino Am...

ES 19:11

The Portal www.stpla.org

STP Latino América > Descripción de proyecto - Mozilla Firefox

Archivo Editar Ver Historial Marcadores Herramientas Ayuda

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Inicio > Búsqueda > Por país

Antecedentes
Manual del Usuario
Búsqueda
Sitios de Interés
Advertencias
Administrador

CÓDIGO PAÍS 2
NOMBRE PAÍS Argentina

NOMBRE	OPCIONES	
<input type="checkbox"/> Bifenilos Policlorados	Ver Ficha	Continuar
<input type="checkbox"/> Dioxinas y Furanos	Ver Ficha	Continuar

Volver

Inicio STP Latino Am... ES 19:15

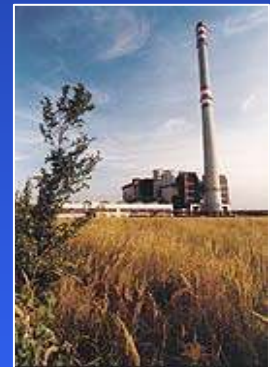
Users and information

- Information for the **public**: algorithms on exposure
- Information for the **industry**: algorithms on emissions
- Information for **managers**: algorithms on emissions
- **Regional** Information: lists, reports, graphs, tables....



Potential uses of the PTS Data Base

- Definition of priorities
- Knowledge of the sources of emissions
- Implementation of the G.H.S.
 - election of substances
 - election of priority sectors
 - communication for potential risks
 - divulgation of norms, reglaments, etc.
- > Leverage Funding



Potential uses of the PTS Data Base

- Alert and prevention of disasters
- Reduction of PTS environmental levels
- Election of substances for PRTR and other reporting systems
- Divuligation of the Risks
- Waste Management
- Promoting/Controlling Trade
- Capacity building (analytical capacities)
- Promoting PTS related activities



Thank you!

<http://www.oas.org/dsd/>