



UNITED NATIONS ENVIRONMENT PROGRAMME



**PROCEEDINGS OF THE
WORKSHOP ON DEVELOPMENT OF
NATIONAL INSTITUTIONS AND
INFRASTRUCTURES FOR SOUND
MANAGEMENT OF CHEMICALS IN
THE CENTRAL AND EASTERN
EUROPEAN REGION**

**RIGA, REPUBLIC OF LATVIA
7-8 DECEMBER 2006**

KEMI – THE SWEDISH CHEMICALS AGENCY

AGENDA AND TIMETABLE

THURSDAY 7 DECEMBER

1st Session: OPENING

09:00 **Welcome remarks** *Kaj Madsen*
UNEP Chemicals

2nd Session: DEVELOPMENT OF LEGISLATIVE AND INSTITUTIONAL FRAMEWORKS

09:15 **Introductory presentation**

Purpose of the workshop in relation to the implementation of SAICM with a focus on capacity development *Torbjörn Lindh*
KemI

09:30 **Keynote presentation**

The concept and elements of legislative and institutional frameworks for integrated chemicals control *Bengt Bucht*
KemI

10.00 **Coffee Break**

10.30 **Selected presentations from countries in the region focusing on specific aspects of chemicals management**

Establishing legislation and institutions for chemicals control in Poland *Jerzy Majka*
Poland

Developing human resources for chemicals management in Lithuania *Marija Teriošina*
Lithuania

Development of a chemicals framework law for Serbia *Valentina*
Radjenovic
Serbia

The toxic chemicals reduction programme in Massachusetts *Rachel Massey*
University of
Massachusetts
Lowell and Tufts
University

11.45 **Panel discussion**

12.30 **Lunch**

- 13.00 Presentations from selected Stakeholders**
- What is the way forward for integrated chemicals control seen from the industries perspective? *Rainer Koch
ICCA*
- What is the role of NGOs in development of integrated chemicals control. *Joe DiGangi
IPEN*
- 13.45 Panel discussion**
- 14:00 Introduction to the breakout groups** *Kaj Madsen*
- 14.15 Breakout groups**
- Suggested discussion topics:
- Steps in the development of legislative and institutional frameworks
 - The respective roles and responsibilities of agencies, industry and other stakeholders
 - The involvement of different sectors in chemicals management
 - How to develop enforcement
 - Coordination between sectors
 - Non-financial barriers to development and implementation of infrastructures
 - General tools for capacity development, intraregional cooperation, support from other countries (twinning), mainstreaming chemicals into the national development agenda.
- 17.30-18.30 Report to plenary from breakout groups**

FRIDAY 8 DECEMBER

3rd Session: SPECIFIC ISSUES IN THE DEVELOPMENT OF INFRASTRUCTURES FOR CHEMICALS CONTROL

- 9:00 Keynote presentations**
- Strengthening integrated chemicals and waste management *Anahit
Aleksandryan
Armenia*
- Risk management as a driver of development *Rachel Massey*

	Risk management tools	<i>Nida Besbelli WHO regional office, Bonn</i>
10.00	Coffee	
	Dissemination of knowledge and information, PRIO, a database on chemicals	<i>Johanna Lissinger Keml</i>
	Building human resources for chemicals control and enforcement	<i>Jerzy Majka</i>
11.30	Panel discussion	
12.00	Introduction to Breakout groups	<i>Kaj Madsen</i>
12.15	Breakout groups	
	Suggested discussion topics:	
	Needs, problems and solutions in addressing:	
	- risk management	
	- knowledge and information	
	- human resources	
	- enforcement	
	Needs for developing tools for capacity development in the above areas	
12.30	Report to plenary from breakout groups	
13.00	Follow up, next phases	<i>Kaj Madsen</i>
	Guidance and recommendation for countries, stakeholders and intergovernmental organizations and multilateral and bilateral donors for future activities to develop and implement legislative and institutional frameworks for chemicals control	

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INTRODUCTION

The Strategic Approach to International Chemicals Management (SAICM) that was adopted 6 February 2006 at the International Conference on Chemicals Management in Dubai, United Arab Emirates, recognized, in the Dubai Declaration, that there was a lack of capacity for the sound management of chemicals in developing countries and countries with economies in transition. This was also recognized in the Bali Strategic Plan for Technology Support and Capacity Building adopted by the Governing Council of the United Nations Environment Programme (UNEP) in February 2005 at which time chemicals were appointed as one of the thematic areas.

Within its environment mandate, UNEP has been working with capacity building in the sound management of chemicals in developing countries and countries with economies in transition for a number of years, including through implementation of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants, together with training in access to information of relevance for the sound management of chemicals.

Capacity building for the sound management of chemicals is part of the seventh objective of the Millennium Development Goal on environmental sustainability and was recognized as such in paragraph 56 (k) of the 2005 World Summit Outcome which stresses that support is needed to the developing countries in strengthening their capacity for sound management of chemicals and hazardous wastes by providing technical and financial assistance, as appropriate.

Sound management of chemicals will depend on the development of national institutions and infrastructures including legislation, regulation and assessment of chemicals together with their monitoring and enforcement. However, most developing countries, and many countries with economies in transition, have been unable to establish the necessary national legal, technical and institutional infrastructures for the sound management of chemicals.

To respond to these concerns, UNEP in cooperation with KemI, the Swedish Chemicals Agency, decided to organize a series of regional workshops as far as possible in conjunction with regional meetings of SAICM. The connection to the regional consultations will ensure that regional and national focal points for SAICM implementation, as well as national policy and decision makers, intergovernmental organizations, and non-governmental organizations involved in the sound management of chemicals throughout their life-cycle, will be present at those meeting and will provide synergies with the planned implementation activities of the SAICM Secretariat. The overall objective of the workshops was to promote and facilitate the development of national legal and institutional infrastructures. Those could be achieved through:

- identification of needs and non-financial barriers for the development of national institutions and infrastructures including an assessment of tools for facilitation of the development of national legal and institutional infrastructures and recommendations for development of tools for meeting those requirements;

- development of tools for facilitation of the development of national legal and institutional infrastructures;

- ensuring that the tools for facilitation of the development of national legal and institutional infrastructures meet national needs.

It is expected that the identification and assessment of needs and non-financial barriers will be based on experience of countries that have already carried out either development of National Profiles on chemicals management or National Implementation Plans for the Stockholm Convention as they will have useful practical experience with implementation of plans for management of chemicals and the problems they have faced. It is further expected that the recommendations for the development of tools will be based on an assessment of gaps in, for instance, guidance on different aspects for the development of national institutions and infrastructures.

The outcomes of the workshops are expected to form the basis for a future targeted approach to development of national legal and institutional infrastructures based on tools that are developed according to the needs of countries and which can be used as guidance for national activities including training.

The current proceedings are the results of the first workshop on development of national institutions and infrastructures for sound management of chemicals held in Riga, Republic of Latvia, 7 to 8 December, 2006.

INTRODUCTORY PRESENTATION

Torbjörn LINDH

Slide 1

**Integrated Approaches to
Chemicals Control**

United Nations Environment Programme
in cooperation with the Swedish Chemicals Agency

Workshop 7 – 8 December
in connection to the SAICM regional meeting in Riga

Slide 4

**Legislative frameworks and
institutional infrastructures**

General principles, mandates and detailed
requirement

imbedding rules for classification, labelling,
safety data information and restrictions on
marketing and use

Slide 2

Global Plan of Action

Measures to support risk reduction

**Strengthening knowledge and
information**

**Governance: strengthening of
institutions, law and policy**

Enhancing capacity-building

Slide 5

The need for lead mandates of
administration, core capacity, access
to clusters of competence, and the
resort to supervisory resources

Slide 3

Knowledge on hazardous substances;
properties, effect-levels and risk
management measures when placing
chemicals for use

serves early action on risks

in all areas of special legislation; health protection,
pollution prevention, workers' protection, accidents
at hazardous installations etc

Slide 6

Break-out groups

Today:
Moderators Irina Zastenskaya, Belarus
Craig Boljkovac, UNITAR

Tomorrow:

Farewell Friday at about 15.30

THE CONCEPT AND ELEMENTS OF LEGISLATIVE AND INSTITUTIONAL FRAMEWORKS FOR INTEGRATED CHEMICALS CONTROL

Bengt BUCHT

Slide 1

Chemicals risk management in the supply chain - Strategies, legislation, institutions.

Riga

Dec. 2006

Bengt Bucht
Swedish Chemicals Inspectorate

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Slide 4

Risk management of chemicals
a horizontal issue

Factors to take into account:

- Health and Environment and Safety issues
 - Risks for Consumers - Workers - Environment
 - Property risks (fires, explosions)
- Positive effects on e.g health, economy, employment
- Trade aspects - free movement of goods

Need for an appropriate balance
Several ministries/authorities are involved
Need for clear responsibilities and roles!
Need for co-ordination and co-operation!

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Slide 2

The scene for chemicals control

- Why manage chemical risks
- What is chemicals risk management
- How to manage chemical risks - Which are the main tools
- How does chemicals legislation connect to legislation on environment, working environment, transport etc.
- Which are the actors on the scene and their roles and responsibilities - Who should do what
- How may governments organise a cost-efficient risk management

?

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Slide 5

Chemicals risk management
4 basic steps

1. Get knowledge of (assess) hazardous properties of chemicals
2. Disseminate knowledge on hazards, risks and safe use
3. Make good choices of chemicals - technical and risk aspects
4. Assess risks at each specific use, take measures for risk reduction

Who is to do what according to modern legislation

?

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Slide 3

Increasing trade in and use of chemicals

Huge product/goods flows in society

huge material flows

large flows of chemicals

Chemical risks to H & E & S
(acute or long-term effects)

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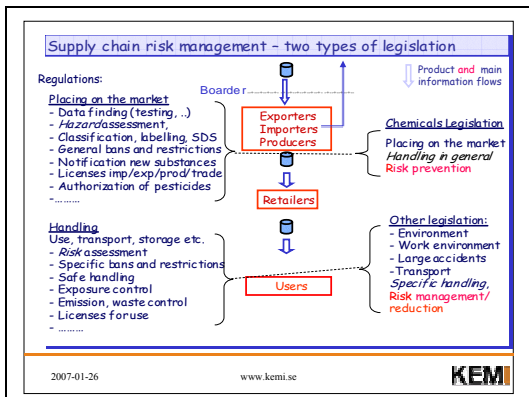
Slide 6

Only suppliers and users of chemicals can ensure a safe use of chemicals

- Enterprises (private consumers) should have the main responsibility for:
 - Testing, hazard/risk assessment, classification, labelling, SDS, training of workers, work instructions, organising a safe use etc.
- Not possible for governments to assess all risks or to regulate in detail.
 - Very scattered and varying use of chemicals.
 - Fast development of new products and changes in use
- **Pesticides, food/feed additives, drugs:** usually approved by authorities. Pre-market control.
- **Other chemicals:** government/agencies steer by general regulations expressing responsibilities of enterprises and by supervision/inspection. Post-market control.

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Slide 7



Slide 10

Suppliers/users have to build capacity

Enterprises need:

- Organisation and routines for chemicals control
- Expertise (own or external. Support from associations!)
- Documentation on chemicals to be placed on the market or used (from tests, literature, foreign and domestic suppliers)

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Slide 8

Information on chemicals from suppliers to users is essential for a safe use

Preparations:

Suppliers, employers are to inform on their chemicals:

- Suppliers: labelling, SDS, ... **Fundamental** for chemicals control
- Employers: work instructions, training, information ..

Regulated by:

- National legislation; Standards (ISO,...); International agreements (e.g EU, UN/OECD (GHS, ILO, POPs and PIC convs, ...))

Substances:

Sources on general information on substances

- Literature (books, handbooks, ...)
- Electronic tools (websites, data bases)

Information to be searched for by enterprises!

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Slide 11

National infrastructure needed for governments

Legislation

Laws and regulations

- Basic responsibilities of enterprises
- allocation of responsibilities to ministries/authorities "who to do what"
- Specific regulations on chemicals (classification, labelling, SDS, etc.)

Institutional set up
(ministries, authorities)

- Organisation
- Responsibilities/tasks
- Routines for work
- Co-operation!
- Co-ordination!

Resources

- Financial
- Expertise - quantity/quality
 - law, chemistry, toxicology, haz./risk assessment and management, inspection methodology, ...

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Slide 9

Avoid 'STOP's

- Serious customers do not purchase chemicals/articles if suppliers cannot give sufficient information on hazards, composition and safe use.
- Implementation of international agreements/strategies (GHS, POPs, PIC, SAIICM) for:
 - simplified and harmonised national regulations and risk management
 - facilitated export/import

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Slide 12

An integrated legislative and institutional national infrastructure

1. **Basic, coherent chemicals legislation regulating:**
 - placing on the market of chemicals (H/E/S)
 - responsibilities of suppliers
 - implementation of international agreements

co-ordinated with

Basic legislation on environment, work environment, transport, ..
2. **Institutions for legislation and for enforcement**
 - clear and separate responsibilities
 - ensure co-operation and co-ordination

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Slide 13

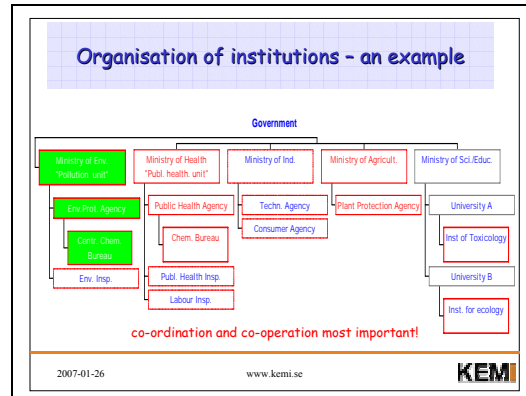
Integration for cost efficient risk management

"The 5 C's"

Coherency **C**o-ordination
Consistency **C**ontinuity
Cost efficiency

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Slide 16



Slide 14

Main challenges

- > Improve, integrate, co-ordinate legislation
- > Concentrate and decentralise decision making to ministries and authorities
- > Ensure inter ministerial co-operation/co-ordination for efficient use of resources
- > Make clear the different roles of government and enterprises
- > Ensure a constructive dialogue between ministries/agencies and enterprises/associations

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Slide 17

Possible tasks for central government authority(ies) for chemicals. Demanding!

- International work on expert/management level (scientific/technical/legislative)
- Propose/prepare decisions on legislation etc.
- Other support to the government in policy issues
- Manage systems: new/exist subst., classif./label., restrictions, biocides, plant protection products, etc.
- Monitor/assess domestic use of chemicals.
- License enterprises placing chemicals on the market - data base
- Co-operate with other state institutions
- Co-operate with trade, industry and other stakeholders
- Guide and advice enforcement agencies

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Slide 15

Possible organisation of institutions for chemicals control

- > **Policy level:** main ministry(ies) for legislative work and other policy issues nationally and internationally
- > **Management:** main "chemicals management institution(s)" for daily expert work
- > **Enforcement:** inspectorates for supervision/control level
- > **Poison Infor-:** for medical advice at intoxications
- > **mation Centre**

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Slide 18

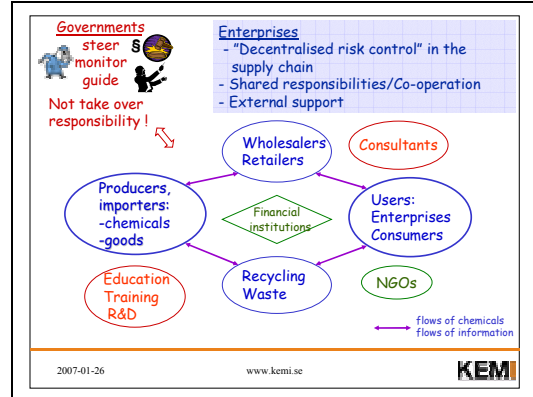
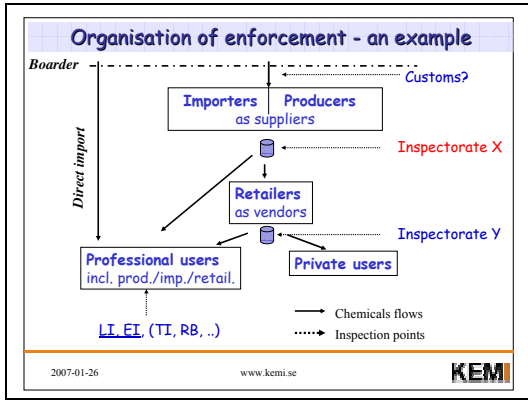
No enforcement = "no law"!

Needs:

- Establishment of and instructions for appropriate inspectorates: clear tasks
- Knowledge of enterprises to inspect
- Guidance/support to inspectorates: new legislation, interpretation of legislation, inspection methodology, training,
- Resources of inspectorates, qualified inspectors
- Legal rights for inspectors: to get information, to site visits, to issue orders
- Clear legal responsibilities for enterprises
- Sanctions in case of violation of law

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Slide 19



Slide 20

ESTABLISHING LEGISLATION AND INSTITUTIONS FOR CHEMICALS CONTROL IN POLAND

Jerzy MAJKA

Slide 1

Establishing legislation and institutions for chemicals control in Poland

*Jerzy Majka
Inspektor for Chemical Substances
and Preparations*

*First UNEP/Sweden Workshop on Integrated
Approaches to Chemicals Control
Riga, 7 – 8 December 2006*

Slide 4

Most important first steps

- Classification
- Labelling
- Safety Data Sheets
- Restriction on the production, marketing and use of chemicals
 - The country could adopt EU provisions concerning these issues without being the EU member
 - It is always beneficial when EU is a main trade partner

Slide 2

Aim of the system

- To settle conditions, bans and/or restrictions for manufacturing, placing on the market and/or use of chemical substances and preparations in order to protect against the harmful impact of these substances and preparations on human health and/or the environment.
 - control t the beginning of the pipe

Slide 5

EU legislation considered most relevant

- Directive 67/548/EEC on dangerous substances
- Directive 1999/45/EC on dangerous preparations – as amended
- Directive 91/155/EEC on safety data sheets – as amended
- Directive 76/769/EEC on restrictions of marketing and use of chemicals – with almost 30 amendments

Slide 3

Relatively easy way – copy the EU system

- Since Europe Agreement on association between EU and Poland signed in 1991, it was known, that Poland must approximate its laws into EU legislation
- Poland could adopt the EU experience in this area
- It was easier and much less expensive than elaboration of the country own legislation

Slide 6

EU legislation considered relevant (II)

- Regulation (EEC) 793/93 on the existing substances
- Regulation (EC) 304/2003 on the exportation and importation of certain dangerous chemicals
- Regulation (EC) 648/2004 on detergents

Slide 7

EU legislation considered relevant (III)

- Directive 87/18/EEC on Good Laboratory Practice
- Directive 88/320/EEC on the control of Good Laboratory Practice
- EINECS
- ELINCS
- Certain country specific provisions (Commission Decisions)
- Certain provisions of Directive 98/24/EC (bans)
- Certain provisions of Directive 91/414/EEC (labelling of plant protection products)

Slide 10

Basic components of the legislation (I)

- Classification and labelling of chemicals placed on the market
 - rules for classification
 - rules for labelling
 - dangerous substances list
- Rules for elaboration of Safety Data Sheets
- Requirements concerning packaging of chemicals for supply

Slide 8

Behind the system

- Plant protection products
- Biocides
- Cosmetics
- Substances depleting the ozone layer
- Electronic devices

Slide 11

Basic components of the legislation (II)

- Rules concerning notification of new substances
 - information/test results required during notification
 - only for EU members or associated countries
- Methods of testing of chemicals – common for all OECD members
- Good laboratory practice requirements
- Control of GLP laboratories

Slide 9

Components of the system

- Legislation
 - framework law and regulations under the law
- Authorities
 - competent authority
 - enforcement authorities
- Communication and co-operation with stakeholders

Slide 12

Basic components of the legislation (III)

- Bans and restrictions on the manufacturing, placing on the market and use of chemicals

Slide 13

Basic components of the legislation (IV)

- Institutions
 - competent authority
 - enforcement authorities
- Penalties
 - for non-compliance with the Act
 - for noncompliance with EU Regulations
 - for Member States or associated countries

Slide 16

Caution

- Test methods and GLP provisions are also applicable to:
 - medicinal products
 - biocidal products
 - plant protection products
 - food additives
 - feed additives

Slide 14

Classification, labeling, safety data sheets, packaging requirements

- Polish provisions strictly follow the EU provisions of the Directive 67/548/EEC, Directive 1999/45/EC and Directive 91/155/EEC
- Free movement clauses in directives on dangerous substances and dangerous preparations

Slide 17

Institutions – Bureau (I)

- Competent authority – new institution
 - Inspector for Chemical Substances and Preparations – head of the Bureau
 - Bureau for Chemical Substances and Preparations
- The Inspector is appointed and dismissed by the Minister of Health

Slide 15

Bans and restrictions

- Polish provisions strictly follow directives 76/769/EEC and directive 98/24/EC
- Additional provisions concerning supply of methanol, preparations containing methanol and very toxic substances and preparations to the general public

Slide 18

Institutions – Bureau (II)

- Principal tasks of the Bureau:
 - receiving authority for new substances
 - co-operation with EU under:
 - Directive 67/548/EEC
 - Regulation 793/93
 - Regulation 304/2003
 - Regulation 648/2004
 - co-operation, within the competence, with OECD, UNEP, WHO and other UN agencies, IFCS

Slide 19

Institutions – Bureau (III)

- Principal tasks of the Bureau:
 - control of compliance with GLP principles (must be recognized by other countries in the EU and OECD)
 - running the register of dangerous preparations
 - providing information on dangerous preparations for poison information centers

Slide 22

Institutions – enforcement (II)

- The State Sanitary Inspectorate was charged with the control tasks in the whole area of the Act on chemical substances and preparations
- The remaining enforcement institutions act within their competencies
- In most EU Members the Environmental Protection Inspectorate/Agency is responsible for enforcement of these provisions

Slide 20

Institutions – Bureau (IV)

- Additional tasks of the Bureau:
 - elaboration of proposals of new legislative acts for the Minister of Health
 - co-operation with the Council and Commission in developing new EU legislation in close co-operation with the Ministry of Health and other Ministries
 - REACH, REACH, REACH ...
 - strict co-operation with enforcement authorities – providing trainings for inspectors
 - providing information for industry

Slide 23

Institutions – enforcement (III)

- In the State Sanitary Inspectorate there are 65 inspectors well trained - in the future those inspectors will be charged solely with the enforcement of provisions of the Act on chemical substances and preparations, Act on biocidal products and relevant provisions on plant protection products
- Those inspectors come usually from the work hygiene departments in regional and local inspectorates

Slide 21

Institutions – enforcement (I)

- Enforcement tasks were charged on existing enforcement institutions:
 - sanitary (health) inspectorate
 - environmental protection inspectorate
 - trade inspectorate
 - labour inspectorate
 - custom services
- The tasks and responsibilities were new for these institutions

DEVELOPING HUMAN RESOURCES FOR CHEMICALS MANAGEMENT IN LITHUANIA

Marija TERIOSINA

Slide 1



Development of Human Resources for Chemicals Management in Lithuania

Marija Teriošina
Head of Chemicals Division
Ministry of Environment Protection, Lithuania

1st UNEP Workshop on Integrated Approaches to
Chemicals Control
Riga, 7-8 December, 2006

Slide 4

Levels of chemicals management (1)

Policy level (I)

- **Ministry of Environment**
 - ✓ legal regulation of chemicals management
 - ✓ development TGDs
 - ✓ development and execution of programmes/projects
 - ✓ EU and International co-operation
 - preparation/consideration of EC legislation & TGDs
 - representation at EU institutions, participation in Commitology
 - Implementation of 3 Conventions & 1 Protocol
 - Interinstitutional coordination & co-operation

Slide 2

Chemicals management (1)

Scope

- Testing of chemicals properties & test data evaluation; HH & environmental risk assessment; risk reduction strategies; restrictions on marketing/use; notification, registration & authorization; C&L, packaging
- Enforcement of requirements for chemicals placing on the market & use
- Life-cycle approach, horizontal nature of chemicals management
 - ✓ linkage with other env.sectors (water & air protection, waste management, pollution prevention/control)
 - ✓ Linkage with other areas (workers protection, transport, emergency prevention, etc.)

Slide 5

Levels of chemicals management (2)

Policy level (II)

- **Ministry of Health**
 - ✓ legal regulation
 - human health aspects of chemical management (testing methods, C&L)
 - certain groups of chemicals (biocides, poisonous substances, cosmetics)
 - restrictions of use/marketing
- **Ministry of Agriculture**
 - ✓ legal regulation of Plant Protection Products

Slide 3

Chemicals management (2)

Legal Regulation

- Activities regulated by
 - ✓ 3 UN Conventions , 1 Protocol, 89 EC Directives, 17 EC Regulations

Requirements of chemicals management are fully harmonized at EC level

- Lithuania
 - ✓ 17 EC Regulations, national Law on Chemicals & 6 secondary legislation, Law on Poisonous
 - ✓ Implementing body (CA) – EPA (previously SNFPI)

Slide 6

Levels of chemicals management (3)

Implementation level (I)

- **Environmental Protection Agency (LT CA)**
 - ✓ scientific-technical expertise of chemical data, examination of C&L proposals on national and EU level
 - ✓ environmental risk assessment
 - ✓ elaboration of risk reduction strategies
 - ✓ establishment of chemicals import/export conditions, implementation of international import/export procedures
 - ✓ examination of notifications submitted & providing documentation to EC/other MSs

Slide 7

Levels of chemicals management (4)

Implementation level (I)

- **Environmental Protection Agency (LT CA), cont.**
 - ✓ examination of proposals from other MSs for C&L, draft risk assessment reports, etc.
 - ✓ data on chemicals on the national market collection/dissemination, maintenance of national register and DB
 - ✓ implementation/administration of chemicals regulation
 - ✓ participation at EC technical committees/meetings
 - ✓ co-operation with industry and other sectors, consultations

Slide 10

Levels of chemicals management (7)

Enforcement level (II), Functions

State Labour Inspectorate

- Labelling & SDS availability at work place

SNFPI (consumer products) & SEPI (others than consumer products)

Production, placing on the market and use of chemicals:

- C&L, packaging requirements
- justification of classification (optionally)
- registration/authorization
- use/restriction conditions
- safety data sheet (content)
- storage
- record keeping (optionally), withdrawal from the market, internal audit conclusions' follow up

SEPI & SNFPI

Compliance check

Slide 8

Levels of chemicals management (5)

Implementation level (II)

- **State Environmental Health Center**
 - ✓ scientific-technical expertise of chemical data on health hazards at national and EU level
 - ✓ human health risk assessment
 - ✓ data on poisonous substances & poisoning collection/analysis
 - ✓ regulation of bans/restrictions of chemicals use in products
 - ✓ biocides (registration & authorization)
- **State Plant Protection Service**
 - ✓ Registration of PPP

Slide 11

Chemicals management - specifics

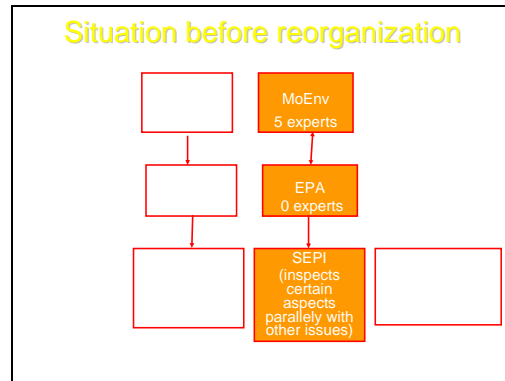
Slide 9

Levels of chemicals management (6)

Enforcement level (I)

- **Tasks**
 - ✓ enforcement of requirements on chemicals management, inspections & compliance check
 - ✓ coordination & co-operation between enforcement authorities, information exchange
- **Not allocated**
 - ✓ Enforcement of placing on the market/use poisonous substances (permit for purchasing & use, qualification requirements)

Slide 12



Slide 13

Former problems (1)

Situation before reorganization

➤ **Implementation level**

- ✓ functional links between policy & implementation levels not ensured
- ✓ links with other environmental institutions & sectors (water, air protection, etc.) not ensured
- ✓ number & qualifications of specialists not adequate, opportunity to improve knowledge in EU-15 missed
- ✓ insufficient financing, duplication of functions, unreasonable planning & resources use
- ✓ non-effective representation at EU institutions

Slide 16

Former problems (4)

Tasks execution

➤ **Implementation level**

- ✓ Gap between policy & implementation levels resulted in the absence of clear strategy on implementation level
- ✓ Difficulties in complying with EU requirements (notification of new substances, weak preparedness to conduct risk assessment, import-export procedures)
- ✓ Insufficient participation at EC meetings (inadequate financing, unreasonable planning)

Slide 14

Former problems (2)

Situation before reorganization, cont.

Slide 17

Former problems (5)

Tasks execution, cont.

- CA might encounter difficulties in implementing transitional measures
- weak & insufficient activities as CA

Slide 15

Former problems (3)

Situation before reorganization, cont.

Slide 18

Former problems (6)

Tasks execution, cont.

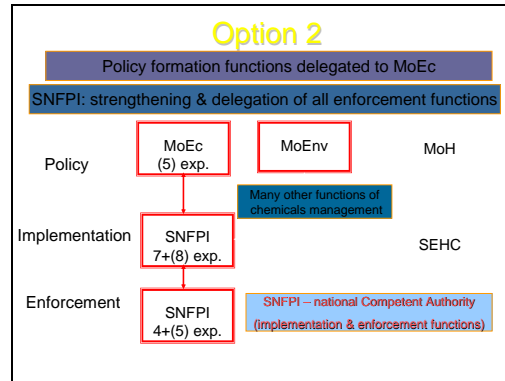
Slide 19

Current situation

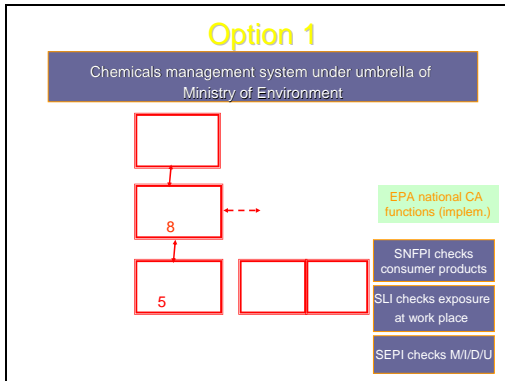
Chemicals management system under umbrella of Ministry of Environment

Human resources		Needs acc. to estimations	Fact
	Policy level (MoEnv)	8	5
	Implementation level (EPA)	15 – 20	10
	Enforcement level (SEPI)	5	3 (lack of experience in the field)

Slide 22



Slide 20



Slide 23

Impact of reorganization under option2

Slide 21

Impact of reorganization under option1

Slide 24

- ### Decision on Institut. Reorganization
- implementation*
- > Transfer chemicals regulations' implementation functions from SNFPI to EPA
 - > Ensure human & financial resources for EPA to enable proper implementation
- enforcement*
- > Strengthen SEPI, allocate add. staff & resources to conduct inspections

Slide 25

Follow up actions

- Amendments of Chemicals Law & 6 secondary legislation prepared and adopted
- Additional staff units introduced in EPA (8 in addition to 7 from SNFI) & SEPI (5 new staff units)
- EC & ECB informed on the structural changes
- Needed software & hardware, office equipment, premises provided to EPA & SEPI
- Resources for participation at meetings of EU institutions ensured
- Funding for contracting external experts estimated
- Draft State Budget for 2006 was accordingly prepared & adjusted

Slide 27

Targeted Working Groups (2)

- MoEnv (Chair), EPA, MoEc, MoH, MoSocial Affairs, MoForeign Affairs, EuroLaw Department, etc.
- LT Association of Chem.Ind Enterprises, Association of Cosmetics/Household Chemicals

No Advisory Body

Slide 26

Targeted Working Groups (1)

No Advisory Body

DEVELOPMENT OF A CHEMICALS FRAMEWORK LAW FOR SERBIA

Valentina RADJENOVIC

Slide 1

Development of a chemicals framework law for Serbia

Valentina Radjenovic,
 Directorate for Environmental Protection
 Ministry of Science and Environmental Protection
 Republic of Serbia

Slide 4

Institutional set-up

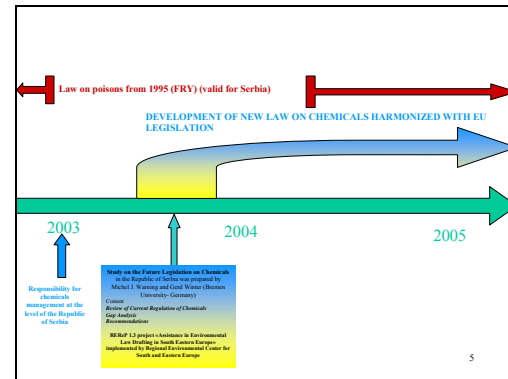
According to the Law on Ministries, the competent authority for the enforcement of existing law on poisons as well as chemicals management (the preparation of new legislation on chemicals) is the Ministry responsible for environmental protection.

Slide 2

SUMMARY

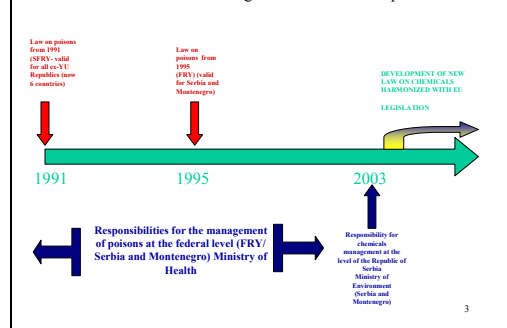
- Historical overview of the legislation on chemicals
- Problems with existing legislation
- Process of new framework law on chemicals development
- Plan for future

Slide 5

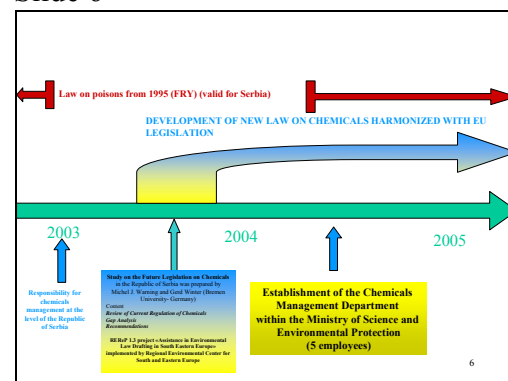


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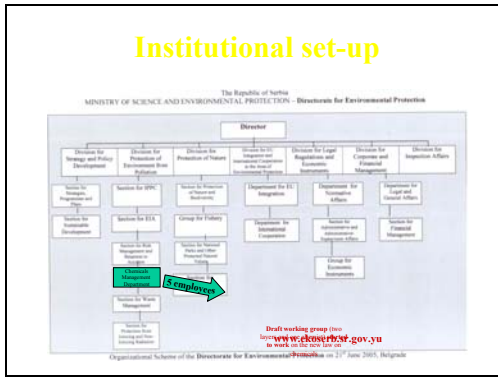
Historical overview of legislation on chemical products



Slide 6



Slide 7



Slide 8

What our Working group have always in mind during the process of drafting new framework law on chemicals?

8

Slide 9

Status of Serbian chemicals industry as well as foreign trade with chemicals...

9

Slide 10

Chemical industry

The chemical industry of Serbia experienced **three fruitful periods**:

- 1 during the **1960's** when most of the basic inorganic capacities were brought on-stream
2. **between 1975 and 1982** when efforts were focused on the development of the basic petrochemical industry; and
- 3 **between 1987 and 1990** when the production was maximized and demand were achieved.

At the end of the 1980's the production program of national chemical industry included 7-8 thousand of various chemical goods in total of 8-10 million tons.

Hard period for the chemical industry of Serbia:

1. consequences of the former Yugoslavia disintegration, such as reduction of domestic market and lack of several important intermediate products that had been manufactured in Croatia, Slovenia, Bosnia and Macedonia
2. the civil war in the region
3. the UN trade sanctions against the new Yugoslavia
4. NATO intervention where several chemical industry facilities were almost completely destroyed

Historical Development of Production: Chemicals and Chemical Products
(by manufacturing volumes from 1960 to 2005, based on 1960=100)

Slide 11

Chemical industry

The political events and the war have extensively reduced these activities during the late nineties but **the activity is resuming**.

Many local chemical companies have already been privatized – most of them have been acquired by domestic managers.

However, there are several world-known chemical companies (Henkel, Messer, Linde...) that already entered into Serbian market by acquisition of the local enterprises.

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Slide 12

Foreign Trade with Chemicals

The participation of foreign trade with chemicals **within the gross domestic product of the overall industry** of Serbia is approximately **11%**, or together with industry of rubber & plastic products **14-15%**.

We were interesting in...

- 1 Export/import amounts & value figures
- 2 Countries which plays main roles in foreign trade with chemicals

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Slide 13

We interviewed (formally and informally)

- producers, importers and some downstream users and **try to identify problems which they are facing during the enforcement of existing legislation.**

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Slide 16

Law on Production of and Trade in Poisons

Article 2

Poisons, in terms of the present Law, shall be considered to be substances of natural or synthetic origin, and preparations manufactured from these substances, which may harm the life and health of people and/or the environment.

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Slide 14

We have always have in mind that...

Chemicals industry and a foreign trade of chemicals play a significant role in our country economy.

What are the difficulties with existing legislation for our producers/importers and if these difficult procedure contribute to the chemical safety within the country.

We have to be patient in selecting the acceptable solution for our industry at moment but also...

...we should prepare industry for future procedures prescribed by new EU regulation (REACH).

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Slide 17

Problem with term of poisons

Existing law stipulates that poisons are classified according to their acute toxicity (LD50 for oral, dermal and inhalation) into three groups. The scope of the specific groups is defined by the same article.

	LD ₅₀ at introducing into stomach of a rat	LD ₅₀ at depositing on skin of a rat or a rabbit	LC ₅₀ at inhaling by a rat during four hours
Group I	< 25mg/kg	< 50mg/kg	< 0.5mg/l
Group II	25-200mg/kg	50-400mg/kg	0.5-2mg/l
Group III	200-2,000mg/kg	400-2,000mg/kg	2-20mg/l

Law states that poisons shall also be classified according to their properties other than acute toxicity(1).
 Details on the subject of classification are laid down in the Regulation on Criteria for Classifying Poisons into Groups and Methods for Determining the Degree of Toxicity of Particular Poisons.

(1)chronic, carcinogenic, teratogenic, mutagenic, embryo-toxic, allergenic, skin and mucous membrane irritability effects, danger to environment due to corrosion effect, explosiveness, inflammability, high inflammability, self-inflammability, and other poison classification criteria.

17

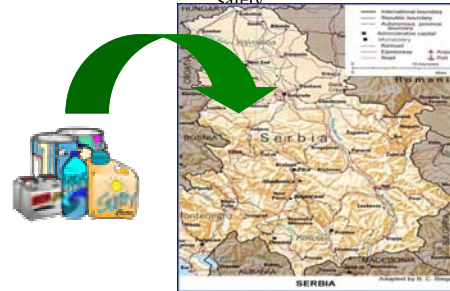
Slide 15

We compare procedures prescribed by Law on Production of and Trade in Poisons with EU legislation (existing and new) and tried to understand main obstacles within our existing legal system

15

Slide 18

Existing law regulate placing on the market on poisons (dangerous chemicals)/chemical product safety



Slide 19

But also...

(Decision on compliance with conditions for production and trade of poisons (Art. 17))
Decision on Conditions which must be fulfilled by Legal Persons and Entrepreneurs which Produce,
Trade and Control Poisons

Occupational health and safety legislation

Law on Production of and Trade in Poisons

Environment

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Slide 22

Existing legislation

- Law on Transport of Dangerous Substances from (1991)
- Law on Environmental Protection (2004) as well as Regulation on methodology of risks of chemical accidents and environmental pollution (1994)
- Law on plant protection (phytopharmaceuticals products & fertilizers) (1998)
- Occupational Health and Safety Law (2005)
- Law on explosive substances, inflammable fluids and gases (1977)
- Law on sanitary-hygienic conditions for food production and consumer goods (cosmetic products, detergents) (1977)
- Law on Placing on the Market of Explosives (1985)
- Fire Protection Act (1988)

22

Slide 20

The conclusion was that we need to further examine...

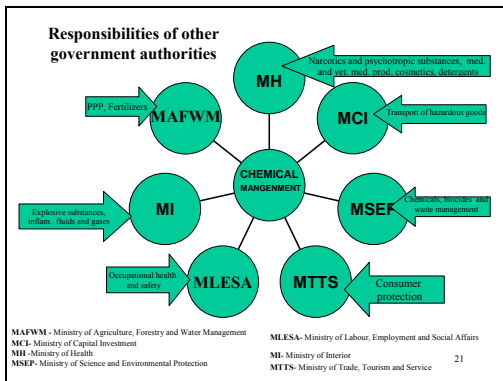
- content of other legislation
- deadlines for development of new legislation (harmonized with EU legislation) by other authorities
- the content of new legislation

20

Slide 23

And try to prepare framework law which will be in line with other legislation...

Slide 21



Slide 24

During the interviews (both formal and informal) we have involved:

- inspections (environmental inspectors, occupational inspectors, inspectors responsible for transportation of dangerous goods, etc.) in order to find out where the responsibilities and tasks are not clear enough; to identify overlapping of the activities or some important issues which are not covered at all
- representative of scientific institutions to see their view on existing legal system since some of them were main authors of the existing legal system and responsible for the execution of some part of existing legislation.

24

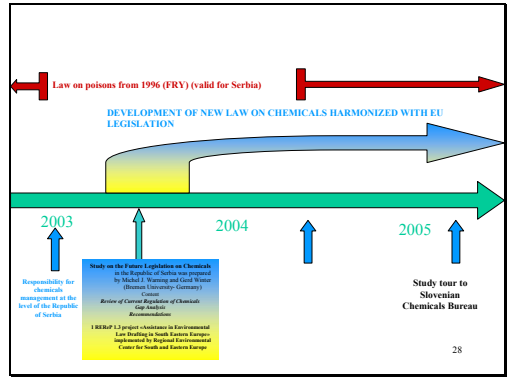
Slide 25

We also examined what would be the legal framework for the implementation of international agreements on chemicals

- Since we want to integrate implementation of international agreements on chemicals with new framework law on chemicals
- We explore demands of international convention (PIC Convention, POPs Convention, Chemicals Weapons convention) as well as appropriate implementing EU legislation for these convention and
- ...try to find what obligation should be prescribed (to the producers, importers etc.) for the implementation of international conventions within the new framework law on chemicals and what with other legislation.

25

Slide 28

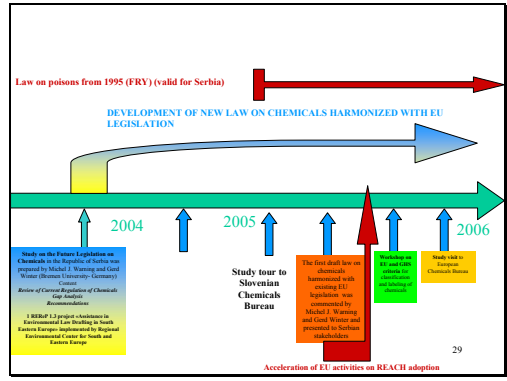


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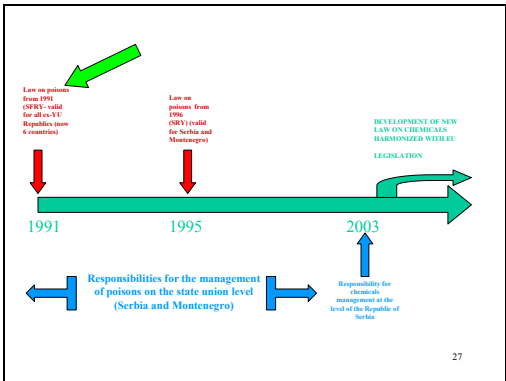
- We consider the MS' framework laws on chemicals (Slovenia, Croatia, Slovakia, Denmark, Germany, Czech Republic, Poland etc.)
- We wanted to understand the process of transposition of EU regulation on chemicals in new EU member states and how they implement/enforce new regulation
- And what we did...

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Slide 29



Slide 27



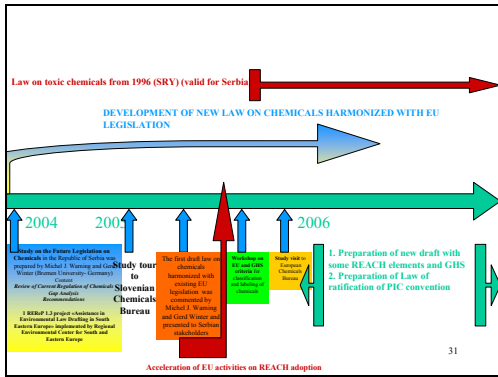
Slide 30

Government of the Republic of Serbia adopted Action Plan for the approximation of Serbian legislation with the EU regulation

Legislation	Rationale	Current legal situation	Competent ministry	Competent person	Deadline
20. Law on Chemicals	Regulates management of chemicals, control of production and trade in chemicals, especially packaging, marking, cross-border transport etc.	Law on production and trade of poisons	Ministry of Science and Environmental Protection	Valentina Radenkovic Jelena Cvetkovic	2 quarters of 2007
21. Law on Detergents	Regulates management of chemicals, control of production and trade in chemicals, especially packaging, marking, cross-border transport etc.	Regulation 2004/10, 2004/9 GLP Regulation 2004/2003 Regulation 850/2004/EC on detergents			

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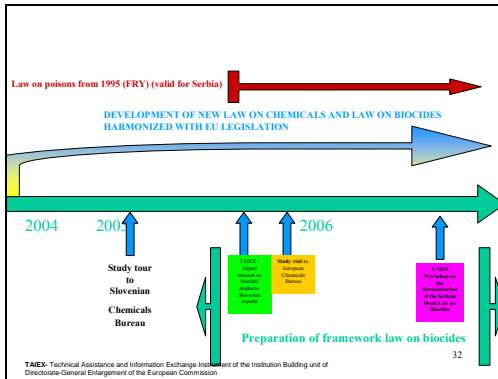
Slide 31



Slide 33

- ### Plans for future
- Finalization of draft frameworks on chemicals and biocides
 - Finalization of National Profile for Chemicals Management within the NIP for POPs project
 - Preparation of subsidiary legislation
 - Capacity building for different aspect of chemicals management (government authorities, industry, scientific institutions, etc)
 - National Profiles Update, Development a National SAICM Capacity Assessment, and Hold a National SAICM Priority-Setting Workshop- funded by SAICM Quick Start Programme Trust Fund with UNITAR as implementing agency
 - Strengthening inter-sectoral cooperation and establishment of information system for chemical management (chemicals registry, network between government authorities responsible for different part of chemicals management, etc.)

Slide 32



THE TOXIC CHEMICALS REDUCTION PROGRAMME IN MASSACHUSETTS

Rachel MASSEY

Slide 1

Massachusetts Toxics Use Reduction Act

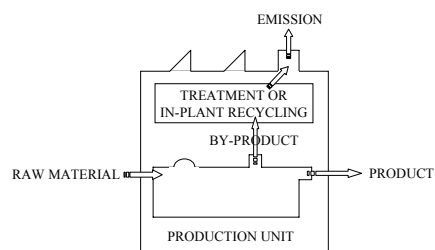
Rachel Massey

Toxics Use Reduction Institute
University of Massachusetts Lowell

& Global Development and Environment Institute
Tufts University

Slide 4

TUR Data Collection Points



Slide 2

Massachusetts Toxics Use Reduction Act

- TURA overview
 - History & conceptual framework
 - What is TUR?
 - Provisions of TURA
- Program outcomes
 - Data trends
 - Analyses and critiques
 - Financial implications

Slide 5

What is Toxics Use Reduction?

- Toxics Use Reduction is a form of Pollution Prevention and Cleaner Production rather than Pollution Control
- Toxics Use Reduction focuses on reducing the use of toxic chemicals in industrial production and products

Slide 3

TURA Provisions

- Any firm manufacturing, processing or otherwise using any listed toxic chemical over a given threshold must:
 - report annually to the State on the amount of use and waste generated
 - prepare and biannually update a plan to reduce or eliminate the chemicals
 - pay an annual fee

Slide 6

What is Toxics Use Reduction?

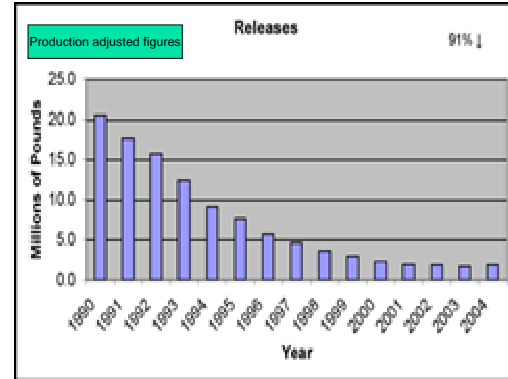
1. Input Substitution
2. Product reformulation
3. Production unit redesign or modification
4. Production unit modernization
5. Improved operation and maintenance
6. Integral recycling

Slide 7

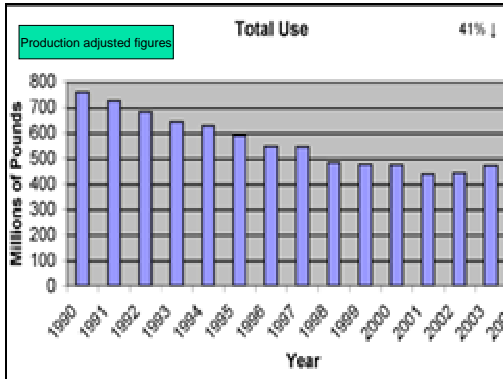
TUR: Examples

- Solvent substitution in washing and degreasing
- Hydrocarbon-based inks replaced with water-based inks
- Installing automated pressure and temperature controls to reduce leaks and spills

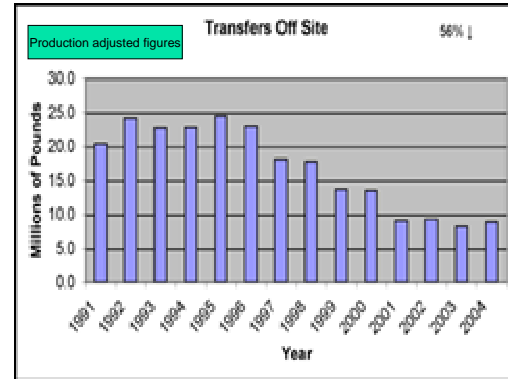
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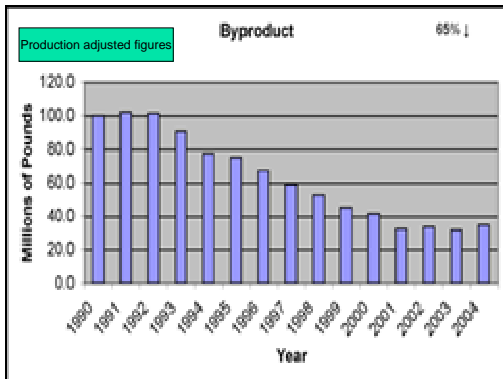
Slide 8



Slide 11



Slide 9



Slide 12



Slide 13

Financial Benefits

- Participating companies reduce their permitting, production, and waste management costs by:
 - Changing and modernizing production systems;
 - Improving operations and maintenance;
 - Reformulating products; and
 - Recycling raw materials through the production process.

Slide 16

Financial Benefits

- Not calculated:
 - Human health and ecological benefits
 - Benefits to non-TURA firms
 - Value of TURA data to public

Slide 14

Financial Benefits

- 1990-97 (costs in millions):
 - Costs: \$76.6 million
 - Benefits: \$90.5 million

Slide 17

Questions & Possible Critiques

- Large vs. small users of toxic chemicals
- Limits to voluntary programs
- Prioritizing higher hazard chemicals
- Goal setting
- Reliance on an existing list of toxics
 - Newer chemicals may be unlisted
 - Nanomaterials - ?
- Reductions leveling off over time?

Slide 15

Financial Benefits

- 1990-97 (costs in millions):
 - Monetized costs
 - Compliance costs \$50
 - Capital investments \$27
 - Monetized benefits
 - Savings in operating costs \$88
 - Federal grants \$2

Slide 18

Program activities at TURI

- Training
- Community education
- University research
- Demonstration sites & community grants
- Supply chain projects
- Library & Laboratory
- Alternatives analysis

Slide 19

Community Grants Program

- Serves grassroots community organizations, municipalities, and small businesses
- Focus areas include:
 - Healthy cosmetology
 - Pesticide use reduction
 - Green building
 - Cleaning products
 - Municipal environmentally preferable purchasing

Slide 22

Five Chemicals Alternatives Assessment



Slide 20

Surface Solutions Laboratory

- As a technical assistance provider for over 13 years
- SSL has helped hundreds of companies find safer alternatives to hazardous cleaning solvents.
- Over one-third of the companies fully adopt the lab's recommendations.

Slide 23

Five Chemicals Alternatives Assessment

- Prioritize chemical uses
 - Importance in MA; availability of alternatives; exposure potential
- Identify & screen alternatives
 - Drop-in substitutes; changes in manufacturing operations; changes to component/product design
- Prioritize alternatives
 - Performance, availability, EH&S characteristics, cost

Slide 21

Three Types of Cleaning

- Parts Cleaning
 - Cleaning parts during and after manufacturing in metal working or tooling industries
 - Gross Cleaning Applications
- Precision Cleaning
 - Cleaning parts during and after manufacturing in Semi Conductor and Medical Sectors
 - Critical Cleaning Applications
- Facility Cleaning
 - Janitorial or housekeeping chores in public/private institutions such as schools or hospitals
 - Institutional Cleaning Applications

Slide 24

Lead – Uses and Alternatives

- Heat Stabilizers – PVC Wire and Cable**
 - Mixed metal: Ca-, Ba-, Mg-Zn
 - Magnesium aluminum hydroxide carbonate hydrate.
 - Magnesium zinc aluminum hydroxide carbonate
- Handgun Ammunition**
 - Bismuth (bismuth with copper, polyethylene or zinc jacket)
 - Copper (sintered copper powder with tin, copper with polymer)
 - Iron (iron powder with copper)
 - Tungsten (tungsten and copper powder in nylon matrix, and tungsten with tin)
 - Zinc (zinc powder and zinc wire with jacket)
- Wheel Weights**
 - Copper
 - Polypropylene (PP with chalk filler, and PP cartridge with steel media)
 - Steel
 - Tin
 - Zinc and zinc/copper/aluminum alloy (ZAMA)
- Fishing Sinkers**
 - Bismuth
 - Steel
 - Tin
 - Tungsten
 - Ceramic

Slide 25

Lowell Center for Sustainable Production

- Chemicals policy
- Information clearinghouse; database projects
- Precautionary principle
- Sustainable hospitals project
- Environmental health initiative

www.sustainableproduction.org

Slide 26

Resources

- Websites:
 - www.turi.org
 - www.mass.gov/envir/ota
 - www.sustainableproduction.org
- Case studies
- Technical reports
- Fact sheets
- Data (www.turadata.turi.org)

THE ROLE OF NON-GOVERNMENTAL ORGANIZATIONS IN THE DEVELOPMENT OF INTEGRATED CHEMICALS CONTROL

Joe DIGANGI

Slide 1: Public interest NGOs and integrated chemicals control

Visual

Public interest NGOs and integrated chemicals control

Slide 2: Key principles

Visual

Key principles

1. Precaution
2. No data, no market
3. Substitution
4. Right to know

Spoken

Key principles for chemical policy as SAICM proceeds

Countries may need legislation simpler and more streamlined than REACH

National chemicals management appropriately begins at the top of the chemical supply chain (producer or importer) with these enterprises having responsibility to provide information and guidance down the supply chain.

Precaution

Present in SAICM in the Overarching Policy Strategy paragraph 14 e “Appropriately to apply the precautionary approach, as set out in Principle 15 of the Rio Declaration on Environment and Development, while aiming to achieve that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment;”

No data no market

Chemical substances – including those found in preparations or articles – must undergo a chemical safety assessment and must be registered before the chemical can be manufactured or placed on the market. Implementing this principle is needed to ensure adequate implementation of the SAICM objective that knowledge and information on chemicals is sufficient to enable them to be adequately assessed and managed safely throughout their life cycle

Substitution

Replacing hazardous substances of concern by suitable safer alternative chemical or non-chemical alternatives; implementing this principle is needed to ensure full implementation of the SAICM Risk Reduction objectives.

Right to know

Information should be available about chemicals in circulation throughout their life cycle, including chemicals in products. Health and safety information is not confidential; Pollutant Release and Transfer Registry (PRTR) data should be freely available

Slide 3: Components

Visual

Components

1. Public awareness-raising
2. Measures for risk reduction
3. Chemicals in products
4. Stakeholder involvement

Spoken

Describing components of NGO involvement in integrated chemicals control in context of the International POPs Elimination Project (IPEP)

IPEP was a recently completed two-year medium-sized GEF project

Concrete activities to prepare countries for implementation of Stockholm Convention

UNEP/UNIDO = implementing agencies

Environmental Health Fund = executing agency on behalf of IPEN

Thank you for contributing to funding: GEF, Switzerland, Canada, Netherlands, charitable foundations

Two NGO Hubs in the Central and Eastern Europe region (CEE)

Arnika; Prague, Czech Republic; for NGOs who want to work in English

Eco-Accord; Moscow, Russia; for NGOs who want to work in Russian

Work in region carried out in 19 countries: Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Czech Republic, Croatia, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Moldova, Romania, Russia, Slovakia, Turkey, Ukraine, and Uzbekistan.

Slide 4: Public awareness-raising in CEE

Visual

Flags of 14 countries in the region: Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Czech Republic, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Turkey, Ukraine, and Uzbekistan

Spoken

Public awareness-raising in the CEE region

59 activities in 14 countries

Follow with example from Moldova

Slide 5: Public awareness-raising: Moldova

Visual

Cover of public awareness-raising brochure from Moldova

Spoken

NGO = The Chisinau Territorial Organization of the Environmental Movement of Moldova joined together with other NGOs and conducted a town to town “Caravan Without POPs” that covered 13 settlements and included over 850 people. The Caravan sparked great TV, radio, and print interest in POPs. Participants examined pesticide storage areas and illegal waste dumps and the findings were submitted to government officials. Later, the NGOs’ members were invited to participate in developing the National Implementation Plan of the Stockholm Convention.

Slide 6: Risk reduction: Stockpiles in Russia

Visual

Photo of typical obsolete pesticide storage facility in Eastern Europe with dilapidated barrels tumbling out of a huge opening in a wall

Spoken

NGO = Women in Urals; proposed to establish a citizen's team to find and characterize obsolete pesticide storage facilities; found 67,000 tons that were NOT on the government inventory; characterized sites and brought to the attention of authorities; became part of government inventory; incorporated into official government program with finance allocations up to 70 million rubles for safer storage and containment.

Slide 7: Risk reduction: PCB inventories in Armenia, Kazakhstan, and Russia

Visual

Photo of an enormous number of rusted barrels around the edge of a body of water with some falling into or piled up in the water; location = Dzerzhinsk, Russia

Spoken

Three examples of NGO work on PCB inventories:

Armenia; NGO = Ecotox

Examined PCB levels in 5 regions of Armenia where large electric generating facilities are located (Lori, Tavush, Kotaik, Syunik and Ararat)

Media: soil, water, pork, beef, eggs, cheese, milk (~12/region)

PCBs found in all samples in all regions; but higher in soil near power plants or industrial facilities; Levels in cheese from 6 - above 50 ppb

Results very useful to government inventory of PCBs for Stockholm Convention

Kazakhstan; NGO = Greenwomen

Develop more complete picture of the situation and promote right to know

First significant NGO – led project on PCBs; follow-up to UNDP project with MOE

Field visits to 5 facilities; sample collection and PCB measurement; history of PCB use in country; Characterize and summarize data on equipment as well as waste

Example waste pond at Ust-Kamenogorsk Capacitors plant: >12,000 ppm in soil; burial of capacitors at the Semipalatinsk nuclear test site (>14,000 capacitors)

Collaborated with Sintez R&D Centre in Russia

Russia; NGO = EcoSPES

First public inventory of PCBs containing electrical equipment; first to involve direct interaction with enterprises; In Dzerzhinsk, for more than 50 years, the largest PCBs-production plant of the former USSR; Water and soil samples were taken in seven cities of the region; Inventory of equipment; sources; summary regulations and information

Results of inventory submitted to oblast and federal officials; Discovered large amounts of “missing PCBs”; caused great concern by government; Government requested the NGO together with Novgorod State University to continue work

Slide 8: Risk reduction: Zero waste in Bulgaria, Czech Republic, Hungary, Latvia, Slovakia

Visual

Photo of two people sorting trash from large plastic bags on the ground in Palarikovo, Slovakia; a community that reduced waste to landfill by 75% in 6 years

Spoken

Important goal of waste management: significant reduction of waste going to landfill or incinerator; Link to environmental pollution; Prevent waste creation; minimize amount and toxicity; repair products; recycle

Demonstration projects carried out in Bulgaria, Czech Republic, Hungary, Latvia, and Slovakia; One example: Hungary; NGO = HuMuSz

MOE asked for a study for waste management

Began with NGO contract for paper recycling in MOE building

Went well and after a time expanded materials recycled and number of offices; Now 11 state or business offices including MOE, National Park Headquarters, Parliament; Meteorological Service etc contracted for recycling

In 2005 collected 76,000 kg paper, 3000 kg PET, 15,000 kg glass bottles and other things

Impact on dioxin releases

Used UNEP Toolkit to calculate dioxin that would have been formed if the trash had been burned in various ways (minus glass, wood, and hazardous waste for calculation)

Results from examining these modest demonstration projects: 1 – 643 mg/ TEQ year NOT formed as a result of these pilot demonstration projects

This positive result is in addition to energy savings and other saved costs of materials

Slide 9: Chemicals in products: BFRs in Belarus and Russia

Visual

Photo of computer monitors clustered together in a computer facility

Spoken

Two studies carried out on Brominated Flame Retardants (BFRs) in Belarus and Russia; produced the first data in Belarus and the second data in Russia but first to study computer rooms in Russia

Important since Norway nominated pentabromodiphenyl ether (pentaBDE) for addition to the Stockholm Convention in 2005; PentaBDE is part of the polybrominated diphenyl ether family (PBDE); EU nominated hexabromobiphenyl in 2005. HBB is part of the polybrominated biphenyl (PBB) family

Belarus; NGO = Foundation for the Realization of Ideas (FRI)

Review information on substances; no records of import or database

Legislative review; tested 3 dust samples (apartment, office, computer club)

Total content = 9 – 44 ppm; penta form of polybrominated diphenyl ether most prominent; Also tested sewage sludge; mostly penta

Personnel included representatives of FRI, a representative of the Ministry of the Environment, Ministry of Public Health, and representatives of Arnika (Czech Republic) and Eco-Accord (Russia) as Steering Committee consultants.

Russia; NGO = Eco SPES

Review Arctic Council project; Tested dust in office, apartment, computer room, and sewage treatment sludge for PBB and PBDE

Offices and apartments = PBB up to 840 ppb in dust

Computer room = PBDE up to 1700 ppb in dust; primarily decabromodiphenyl ether

Personnel included NGOs, government, and academic scientists

Studies useful to both governments as they provided new information on substances that have been proposed for inclusion in the Stockholm Convention list.

Slide 10: Stakeholder involvement: NIP Participation in CEE

Visual

Flags of 17 countries in the region: Armenia, Azerbaijan, Belarus, Bulgaria, Czech Republic, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Moldova, Poland, Romania, Russia, Slovakia, Turkey, Ukraine, and Uzbekistan

Spoken

Participation of NGOs in national implementation plans (NIPs) of the Stockholm Convention; Article 7 states importance; Also stressed by GEF guidelines

23 NGOs in 17 countries participated in some way

In some countries, IPEN NGOs were given important roles in the NIP preparation process including membership on the national coordinating committee and/or active participation in subcommittees; example Armenia and Ukraine; others more difficult so NGOs submitted policy papers

IPEN's policy is to strongly support genuine participation of NGOs in NIP preparation processes, including participation in decision making. IPEN will continue to strive for full civil society participation in the NIP and other processes involving decision making on chemicals policy.

Slide 11: 290 IPEP projects in 65 countries

Visual

World map with 65 countries highlighted in blue

Spoken

Work in CEE region part of a much larger Project that produced 290 project activities in 65 countries; Currently seeking funding to continue work on the Stockholm Convention and other activities related to integrated chemicals control

Important take home messages:

Public interest NGOs can be a very important resource for governments in improving chemical safety; including work on specific conventions

For donor governments interested in advancing chemical safety in developing and transition countries, public interest NGOs offer an extremely cost effective approach to work on the ground.

STRENGTHENING INTEGRATED CHEMICALS AND WASTE MANAGEMENT

Anahit ALEKSANDRYAN

Slide 1

Integrated approach to chemicals and waste management in the Republic of Armenia

Anahit Aleksandryan
Head of the Department of Hazardous Substances and Wastes Management of the Ministry of Nature Protection of the RA

Slide 4

Management of chemical and wastes (cont.)

- Ministry of Finance and Economics;
- Ministry of Defence;
- Ministry of Foreign Affairs;
- Ministry of Labour and Social Issues;
- «Nairit-2» CJSC;
- Police;
- Customs State Committee at the Government of the Republic of Armenia;
- National Statistical Service;
- Research Institutions;
- Non-governmental organizations.

Slide 2

Ratification

In order to prevent the harmful impact of chemicals and waste to human health and the environment the Republic of Armenia ratified a number of international agreements regulating issues of chemicals and waste management:

- Basel Convention – 1999
- Rotterdam Convention – 2003
- Stockholm Convention – 2003
- Aarhus Convention – 2001

Slide 5

The responsibilities of Ministries on chemicals and wastes management

- Ministry of Nature Protection - carrying out the unified state policy on the issues of environment protection; coordination of activity performed by ministries and agencies in this area; observance of ecologic safety in case of chemicals use; conducting unified scientific and methodic approaches in this area.
- Ministry of Health - implementation of unified state policy on prevention of harmful impact of chemicals on human health; coordination of general policy for chemicals sound use

Slide 3

Management of chemical and wastes

A number of state structures, research institutes and non-government organizations are involved in management of chemical substances and wastes, as well as in study of their adverse impact on humans and environment and their regulation in Armenia:

- Ministry of Nature Protection;
- Ministry of Health;
- Ministry of Agriculture;
- Ministry of Trade and Economic Development;
- Ministry of Energy;

Slide 6

The responsibilities of Ministries on chemicals and wastes management (cont.)

- Ministry of Agriculture - carrying out the unified state policy and implementation of actions required for the application of fertilizers and pesticides in agriculture, as well as registration of chemical plant protection means;
- Ministry of Trade and Economic Development - policy development in industry of Armenia and proposing actions for implementation; state regulation of chemicals export and import;
- Ministry of Energy - management and implementation of actions required for application of chemicals in energy complex;

Slide 7

The responsibilities of Ministries on chemicals and wastes management (cont.)

- Ministry of Finance and Economics - development and implementation of the RA Government policy in the sphere of state revenue, state finance governance, coordination of programmes on socioeconomic development;
- Ministry of Defense - arrangement and implementation of actions required for the control over production and application of chemicals in defense industry;
- Ministry of Foreign Affairs - coordination of all international aspects of chemicals and wastes management, such as participation of RA in relevant international agreements and conventions

Slide 10

Integrated National Programme for Chemicals and Waste Sound Management in the Republic of Armenia

Priority areas (cont.):

- **Area 2** – *Strengthening the analytical capacity for sound chemicals and waste monitoring and (risk) management; strengthening of organizational systems for state control and carrying out inventory on existing stockpiles of hazardous wastes (obsolete pesticides, PCB-containing oils and equipment, expired medicine, etc.)*

Slide 8

The responsibilities of Ministries on chemicals and wastes management (cont.)

- Ministry of Labour and Social Issues - concerned with occupational health and safety issues related to the use and handling of chemicals and wastes at the workplace;
- Police - arrangement and implementation of state control on illegal use /handling of chemicals and wastes;
- Customs State Committee at the Government of RA - carrying out measures on custom control over chemicals import and export;
- National Statistical Service - carrying out collection, preparation and submission of information in the area of chemicals and wastes handling.

Slide 11

Integrated National Programme for Chemicals and Waste Sound Management in the Republic of Armenia

Priority areas (cont.):

- **Area 3** - *Enhancing the skills of decision-makers for risk evaluation and risk management of first-priority chemicals and waste (PCB-containing oils and equipment, obsolete pesticides, contaminated areas, etc.), awareness raising in concern of hazards and risks of chemicals and waste*
- **Area 4** - *Capacity building for Customs Service officials to ensure control on import/export of regulated chemicals and wastes*

Slide 9

Integrated National Programme for Chemicals and Waste Sound Management in the Republic of Armenia

In the process of realization of the «Integrated National Programme» the following 7 areas subject to were identified and considered to be first-priority for implementation:

- **Area 1** – *Harmonization of the National Legislative Basis for Integrated Chemicals and Waste Management and Development of the Harmonized Regulating System on Strengthening Aspects of Control on Import and Export of Chemicals and Wastes;*

Slide 12

Integrated National Programme for Chemicals and Waste Sound Management in the Republic of Armenia

Priority areas (cont.):

- **Area 5** - *Coordination of problems dealing with chemicals and wastes management in emergency situations and ensuring preparedness to accidents and incidents*
- **Area 6** – *Development of cooperation programmes between government and different stakeholders and Awareness Raising on hazards/risks of chemicals and wastes for farmers, workers, etc.*
- **Area 7** – *Capacity building to meet the Republic of Armenia obligations under Stockholm Convention on the Persistent Organic Pollutants.*

Slide 13

**Integrated National Programme for
Chemicals and Waste Sound
Management in the Republic of Armenia**

The Programme was aimed at ensuring sustainable basis for carrying out efficient and coordinated actions on key issues, including creation of the harmonized system on chemicals and waste management, strengthening the capacity and the national legislative basis in this area.

Slide 16

**Integrated National Programme for
Chemicals and Waste Sound Management
in the Republic of Armenia**

● **In the area of education:** considering the importance of training and re-training of the personnel for strengthening the capacity and development of infrastructure it is necessary to initiate the elaboration and implementation of special training programmes at all levels of education for different target groups.

Slide 14

**Integrated National Programme for
Chemicals and Waste Sound Management
in the Republic of Armenia**

● **In the area of legislation:** in order to achieve more advanced level of coordinated actions it is necessary to raise the efficiency of legislation and perform actions aimed at improvement of the system of legislative regulation on chemicals and waste management with the active involvement of all concerned parties.

Slide 17

**Integrated National Programme for
Chemicals and Waste Sound Management
in the Republic of Armenia**

● **In the area of monitoring and control:** it is necessary to initiate actions aimed at strengthening the interrelation and optimization of monitoring programmes, facilitate development of technical and scientific and methodical potential, enable implementation and use of a regulation system, taking into account constantly supplemented list of applied chemicals, information exchange/sharing between various systems and organizations responsible for control on implementation of these substances.

Slide 15

**Integrated National Programme for
Chemicals and Waste Sound Management
in the Republic of Armenia**

● **In the area of information maintenance:** there is a necessity to optimize the programmes and methods of information collection on chemical safety for all concerned parties in order to achieve optimal use of available resources, such as manpower/ personnel capacity, technical and organizational infrastructures.

Slide 18

**Integrated National Programme for
Chemicals and Waste Sound Management
in the Republic of Armenia**

● **In the area of capacity building for chemicals and waste management:** it is essential to perform actions aimed at coordination of currently implemented programmes, to initiate integrated capacity building programmes, ensuring scientifically substantiated approach to waste and chemicals, involved in production and consumption, development and implementation of low waste and waste-free technologies and production, as well as establishment of a National Cleaner Production Centre and further progress of scientific and technological capacity on production, handling, use and elimination of chemicals and waste.

Slide 19

**Integrated National Programme for
Chemicals and Waste Sound Management
in the Republic of Armenia**

☛ **In the area of international cooperation:**

in order to adapt and implement the experience gained by the international community on improvement of tools for chemicals and waste management it is necessary to widen the sphere of the Republic of Armenia participation in multi-lateral international agreements regulating the issues of hazardous chemicals, wastes and pesticides management.

Slide 20

**Integrated National Programme for
Chemicals and Waste Sound Management
in the Republic of Armenia**

☛ The main goal of implementing **the Strategic Approach** is ensuring sound regulation of chemicals during their entire life cycle so that till 2020 chemicals were used and produced in a manner minimizing significant detrimental consequences to human health and the environment. One of the ways to achieve this goal is implementation of the national integrated programme on sound chemicals and waste management in the Republic of Armenia.

RISK MANAGEMENT AS A DRIVER OF DEVELOPMENT

Rachel MASSEY

Slide 1

Building a Healthy Economy

Chemicals Risk Management as a
Driver of Development

Slide 4

Cleaner Production Costs and Savings at PT. Dharma Polimetal, Indonesia

Cleaner Production Measure	Cost (US \$)	First year financial benefit (US \$)
Reducing drag-out volume	\$ -	\$ 5,565
Reducing rinse water use	\$ -	\$ 1,685
Improvement of cascade rinse system	\$ 90	\$ 73
Reducing chlorine drag-in to chrome bath	\$ 806	\$ 8,312
Addition of anodes to improve product quality	\$ 318	*
Energy conservation	\$ 126	**
Totals	\$ 1,340	\$ 15,635

Slide 2

The Logic of Pollution Prevention

- Reduce raw material purchases
- Reduce or eliminate hazardous waste
- Increase production efficiency
- Reduce monitoring needs
- Reduce needs for protective equipment and end-of-pipe treatment
- Reduce operating costs

Slide 5

Case Study: Exact Springs

- Elimination of trichloroethylene
 - Keeping goods clean throughout production process
- Eliminating Anti-Corrosive Agents
 - Anti-corrosive paper placed inside boxes
- Significant financial benefits
- → A broadly applicable model for eliminating toxic chlorinated solvents

Slide 3

Metal Finishing and Plating

- PT Dharma Polimetal in Indonesia
 - Electroplating
 - 199 Employees
 - Pollutants: nickel sulfate, nickel chloride, chromic acid, sulfuric acid
 - Solutions include reducing drag-out volume; reducing velocity of rinse water; heating chrome bath overnight to extend solution life

Slide 6

Textile Production

- Hot, alkaline effluents
 - Toxic dyes
 - Zinc, copper chromium, lead, nickel
 - Toluene, ethylbenzene, chlorobenzene, naphthalene, phenol
- Occupational hazards
 - Fumes from dyeing and finishing agents; oil and acid mists; solvent vapors

Slide 7

Textile Production

- National Industrial Learning Center, Brazil
 - Pollution prevention projects with medium-sized textile producers
 - 5-10% reduction in water and energy use
 - 10-20% reduction in dye and chemical consumption
 - Sample firm: \$150,000 invested → annual savings of \$480,000.

Slide 10

Beyond Facility-Specific Data

- Program-wide data on financial benefits
- National Cleaner Production Centres
- Environmental Pollution Prevention Project (EP3)
- Cleaner Production in China
- General observations and suggestions

Slide 8

Textile Case Studies				
Country	Year	# of workers	Investment	Savings (annual)
Brazil	1992	"large"	\$150,000	\$480,000
Chile	1992	90	\$1,850	\$105,700
Chile	1993	270	\$10,950	\$7,000
El Salvador	2001	130	\$411,052	\$194,805
India	2002	60	\$4,500	\$25,800
Vietnam	1999	1283	\$4,400	\$40,000
Vietnam	1998	1750	\$22,860	\$9,928
Unlisted	1990	"small"	\$13,000	\$36,000

Slide 11

National Cleaner Production Centres

- Sponsored by UNIDO/UNEP
- Develop local capacity to *create and meet* Cleaner Production demand
- Awareness raising; training and technical information; CP assessments
- Disseminate case studies based on local demonstration projects
- Generally funded for 3 to 5 years

Slide 9

Case Studies – Sources

- UNIDO/UNEP case study databases
- National Cleaner Production Centres
- Pollution Prevention Roundtables
- Pollution Prevention Resource Exchange
- *Journal of Cleaner Production*
- Individual Country Programs and Bilateral aid programs

Slide 12

Environmental Pollution Prevention Project (EP3)

- USAID project (1993 to 1998)
- Multi-year programs in Bolivia, Chile, Ecuador, Egypt, Indonesia, Jamaica, Mexico, Paraguay, and Tunisia.

Slide 13

Environmental Pollution Prevention Project (EP3)

- Lessons and Observations
 - Importance of having an office based in an existing local organization
 - Failure to develop a sustainable market for P2 services
 - P2 techniques modeled at individual facilities, even when successful, did not necessarily take hold across the industry
 - Importance of targeting companies of diverse sizes

Slide 16

Massachusetts Toxics Use Reduction Program

- Any firm manufacturing, processing or otherwise using any listed toxic chemical over a given threshold must:
 - report annually to the State on the amount of use and waste generated
 - prepare and biannually update a plan to reduce or eliminate the chemicals
 - pay an annual fee

Slide 14

Cleaner Production in China

- Pulp and paper
- Fertilizer
- Beer
- Chlor-alkali
- Oil extraction
- Aluminum and copper smelting

Slide 17

Lessons from Case Studies and Program Evaluations

- The gains from pollution prevention are not limited to a few "success stories" –
- They are a broad pattern across facility-level and program-level case studies.

Slide 15

Cleaner Production in China

- Cleaner Production Audit
- Prioritization
- Demonstration project
- Dissemination to other companies

Slide 18

Lessons from Case Studies and Program Evaluations

- Benefits from addressing several problems at once
 - Water
 - Energy use
 - Recycling
 - Toxic chemicals

Slide 19

Lessons from Case Studies and Program Evaluations

- Barriers to change
 - Lack of information
 - Successful demonstration projects are not enough
 - P2 often requires investments of time as well as equipment
 - Accounting issues

Slide 21

Resources

- UNEP database: ICPIIC
www.emcentre.com/unepweb/
- UNIDO database:
www.unido.org/NCPC/Sector/Sectors.cfm

Slide 20

Lessons from Case Studies and Program Evaluations

- Combine P2 training with mainstream industrial development
- Develop centers of P2 capacity, combined with other social services
- Microcredit options?

WORLD HEALTH ORGANIZATION RISK ASSESSMENT AND RISK MANAGEMENT TOOLS

Nida BESBELLI

Slide 1


WHO Risk Assessment and Management Tools

Dr Nida Besbelli
World Health Organization, Regional Office for Europe,
ECEH-Bonn

Slide 4

INCHEM



- Concise International Chemical Assessment Document (CICADS)
- Environmental Health Criteria (EHC) monographs
- Health and Safety Guides (HSGs)
- International Agency for Research on Cancer (IARC) - Summaries and Evaluations
- International Chemical Safety Cards (ICSCs)



Slide 2

Risk Management-Definition


- Decision making process involving considerations of **political, social, economic, and technical** factors with relevant risk assessment information relating to a hazard so as to **develop, analyse, and compare regulatory and non regulatory options** and to **select and implement** appropriate regulatory response to that hazard.



Slide 5

INCHEM



- IPCS/CEC Evaluation of Antidotes Series
- Joint Expert Committee on Food Additives (JECFA)- Monographs and evaluations
- Joint Meeting on Pesticide Residues (JMPR)- Monographs and evaluations
- Pesticide Data Sheets (PDSs)
- Poisons Information Monographs (PIMs)
- Screening Information Data Set (SIDS) for High Production Volume Chemicals



Slide 3

INCHEM


- Produced through cooperation between the International Programme on Chemical Safety (IPCS) and the Canadian Centre for Occupational Health and Safety (CCOHS);
- Internationally peer-reviewed chemical safety-related publications and database records from international bodies, for public access.
- Offers quick and easy electronic access to thousands of searchable full-text documents on chemical risks and the sound management of chemicals.



Slide 6

Environmental Health Criteria Documents


- Environmental Health Criteria (EHC) documents provide international, critical reviews on the effects of chemicals or combinations of chemicals and physical and biological agents on human health and the environment
 - specific chemicals or groups of related chemicals;
 - risk assessment methodologies



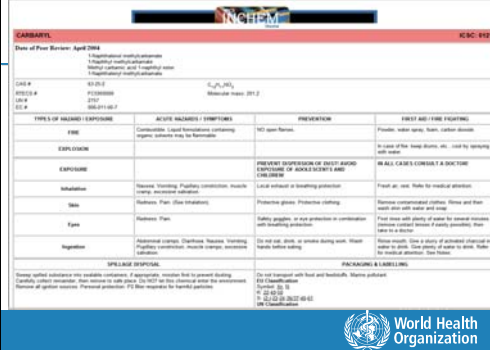

Slide 7

Concise International Chemical Assessment Documents (CICAD)

- CICADs characterize hazards and dose-response of exposure to chemicals,
- Provide examples of exposure estimation and risk characterization for use at national or local levels.
- Based on a high-quality peer-reviewed recent national /regional document
- Extensive international peer-review adjusted to the contents of the document
- 70 CICAD available




Slide 10

Slide 8

EHCs, CICADs

- Aimed at assessors, risk managers, professionals, institutions making risk management decisions at local, national and regional level



Slide 11



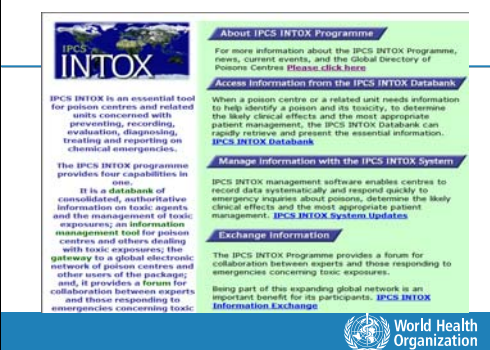


Slide 9

International Chemical Safety Cards

- Produced in cooperation with Commission of the European Communities
- Summarise essential health and safety information on chemicals
- Provide key information for use at shop-floor
- Informs risk managers
- 1300 cards in 26 languages



Slide 12


Slide 13

INTOX

IPCS INTOX Programme started in 1988

Aims

- Promote establishment and strengthening of poisons centres
- Improve evidence base for sound management of chemicals
- Laying foundations for international comparison of human toxicology data, through harmonized data collection and evaluation
- Harnessing experience of different countries for the benefit of all


 World Health Organization

Slide 16

**International Chemical Control Toolkit
(Control Banding)**

- Increased use of chemicals in SMEs
- Limited access to experienced persons for exposure measurement

Led to development of the control banding concept

 World Health Organization

Slide 14

**Environment and Health Information System
EHIS & ENHIS**

[E]NHIS projects: multi-national collaborative efforts coordinated by WHO and co-sponsored by EC DG Sanco.

Objective: to establish a comprehensive information and knowledge system that will generate and analyse environmental health information to support relevant policies in Europe, focusing on children

 World Health Organization

Slide 17

International Chemical Control Toolkit

Control Banding is a complementary approach to protecting worker health by focusing resources on exposure controls.

Since it is not possible to assign a specific Occupational Exposure Limit to every chemical in use, a chemical is assigned to a "band" for control measures, based on its:

- hazard classification according to international criteria,
- the amount of chemical in use,
- and its volatility/dustiness.


 World Health Organization

Slide 15

**Environment and Health Information System
EHIS & ENHIS**

EHIS should help policy-makers in:

- **Monitor** the environment and health situation and its trends in the countries and track and evaluate relevant policy effectiveness;
- **Report** regularly on environment and health both internationally and within the country to provide citizens and professionals with information
- **Exchange information**, data and knowledge as well as good practice examples benefiting public health and environment

 World Health Organization

Slide 18

International Chemical Control Toolkit

The outcome is one of four recommended control strategies:

- Employ good industrial hygiene practice
- Use local exhaust ventilation
- Enclose the process
- Seek the advice of a specialist

www.ilo.org/public/english/protection/safework/ctrl_banding/index.htm

 World Health Organization

Slide 19

Guidance Documents

GUIDELINES ON THE PREVENTION OF TOXIC EXPOSURES
Education and public awareness activities

World Health Organization

Slide 22

Guidance Documents

Environmental Burden of Disease Series

- No 1 Introduction and methodology
- No 2 Lead
- No 5 Outdoor air pollution
- No 6 Occupational carcinogens

World Health Organization

Slide 20

Guidance Documents

Europepest collection
The WHO Europepest collection
The WHO Europepest collection
The WHO Europepest collection

World Health Organization

Slide 23

Guidance Documents

The WHO Recommended Classification of Pesticides by Hazard

The WHO Recommended Classification of Pesticides by Hazard
Guidelines to Classification
Cover 5

IPCS

World Health Organization

Slide 21

Guidance Documents

- Air Quality Guidelines
- WHO Air quality guidelines for particulate matter, ozone, nitrogen dioxide and sulfur dioxide
- Water Quality Guidelines
- Drinking Water Guidelines

World Health Organization

Slide 24

Sound Management of Pesticides and Diagnosis and Treatment of Pesticide Poisoning - A Resource Tool

WHO
UNEP
NATIONAL POISON CENTER OF MALAYSIA

World Health Organization

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 - Module 3: Subject A: History, signs and symptoms
 - No. 1 History
 - No. 2 Organophosphorus poisoning
 - No. 3 Carbamate poisoning
 - No. 4 Organotin poisoning
 - No. 5 Pyrethroid poisoning
 - No. 6 Neurotoxic pesticide poisoning
 - No. 7 Carbaryl derivative poisoning
 - No. 8 Thiocarbonyl poisoning
 - No. 9 Zinc phosphide poisoning
 - No. 10 Chloracene poisoning
 - No. 11 Thallium poisoning
 - No. 12 Phosphorus and arsenic poisoning
 - No. 13 Organotin poisoning
 - No. 14 Ethylene dibromide and poisoning
 - No. 15 Poisoning with paraquat/paraquat and related compounds
 - No. 16 Arsenic poisoning
 - No. 17 Organotin poisoning
 - No. 18 Organotin poisoning
 - No. 19 Organotin poisoning
 - No. 20 Thiocarbonyl poisoning
 - No. 21 Metaldehyde poisoning
 - No. 22 Chloracene poisoning
 - No. 23 Sulfoxide poisoning
 - Module 4: Subject B: Diagnosis
 - No. 1 General
 - No. 2 Clinical features of acute poisoning
 - No. 3 Laboratory
 - No. 4 Other methods of diagnosis
 - Module 5: Subject C: Treatment
 - No. 1 General
 - No. 2 Supportive care
 - No. 3 Specific antidotes
 - No. 4 Decontamination
 - No. 5 Prevention
 - Module 6: Subject D: Prevention
 - No. 1 General
 - No. 2 Pesticide use
 - No. 3 Pesticide storage
 - No. 4 Pesticide disposal
 - No. 5 Pesticide safety
 - No. 6 Pesticide safety
 - No. 7 Pesticide safety
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 - Module 3: Subject A: Should be able to define 'pest', 'disease vector', 'pesticide', 'integrated pest management', 'integrated vector management' and 'household pesticide' list different pest control and management methods, explain why pesticide use should be limited to a minimum, when pests need to be controlled and what to check before using pesticides; describe safety measures for household use of pesticides.
 - Module 4: Subject B: Should be able to interpret a pesticide label to identify measures to protect him- or herself, the general public and the environment.
 - Module 5: Subject C: Should be able to explain the meaning and importance of registering pesticides.

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 - Module 18: Subject P: Pesticide use from the use of pesticides in agriculture
 - Module 19: Subject Q: Pesticide use from the use of pesticides in agriculture
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 - Module 3: Subject A: World Health Organization WHO
 - International Programme on Chemical Safety (IPCS)
 - Environmental Health Criteria
 - http://www.who.int/ipcs/publications/ehc/index.html (accessed 17 November 2005)
 - Module 4: Subject B: Health and Safety Guides
 - http://www.who.int/ipcs/publications/hsg/index.html (accessed 17 November 2005)
 - Module 5: Subject C: International Chemical Safety Cards
 - http://www.who.int/ipcs/publications/icsc/index.html (accessed 17 November 2005)
 - Module 6: Subject D: WHO recommended classification of pesticides by hazard and guidelines to classification 2004
 - http://www.who.int/ipcs/publications/pesticides_hazard/index.html (accessed 17 November 2005)
 - Module 7: Subject E: Joint WHO/FAO meeting documents on pesticide residues (JMPR)
 - http://www.who.int/ipcs/publications/jmpr/index.html (accessed 17 November 2005)

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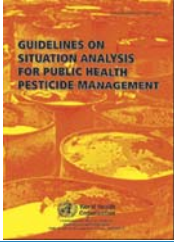




Acutely Toxic Pesticides
a global guide to resources





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WHOPES- WHO Pesticide Evaluation Scheme


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Slide 33

WHOPES- WHO Pesticide Evaluation Scheme

Name	WHO Pesticides Evaluation Scheme (WHOPES)	Management of public health
Abbreviation	WHO Pesticides Evaluation Scheme: "WHOPES"	WHO makes suggestions on the management of public health situations
Coordinates	WHO Pesticides Evaluation Scheme: "WHOPES"	
Health topics		
Publications		
Research leads		
WHO sites		
WHOPES' focus	<p>The WHO Pesticide Evaluation Scheme (WHOPES) was set up in 1980. WHOPES promotes and coordinates the testing and evaluation of pesticides for public health. It functions through the participation of representatives of governments, national centres for pesticide and pesticide application equipment, WHO Collaborating Centres and research institutions, as well as other WHO programmes, including the International Programme on Chemical Safety.</p> <p>In its present form, WHOPES comprises a four-phase evaluation and testing programme, involving the safety, efficacy and operational acceptability of public health pesticides for vector control and information of trade.</p> <p>WHOPES collects, consolidates, evaluates and disseminates information on the use of insecticides for public health. (2)</p> <p>WHOPES' objectives</p> <ul style="list-style-type: none"> to facilitate the search for alternative pesticides and application methods that are safe and cost-effective, and to design and promote policies, strategies and guidelines for the selective and judicious application of pesticides for public health use and secure and sound insecticide management in Member States. 	<p>Like all WHO's recommendations, the WHOPES data on INSECTICIDES, INSECTICIDE EQUIPMENT, and INSECTICIDE RESISTANCE are available on the WHO Pesticides Evaluation Scheme (WHOPES) website.</p> <p>Publications and other material for the WHOPES scheme are available on the WHO Pesticides Evaluation Scheme (WHOPES) website.</p>
Safety and effectiveness		
Quality control		
Guidelines for testing		
Scientific pesticide resistance		
Equipment and application		
Partnership		
Links and resources		



DISSEMINATION OF KNOWLEDGE AND INFORMATION PRIO – A DATABASE ON CHEMICALS

Johanna LISSINGER

Slide 1

PRIO -a tool for informed decision making

Johanna Lissinger Peitz

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Slide 4

Slide 2

A non toxic environment- the challenge for the Swedish Chemicals Inspectorate

- *The environment must be free from man-made or extracted compounds and metals that represent a threat to human health or biological diversity.*
- *The overall goal is that, one generation from now, the major environmental problems currently facing us will have been solved.*

Slide 5

Who is the user?

Slide 3

What is PRIO?

- A guide and a database for informed decision making
- A help to prioritise
- A set of criteria (prioritised hazardous properties)
- A database with more than 4000 substances

IT IS NOT A BLACK LIST!

Slide 6

Before you start you need to have done your homework

Slide 7

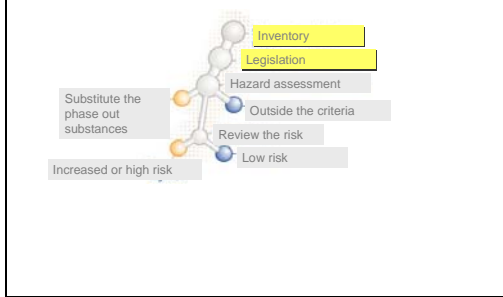
Example of an inventory list

- Product name
- Substances used in production or in the product
- CAS-numbers
- Yearly consumption
- Classification
- Possible restrictions
- Does the substance has properties included in the PRIO-database

Slide 10

Slide 8

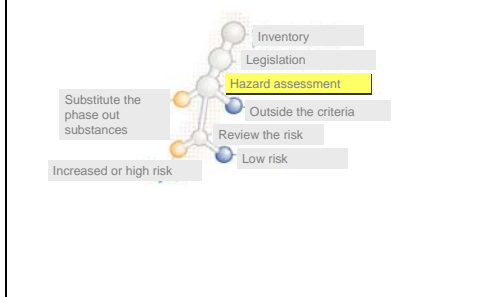
A step by step model



Slide 11

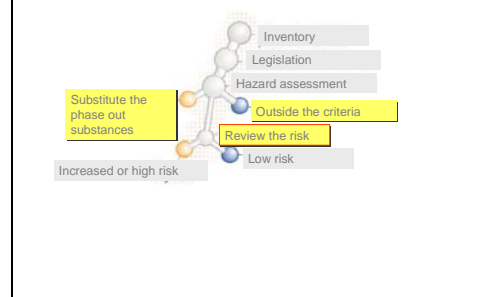
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A step by step model



Slide 12


A step by step model



Slide 13

Risk assessment

- Risk assessment "Light"
- A questioner with Lifecycle perspective
- Little guidance on measurement



Slide 16

Why do I not find the substance?

- The substance is not embraced by the criteria
- The substance is not officially classified

Be aware that the substance could still be embraced by the criteria. The 4000 substances are examples and there are other substance with the same properties that are not part of the database.

Why? It's not covered by the references used for selection of substances

Slide 14

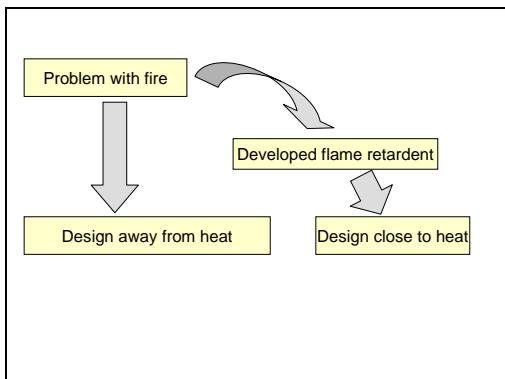
Seven steps to substitution

1. Why should the substance be replaced?
2. How can the function be fulfilled?
3. Assess alternatives
4. Risk assessment of alternatives
5. Which alternatives should we proceed with?
6. Planning
7. Evaluate and compare to step one

Slide 17




Slide 15



Slide 18

Experiences from the development of PRIO

- Have a clear aim
- Stakeholder involvement early in the process
- Balance between scientific accuracy and getting the message through
- Keep It Simple!



Slide 19

Experiences from marketing and education of PRIO

- Secure resources for marketing and education
- Pros and cons with a web based tool
- The contacts with industry is a way for the authority to learn more about how industry work with precaution activities



Slide 21

The responsibility is always with the company

-PRIO is a guide for your decision-



Slide 20

Main messages

Conclusions

- Involve the end user
- Find the balance and keep it simple
- PRIO makes a difference

BUILDING HUMAN RESOURCES FOR CHEMICALS CONTROL AND ENFORCEMENT

Jerzy MAJKA

Slide 1

Building human resources for chemical control and enforcement

*Jerzy Majka
Inspektor for Chemical Substances and Preparations
First UNEP/Sweden Workshop on Integrated Approaches to Chemicals Control
Riga, 7 – 8 December 2006*

Slide 4

The role of foreign assistance

- **At first training of leaders**
 - 1993 - one week study tour – European Commission, OECD, German competent authority
 - 1996 – one month study visit of four Polish from scientific institutes and enforcement institution in Kemi

Slide 2

Want a success? – create a proper team

- Well trained, well motivated workers are a pre-requisite of a success of any activity

Slide 5

- **Then raise awareness**
 - 1997 – 1998 – British no-how Fund – Conference on chemical safety for enforcement institutions, industry and academia – 180 participants – raising awareness
 - British experience concerning EU classification, labelling and safety data sheets
 - For the first time the enforcement authorities got the information on the EU system
 - They were against

Slide 3

- Early nineties – virtually no one in Poland is aware of the EU developments in chemical safety
- Elements of chemical safety in various institutions, not co-operating and sometimes not aware of each other
- However, good co-operation between enforcement and scientific institutes within one ministry
- International co-operation only in the field of transport of dangerous goods

Slide 6

A role of foreign assistance

- **Training of enforcement authorities**
 - Training on classification, labelling and safety data sheets for small groups of inspectors (labour, sanitary and environmental) – 1998 - 2000
 - British HSE
 - Danish EPA
 - Beginning of understanding their tasks

Slide 7

A role of foreign assistance

- TAIEX conferences
 - Indispensable for elaboration of the framework law on chemicals
 - Gathered between 80 and 100 participants
- CEFIC assistance for Polish chemical industry
 - Important partner watching the industry interest – without them Polish laws would be probably „improved“
 - The role of industrial associations

Slide 10

A role of foreign assistance

- Nearest future projects
 - To organize 1-day seminars for about 1500 participants from the industry on the industry obligations concerning registration of substances under REACH

Slide 8

A role of foreign assistance

- PHARE Projects
 - Twinning projects with Swedish and Austrian partners
 - Polishing legislation
 - Systematic trainings of competent authorities, enforcement and social partners (industry, NGO-s and academia)
 - Raising awareness – two conferences for about 200 participants each one

Slide 11

Other trainings on REACH

- Seminars organized by the Polish Chamber of Chemical Industry
- Seminars organized by other industrial organizations
- Seminars organized by consultation agencies

Slide 9

A role of foreign assistance

- Transition Facility Project
 - REACH – twinning project with Austrian/British partners
 - Systematic training of competent and enforcement authorities
 - Raising awareness – conferences for 200 – 260 participants
 - Trainings for GLP laboratories
 - Seminars with the industry

Slide 12

Were are we now?

- Concerning existing legislation
 - Polish chemical industry well aware of existing legislation
 - Sanitary inspectorate prepared to fulfil its tasks
 - Trade inspectorate and customs begin to be professionals
 - Labour inspectorate professional in the field of chemical agents
- Concerning REACH
 - Are we prepared?

Slide 13

Is the government prepared for REACH?

- The document on tasks of various administrative institutions has been prepared
- Must be accepted by the Council of Ministers
- Most difficult question – financial resources

CONCLUSIONS

Following the presentations made by invited experts and participants, a general discussion took place. The single most important factor noted by many of the countries of the Central and Eastern European regarding the development or amendment of legislation on sound management of chemicals was the current process of aligning with the legislation of the European Union. More specifically the following conclusions were drawn.

Regarding legislation, it was noted that all countries has some form of legislative basis, however there appeared to be a lack of legislation for industrial and domestic use chemicals. It was generally considered necessary to develop a framework law on chemicals into which the Globally Harmonised System of Classification and Labelling should be incorporated. Several forces and incentives were recognized as assisting in the push for the development of legislation on sound management of chemicals. Those included international agreements, chemical user demands (together with consumer demands), legislation in neighbouring countries, current membership or the possibility of membership of regional economic integration organizations and international trade.

The problems faced when developing legislation were language barriers for countries wishing to join the European Union and a lack of understanding of sound chemicals management on the part of chemicals' decision makers. Participants noted that the potential activities to undertake were a compilation of case studies on development and implementation of legislation in different countries; technical guidance taking note of the different levels of chemical legislation in different countries and the identification of gaps in the legislation. It was further noted that it would be useful for countries to appoint a lead ministry for the issue and to establish a coordination group.

Turning to the institutional setup in the countries it was noted that many ministries were involved in the sound management of chemicals but there was lack of coordination and communication between those ministries. It was considered that this stemmed from historic reasons of sectoral legislation as well as the battle for resources between sectors. It was suggested that the way to achieve coordination and communication was through the creation of a special cross-sectoral lead unit for sound managements of chemicals as well as an inter-ministerial group with a lead unit acting as secretariat for the group. The need for additional financial and technical resources was also stressed.

The workshop highlighted the importance of stakeholders and emphasized the need to strongly involve industry and environmental non-governmental organizations. It was also suggested that expertise from those sources be used. For that purpose it the holding of roundtable discussions was considered one way of encouraging voluntary industrial involvement. Further, there was a need to seek out approaches to also involve small and medium size enterprises in any discussion. Finally it was suggested that the assistance of a consultant might be useful in the development of national infrastructures.

All countries noted the importance of assistance, in particular of bilateral cooperation. Participation in workshops, such as the current one, as well as in meetings of intergovernmental organizations was considered the most rapid method of information exchange. Participants also suggested that assistance might be needed in establishing national priorities. Finally the participants said that awareness raising on the importance of sound management of chemicals for decision makers was crucial.