

SYNERGIES SUCCESS STORIES

ENHANCING COOPERATION AND COORDINATION AMONG THE BASEL, ROTTERDAM AND STOCKHOLM CONVENTIONS



UNDESA
Basel Convention
Rotterdam Convention
Stockholm Convention
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DESA



BASEL CONVENTION



**Rotterdam
Convention**



**STOCKHOLM
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Table of Contents

Acronyms and abbreviations	v
Acknowledgements	vii
Foreword	1
Introduction	3
Lessons learned on practical ways of implementing synergies	5
Synergies success stories	11
1. Coordination of chemical issues through an inter-institutional body in Costa Rica . . .	11
2. Experience from the former Yugoslav Republic of Macedonia with chemicals and related global initiatives.	13
3. Strategies for implementing synergies in the Republic of Korea	19
4. Regional Customs Network in support of multilateral environmental agreements in Asia	21
5. GENASIS: an environmental expert system supporting the synergistic implementation of the Basel, Rotterdam and Stockholm conventions.	25
6. The Probo Koala Programme: enhancing implementation and enforcement of the chemicals and waste conventions in Africa to safeguard human health and the environment	29
7. The pilot project on the environmentally sound management of asbestos waste resulting from natural disasters in the Asia-Pacific region	31
8. Combating illegal trade in hazardous chemicals and wastes: cooperation through the Green Customs Initiative	35
9. Supporting Parties' effective participation in the Review Committees' Work — POPRC and CRC: Joint workshops of the Rotterdam and Stockholm conventions	39

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Acronyms and abbreviations

BAT	Best Available Techniques
BCRC	Basel Convention Regional Centre
BCRC-China	Basel Convention Regional Centre for Training and Technology Transfer for the Asia and Pacific region
BCRC-El Salvador	Basel Convention Regional Centre for Training and Technology Transfer for the Central American Sub-region, including Mexico
BCRC-SEA	Basel Convention Regional Centre for Training and Technology Transfer for Southeast Asia
BEP	Best Environmental Practice
CFC	Chlorofluorocarbons
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COP	Conference of the Parties
CRC	Chemicals Review Committee
CWC	Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (Chemical Weapons Convention)
ESM	Environmentally Sound Management
FAO	Food and Agriculture Organization of the United Nations
GCI	Green Customs Initiative
GEF	Global Environment Facility
GENASIS	Global ENvironmental ASsessment Information System
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
HCFC	Hydrochlorofluorocarbon
ILO	International Labour Organization

IMO	International Maritime Organization
INTERPOL	International Criminal Police Organization
iPIC	informal Prior Informed Consent
MARPOL	International Convention for the Prevention of Pollution from Ships
MEA	Multilateral Environmental Agreement
MEA-REN	Multilateral Environmental Agreements Regional Enforcement Network
MONET	MONitoring NETwork for determination of POPs in ambient air using passive sampling
NGO	Non-governmental organization
NIP	National Implementation Plan
ODS	Ozone-Depleting Substance
OEWG	Open-ended Working Group
OPCW	Organization for the Prohibition of Chemical Weapons
PCBs	Polychlorinated biphenyls
POPRC	Persistent Organic Pollutants Review Committee
POPs	Persistent Organic Pollutants
RECETOX	Research Centre for Toxic Compounds in the Environment
SAICM	Strategic Approach to International Chemicals Management
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Programme
UNODC	United Nations Office on Drugs and Crime
WCO	World Customs Organization
WHO	World Health Organization

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Foreword

During its fourth implementation cycle (2010-2011), the United Nations Commission on Sustainable Development addresses the themes of chemicals, transport, waste management, mining and the ten-year framework of programmes on sustainable consumption and production patterns. The aim of the 19th session of the Commission in May 2011 is to provide policy guidance and recommendations to the international community on how to accelerate implementation in these areas.

The present publication aims to support the work of the Commission by presenting a unique approach of synergistic work in the areas of chemicals and waste management. The Parties to the Basel, Rotterdam and Stockholm conventions have developed a mechanism that, while maintaining the legal autonomy of these three multilateral environmental agreements (MEAs), enhances coordination and cooperation among the three conventions. The aim of this so-called “synergies process” is to strengthen the implementation of the three conventions at the national, regional and global levels by providing coherent policy guidance, enhancing efficiency in the provision of support to Parties to the conventions, reducing their administrative burden and maximizing the effective and efficient use of resources at all levels.

The synergies process is a successful example to other parts of the global environmental agenda. It demonstrates that international environmental governance can be enhanced through coordination and cooperation within a cluster of related MEAs, as well as between MEAs and relevant intergovernmental organizations.

The present publication provides success stories of a coordinated implementation of MEAs and other international frameworks in the hazardous wastes and chemicals cluster. The stories are based on national or regional projects and have been written by actors directly involved in activities at the national, regional or global level.

The synergies process, which has been under development over the past years, is only just beginning. Much work still needs to be done over the coming years. We hope that the compilation of success stories in this publication provides inspiration and input into discussions of the Commission on Sustainable Development and on international environmental governance, as well as guidance to countries on approaches to strengthen synergies in the chemicals and waste cluster.

This publication was jointly prepared by the Division for Sustainable Development, United Nations Department of Economic and Social Affairs (UNDESA), the Secretariat of the Basel Convention, the Secretariat of the Rotterdam Convention and the Secretariat of the Stockholm Convention.

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Introduction

The environmentally sound management (ESM) of hazardous chemicals and wastes has been on the international agenda for many years. Many multilateral environmental agreements (MEAs), intergovernmental organizations and international coordinating mechanisms have been set up over the past 20 years to deal with the risks hazardous chemicals and wastes pose to human health and the environment.

Among them are the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the 1998 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, and the 2001 Stockholm Convention on Persistent Organic Pollutants. The three MEAs share the common objective of protecting human health and the environment from hazardous chemicals and wastes, and help facilitate the delivery of assistance to countries to manage chemicals and wastes at different stages of their life-cycle.

The **Basel Convention** was created to protect people and the environment from the negative effects of the inappropriate management of hazardous wastes worldwide. It is the most comprehensive global treaty dealing with hazardous wastes from its generation, transport to disposal.

The **Rotterdam Convention** provides Parties with a first line of defence against hazardous chemicals. It promotes international efforts to protect human health and the environment as well as enables countries to decide if they want to import hazardous chemicals and pesticides listed in the Convention.

The **Stockholm Convention** is a global treaty to protect human health and the environment from highly dangerous, long-lasting chemicals by restricting and ultimately eliminating their production, use, trade, release and storage.

While the Stockholm Convention deals with the production and use of certain hazardous chemicals; the Rotterdam Convention concerns their trade, sharing of information and responsibilities; and the Basel Convention deals with ESM and disposal of those substances when they become wastes. Several chemicals are covered by two or all three of the conventions, such as polychlorinated biphenyls (PCBs), aldrin or toxaphene. For the implementation of the three conventions, national frameworks, coordination mechanisms and enforcement structures need to be in place. Those frameworks and mechanisms provide an opportunity for coordinated implementation of the three conventions.

Recognizing the potential for synergistic work under the three conventions at the national, regional and global levels, the international community has worked over the past years on enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions.

These efforts, known as the “synergies process”, culminated in the adoption of recommendations on enhancing cooperation and coordination among the three conventions by the three conferences

of the Parties held in 2008 and 2009, and the holding of simultaneous extraordinary meetings of the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions in Bali, Indonesia in February 2010.

In addition to initiating reforms to the secretariats of the three conventions on an administrative as well as operational level, this process is changing the way in which the implementation of the conventions are undertaken at the national and regional levels. Parties to the conventions and entities supporting countries in the implementation of the conventions, such as regional centres, intergovernmental organizations and non-governmental organizations (NGOs), also undertake efforts to increase coherence in the implementation of the conventions.

Areas such as combating illegal traffic and trade in hazardous chemicals and wastes, technology transfer and transfer of know-how, and information generation and access have been identified as areas benefiting from a close cooperation and coordination among relevant sectors, ministries and programmes at the national level.

The aim of the present publication is to showcase successful initiatives to implement the Basel, Rotterdam and Stockholm conventions at the national and regional levels in a coordinated manner as a guidance and inspiration to others.

The success stories in the present publication have been prepared by government representatives, NGOs, intergovernmental organizations and the secretariats of the three conventions. They demonstrate successful national coordination mechanisms and frameworks, and technical assistance activities

undertaken to support the implementation of the conventions in developing countries and countries with economies in transition. Some case studies also go beyond areas related to the Basel, Rotterdam and Stockholm conventions and show how coordination and cooperation with other international frameworks can contribute to the achievement of the goals of the conventions and the overall objective of protecting human health and the environment.

Some examples of benefits of the enhanced coordination and cooperation among MEAs for countries:

- Improved use of available resources through more coordinated national frameworks, institutional mechanisms and enforcement capacity dealing with chemicals and wastes;
- Reduced costs of implementing the conventions through synergistic efforts;
- Raised profile of the issue at the national, regional and international levels which can result in increased resources to support chemicals and waste management programmes;
- Better coordinated technical assistance activities and better use of resources to support developing countries and countries with economies in transition to implement the conventions;
- More integrated approach towards sound chemicals and wastes management and the opportunity to mainstream those issues into national development plans.

Lessons learned

Lessons learned on practical ways of implementing synergies

The following chapters present nine different ways of implementing synergies among MEAs related to chemicals and wastes successfully at the national, regional and international levels. The stories have been drafted by actors directly involved in the activities. The present chapter summarizes the lessons learned and provides an overview of the various coordination mechanisms suggested.

National coordination mechanisms

At the national level, two main approaches are applied by countries to enhance cooperation and coordination among the chemicals and wastes MEAs. One prevalent approach is to set up an inter-institutional body or formal coordination mechanism to bring together various governmental agencies and stakeholders. In Costa Rica, collaboration is ensured effectively through a Technical Secretariat for the Coordination of Chemical Substance Management that involves stakeholders from all relevant sectors. The Secretariat develops policy recommendations and elaborates concrete cross-cutting activities carried out by work groups. In Venezuela, a Presidential Commission for Chemical Safety connects all concerned public institutions to design concrete policies based on the provisions of the conventions. Similar inter-institutional coordinating mechanisms or formal agreements for procedures for cooperation, communication and information exchange have been set up by several countries.

A second approach is to formally incorporate the responsibilities of the conventions in one department or unit of the same ministry or agency. In that case, the staff is directly working with colleagues responsible for other conventions and has many opportunities for cooperation and sharing lessons learned. In the former Yugoslav Republic of Macedonia, a link between the Vienna Convention and its Montreal Protocol, the Rotterdam and Stockholm conventions was set up by combining the responsibilities for these conventions in units under joint management. Similarly, in the Republic of Korea, synergistic implementation of the Rotterdam and Stockholm conventions is achieved through integrating those issues at one division of the Ministry of Environment. In Venezuela, the responsibilities of the Basel, Rotterdam and Stockholm conventions have been merged in one single desk at the General Division for Environmental Quality inside the Ministry of the People's Power for Environment.

The synergies success stories have shown that it is possible to strengthen synergies not only among the Basel, Rotterdam, and Stockholm conventions, but also with other relevant MEAs and international frameworks. In the former Yugoslav Republic of Macedonia experience on fund-raising and the design of public awareness campaigns gathered within the framework of the Montreal Protocol and the Stockholm Convention has been applied to the Rotterdam Convention. The country was particularly successful in raising funds under the various funding mechanisms of the conventions. Other countries indicated that specialized knowledge on the Basel and Stockholm conventions provided important input to the negotiations of a global legally binding instrument on mercury.

Coordinated work under the conventions implies cooperation among governmental agencies, international organizations and various stakeholders that are responsible for the implementation of the conventions. Additional ideas for implementing synergies at the national level are:

- Identifying and prioritizing activities for the three conventions under the framework of the Strategic Approach to International Chemicals Management (SAICM). In Mexico, a matrix with national priorities on sound chemicals management has been compiled in order to develop a National Implementation Plan (NIP) for Sound Chemicals Management.
- Taking the obligations under the conventions into account in a harmonized manner when revising or passing new legislation. In the Republic of Korea, legislation on PCBs was developed to transpose the Basel and Stockholm conventions into national law.
- Making use of mechanisms under one of the conventions to coordinate work among the three. The development of the NIP under the Stockholm Convention, for example, has been an important factor promoting coordination between governmental institutions and involving the public. Mexico is working on transforming the committee set up to develop its NIP into a national consultation committee on chemicals.

Information management systems

Information management systems have been mentioned as important tools to collect and share data on chemicals and wastes management. Examples of regional and global tools are the Chemicals Information Exchange Network (<http://www.estis.net/communities/cien/>), the Pesticide Stock Management System of the Food and Agriculture Organization of the United Nations (FAO) (<http://psms.fao.org/psms/about.htm>) and the Global ENvironmental ASsessment Information System (GENASIS) (<http://www.genasis.cz>). The systems collect information that is of interest for the implementation of the various chemical and waste conventions and is available for consultation by policy makers and the general public at the national, regional or global levels.

Regional cooperation

The Multilateral Environmental Agreements Regional Enforcement Network (MEA-REN) is an example of a mechanism aimed at assisting countries to enforce trade-related obligations under the Basel, Rotterdam and Stockholm conventions through regional cooperation. The Network allows customs and environmental officers to meet and discuss enforcement issues with their peers in the region and has developed such tools as an informal Prior Informed Consent (iPIC) mechanism for the Montreal Protocol, weekly Environmental Crime Media Update and an information exchange platform. The initiative covers the Basel, Rotterdam and Stockholm conventions, but also other related MEAs, such as the Vienna Convention and the Montreal Protocol.

Capacity building at the regional and national levels

Developing countries and countries with economies in transition rely on capacity building activities, such as workshops and projects to implement synergies. While traditionally technical assistance has focused on addressing implementation aspects of individual conventions, there are more and more efforts to promote the joint delivery of capacity building activities for the conventions. The Secretariats of the conventions, bilateral donors and international organizations have initiated projects and workshops to foster collaboration and cooperation among the conventions. The Basel and Stockholm Convention Regional Centres as well as UNEP and FAO regional offices have been identified as important actors for strengthening technical assistance at the regional level under all the three conventions. Switzerland, for example, supports a project on the destruction of Persistent Organic Pollutants (POPs) and Ozone-Depleting Substances (ODS), which is carried out by the Basel Convention Regional Centre for Training and Technology Transfer for the Central American Sub-region, including Mexico based in El Salvador (BCRC-El Salvador).

The Probo Koala project in Côte d'Ivoire and the African region is another example of capacity-building activities to help enforcement agencies and environmental authorities to implement the Basel, Rotterdam and Stockholm conventions as well as other relevant MEAs in a coordinated manner.

The pilot project on the ESM of asbestos highlights capacity-building across the conventions carried out by an Inter-Agency Working Group. Guidelines, models for the ESM of asbestos and information compilations are intended to build capacity on sound management of asbestos and the development of industrial chemicals management schemes in general.

The Green Customs Initiative (GCI) is a joint activity by several international organizations, including UNEP, the World Customs Organization (WCO), the United Nations Office on Drugs and Crime (UNODC) and the secretariats of several MEAs, that aims at building the capacity of customs officers in developing countries and countries with economies in transition to detect and prevent illegal trade in chemicals and wastes as well as other environmentally sensitive commodities. The initiative supports the delivery of integrated awareness raising and training on several international agreements in order that customs officers better understand the practical implications of the conventions for their day-to-day work.

The secretariats of the Rotterdam and Stockholm conventions are supporting the effective participation of countries in the work of the scientific subsidiary bodies of the conventions. Regional workshops are held to increase the understanding of the chemical review processes and to point out interlinkages between the committees, e.g. concerning the exchange of information required for the chemical review processes. The workshops are also a means of bringing together various national and regional stakeholders and allow them to network and develop new ideas for synergistic ways forward in chemicals management.

The way forward

The Parties to the Basel, Rotterdam and Stockholm conventions have been considering over the last couple of years how best to strengthen cooperation between the three conventions. The implementation phase of the synergies process has only just begun. The decisions taken by the conferences of the Parties to the three conventions give Parties general directions on how to achieve synergies at the national level, but in practice, there are many different ways to accomplish this, as the variety of success stories in this publication shows. Each country has to find its own way, in accordance with national frameworks, structures, processes and stakeholders. National implementation of the synergies process will be a major challenge and opportunity for Parties over the coming years.

The experience of the Republic of Korea demonstrated that it is challenging to establish links between the conventions. Concrete cross-cutting measures had to be identified and put into practice. The country understood that it was necessary to classify common criteria to unify the management plan and establish policies that stakeholders can understand easily and implement smoothly. Topics that have been identified by countries as being particularly amenable to synergies include strengthening of customs controls, development of national and regional positions for the conferences of the Parties, development of guidance, policies, standards, national strategies and plans, harmonization of classification and customs codes, risk management and emergency response.

Many developing countries and countries with economies in transition require financial and technical assistance to comply with the obligations under the conventions. Resource mobilization to effectively implement the conventions is an important activity for countries. The consultative process on financing options for chemicals and wastes was launched by the Executive Director of the United Nations Environment Programme (UNEP) at the fourth meeting of the Conference of the Parties of the Stockholm Convention on Persistent Organic Pollutants in May 2009. It seeks to identify options for financing the sound management of chemicals and wastes to support developing countries and countries with economies in transition in meeting their obligations under the three conventions. Governments and other key actors participating in the consultative process have discussed and provided input to a desk study on financing options for chemicals and wastes, outlining a number of tracks for securing adequate financing in the areas of chemicals and wastes. This includes the mainstreaming of sound management of chemicals and wastes into the broader development aid agenda; public-private partnerships, including the use of economic instruments at the national, regional and international level; the establishment of a new trust fund similar to the Multilateral Fund of the Montreal Protocol on Ozone Depleting Substances; and the introduction of sound management of chemicals and wastes as a new GEF focal area, or expanding the existing POPs GEF focal area.

By 2013, with the support of UNEP, FAO and the secretariats of the Basel, Rotterdam and Stockholm conventions, the Parties to the three chemicals and wastes conventions will carry out evaluations to ascertain whether the current synergies arrangements have contributed to strengthening the implementation of the three conventions at the national, regional and global levels; promoting policy coherence; reducing the administrative burden; maximizing the effective and efficient use of resources at all levels; taking into account global concerns and the specific needs of developing

countries and countries with economies in transition in this assessment; and, protecting human health and the environment for the promotion of sustainable development. This review will provide input to further shape the synergies process and provide guidance to stakeholders on deploying synergies in the future.

The efforts by countries to enhance cooperation and coordination among the Basel, Rotterdam and Stockholm conventions are a unique endeavour to achieve synergies within a cluster of related MEAs and have already become an outstanding example of enhanced international environmental governance. By pooling resources, making improved use of scarce financial resources, avoiding duplication of efforts and increasing efficiency, Parties to the conventions are in a better position to tackle cross-cutting issues and implement the conventions. The consolidated action by all stakeholders ensures that their comparative advantages are built upon, thereby maximizing their added value. Work on implementing the pillars of the synergies process is progressing well. Many innovative ways to forge synergies have been devised and applied and are contributing towards better protecting human health and the environment. As countries gather more experience over the next years, their activities will be even more effective and their impact will increase.



Remains from a fire at an industrial supplies company in Alajuela, Costa Rica in May 2007.

Case 1

Coordination of chemical issues through an inter-institutional body in Costa Rica

Costa Rica, a small Central American country, has understood the importance of integrated chemical substance management several years ago. The commitments assumed with the ratification of the different MEAs have encouraged the institutions involved in chemicals management to develop different coordination mechanisms. Those mechanisms need to be sustainable on a long term basis and have characteristics that allow them to withstand governmental changes of governments.

Based on these requirements, the Technical Secretariat for the Coordination of Chemical Substance Management was created in 2006 as a support group for the national competent authorities and focal points of the different conventions. The objective of the Secretariat is to provide effective and efficient guidance on national chemicals management issues. Twenty-two institutions representing the government (e.g. customs offices), academia, NGOs and the agricultural and industrial private sectors participate in the work of the Secretariat, making it a meeting point and coordinating body for chemicals management.

The Secretariat meets regularly once a month and extraordinarily when needed. Its work plan was developed based on the work areas suggested by SAICM, adapted according to national priorities. Some elements of the Secretariat's work plan are risk assessment and risk reduction, the enhancement of the Secretariat and capacity building. The Secretariat receives periodic reports from the convention focal points.

Activities are carried out by work groups or sub-commissions, including work groups on the following topics:

- Pesticide management plans
- Mercury
- Used oils or “sludge”
- Chemical safety including chemical emergencies
- Sustainable purchases
- Illegal traffic
- Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Some successful initiatives carried out by the Secretariat are summarized below:

1. **Import of sludge:** In 2006 the customs service detected an increase of waste oils (sludge) entering Costa Rica by ship without being controlled. Considering that these wastes could

be contaminated with heavy metals or PCBs, a sub-commission was created to collect information regarding customs classifications, the amount of waste imported according to the uniform customs declarations and the companies that import and treat the sludge. With this information a technical note for the customs service was developed to regulate the import of these substances through the Basel Convention national competent authority.

2. Chemical emergencies: As a result of an evaluation of the “Hazardous Chemical Substance Management in Costa Rica” done by a sub-commission of the Secretariat, a work plan on chemical emergencies was prepared. This plan includes among its activities the updating of existing regulations related to the transport of hazardous materials, the elaboration of criteria for proper storage, the establishment of an inter-institutional information system, the development of emergency response protocols and the tracking of accidents to enhance lessons learned and training programmes.
3. Information management: A project funded by the SAICM Quick Start Programme is currently under execution to inter-relate existing information on chemicals throughout their entire life cycle in a national information system. This integral management of chemical substances system establishes synergies in the registering, control and follow-up of chemical substances and their wastes, as well as attends properly to technological emergencies.
4. Harmonized customs codes: Customs classification codes have been harmonized through close coordination with the customs service for all chemical substances that are included in international conventions such as the Chemical Weapons Convention (CWC), the Rotterdam Convention, the Stockholm Convention and the Montreal Protocol. This new instrument will allow stricter control of the import of regulated substances and prevent or avoid illegal traffic.

The establishment of the Secretariat has been a valuable and productive experience to enhance national coordination among the focal points of the conventions, including the Montreal Protocol. The interaction between different actors and national focal points has led to the consolidation of a strategic coordination mechanism to such an extent that it has been included in the National Development Plan for the next quadrennial.

Case 2

Experience from the former Yugoslav Republic of Macedonia with chemicals and related global initiatives

Introduction

The Vienna Convention and its Montreal Protocol, the Stockholm Convention and SAICM are under one umbrella of the Ministry of Environment and Physical Planning. The Ozone and POPs Unit of the Ministry has been covering these three areas for almost thirteen years.

<i>Name of the project</i>	<i>Amount (USD)</i>
Country Programme — Feasibility Study	6,000
Development of the Country Programme	72,105
Institutional strengthening — Phase I	152,900
Institutional strengthening — Phase II	101,950
Institutional strengthening — Phase III	101,950
Institutional strengthening — Phase IV	132,347
Institutional strengthening — Phase V	132,347
Phasing out of chlorofluorocarbons (CFCs) at refrigeration plant of “Frinko”	1,081,724
Phasing out of CFC-11 from flexible slabstock foam manufacturing at “Sileks”	520,125
Phasing out CFC-11 from manufacturing of rigid PU sandwich panels at “Sileks”	284,236
Development of the Refrigeration Management Plan	30,000
Refrigeration Management Plan	327,224
Demonstration project on the alternatives to the use of methyl bromide	259,600
Development of the project to phase out of methyl bromide in tobacco seedlings and horticulture	20,000
Phase out of methyl bromide in tobacco seedlings and horticulture	1,075,207
Halon Management Plan	25,000
Terminal Phase-out Management Plan	279,081
Chiller demonstration project	178,179
Development of the HCFCs Phase-Out Management Plan	85,000
HCFCs Phase-Out Management Plan	1,030,000
TOTAL funding from the Multilateral Fund	5,894,975

The country is a good example of successful fund raising activities: Funds were identified and mobilized from the Multilateral Fund for the implementation of the Montreal Protocol, GEF, as well as from bilateral donors and governments. (Please see table at the left.) A substantial number of projects have been implemented and the country is in compliance with the provisions of the conventions and their Protocols. An excellent cooperation was established with all relevant stakeholders involved in all phases of chemical management, as well as with several implementing agencies including the United Nations Industrial Development Organization (UNIDO), the United Nations Development Programme (UNDP), FAO, and countries such as Switzerland, Germany, the Czech Republic, Italy and Norway.

Montreal Protocol

In 1997, the National Ozone Unit was established under the frame of the Ministry of Environment and Physical Planning. Within thirteen years (1997-2010), all ozone-depleting substances (ODS) (550 tonnes), except hydrochlorofluorocarbons (HCFCs), were phased-out ahead of the



Montreal Protocol's schedule in different areas of their application (refrigeration, flexible and rigid foams production, agriculture, refrigeration servicing sector, etc). A total amount of nearly 6 million USD was raised successfully from the Multilateral Fund for implementation of the Montreal Protocol.

Stockholm Convention

The management of POPs started in 2002 with the implementation of the GEF project “Enabling activities to facilitate early action on the implementation of the Stockholm Convention on POPs”. The main objective of the project was the preparation of the NIP on the reduction and elimination of POPs.

<i>Name of the project</i>	<i>Duration</i>	<i>Donor Amount (USD)</i>	
Enabling activities to facilitate early action on the implementation of the Stockholm Convention on POPs	2002-2005	GEF	497,000
Efficient Energy Distribution Programme (30 tonnes low voltage capacitors phased-out and replaced with new ones) Component IV- assistance to the POPs Unit	2004-2006	Switzerland	2,700,000 180,000
Public awareness activities for PCBs management	2006	Switzerland	23,000
Inventory Development and Initial Mainstreaming of the PCB Management within the National Policy Framework	2007-2008	Switzerland Government	58,500 4,500
Development of a Medium Sized Project for stabilization of POPs in landfills	2005	GEF Government	25,000 34,000
Development of a Medium Sized Project for phasing out PCBs and PCB containing equipment	2007	GEF Government	43,000 10,000
Public-Private Partnership on phasing out and elimination of PCBs and PCB contaminated equipment	2006-2008	Germany	532,000
Medium Sized Project on phasing out 150 tonnes of PCBs and PCB containing equipment	2007	GEF UNIDO Government Other stakeholders	957,000 20,000 770,000 995,000
Elimination of 4 tonnes of hazardous chemicals (DDT, Methyl bromide, and Cyclon B) stored in the Institute for Public Health in the City of Skopje	2005-2006	Switzerland	65,000
Feasibility Study for Remediation of hexachlorocyclohexane (Lindane)	2008	the Czech Republic	400,000
Conceptual Design for remediation of hexachlorocyclohexane (Lindane)	2010	Italy	332,500
Development of a project — proposal for elimination of chemical waste in the Institute of Public Health	2010	Norway	13,500 6,500
Disposal of waste chemicals from the Institute of Public Health	Ongoing	Switzerland	85,500 2,500

The Ozone Unit served as a nucleus for the preparation of the NIP and the POPs Unit was established under the Ministry of Environment and Physical Planning with multi-stakeholders participation. The NIP was adopted by the Government and obliged the Ministry of Environment and Physical Planning/POPs Unit to undertake activities in support of the implementation of the NIP's action plan. In the post NIP period, the POPs Unit implemented a number of projects related to some of the action plans defined in the NIP document.

SAICM

The country is currently finalizing the SAICM Project “Mainstreaming of Sound Management of Chemicals into Millennium Development Goals based on National Development Planning”. The project was approved by the Quick Start Programme Trust Fund in October 2006, among the first three countries that applied for funds in the first round.

The Project Management Unit was established as a continuation of the activities for implementation of the projects related to ODSs, POPs and other chemicals. The Unit developed four main documents:

1. Situation report on chemical management in the country;
2. National Action Plan for SAICM Implementation;
3. Roadmap for mainstreaming the action plans into national development planning processes in the country;
4. Chemicals and the every-day life, dedicated to raising awareness among the wider population.

Rotterdam Convention

The Rotterdam Convention is the most recently ratified convention in the country in the area of chemicals management. All the preparatory work was done by the staff of the Ozone and POPs Unit due to its previous experience.

In addition, the POPs Unit is a member of two regional forums/networks, namely the regional forum for reduction and elimination of unintentional POPs through the Application of Best Available Techniques (BAT) and Best Environmental Practice (BEP) in the Central and Eastern European and Central Asian countries and the regional project for “Capacity building for obsolete POPs and other organic pesticides”.

Lessons learned

The Ozone and POPs Units have eight years of common experience in the management of certain groups of chemicals. Both units have the same project manager, share the same offices and experiences, and complementary tasks. Despite the fact that these Units are working on completely different

chemicals, the proven principles that were applied in the ODS management were used to establish a system for POPs management.

The approaches for identification of the presence of chemicals (especially hot spots) that were set up by the National Ozone Unit were applied by the working groups as well as by the experts in the later phases of the POPs activities.

The experience that the Ozone and POPs Units gained over the last thirteen years was incorporated into the development and mainstreaming of the SAICM initiative. Principles designed for the public awareness campaign for ODS were later used for POPs and SAICM.

The Ozone and POPs Units under the Ministry of Environment and Physical Planning are fully committed to the sound management of chemicals and will be even more active in the future towards full and more successful implementation of the related global initiatives in a more coordinated manner.

Summary of funds raised over the last years

<i>Donor</i>	<i>Amount (USD)</i>
Multilateral Fund	5,894,975
GEF	1,522,000
Quick Start Programme Trust Fund	248,400
UNIDO	20,000
Switzerland	3,112,000
Germany	532,000
The Czech Republic	400,000
Italy	332,500
Norway	13,500
National Government	939,000
Others from the country	995,000
TOTAL	14,009,375



Case 3

Strategies for implementing synergies in the Republic of Korea

In the Republic of Korea, there has been a steady increase in the use of chemicals, including more than 40,000 kinds of chemicals in circulation and the entry of about 400 new chemicals in the Korean market every year. However, some of the chemicals are very harmful to humans and can be the cause of cancer, respiratory disease, nervous system disorder, etc.

Countries started to prohibit and restrict the import/export, manufacturing and use of raw materials, products and wastes of certain hazardous chemicals through the Basel Convention, the Rotterdam Convention, and the Stockholm Convention. The Republic of Korea has ratified these three conventions in its domestic law and is implementing policies to manage hazardous chemicals and wastes.

The Basel, Rotterdam and Stockholm conventions share the common vision of effective management of hazardous chemicals and wastes, but each convention has a different background concerning substances, management purposes, etc. In order to implement the conventions, the Republic of Korea had to enact or amend three different laws. However, problems occurred due to distinctive management methods foreseen in the conventions. For example, the Stockholm Convention prohibits the import and export of hazardous substances, such as Aldrin and Dieldrin, but it is difficult to manage those substances given that the registration or approval procedures of the substances are not specified. In addition, the Basel Convention restricts the import and export of wastes containing for example PCBs, but the disposal of those wastes is not prescribed in detail. In other words, if there is no appropriate treatment technology available domestically or abroad, the wastes cannot be disposed and should be stored appropriately.

The Republic of Korea amended the Toxic Chemicals Control Act to establish a system that met the purpose of prohibiting the import and export of certain substances under the Stockholm Convention. To achieve this, certain substances under the Rotterdam Convention and the Stockholm Convention were classified and listed as prohibited or restricted substances and prior notifications were requested for exporting these substances.

In addition, the Persistent Organic Pollutants Management Act was passed and a technology for waste transformers containing PCBs was specified to allow appropriate disposal of wastes containing persistent organic pollutants. In particular, high temperature incineration and high temperature melting technologies for waste transformers containing PCBs, which had been controversial before, were verified, and the specialization of chemical and cleaning treatments was enhanced with the establishment of 12 special treatment companies in Korea. As a result, about 140,000 waste transformers were disposed of in 2010. In order to reduce the environmental pollution in the world caused by the export of waste transformers containing PCBs, there are plans to implement the management policies on used products containing persistent organic pollutants (pending the National Assembly's approval of the bill).

The Republic of Korea is striving to achieve close cooperation by integrating issues related to the Stockholm Convention and the Rotterdam Convention at the level of the Chemicals Management Division of the Ministry of Environment. On the other hand, the Resource Recirculation Policy Division of the Ministry of Environment is responsible for the affairs related to the Basel Convention.

The three conventions are different in terms of concerned substances and management methods, but they have the common vision of reducing risks of hazardous chemicals and wastes to human health and the environment. In order to achieve their shared aim, it is necessary to classify common criteria to unify the management plan and establish policies that the stakeholders can understand easily and implement smoothly. The Republic of Korea will work towards minimizing the redundancy and inefficiency of policies to ensure the environmental pollution caused by chemicals and wastes is reduced.

Case 4

Regional Customs Network in support of multilateral environmental agreements in Asia

Asia, the most densely populated region in the world, is a major hub for illegal trade in harmful substances, including the hazardous chemicals and wastes covered by the Basel, Rotterdam and Stockholm conventions. Unauthorized trade in ODS undermines countries' efforts to phase down and eliminate production and use of the substances controlled by the Montreal Protocol, such as CFCs and HCFCs. In parallel, rising costs for legally disposing of hazardous wastes in developed countries has created new illicit business opportunities, which are worth 10,000-12,000 million USD per year, for dumping waste materials illegally¹.

Seeing the need for more coordination at the national and regional levels to curb illegal trade in ODS, UNEP, in collaboration with the Swedish Government, established a customs enforcement network in Asia in 2002. Due to the great success of the initiative and the rising concerns on environmental security, countries in the region appealed to UNEP to expand the network to assist them in enforcing trade-related obligations under the Basel, Rotterdam and Stockholm conventions. As a result and with the continued support of Sweden, the Multilateral Environmental Agreements Regional Enforcement Network (MEA-REN) project was established in 2007 and has been assisting countries in North East, South and South East Asia ever since. The Compliance Assistance Programme within UNEP's Division of Technology, Industry and Economics/OzonAction Programme acts as the Secretariat to the MEA-REN.

The project has established a mechanism for regional cooperation among 25 participating countries to gain better control over their import and export of hazardous chemicals and wastes (e.g. ODS, POPs, waste). Among the target audiences for the project are: customs focal points, national ozone officers, and national focal points for chemical/waste MEAs — the Basel, the Rotterdam, and the Stockholm conventions in particular.

Since its start in 2007, the project has prompted regional cooperation that enables the countries to control transboundary movements of harmful substances and hazardous wastes more effectively and in a more integrated manner. Desk studies on trade data for such substances have helped enforcement officers identify problematic trade. The "iPIC" mechanism for the informal Prior Informed Consent on ODS trade, information exchange via the www.mea-ren.org website, and the weekly *Environmental Crime Media Update* are some examples of tools that have been used by the project to improve enforcement efficiency and awareness. 71 countries across the world (including 18 from Asia) have joined the iPIC mechanism. In 2010, the iPIC has prevented more than 1,000 metric tonnes of unwanted trade of ODS. Thanks to the MEA-REN, national focal points for chemicals and wastes MEAs, accompanied by national customs representatives, have a chance to meet periodically with their peers and discuss enforcement of trade-related obligations across the region, in the presence of the conventions'

¹ US Government Interagency Working Group 2000. Internal Crime Threat Assessment. www.fas.org/irp/tbreat/pub45270chap2.html#6, consulted on 23 Nov. 09.

secretariats, as well as of global and regional organizations that support enforcement work. An e-forum has linked the officers to exchange information addressing harmful substances and hazardous wastes issues on a real-time basis. The project has so far provided an effective platform for introducing and implementing key enforcement initiatives and operations, such as Sky Hole Patching - an enforcement operation for combating illegal trade in ODS and hazardous waste that was pioneered in this region and has become a global initiative. In addition, bilateral and multilateral dialogues have improved border enforcement on harmful substances and hazardous wastes. The secretariats of the Basel, Rotterdam and Stockholm conventions and their regional centers have given guidance to the implementation of the project through their presence in all workshops and meetings of the project steering committee, as well as related training seminars. They are also regular contributors to the material produced by the project, such as the MEA-REN Newsflash which provides updates on the activities in the region concerning implementation of related MEAs every six months.

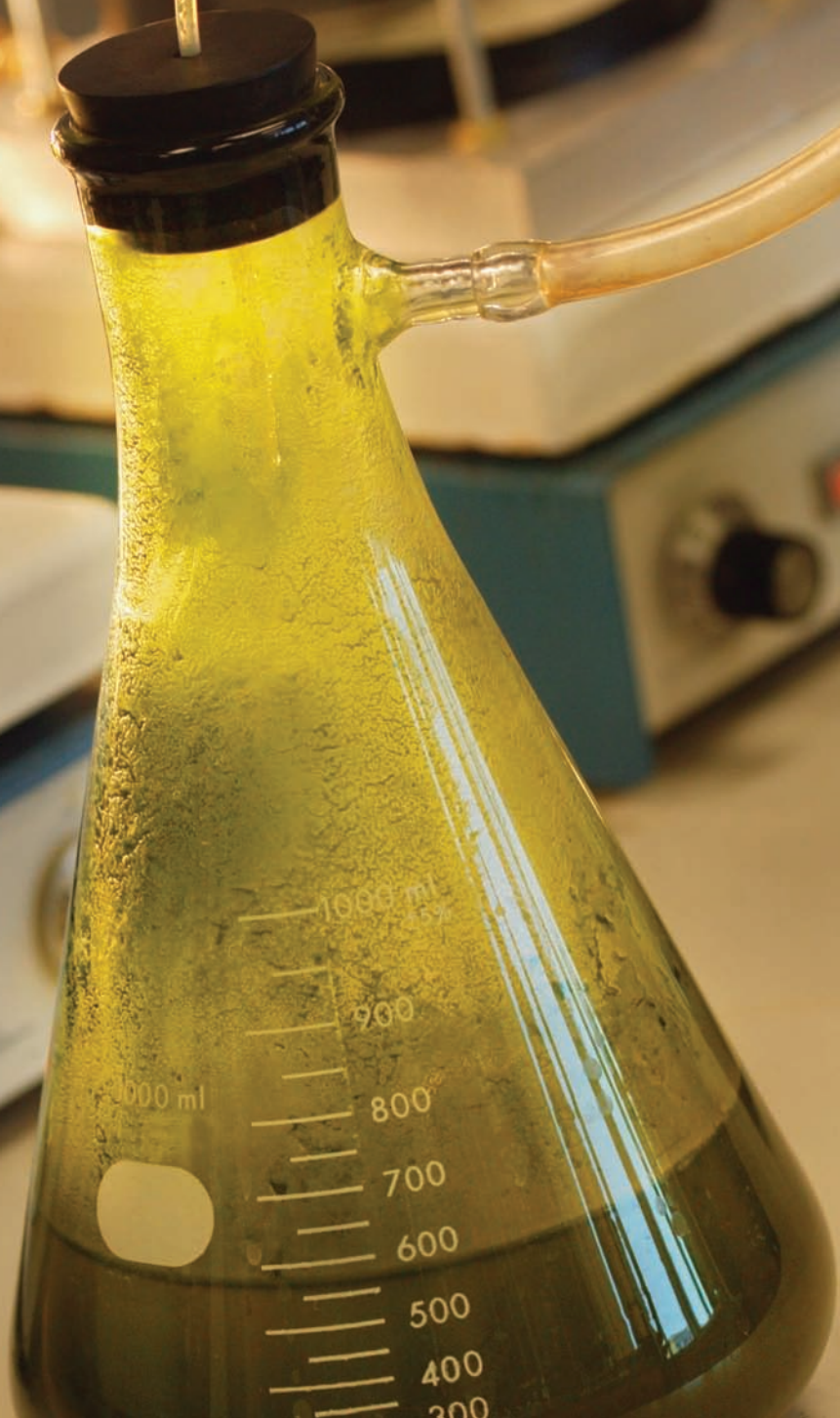
The project has greatly improved the level of national and international coordination for enforcement of trade related obligations under the Montreal Protocol and the Basel, Stockholm, and Rotterdam conventions and has enhanced the capacity for enforcement officers to detect harmful substances and hazardous wastes. The comprehensive approach to address enforcement related issues of four chemicals and wastes MEAs in a single project has helped to raise awareness among enforcement officers very efficiently. They are now more confident in sharing good enforcement practices such as return of seized goods with their peers. The project has provided a platform for MEA secretariats to deliver services and guidance, creating a clearing house at regional level to exchange information, and initiating a joint enforcement operation to address illegal trade in harmful substances and hazardous



wastes. The project has also allowed enforcement officers and environmental officers join hands to address ODS, POPs and illegal waste trade issues, and promote cooperation among regional offices of related MEAs.

The project has encouraged customs authorities to prioritize environmental issue on their agenda. The cooperation between UNEP's Compliance Assistance Programme with UNODC under the umbrella of the MEA-REN has facilitated the shift of UNODC's strategy to include addressing environmental crime in their Work Programme for 2010-2012.

While recognizing the achievements of the MEA-REN project, some lessons have been learnt from the project. Since there are three national focal points for the Basel, Rotterdam and Stockholm conventions respectively in each country, it was a challenge for one MEA representative to represent and coordinate all the three conventions under the MEA-REN project. More synergy and coordination need to occur at the national level to better enforce the MEAs. Secondly, due to the complexity of these MEAs and the need for customs to be better informed on identification and handling of harmful substances and hazardous wastes, capacity building for enforcement officers needs to be ongoing. Thirdly, in the context of greatly increasing global trade and the need to facilitate this, risk profiling on hazardous chemicals and wastes should be further enhanced.



GENASIS: An environmental expert system supporting the synergistic implementation of the Basel, Rotterdam and Stockholm conventions

The decisions by the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions on enhancing cooperation and coordination among the three conventions (the so-called synergies decisions) invite Parties to coordinate their efforts when implementing the three conventions to ensure close cooperation among relevant ministries and programmes at the national level. The Stockholm Convention regional centre for capacity building and transfer of technology of Central and Eastern Europe answered this call by activating the GENASIS project.

GENASIS (Global ENvironmental ASsessment Information System, www.genasis.cz) is a tool developed by expert teams of the Research Centre for Toxic Compounds in the Environment (RECETOX) and the Institute for Biostatistics and Analyses of the Masaryk University in Brno. The aim of GENASIS is to compile validated data on persistent organic pollutants, including their properties, sources, long-term levels, life times, transport mechanisms, effects and risks scattered throughout various institutions and ministries, and to provide tools for their visualization, analyses, interpretation, assessment of environmental and human risks or modelling of fate. Such a tool should significantly enhance comprehensive understanding of the fate of POPs in the environment and their impacts on ecosystems and the human population.

As recommended by the synergies decisions, the GENASIS system provides a national information database to experts as well as to the general public, which is not only useful for preparation of national positions for meetings of the conferences of the Parties and other bodies of the Basel, Rotterdam and Stockholm conventions, but also for the development of regional policies and measures protecting human health and the environment from the harmful impacts of hazardous chemicals and wastes.

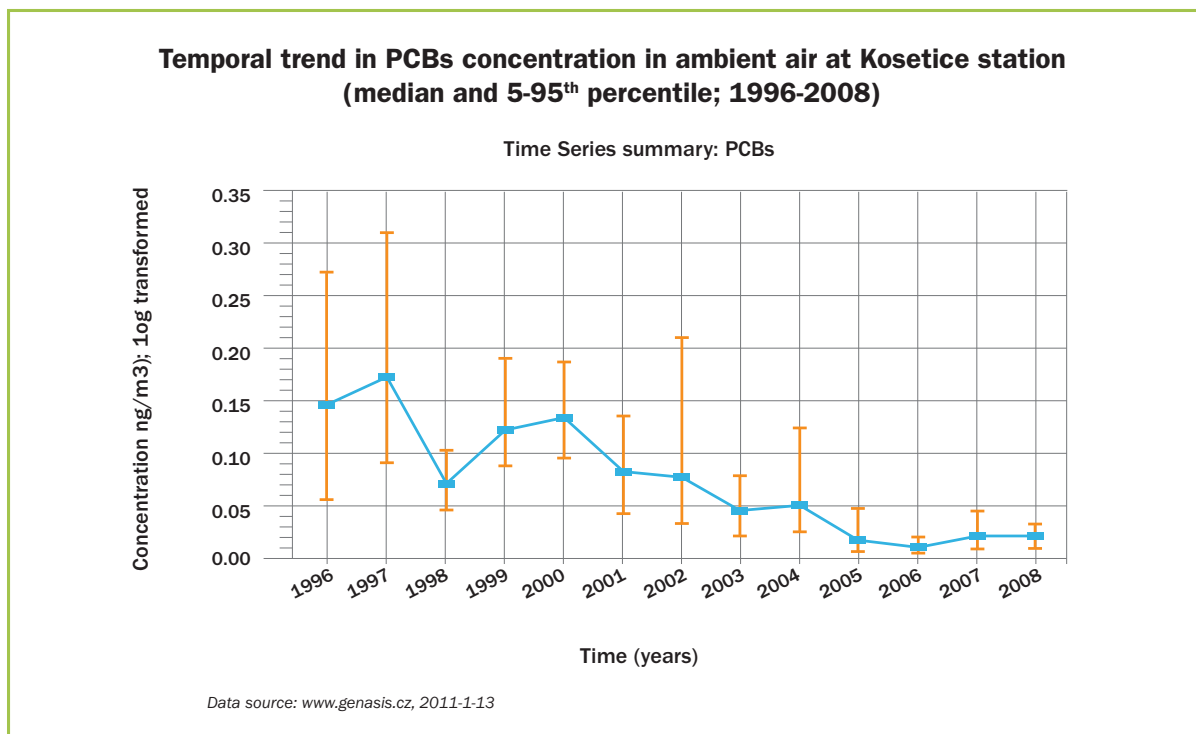
The GENASIS system is built as a modular structure providing services to a wide range of potential users. The initial version of the database launched in 2010 contains data from the long-term integrated monitoring at the Košetice observatory which is a part of the European Monitoring and Evaluation Programme, and long-term data from the MONitoring NETwork for determination of POPs in ambient air using passive sampling (MONET) in the Czech Republic. All available data are stored in the intranet database linked to an ArcGIS server enabling spatial interpretation of all results. The user has access to maps of the sampling sites, their description, as well as POPs concentrations values at all sites. Descriptive summary statistics and basic analyses of time series (seasonal and long-term patterns, and robust trend estimates) is also available for selected data.

Data from the large-scale monitoring of soil, sediment and surface water will be included in a new version of the GENASIS system, which is currently under development and will be launched in 2011. Enhanced analytical tools allowing implementation of algorithms for spatial analyses, and modules enabling comparative analyses of multiple substances or matrices will be also introduced. Based on the

contract signed between RECETOX and the Czech Ministry of Environment, an import of data from external sources will also be initiated in 2011. Compatibility of the GENASIS system with existing databases is crucial in order to assess the environmental patterns, calibrate the indicator systems, and implement the legislation requirements. The fully developed system will serve as an interactive and on-line national POPs inventory of the Czech Republic.

RECETOX acting as the national POPs centre became the documentation centre gathering available national information on environmental risks and impacts on human health which is relevant to the three conventions. It has a website which is being updated. However, in the role of the Stockholm Convention Regional Centre, RECETOX also offers GENASIS as a global system for information exchange and a clearing house mechanism for all three conventions. Such a system is very valuable for the evaluation of the effectiveness of the Stockholm Convention. Currently, GENASIS hosts all available data from the international MONET project monitoring POPs in ambient air (Europe, Africa, Asia and the Pacific).

The international dimension of both the MONET and GENASIS programmes provides an opportunity for strengthening technical assistance and capacity building in the field of data collection,



interpretation and visualization at the regional and global levels. Special attention is being paid to the needs of developing countries and countries with economies in transition.

By providing access to necessary information, the GENASIS system supports decision-making on the sound management of chemicals throughout their life cycle as well as the sound management of hazardous wastes. It is also an important tool for the development of policies and measures protecting the environment and human health, and supporting sustainable development. Last but not least, it is a tool for the joint outreach and enhancement of public awareness, and is an important means of risk prevention and environmental protection. As such, the GENASIS provides a model of coordination mechanism and an example of successful coordination practice.



**Training on water sampling techniques
in Côte d'Ivoire.**

The Probo Koala Programme: enhancing implementation and enforcement of the chemicals and waste conventions in Africa to safeguard human health and the environment

A programme developed in the wake of the dumping of toxic waste in Africa is demonstrating how coordinated implementation of the chemicals and waste conventions can help safeguard human health and the environment for generations to come.

In August 2006, toxic waste originating from the Probo Koala, a vessel chartered by the trading company Trafigura, was dumped at several sites in Abidjan, Côte d'Ivoire, reportedly causing at least 10 deaths and prompting tens of thousands of residents to seek medical attention. Convening shortly after the incident, the eighth meeting of the Conference to the Parties to the Basel Convention strongly condemned the dumping of wastes in Abidjan and called upon Parties to provide technical and financial assistance to support the implementation of the emergency plan developed by the Government of Côte d'Ivoire (Decision VIII/1).

In the context of Decision VIII/1, Côte d'Ivoire was granted funding under the UNEP Special Trust Fund for Côte d'Ivoire set up by the Executive Director, and the Technical Cooperation Trust Fund of the Basel Convention. The Secretariat of the Basel Convention and UNEP, through its Post-Conflict and Disaster Management Branch, collaborated closely with other partners, including the secretariats of the Rotterdam and Stockholm conventions and the Basel Convention Regional Centres (BCRCs) in Africa, to develop a programme of action to implement the main recommendations of the Government's emergency plan.

This programme was designed to fulfil two key objectives:

1. To strengthen the capacity of both the District and Port of Abidjan to manage hazardous wastes, including waste generated at sea, in an environmentally sound manner;
2. To strengthen the capacity of Côte d'Ivoire and other countries in the region to monitor and control the transboundary movements of chemicals and hazardous wastes and ensure their ESM.

Implementation of the Programme

To date, a variety of activities have been undertaken to fulfil the programmatic objectives. In strengthening the capacity of the District of Abidjan to manage hazardous wastes, an inventory of hazardous waste was developed to quantify the amount being produced by, and imported into, the District. On this basis, and following extensive consultations with stakeholders in the waste management sector in Abidjan to analyse existing legislation, identify gaps and assess the training needs of various entities, a Hazardous Waste Management Plan was finalized and adopted by the Government of Côte d'Ivoire in October 2009.

Activities undertaken to strengthen the capacity of the Port of Abidjan included a port assessment to evaluate the strengths and weaknesses in the capacity of national stakeholders to manage the movement of hazardous waste. This assessment, conducted by UNEP, in close collaboration with the International Maritime Organization (IMO) and the Secretariat of the Basel Convention, focused on the application of the Basel Convention and the International Convention for the Prevention of Pollution from Ships (MARPOL) at the Port of Abidjan. The assessment highlighted the need for institutional capacity building with respect to the identification and handling of hazardous waste and dangerous goods, including the response to accidents and spills. In response to this need, UNEP developed an in-situ laboratory within the premises of Centre Ivoirien Antipollution, fully equipped with scientific instruments and sampling kits, to enable sampling and analysis of hazardous waste entering the Port of Abidjan. Provision of the equipment was accompanied by an intensive training programme for selected laboratory staff.

While implementing the activities to strengthen the hazardous waste management capabilities of the District and the Port, it was especially apparent that effective implementation and enforcement of the provisions of the Basel and MARPOL conventions and other related instruments would be a key factor in ensuring the Probo Koala incident could not be repeated. Thus, through the second programmatic objective, activities were developed to strengthen the capacity of Côte d'Ivoire and other countries with port facilities in the region, to implement and enforce the Basel Convention, in synergy with other related international instruments.

In the project activities commenced in Côte d'Ivoire in November 2009, the Basel Convention Regional Centre for French-speaking countries in Africa assumed the role of implementing agency, with support from the Secretariat of the Basel Convention. Legal and technical experts were retained to undertake a "gaps and needs" analysis to assess the implementation and enforcement of the Basel Convention, the Stockholm and Rotterdam conventions, the International Health Regulations of the World Health Organization (WHO) and MARPOL. On the basis of this analysis, norms and regulations for the coordinated implementation of the three chemicals and waste conventions are currently being developed. Later this year, training seminars for enforcement agencies such as customs and port authorities and environmental authorities (convention focal points) are scheduled. The Secretariat of the Basel Convention is partnering with counterparts in the Rotterdam and Stockholm conventions, the IMO and WHO to deliver the training programme. The Quick Start Programme of SAICM has funded this initiative in Côte d'Ivoire and will support its replication in Djibouti, Ethiopia and Mozambique. Funding from other donors is supporting replication of the project in Gabon, Kenya, Madagascar, Morocco and Tanzania.

Project activities under the Probo Koala Programme will continue well into 2012 and possibly beyond. The success in implementing the programme to date has demonstrated that through coordinated action involving multiple project partners and stakeholders, capacities for the environmentally sound management of chemicals and waste can be strengthened in a sustainable manner.

Case 7

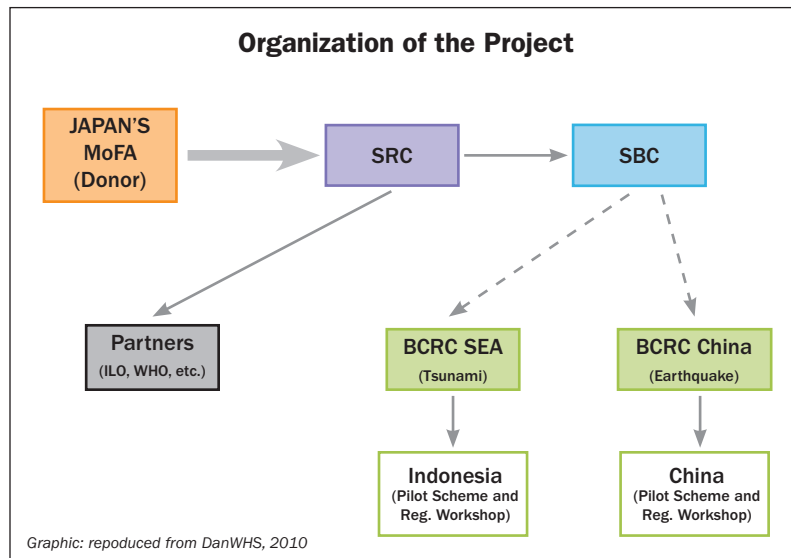
The pilot project on the environmentally sound management of asbestos waste resulting from natural disasters in the Asia-Pacific region

Asbestos is widely used in both permanent and non-permanent buildings in the Asia-Pacific region. As many of the countries in the region are also located in natural disaster prone areas, damaged structures caused by disasters often generate asbestos-laden waste debris. Traditionally, the general public has not been aware of the hazards posed by asbestos. In addition, the relevant government agencies have not had adequate capacity to manage asbestos waste despite being aware of the risks posed by its improper management.

In 2007, in order to strengthen the capacity of developing countries in the Asia-Pacific region to manage asbestos waste in an environmentally sound manner, the Ministry of Foreign Affairs of Japan provided funding to the secretariats of the Rotterdam and Basel conventions through the Rotterdam Convention's Voluntary Trust Fund to develop capacity building projects. The Secretariat of the Rotterdam Convention initiated the formation of the Inter-Agency Working Group on the Sound Management of Industrial Chemicals in cooperation with the Secretariat of the Basel Convention, other relevant UNEP agencies and international organisations. Currently, the Inter-Agency Working Group is focusing on implementing the "Sound Management of Industrial Chemicals, with Special Emphasis on Asbestos, for the Asia-Pacific Region" project.

The key objective of the project is to strengthen the ability of countries in the Asia-Pacific region to safely manage and dispose of hazardous industrial chemicals, in particular asbestos, by carrying out a series of activities designed to increase awareness of health and environmental risks associated

with asbestos management, to address legal aspects at the national level, and to strengthen the institutional infrastructure. The project is also encouraging the implementation of industrial chemicals management schemes that adequately address the obligations under the Basel and Rotterdam conventions and other related MEAs. In cooperation with the Secretariat of the Rotterdam Convention, the Secretariat of the Basel Convention has taken the lead on a smaller sub-project on the Environmentally



Sound Management (ESM) of Asbestos Waste resulting from Natural Disasters in the Asia-Pacific Region (the “ESM of Asbestos Waste project”), which is the focus of this case study.

The objectives of the ESM of Asbestos Waste project are to:

1. Compile existing sources of information and technical guidelines for the ESM of asbestos waste;
2. Develop a practical model for the ESM of asbestos waste for the Asia-Pacific region covering collection, handling, transportation and disposal, through pilot projects in both Indonesia and China which were severely affected by natural disasters, resulting in asbestos waste generation; and
3. Disseminate the compiled information and lessons learned within the context of the cooperation between the two secretariats.

In implementing the project activities in the region, the Secretariat of the Basel Convention cooperated with the Secretariat of the Rotterdam Convention, the Basel Convention Regional Centre for Training and Technology Transfer for Southeast Asia based in Indonesia (BCRC-SEA) and the Basel Convention Regional Centre for Training and Technology Transfer for the Asia and Pacific region based in China (BCRC-China). In turn, BCRC-SEA cooperated closely with the West Java provincial government, Indonesia, and BCRC-China with the Sichuan provincial government, China. The output of the two pilot projects is outlined below.

1. A compendium of information and guidelines for the ESM of asbestos waste from various sources, undertaken by BCRC-SEA. The compendium is publicly available on BCRC-SEA's blog site, <http://bcrsea.blogspot.com>.
2. A comprehensive programme on the ESM of asbestos waste as well as two documentaries on the operational aspects of the ESM of asbestos waste: one in the tsunami-affected area in Pangandaran, Indonesia, and the other in an earthquake-affected area in Shifang, China. Both are intended as models for the ESM of asbestos waste management operations and for public awareness raising in other provinces and countries affected by natural disasters in the region.
3. BCRC-China supported internships for governmental officers from two countries, Nepal and Pakistan, who found that the experience they gained was particularly valuable in supporting their official duties.
4. Workshops were conducted by both BCRCs on the ESM of asbestos waste. The workshop conducted by BCRC-SEA in Jakarta was attended by 37 participants representing countries especially prone to tsunamis, including Indonesia, Malaysia, Maldives, Sri Lanka, and Thailand. BCRC-China's workshop in Beijing was attended by representatives of those countries affected by earthquakes, such as China, Nepal, Pakistan, and the Philippines. Local governments, industry, academia and representatives from the secretariats of the Basel

and Stockholm conventions, other BCRCs, the International Labour Organization (ILO), WHO and UNDP also participated in the workshops. Participants exchanged information and experiences on asbestos management issues, discussed the results of the pilot projects and the potential for their replication in participating countries, and the development of a regional approach to address common issues.

The ESM of Asbestos Waste project has increased stakeholder awareness in relation to asbestos, its environmental and health impacts and ESM practices. Replications of the pilot projects are already being planned in other disaster-prone areas in Indonesia.

The ESM of Asbestos Waste project and the wider project on the sound management of industrial chemicals demonstrate that in pooling their competencies and resources, the secretariats of the chemicals and waste conventions can enhance their potential to address all issues associated with hazardous chemicals throughout their lifecycle.



Customs officers checking hazardous cargo. © French Customs

Combating illegal trade in hazardous chemicals and wastes: cooperation through the Green Customs Initiative (GCI)

An area where specific and focused cooperation between the Basel, Rotterdam and Stockholm conventions is being successfully implemented is in the capacity building and training of customs officers in developing countries and countries with economies in transition to detect and prevent illegal trade and facilitate the legal trade in chemicals and waste as well as other environmentally sensitive commodities. This cooperation is being supported and encouraged through a unique alliance — GCI. This award winning partnership of five MEA secretariats and six international organizations is a cross-cutting initiative that supports a number of UNEP's priorities, including those on environmental governance, harmful substances and hazardous wastes, environmental sustainability, and climate change. It is an iconic and significant example of good environmental governance achieved through cooperation, coordination and synchronisation of activities of MEA secretariats and other partner organizations.

Lack of awareness and the low priority often assigned to environmental crime by many authorities makes it an attractive area of operation for smugglers, offering a lucrative business with often low risks of detection or punishment. National and international crime syndicates worldwide earn billions of dollars annually from hazardous waste dumping, smuggling proscribed hazardous materials, and exploiting and trafficking protected natural resources. Illegal international trade in environmentally sensitive commodities such as toxic chemicals, hazardous wastes, ODS, endangered species and living modified organisms is an international problem with serious consequences. It can directly threaten human health and the environment and can contribute to species loss, result in revenue loss for governments, and undermine the success of international environmental agreements by circumventing agreed rules and procedures. It is also of great concern that environmental crime is often linked with other crime and illegal activities such as money laundering, drug smuggling and organised crime.

Customs and border protection officers constitute the front line of every country's defence against trans-boundary illegal trade in such items. Building the capacity of these officers to combat this illegal trade and at the same time facilitating the legal trade is therefore vital in the context of rapidly increasing globalisation and international trade. Customs administrations, particularly in developing countries, need and regularly request training since in many cases this is not being provided by other means. Training and awareness-raising are key components of such capacity building, but can be time-consuming and expensive when delivered separately for the wide range of issues customs officers must cover. An effective solution is that of coordinated and integrated training and information materials such as that promoted by the Green Customs Initiative.

Green Customs initially grew from the capacity building and training developed by UNEP under its OzonAction Compliance Assistance Programme to implement the Montreal Protocol, specifically through the customs training provided to prevent illegal trade in ODS, and from the capacity building that was initiated under the Convention on International Trade in Endangered Species of Wild Fauna

and Flora (CITES). The synergies and common ground between various treaties with trade-related elements were explored and a common framework was developed which grew into the unprecedented partnership of the Green Customs Initiative. The partnership now comprises the secretariats of the relevant MEAs with trade related components involving hazardous chemicals and wastes (Basel, Rotterdam, and Stockholm conventions and Montreal Protocol), endangered species (CITES) and biosafety (Cartagena Protocol). The partnership also includes Interpol, the Organization for the Prohibition of Chemical Weapons (OPCW), UNEP, UNODC, and WCO. The expertise of the MEA secretariats and other organizations, such as the WCO, with significant experience of customs training and extensive knowledge of the relevant trade-related issues, is crucial for developing the structure and activities of the Initiative.

The participation by the three chemicals and waste secretariats in the Green Customs Initiative is supported by the Parties to the three conventions and ensures that the activities of the Initiative are supportive of the mandates and programmes of work of the conventions. In an effort to support the synergies process, and in particular coordinated implementation of the three conventions at the national level by enforcement entities, the secretariats have developed joint training tools to be used during the workshops. The secretariats also ensure their joint representation during the workshops, usually through one of the Basel or Stockholm Convention regional centres.

The Initiative achieves its objectives through the delivery of cost-effective training and awareness raising of customs officers and enforcement personnel

Successful synergies:

- Green customs is a functioning and practical umbrella partnership involving multiple organisations with diverse mandates cooperating to combat illegal trade in environmentally sensitive goods.
- The three chemicals and waste conventions secretariats work closely together in planning and delivering the activities of the Initiative, as a concrete contribution to the synergies process.
- The membership is growing as the Initiative develops.
- Green Customs has, since 2004, delivered almost 30 regional, sub-regional and national training workshops enabling the Partners and other experts to build the capacity of more than 350 customs officers from almost 120 countries.
- Green Customs is the only structured interaction with the customs community for some of the participating MEAs.
- Customs administrations frequently request and express the need for training on issues covered by Green Customs.
- There is increasing interest from countries to incorporate Green Customs in national customs training curricula — India was the first country to do so — many others are following suit.
- The *Green Customs Guide to Multilateral Environmental Agreements* has been produced by a collaborative effort of the Partners and so far translated into four languages.
- E-learning modules for customs officers have been developed in cooperation with the WCO on introducing the Green Customs Initiative and on ODS — with modules on the other conventions in progress.
- The Partners develop and improve additional training and information materials regularly.
- Resources for the initiative have been secured from a range of funding bodies and donors, a testament to the strength of the concept and achievements of the Partners.
- Green Customs has been awarded the prestigious Partners Ozone Protection Award.

through training workshops, as well as provision of assistance and information tools designed to complement and enhance existing customs training efforts under the respective agreements.

As a means to develop sustainability of the initiative and to enable countries to better implement Green Customs in their national training, a project generously funded by the United Nations Development Account, is currently developing customs-specific e-learning training modules through a cooperation agreement with the WCO. The Basel, Rotterdam and Stockholm Secretariats are cooperating to produce an integrated training module to enable customs officers to better understand the relationship between the three conventions and their requirements in monitoring and controlling trade in the commodities covered by these. These comprehensive “self-learning” tools will be outreached to customs officers around the world through the WCO training platform. One possibility for a next phase of the Initiative is to scale up cooperation on capacity building throughout the ‘enforcement chain’, to provide better assistance to customs officers and to include other enforcement authorities and stakeholders in the legal system — an activity some Partners are already involved in.

Cooperation on illegal trade is an excellent opportunity for international organizations and MEA secretariats to work together across different issue areas to support customs agencies, as many of the problems and solutions regarding the monitoring of trade in ODS, toxic chemicals, hazardous waste, living modified organisms and endangered species are similar. Green Customs has proven to be a practical and effective means to facilitate such cooperation and to serve the synergies process among the Basel, Rotterdam and Stockholm conventions.

More information on the Green Customs Initiative, including the *Green Customs Guide to Multilateral Environmental Agreements*, can be found at: <http://www.greencustoms.org>.



Supporting Parties' effective participation in the Review Committees' Work — POPRC and CRC: Joint workshops of the Rotterdam and Stockholm conventions

Linkages of the work done by the scientific bodies of the conventions

The Chemical Review Committee (CRC) of the Rotterdam Convention and the Persistent Organic Pollutants Review Committee (POPRC) of the Stockholm Convention are scientific subsidiary bodies engaged in reviewing chemicals under the two conventions. The POPRC is mandated to review Parties' proposals for listing additional chemicals under the Stockholm Convention and making recommendations to the Conference of the Parties (COP), in accordance with Article 8 of the Convention; while the CRC reviews the notifications of final regulatory actions of banned or severely restricted chemicals and proposals for severely hazardous pesticide formulations, received from Parties in at least two regions, and makes recommendations to the COP for listing chemicals under the Rotterdam Convention in accordance with Article 5 and 6 of the Convention. The two committees have similar structures comprised of 31 government designated experts and follow similar operational procedures. It has also occurred that some experts who have finished their term with one committee have been appointed to the other committee.

The two committees are also linked to the Open-ended Working Group (OEWG) of the Basel Convention which deals with the waste angle of chemicals management. Together the three committees provide scientific data and chemical review that form the substantial basis for the work of the three conventions and their COPs, as well as the efficient implementation of the conventions.

The work of the three conventions involves the lifecycle approach to chemicals management, although they all have a different primary focus. Information from the POPRC can, for instance, be used by the countries to take final regulatory decisions to ban or restrict the use of a chemical and submit notifications to the Rotterdam Convention, which is then used at the CRC. Similarly, information provided by a country under the Rotterdam Convention on alternatives for a chemical, can be useful to the work of the POPRC. The information generated by the POPRC and CRC is valuable to countries in their management of chemicals, including better management of trade, use, and alternatives.

In a similar manner, the POPRC cooperates with the OEWG in the work of updating the technical guidelines on POPs wastes to include the newly listed chemicals under the Stockholm Convention. Further, to ensure implementation of Part IV and Part V of Annex A to the Stockholm Convention where recycling and waste disposal of bromodiphenyl ethers need to be carried out through ESM, additional scientific cooperation is envisaged. Therefore the joint effort between the Stockholm and Rotterdam conventions is extended to the Basel Convention.

These linkages have also been recognized in the synergies process of UNEP that aims to bring the work of the three conventions and their committees together. At the simultaneous extraordinary meetings of the conferences of the Parties to the Basel, Rotterdam, and Stockholm conventions in Bali

in 2010, it was officially decided to increase cooperation between the committees, which had been previously encouraged by experts of the Rotterdam and Stockholm conventions' review committees.

Support for Parties' effective participation in the work of the scientific bodies

Both the CRC and POPRC review candidate chemicals based on information submitted by Parties, and for the POPRC also information from observers. It is important for the committees' decision-making that Parties and experts have a clear understanding of the review process, and are capable of identifying issues and providing relevant information to the committees. The committees recognize that it is necessary to enhance the understanding of Parties and stakeholders on the operation of the committees and the process of listing chemicals under the conventions, as well as the information requirements in order to ensure the committees' success.

The best way to achieve this has been identified to be a joint training programme that raises awareness and promotes opportunities for information exchange under the conventions, thus developing competencies that would continuously assist countries to implement chemicals risk management through involvement of national partners and experts from both committees, while also exploring an



Joint workshop of the Stockholm and Rotterdam conventions.

integrated approach in chemicals management at the national level by bringing important partners together in a networking environment.

In response, the secretariats of the Rotterdam and Stockholm conventions have developed a training programme involving CRC experts from a specific region together with POPRC experts, national focal points and official contact points of the Stockholm Convention, as well as Designated National Authorities of the Rotterdam Convention, national stakeholders and representatives from NGOs and the private sector. The Basel and Stockholm Regional Centers provided technical input to the programme to increase communication between these networks, presented activities that take place in the region, and suggested future projects.

The programme consists of joint sessions that allow participants to learn about interlinkages between the conventions and meet their counterparts, as well as separate sessions that provide information on specific issues related to the review of chemicals under the Rotterdam and Stockholm conventions. Countries have the opportunity to understand the review process first hand from experts while also being able to see some of the tools used in chemicals management that are shared in specific sessions by experts.

Sessions that focus on project development allow countries to develop new ideas for synergistic ways forward in chemicals management, provide opportunities to find other countries within the region or partners within their national setting to cooperate in the activities, and allow secretariats of the conventions to obtain first-hand specific requests at national and international levels for future work.

The joint workshops create opportunities for information exchange and synergistic approaches in chemicals management at the national and international levels. Through open dialogues and discussions, participants share knowledge on the mandate and structure of the two committees, their role in the process of adding new chemicals to the Annexes of the conventions, and information requirements for chemicals' review. At the national level, where the workshop takes place with the support from the host country, these workshops function as an exercise of national committee meetings on information management and implementation of MEAs, while at the regional level, international partners come together to look at issues related to chemicals management and MEAs and develop regional cooperation.

So far about 150 participants from over 50 countries in three different regions have been reached through the training programme provided at joint workshops. Over 20 experts who are involved with CRC and POPRC have been providing knowledge transfer to the workshop participants.

The evaluation of the workshops shows that the participants have benefited largely from the content and organization of these workshops. The rate of submission of information requested by the POPRC increased in the regions where these workshops were organized. Better understanding and more effective participation in the work of the CRC and the conventions in general has also been achieved.

Participants indicated further need of assistance for developing chemical management strategies under different action points to implement the conventions more effectively. Countries expressed their interest in increasing their commitments to the conventions, as well as approaching chemicals management as a whole at the national level through improvement of information exchange, empowerment of communities, better understanding of the socioeconomic context of chemicals and environment, particularly in decision-making, and using the tools of the conventions in a more efficient manner to be able to deal with the chemicals issues at hand, continuing to provide needed information to the committees or the COPs.

The joint workshops are organized from budgets of the Rotterdam and Stockholm conventions with in-kind contributions from experts and host countries. The workshops address several priority areas of the conventions' workplans.

To conclude, the training programme of the Rotterdam Convention's CRC and the Stockholm Convention's POPRC for Parties' effective participation has facilitated fruitful information exchange and clear understanding on the work of the two committees. It is the first of its kind with such an extent



Joint workshop of the Stockholm and Rotterdam conventions.

of technical cooperation, multiple targets, and operational goals, particularly in the area of synergies between the conventions. What has been witnessed from the discussions and open dialogues at each of the workshops in different regions is a sincere desire to work together under the synergies process at the national and international levels. Several country participants have also expressed willingness to improve their national processes, while the importance of national and regional administrative and legal infrastructures has also been emphasized.

The joint workshops have also raised political interest. The Environment Minister Anura Yapa from Sri Lanka has honoured the most recent workshop held in January 2011 in Colombo with his presence. It is hoped that such contributions and interests in the work of the conventions will be continuous.

Note

The views expressed in the articles are those of the individual authors and do not imply the expression of any opinion on the part of the United Nations Secretariat.

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This publication was jointly prepared by the Division for Sustainable Development, United Nations Department of Economic and Social Affairs (UNDESA), the Secretariat of the Basel Convention, the Secretariat of the Rotterdam Convention, and the Secretariat of the Stockholm Convention. It aims to support the discussions on the thematic topic of Chemicals in the 18th and 19th sessions of the Commission on Sustainable Development (CSD). It provides examples of successful activities undertaken to implement the multilateral environmental agreements (MEAs) and other international frameworks in the hazardous wastes and chemicals cluster in a coordinated manner. The stories are based on national or regional projects and have been written by persons directly involved in activities at the national, regional and global levels.