# Stockholm Convention

# 10th ANNIVERSARY

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UNITED NATIONS

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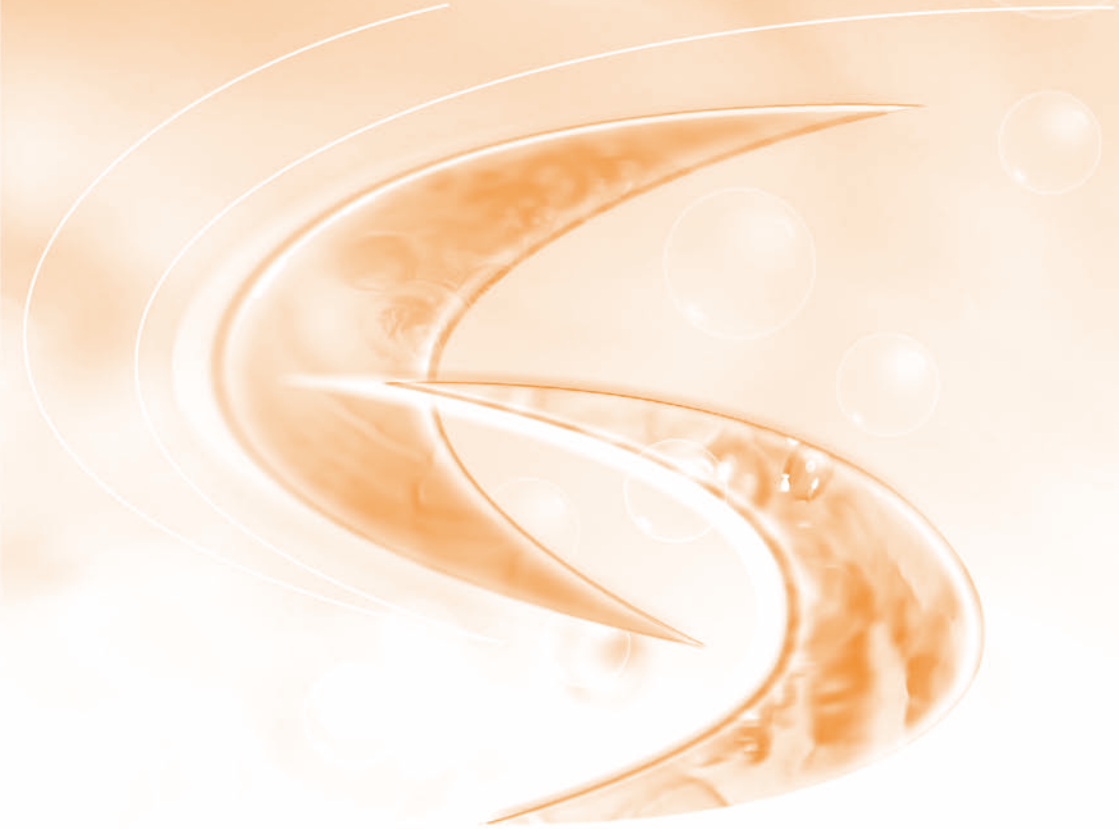

## MAJOR ACHIEVEMENTS IN 10 YEARS

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# INTRODUCTION

The Stockholm Convention on persistent organic pollutants was adopted at a Conference of Plenipotentiaries on 22 May 2001 in Stockholm, Sweden. The Convention entered into force on 17 May 2004, ninety days after submission of the fiftieth instrument of ratification, acceptance, approval or accession in respect of the Convention.

The Stockholm Convention protects human health and the environment from persistent organic pollutants (POPs) through a range of measures aimed at reducing and ultimately eliminating their releases.

**10 major achievements in 10 years:**

- **The Stockholm Convention has 172 Parties – 171 countries and one regional economic integration organization (as of 1 March 2011).**
- **128 Parties have developed and transmitted their national implementation plans (as of 1 March 2011).**
- **Parties were provided with relevant guidance and capacity–building in support of their implementation of the Convention.**
- **The specific exemptions for aldrin, chlordane, dieldrin, heptachlor, hexachlorobenzene and mirex have expired; no further registrations for these exemptions may be made.**
- **The 9 new POPs were listed in Annex A, B, and C to the Stockholm Convention in May 2009, thus increasing substantially the scope of the Convention.**
- **The first regional and global monitoring reports on POPs were produced, assessing baseline levels of POPs in ambient air, human milk and blood for comparative purposes in future evaluations.**
- **Regional and subregional centres for capacity-building and the transfer of technology were adopted to support the implementation of the Convention in the regions.**
- **The PCBs Elimination Network was established as a means of expediting information exchange and cooperation among the stakeholders involved in the environmentally sound management of PCBs.**
- **The Global Alliance for the development and deployment of products, methods and strategies as alternatives to DDT for disease vector control was established.**
- **A groundbreaking process on enhancing coordination and cooperation among the Basel, Rotterdam and Stockholm conventions has resulted in achieving considerable synergies among these conventions.**

Since the adoption of the Convention in May 2001, efforts of the international community have focused on laying a solid base to facilitate the implementation of the Convention at the national, regional and global levels: starting with administrative issues such as the establishment of the permanent Secretariat of the Convention, the establishment and operationalisation of the Persistent Organic Pollutant Review Committee, the adoption of a selection process, as well as the subsequent endorsement of institutions to serve as regional and sub-regional centres for capacity-building and the transfer of technology, the adoption of the global monitoring plan, as well as arrangements for evaluating the effectiveness of the Convention, to the adoption of relevant guidelines and guidance called for by the Convention. The transition towards the next stage of implementation at the national, regional and global levels has commenced.

All the processes under the Stockholm Convention are country-driven; the treaty itself is the outcome of a long negotiation process. Countries from all regions had to agree on the main objective of the Convention, as well as the set of measures towards its achievement. The backbone of the Convention is the provisions for technical assistance and financial resources, designed to support the successful implementation of the Convention in developing countries and countries with economies in transition. The realization of the Convention's objectives lies within its national implementation.

In addition to the ten major achievements mentioned above, many others have contributed to paving the way towards a POPs-free future. The present publication describes these achievements and summarizes the outcomes of the efforts of the international community to reduce and eliminate the threats posed by POPs to human health and the environment.

Chapter 19 of Agenda 21 adopted at the United Nations (UN) Conference on Environment and Development (Earth Summit 1992) and the Johannesburg Plan of Implementation agreed at the World Summit on Sustainable Development (Earth Summit 2002) both advocate for international efforts to address the environmental as well as human health consequences of the production and consumption of chemicals. The adoption of the Stockholm Convention on persistent organic pollutants is one of the most significant steps made towards achieving the goal of environmentally sound handling of toxic chemicals. A compilation of success stories, highlighting the impact of the Stockholm Convention in specific countries, will be presented at the UN Conference on Sustainable Development (Rio+20), taking place in Brazil in 2012.

Today's success in the implementation of the Convention would not have been possible without the active participation, contribution and commitment of Governments, both Parties and non-Parties to the Convention, intergovernmental organisations such as: the Arctic Monitoring and Assessment Programme (AMAP), the Food and Agriculture Organization of the United Nations (FAO), the Global Environment Facility (GEF), the United Nations Environment Programme (UNEP), in particular UNEP Chemicals, the Division of Early Warning and Assessment (DEWA) and the Division of Environmental Law and Conventions (DELC), the United Nations Industrial Development Organization (UNIDO), the United Nations Development Programme (UNDP), the United Nations Economic Commission for Europe (UNECE), the United Nations Institute for Training and Research (UNITAR), the United Nations University (UNU), the World Bank, The World Customs Organization (WCO) , the World Health Organization (WHO), the World Meteorological Organization (WMO), the World Trade Organization (WTO) and the Secretariats of the Basel and Rotterdam Conventions as well as that of the Strategic Approach to Chemicals Management (SAICM); non-Governmental organizations such as the International Council of Chemicals Association (ICCA), the International POPs Elimination Network (IPEN) and its members, the World Chlorine Council (WCC), the World Wildlife Fund (WWF), as well as the Regional Centres under the Convention, to name but a few.

## WHAT IS THE SIGNIFICANCE OF POPS?

Despite the essential economic role of chemicals and their contribution to improved living standards and human well-being, the adverse effects these substances can have on human health and the environment became increasingly recognized.

A group of chemicals, known as "persistent organic pollutants" (POPs), share four characteristics in a particularly dangerous combination:

1) they are persistent, lasting for years or even decades before degrading into less dangerous forms;

2) they evaporate and travel long distances through the air and through water;

3) they accumulate in fatty tissue; and

4) they are highly toxic.

Due to their persistence and mobility, POPs are found everywhere in the world, even in alpine and mountainous regions, the Arctic, Antarctica and remote Pacific islands. Furthermore, because the transport of POPs depends on temperature, in a process known as the "grasshopper effect", these chemicals jump around the globe, evaporating in warm places, riding the wind and particles of dust, settling to Earth in cool spots (such as water bodies), vaporizing and moving on again.

The attraction of POPs to fatty tissue, known as "bioaccumulation", means that although a poison is first dispersed widely and thinly, it gradually starts to concentrate as organisms consume other organisms, thus moving up the food chain. Human beings and other mammals are exposed to the highest levels of these contaminants when they are most vulnerable – in the womb and during infancy, when their bodies, brains, nervous systems, and immune systems are in the delicate process of construction.

POPs are toxic to both animals and humans, with even low levels of exposure causing cancer, immune-system disruption, nervous-system damage, liver damage, memory loss, cardiovascular disease, endocrine disruption, birth defects and other reproductive problems. Among the most vulnerable population groups, those which are in the poorest health, have less access to health care, are less educated (especially about how to avoid exposure) are at higher risks.

The precise consequences of the worldwide spread of POPs cannot be calculated yet. New concerns often arise – recent evidence shows, for example, that several POPs interfere with hormonal activities, acting as "endocrine disruptors". Also, a recent study on the interlinkages between climate change and POPs highlighted that the release, distribution and degradation of POPs are highly dependent on environmental conditions, and as such, climate change and increasing climate variability have the potential to affect POPs contamination via higher releases from primary sources and environmental reservoirs, changes in transport processes and pathways, and routes of degradation. Exposure to POPs and related impacts on environmental and human health can be further exacerbated by higher temperatures.

# NATIONAL IMPLEMENTATION

## NATIONAL IMPLEMENTATION PLANS

Each Party to the Stockholm Convention is required to prepare a plan, outlining a first assessment of the national situation related to persistent organic pollutants, as well as activities planned or undertaken to implement the Convention. These National Implementation Plans should be prepared in consultation with national stakeholders and in cooperation with regional and international partners. The Global Environment Facility (GEF), the principal entity entrusted with the operation of the financial mechanism of the Convention, provides financial assistance to developing countries and countries with economies in transition to prepare these plans. In addition, Parties have made use of relevant guidance on National Implementation Plan development and implementation, which has been developed in collaboration with partners such as UNEP, UNITAR and the World Bank, among others.

As the National Implementation Plans are transmitted to the Conference of the Parties they constitute an excellent opportunity to share information on the national situation and priorities with all stakeholders, including international partners, industry and non-governmental organizations. These priorities then serve as a basis for international cooperation on technical assistance and technology transfers.

National Implementation Plans have to be kept up to date with any new changes in obligations under the Convention. Following the entry into force of 9 additional chemicals under the Convention in August 2010, the National Implementation Plans that were prepared to address the initial 12 chemicals have to be reviewed, updated and transmitted to the Conference of the Parties by 26 August 2012. Parties are also required to update their action plans every five years with regards to the reduction of unintentionally released POPs, which constitute an integral part of the National Implementation Plans. Of note, 50 out of 70 Parties submitting reports under article 15 have indicated that their National Implementation Plan has been endorsed as part of their national sustainable development strategy.

**Some figures on National Implementation Plans:**

- **As of 1 March 2011, 128 out of 172 Parties have developed and transmitted their National Implementation Plan.**
- **154 Parties need to revise and update their National Implementation Plan by 26 August 2012 in order to address their obligations pertaining to the 9 new chemicals.**

## NATIONAL REPORTING

Parties to the Convention have a mandatory obligation under Article 15 to report to the Conference of the Parties every four years on their efforts in implementing the Convention, including the effectiveness of such efforts. In this regard, Parties need to provide data on various indicators, including the production, import and export of each of the chemicals listed in Annexes A, B and C of the Convention to the Secretariat. An online electronic reporting format has been developed for this purpose.

The information submitted through the reports serves as a basis to evaluate how well the Convention has achieved the desired effect of protecting human health and the environment from the harmful effects of POPs and also to evaluate the fulfilment of the obligations by Parties. The reports can be consulted on the Convention's webpage (www.pops.int).

**Some figures on reporting:**

- **48 Parties out of 162 reported under the first reporting cycle (2004-2006).**
- **71 Parties out of 172 reported under the second reporting cycle (2006-2009).**

## OFFICIAL CONTACT POINTS AND NATIONAL FOCAL POINTS

Article 9 of the Convention requires Parties to designate national focal points for the exchange of information relevant to the reduction or elimination of the production, use and release of persistent organic pollutants, and alternatives to persistent organic pollutants, including information relating to their risks as well as to their economic and other costs. As of 1 March 2011, 105 Parties to the Convention had nominated their national focal point (NFP).

In addition, the Conference of the Parties at its second meeting, invited Parties and non-Parties to nominate official contact points (OCPs) for the performance of administrative functions and all formal communications under the Convention. As a follow-up to this invitation, 139 Parties had designated an OCP as of 1 March 2011.

**Status on the nomination of OCPs and NFPs:**

- **As of 31 January 2011, 105 Parties (81%) have nominated an OCP.**
- **As of 31 January 2011, 139 Parties (61%) have nominated an NFP.**

# PROGRESS IN REDUCING AND ELIMINATING THE INTENTIONAL RELEASES OF PERSISTENT ORGANIC POLLUTANTS

The Stockholm Convention targets 21 POPs: an initial list of 12 POPs was included when the Convention was first adopted in 2001 and 9 more were added by amendment of the annexes of the Convention in 2009. Some of these POPs are already virtually obsolete. As their toxic effects became obvious early on, they have been banned or severely restricted in many countries for years or even decades. Replacement chemicals and techniques are in place. The remaining challenge is to find any leftover stocks, prevent them from being used and dispose of them in an environmentally sound manner.

With some other POPs, the transition to safer alternatives requires more effort. Alternatives may be more expensive and more difficult to manufacture and to use safely. Simply replacing POPs with other hazardous chemicals should be avoided and safer alternatives should be pursued. The Convention supports governments to find ways to phase-in replacement solutions.

**POPs lined up for elimination: Annex A**

Chemicals listed in Annex A are subject to elimination of production and use. Parties must prohibit or take the legal and administrative measures necessary to eliminate the production, use, import and export of the 17 industrial chemicals and pesticides that are currently listed under Annex A. Parties also need to take measures to reduce or eliminate releases of these chemicals from stockpiles and wastes.

The production and/or use of Annex A chemicals may be allowed for a limited time period to enable Parties to fully replace the POPs with alternative technologies. Such specific exemptions expire 5 years after the date of the entry into force of the Convention with respect to a particular chemical, unless otherwise indicated or unless an extension is granted by the Conference of the Parties.

As of 17 May 2009, no Parties were registered for specific exemptions pertaining to the initial POPs aldrin, chlordane, dieldrin, heptachlor, hexachlorobenzene and mirex, and therefore these specific exemptions are no longer available. Currently, exemptions are still available under Annex A for the recycling of articles containing hexabromodiphenyl ether and heptabromodiphenyl ether (commercial octabromodiphenyl ether) and tetrabromodiphenyl ether and pentabromodiphenyl ether (commercial

pentabromodiphenyl ether), as well as the use and final disposal of articles manufactured from recycled materials that contain these chemicals. In addition, the use of lindane as a human health pharmaceutical for the control of head lice and scabies as a second line treatment is currently allowed for Parties notifying the Secretariat.

## ESTABLISHMENT OF THE PCBS ELIMINATION NETWORK (PEN)

Polychlorinated biphenyls (PCBs) are one of the initial 12 POPs. Production of PCBs was stopped between 1983 and 1993, but PCBs are still present in some electrical transformers, old capacitors, on surfaces treated with PCB-containing paints, in building sealants and other applications. PCBs are regularly detected in sediments of rivers, lakes and canals, and in the fatty tissue of just about any human being on the planet, though often in relatively low concentrations.

The Stockholm Convention requires the phase-out of the use of PCBs by 2025 and the environmentally sound management of PCB wastes by 2028.


For many years, the Secretariat has received requests from developing country Parties and Parties with economies in transition for support in identifying appropriate destruction entities, as well as experts and donors to assist them in their efforts to manage polychlorinated biphenyls and equipment containing them in an environmentally sound manner. To respond to such requests, the Conference of the Parties at its fourth meeting endorsed the establishment of a cooperative framework called the “PCBs Elimination Network (PEN)”.

The PEN is an arrangement for information exchange on cost-effective completion of the environmentally sound management of PCBs. The PEN is designed as an equal partnership for stakeholders from different sectors with an interest in the environmentally sound management of PCBs to interact within a voluntary framework. The activities under the PEN aim to raise awareness, foster cooperation, establish linkages between stakeholders, promote technical assistance and technology transfer and encourage the development and adoption of environmentally sound techniques and practices to eliminate PCBs.

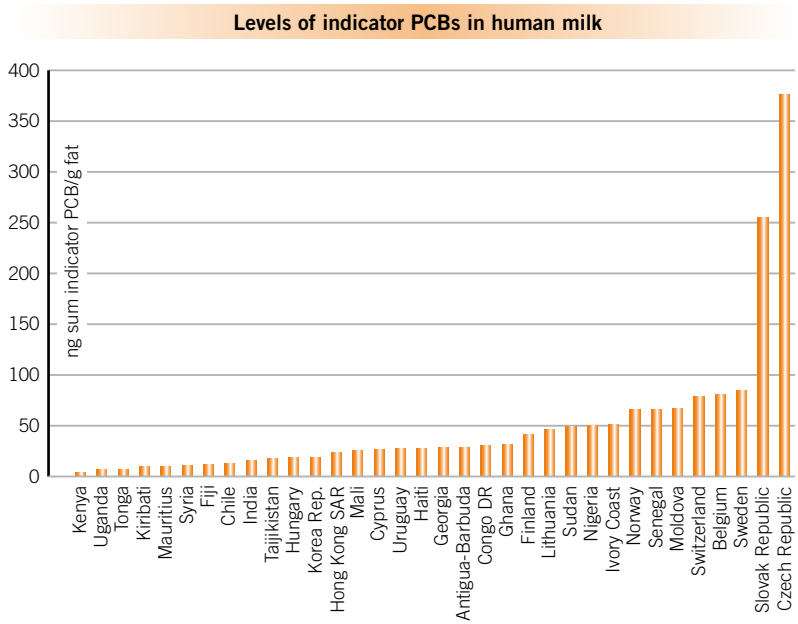
Achievements under this programme have been the publication of the first PEN magazine in six languages containing articles on inventories of PCBs prepared by the PEN members, the development of a global network of over 5,000 experts and stakeholders and the establishment of four thematic groups that have developed guidance and exchanged information on various topics.

**Some figures on PCBs:**

- **1,300,000 tons of PCBs were produced globally between 1929 and 1993.**
- **US$ 414 million have been invested in GEF PCB projects in 45 countries[1] .**
- **500 stakeholders interested in exchanging information on PCBs have become members of the PEN by January 2011.**
- **46 out of 71 Parties providing reports in 2010 and 2011 under Article 15 have undertaken an inventory of PCB oil and contaminated equipment.**
- **7,600 tons of PCB oil and contaminated equipment have been destroyed between 2006 and 2009 by Parties that submitted reports in the second round of reporting under Article 15. Also, 4,000 tons of oil and equipment were reported to have been exported to other countries for environmentally sound destruction.**

## Levels of PCB measured in human breast milk within the framework of the UNEP/WHO human milk survey[2]

The samples were collected during 2005-2007 and 2008-2010.




[1] Laurent Granier 2010: An overview of the PCB Program of the Global Environment Facility (Source: PEN Magazine, first issue, page 86).
[2] UNEP/POPS/COP.5/INF/28.

**POPs lined up for restriction: Annex B**

Chemicals listed in Annex B are subject to severe restriction of production and use. The production and use of these chemicals is only allowed for specific exemptions and acceptable purposes indicated in the annex. While specific exemptions are generally limited to five years, acceptable purposes are available to Parties without a given time restriction until the Conference of the Parties decides to abrogate them. The Conference of the Parties evaluates the continued need for these acceptable purposes on the basis of available scientific, technical, environmental and economic information.

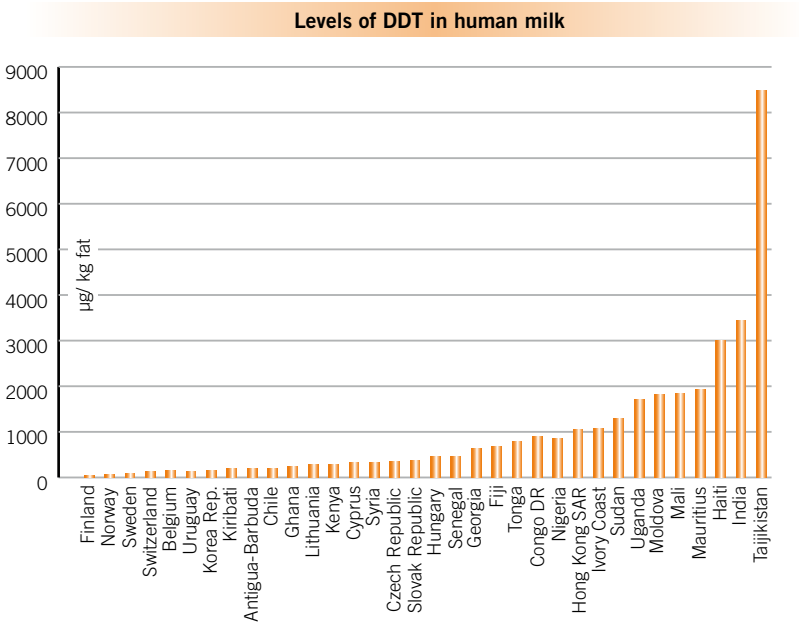
Currently, Annex B contains the pesticide DDT, allowed for disease vector control in accordance with World Health Organization (WHO) guidelines and recommendation on the use of DDT, and the newly added industrial chemical perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF). The production and use of PFOS, its salts and PFOSF is allowed for a number of applications, including photo-imaging, semi-conductors, metal plating, certain medical devices, fire-fighting foam and insect baits.

**Production trends and new developments on DDT:**

- **The global production of DDT in 2009 was estimated at 3,314 tons (as an active ingredient) which was a reduction of 43 per cent compared to the production in 2007.**
- **Some countries previously using DDT have discontinued the use of DDT as a result of successful elimination of malaria. There are other countries that have recently stopped using DDT but keep the option of reintroducing DDT in the event that other methods of malaria control fail.**
- **As of 1 March 2011, 16 Parties to the Convention have notified the use of DDT, but only 3 of these countries have reported to actually use DDT. In addition, three countries have notified that they reserve the right to use DDT in case of emergencies.**

**Levels of DDT measured in human breast milk within the framework of the UNEP/WHO human milk survey[3]**

The samples were collected during 2005-2007 and 2008-2010.




[3] UNEP/POPS/COP.5/INF/28.

## ESTABLISHMENT OF THE GLOBAL ALLIANCE FOR ALTERNATIVES TO DDT

Concluding that countries currently using DDT for disease vector control may need to continue such use until locally appropriate and cost-effective alternatives are available for a sustainable transition away from DDT, the Conference of the Parties at its fourth meeting endorsed the establishment of the Global Alliance for the development and deployment of products, methods and strategies as alternatives to DDT for disease vector control. It also requested the Secretariat to lead the implementation of the Global Alliance in collaboration with the WHO.

The main objective of the DDT Global Alliance is to provide an instrument for partnerships and collaboration among all stakeholders, to increase momentum on achieving the common goals and to catalyze new initiatives for the development and deployment of alternative vector control products and methods in addressing vector borne disease burden towards elimination of DDT.

The platform has been established with partners and Parties to the Convention with due consideration on malaria disease endemic countries, including research and academic institutions, the donor community, international agencies linked to disease vector control, civil society organizations and the pesticide industry.

Five thematic groups have been established on the following topics:

- Reducing barriers for bringing new chemicals and products to market;
- Strengthening of in-country decision-making on Integrated Vector Management;
- Cost-effectiveness of alternatives to DDT;
- Malaria vector resistance patterns and mechanisms; and
- Reducing barriers for bringing new non-chemical methods into use.

Work plans have been set up in these thematic areas and implementation has started, in particular on integrated vector management, vector resistance, non-chemical alternatives and chemical alternatives. Concrete achievements of the work under the Global Alliance are the strengthening of capacity at the country-level to reduce reliance on DDT and work-sharing for bringing new chemical alternatives to the market.

# PROGRESS IN REDUCING AND ELIMINATING UNINTENTIONALLY PRODUCED PERSISTENT ORGANIC POLLUTANTS

Pursuant to Article 5 of the Convention, the following unintentionally produced POPs are listed in Annex C of the Convention: Hexachlorobenzene (HCB), pentachlorobenzene (PeCB), polychlorinated biphenyls (PCB), and polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/PCDF). These chemicals are unintentionally formed and released from thermal processes involving organic matter and chlorine as a result of incomplete combustion or chemical reactions. They may also be unintentionally formed and released from other sources such as open burning of waste, fossil fuel-fired utilities and industrial boilers, and special chemical production processes.

Dioxins and furans are among the most toxic chemicals known, and cause cancer in humans; they gained worldwide attention in the late 1990s when they were found to have contaminated chicken meat in several European countries.

## BEST AVAILABLE TECHNIQUES AND BEST ENVIRONMENTAL PRACTICES

To achieve the objective of the Convention to reduce or eliminate releases from unintentional production, Parties are required to implement or promote Best available techniques (BAT) and Best environmental practices (BEP) as part of their action plans.

At its third meeting, the Conference of the Parties of the Stockholm Convention adopted state-of-the-art guidelines on BAT and BEP relevant to Article 5 of the Stockholm Convention, which indicates major progress towards supporting the efforts of the Parties to reduce emissions of unintentional POPs. These guidelines are now successfully implemented at the national level.

Furthermore, recent assessments of the effects of BAT/BEP implementation show that these instruments have synergistic effects on both emissions of unintentional POPs and greenhouse gases (GHG), as well as co-benefits of reducing other pollutants, such as particulates, sulphur dioxide, nitrogen oxides and metals. BAT/BEP can thus be implemented in the context of the Stockholm Convention with significant multi-pollutant reduction benefits and little or no GHG emissions penalty[4].

[4] Source: Bohmer et al. 2009.

**Some figures on BAT/BEP:**

**3 BAT/BEP fora have been established by UNIDO:**

- **in East and South-East Asia;**
- **in Central and Eastern Europe, Caucasus and Central Asia; and**
- **in the Gulf Cooperation Countries.**

## STANDARDIZED TOOLKIT FOR IDENTIFICATION AND QUANTIFICATION OF DIOXIN AND FURAN RELEASES

The Standardized Toolkit for identification and quantification of dioxin and furan releases provides a harmonized framework for elaborating comparable release inventories of Annex C chemicals. The development of the Toolkit was initiated in 1999, with a first edition published in 2003 and the second edition in 2005. Decision SC-2/5 of the Conference of the Parties initiated a process to revise and further develop the Toolkit to provide up-to-date guidance to Parties to develop inventories of unintentionally produced POPs. According to decision SC-3/6, the revision process puts the emphasis on key sources for which limited monitoring data are available, including sources of hexachlorobenzene and polychlorinated biphenyls, and on supporting developing countries in their efforts to verify their emission factors.

Among the most important achievements in the revision and updating process is the fact that revised dioxin emission factors have been developed for the metal industry, power generation and heating, mineral products and open burning processes. Emission factors for unintentionally produced POPs other than dioxin and furans (e.g. PCB, HCB) were equally derived for certain source categories. The revised Toolkit guidance includes additional consideration of data quality aspects.

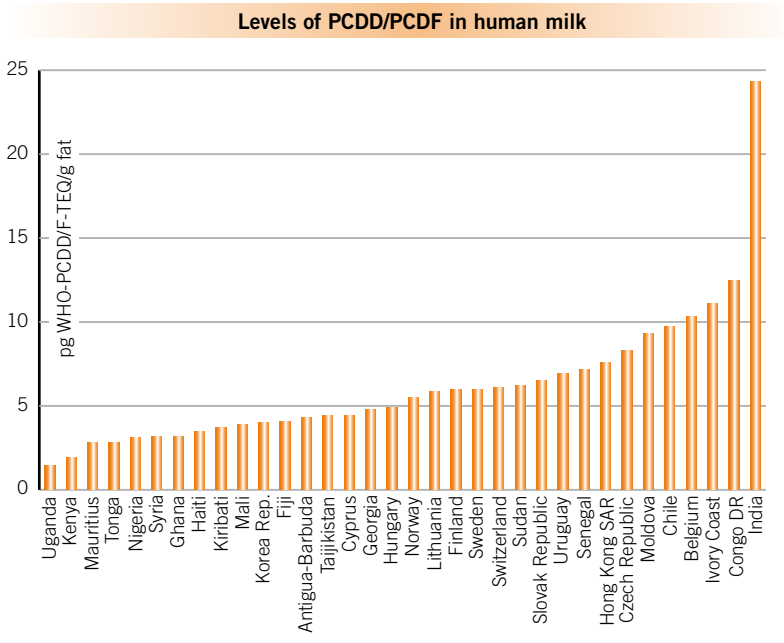
To support the development of new emission factors, a number of projects were implemented to better address specific situations and technologies used in developing countries, and develop globally applicable approaches for the determination of emission factors and better characterization of the processes occurring worldwide. Targeted projects were implemented to determine emission factors for unintentional POPs from open burning of biomass, open burning of waste, household heating and cooking and brick production.

**Some figures on unintentional POPs:**

- **In 1995, only 15 developed countries had submitted their dioxin and furan inventories[5].**
- **As of February 2011, 119 Parties, out of which 25 were developed countries, have reported on inventories of dioxin and furan releases via their National Implementation Plans and/or national reports.**

**Levels of PCDD/PCDF measured in human breast milk within the framework of the UNEP/WHO human milk survey[6]**

The samples were collected during 2005-2007 and 2008-2010.




[5] Source: UNEP Chemicals.
[6] UNEP/POPS/COP.5/INF/28.

# SOUND MANAGEMENT OF PERSISTENT ORGANIC POLLUTANTS STOCKPILES AND WASTES

One of the essential aims of the Stockholm Convention is to clean up old stockpiles and equipment containing POPs. The Convention calls on governments to develop and implement strategies for identifying stockpiles, products and articles containing POPs. Once identified, these need to be managed in a safe, efficient and environmentally sound manner and disposed of in such a way that their POPs content is destroyed or irreversibility transformed, so that the characteristics of POPs no longer exist. In addition, the Convention does not allow for recovery, recycling, reclamation, direct reuse or alternative uses of POPs, and it prohibits their improper transport across international boundaries.

**The Basel Convention POPs wastes guidelines**

For the past 10 years, the Stockholm and Basel conventions have been working closely on assisting their Parties in implementing environmentally sound management of POPs wastes.

Through the Basel Convention technical guidelines on POPs wastes, which were officially adopted in 2006, countries are provided with guidance on:

- The levels of destruction and irreversible transformation necessary to ensure that POPs characteristics are not exhibited (the "low POPs content"); and
- The aspects that constitute environmentally sound management of POPs waste, including the methods for environmentally sound disposal.

**Some facts on POPs wastes:**

**An electronic training tool on the POPs wastes guidelines has been developed in cooperation with the Basel Convention Secretariat and has been widely disseminated.**

# ADDING NEW CHEMICALS TO THE CONVENTION

The Conference of the Parties established its subsidiary body, the Persistent Organic Pollutants Review Committee (POPRC), to review chemicals proposed by Parties for listing in Annex A, B, and/or C. Since 2005, the Committee, which consists of 31 government-designated experts, has held six annual meetings. The Persistent Organic Pollutants Review Committee has so far undertaken the review of 12 chemicals proposed for inclusion in the Convention by Parties. Ten of these chemicals were recommended for listing under the Convention and two chemicals are still under review. In 2009, following the recommendations of the Committee, the COP decided to amend the Annexes of the Convention to list nine new chemicals (the so-called "9 new POPs"). The tenth chemical, endosulfan, will be considered by the COP at its fifth meeting in April 2011.

For each of these 10 chemicals, the Persistent Organic Pollutants Review Committee has done a comprehensive screening and review exercise pursuant to article 8 of the Convention: first, the Committee evaluated whether the screening criteria in Annex D were fulfilled. Then Parties and observers were invited to submit information specified in Annex E pertaining to the risk profile of the chemical. The Committee reviewed the risk profile and decided whether the chemical was likely, as a result of its long-range environmental transport, to lead to significant adverse human health and/or environmental effects such that global action was warranted. If so decided, the proposal proceeded to the next step, which involved the socio-economic considerations listed in Annex F. The Committee developed risk management evaluation documents for the chemicals based on information provided by Parties and observers. Finally, the Committee recommended whether the chemical should be considered for listing by the Conference of the Parties.

Recognizing the importance of the participation of Parties and other stakeholders in the review process, the Persistent Organic Pollutants Review Committee has actively tried to facilitate their participation. In reviewing proposals for listing chemicals, the Committee takes into account information and screening criteria specified in Annex D, E and F of the Convention. The Committee relies on receiving such information from countries from all regions when deciding whether the risks posed by chemicals warrant global action and the Annex under which chemicals should be listed. To support the full participation of Parties and observers, in particular those from developing countries and countries with economies in transition, the Persistent Organic Pollutants Review Committee has prepared the "Handbook for effective

**Annex A (Elimination)**

● Aldrin ●■ **Alpha hexachlorocyclohexane** ●■ **Beta hexachlorocyclohexane**
● Chlordane ● **Chlordecone** ● Dieldrin ● Endrin ● Heptachlor
▲ **Hexabromobiphenyl** ▲ **Hexabromodiphenyl ether and heptabromodiphenyl ether**
● Hexachlorobenzene ● **Lindane** ● Mirex ▲ **Pentachlorobenzene**
▲ Polychlorinated biphenyls
▲ **Tetrabromodiphenyl ether and pentabromodipheyl ether** ● Toxaphene

**Annex B (Restriction)**

● DDT
▲ **Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride**

**Annex C (Unintentional production)**

■ Hexachlorobenzene ■ **Pentachlorobenzene** ■ Polychlorinated biphenyls
■ Polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/PCDF)

● **Pesticides** ▲ **Industrial chemicals** ■ **By-products**
**Chemicals in bold letters are the nine new POPs.**

participation in the POPs Review Committee under the Stockholm Convention". The handbook is a central tool in the capacity-building activities undertaken by the Secretariat.

The Committee has also played an important advisory role on technical and scientific aspects of the implementation of the Convention. The replacement of POPs with safer alternatives is key to eliminating their use and production. To support Parties in this task, the Committee has developed several guidance documents on alternatives to POPs and candidate chemicals. Among the new POPs, industrial chemicals are particularly difficult to eliminate. A programme of work was therefore approved at the fourth Meeting of the Conference of the Parties to assist Parties to fulfil their obligations under the Convention related to the new POPs. The Persistent Organic Pollutants Review Committee has prepared a technical paper on the implications of recycling commercial pentabromodiphenyl ether and commercial octabromodiphenyl ether, as well as recommendations on the elimination of brominated diphenyl ethers from the waste stream and on risk reduction for PFOS.

# GLOBAL MONITORING PLAN FOR EFFECTIVENESS EVALUATION

## EFFECTIVENESS EVALUATION

In Article 16, the Parties have established a mechanism for assessing the success of the activities undertaken worldwide to implement obligations under the Convention in reaching its objective, in particular, whether the protection of human health and the environment from POPs is gradually achieved. The evaluation of the effectiveness of the Convention is based on the assessment of three types of information:

- Environmental monitoring data in core media provided through the global monitoring plan;
- National reports pursuant to Article 15; and
- Non-compliance information pursuant to Article 17.

The first effectiveness evaluation was completed at the fourth meeting of the Conference of the Parties in May 2009. It was agreed that the compilation of information on environmental monitoring in the first regional monitoring reports, and the information derived from national reports submitted by Parties under Article 15, can be used as a baseline for comparative purposes in future evaluations, recognizing that such comparisons will be possible only after the completion of the second evaluation period.

A draft procedure for effectiveness evaluation was developed by an ad hoc working group in 2010 for submission to the fifth meeting of the Conference of the Parties, including cost-effective, streamlined and pragmatic arrangements proposed for future evaluations.

## GLOBAL MONITORING PLAN FOR PERSISTENT ORGANIC POLLUTANTS

The aim of the global monitoring plan (GMP) is to obtain comparable monitoring data on the presence of POPs, identify changes in levels over time and provide information on their regional and global environmental transport. The global monitoring plan is thus an important component of evaluating the treaty's effectiveness.

The first phase of the global monitoring plan was performed in compliance with the implementation plan for the GMP and for the first effectiveness evaluation as adopted by decision SC-3/19 of the Conference of the Parties. Guidance on the global monitoring plan was equally developed to address the analytical and technical requirements of the plan as well as implementation details.

Initiatives aimed at enhancing regional monitoring capacity and analytical capabilities were successfully implemented during the first phase of the global monitoring plan, via the UNEP/WHO- milk survey, partnerships with the Research Centre for Toxic Compounds in the Environment (RECETOX), the Global Atmospheric Passive Sampling (GAPS) Network, the Arctic Monitoring and Assessment Programme (AMAP) and the East Asia Air Monitoring Programme for supporting regional air monitoring in Africa, Central and Eastern Europe, Latin America and the Caribbean, and Eastern Asia respectively.

The first regional monitoring reports and the global monitoring report were published in 2009, and the baseline levels of persistent organic pollutants in ambient air and human milk or blood were adopted by the Conference of the Parties. Furthermore, the implementation plan was updated to respond to the requirements for subsequent effectiveness evaluations.

The global monitoring report of 2009 found that climate effects on the transport and partitioning of persistent organic pollutants had the potential to complicate the interpretation of measurements of these chemicals in environmental media in future evaluations. An in-depth global study on the topic of climate change effects on POPs was jointly implemented in 2010 by the Secretariat of the Stockholm Convention and the Arctic Monitoring and Assessment Programme, with a comprehensive technical report published in 2011.

**Some figures on the GMP:**

**50 experts from developing and transition countries participated in the Summer Schools of Environmental Chemistry and Ecotoxicology organized by RECETOX between 2007-2010.**

**4 regional GEF capacity-building projects to support regional implementation of the GMP are implemented by UNEP Chemicals in:**

- **the Pacific Region;**
- **Western Africa;**
- **Eastern Africa; and**
- **Latin America and the Caribbean.**

# TECHNICAL AND FINANCIAL ASSISTANCE

## TECHNICAL ASSISTANCE

### Guidance on technical assistance

Recognizing the importance of the delivery of technical assistance to developing country Parties and Parties with economies in transition for the implementation of their obligations under the Convention, the Conference of the Parties adopted, at its first meeting, guidance on technical assistance with the aim of providing direction to potential donors and providers of technical assistance in their programme development. The guidance clearly identifies sources of technical assistance, including intergovernmental organizations, developed countries through their development agencies, non-governmental organizations and civil society, and research institutions and universities. In addition, it calls on the Secretariat of the Convention to provide assistance to Parties upon request.

In light of the guidance, several intergovernmental organizations, such as the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), the United Nations Industrial Development Organization (UNIDO), the United Nations Institute for Training and Research (UNITAR), WHO and the World Bank, have been providing assistance to Parties on the implementation of the Convention.

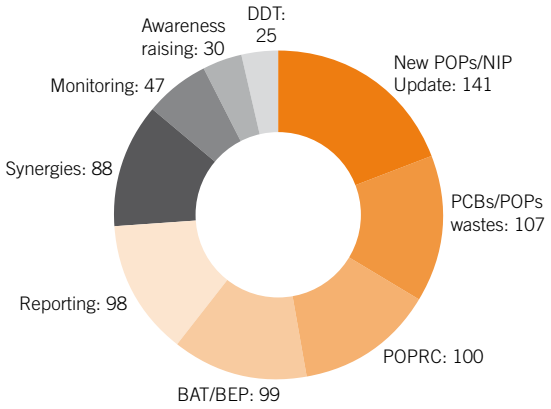
### Assistance provided by the Secretariat

Pursuant to its mandate, the Secretariat of the Stockholm Convention has strengthened its role over the years in facilitating assistance to countries in the implementation of the Convention.

- Between January 2008 and February 2011, the Secretariat has organised, in collaboration with the Stockholm Convention Regional Centres and other partners, more than 40 regional capacity-building and training activities, including workshops. More than 1,500 participants, among whom 30 per cent were women, attended activities organised by the Secretariat.

- The Secretariat has cooperated closely with the Basel and Rotterdam conventions on cross-cutting technical assistance issues, such as training of custom officers, accessing financial resources, developing legislation and enhancing effective participation in the scientific bodies of the Stockholm and Rotterdam conventions.

**Number of countries covered by the Secretariat's technical assistance programme, 2008-2011**





• The Convention has actively sought new avenues for the delivery of technical assistance, including the brokering of assistance, providing electronic training tools, using online tools such as webinars, video/teleconferencing and e-learning and fostering information exchange through the launch of a technical assistance newsletter in 2010.

**Regional centres for capacity-building and the transfer of technolgy**

At its fourth meeting, the Conference of the Parties endorsed eight institutions to serve as regional and subregional centres for capacity-building and the transfer of technology for a period of four years commencing in May 2009. Another seven institutions have been nominated by the regions to become regional centres. These will be considered for possible endorsement by the COP at its April 2011 meeting.

Learning from the experiences of other international organizations operating regional bodies, the Stockholm Convention adopted a method of selecting institutions that are already operational and competent enough to fulfil the criteria set out for the regional centres. The Secretariat is to provide tools and guidance to the centres for technical assistance, and monitor their performances.


Stockholm Convention Regional Centre for Capacity Building and the Transfer of Technology

Nominated Stockholm Convention Centre

In 2010 alone, the regional centres have implemented 61 activities amounting to a total funding of US$ 18,070,187 that benefitted 110 Parties in developing countries and countries with economies in transition. The centres play a crucial role in providing support and information to countries at the regional level and in implementing national and regional projects related to the Stockholm Convention.

**Small Grants Programme for regional centres:**

**The Small Grants Programme was launched in 2009 with initial financial support from Norway. The programme aims at providing technical assistance and capacity-building for the implementation of the Convention through the regional and subregional centres by mobilizing the expertise available within the regions. Regional centres are invited to submit project proposals for funding under the programme. As of 31 December 2010, six project proposals have been selected for funding. These projects benefit 32 Parties from Africa, Asia, Latin America and the Caribbean. The Small Grants Programme was expanded to also cover the implementation of the Basel and Rotterdam conventions.**

## FINANCIAL RESOURCES AND MECHANISMS

### Guidance to the Financial Mechanism

Paragraph 7 of Article 13 states that "the Conference of the Parties shall at its first meeting adopt appropriate guidance to be provided to the mechanism and shall agree with the entity or entities participating in the financial mechanism upon arrangements to give effect thereto".

In response to this provision, the first meeting of the Conference of the Parties in decision SC-1/9 adopted guidance to the financial mechanism and requested the entity or entities entrusted with the operations of the financial mechanism of the Convention, including the Global Environment Facility, to incorporate, on an ongoing basis, guidance from the Conference of the Parties in the further development of their operational programmes to ensure that the objectives of the Convention are addressed. The Conference of the Parties has adopted, at subsequent meetings, additional guidance to the financial mechanism.

### Interim Financial Arrangements

The Global Environment Facility (GEF) was designated, on an interim basis, to serve as the principle entity entrusted with the operations of the financial mechanism of the Convention. The GEF was requested to fulfil this function through operational measures related specifically to persistent organic pollutants, taking into account that new arrangements may be needed.

In 2002, the GEF Assembly responded to this request by amending the Instrument for the Establishment of the Restructured Global Environment Facility and established the POPs Focal Area with the aim of providing assistance to developing countries and countries with economies in transition to reduce and eliminate releases of POPs into the environment.

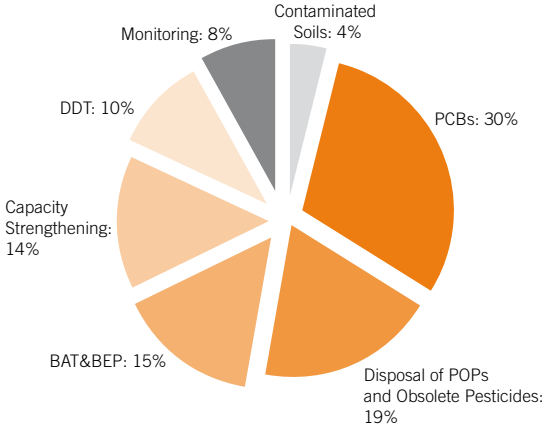
In order to maintain a good working relationship, a Memorandum of Understanding was agreed to between the Conference of the Parties to the Convention and the Council of the Global Environment Facility. The implementation of the Memorandum is regularly reviewed by the Conference of the Parties.

**The Global Environment Facility:**

- **Since the adoption of the Stockholm Convention in May 2001, the GEF has provided US$ 450 million for the implementation of more than 200 POPs projects (as of June 2010). This GEF POPs allocation has leveraged some US$ 650 million in co-financing to bring the total value of the GEF POPs projects to US$ 1,100 million[7].**
- **As of September 2010, the GEF has funded the preparation of the National Implementation Plan for the Stockholm Convention in 138 countries, providing total grant funding of US$ 68 million to signatories of the Convention[8].**
- **Since 2007, POPs projects have shifted from enabling activities, helping countries prepare National Implementation Plans, to helping them carry out large projects to comply with the Convention[9].**
- **The fifth replenishment of the GEF (GEF-5) was concluded in 2010 with an overall donor support of US$ 4.3 billion, of which US$ 420 million have been allocated for activities under the Chemicals Strategy. With regard to the POPs focal area, US$ 375 million will be made available in GEF-5, which represents an increase of 25 per cent compared to the GEF-4 allocation of US$ 300 million.**
- **As indicated in the Chemicals Strategy for GEF-5, activities will focus on supporting eligible countries to phase-out POPs and reduce releases of these chemicals. This will also include the development and update of National Implementation Plans for the Stockholm Convention to address, among other things, the complex and challenging issues related to newly listed chemicals under the Convention.**

[7] The GEF/POPs Overview and Outlook for GEF-5, National workshop on nine new POPs and implementation of the Stockholm Convention in China, GEF, July 2010.
[8] GEF/C.39/Inf.5.
[9] GEF Annual Report, 2009.

**Types of Post-NIP Projects[10]**




## Brokering tool

The Secretariat of the Stockholm Convention is providing a brokering service, to assist eligible Parties further to overcome financial shortcomings.

The brokering tool aims at facilitating the provision of financial and technical assistance and at improving the communication between countries that request such assistance and respective providers, by matching their demands.

The brokering tool also aims to identify financial and technical resources available from developed Parties and other sources in order to meet identified needs for capacity assistance. This includes approaching donors to inform them about the opportunities offered by the initiative, submitting project proposals and identifying possible new means of support.

The Secretariat has, to date, successfully responded to requests for brokering by Armenia, China, Kenya, Nigeria, Mali and Zambia. These requests have focused on two thematic areas: the provision of capacity-building to deal with new persistent organic pollutants; and the reduction of unintentional releases from wastes.

[10] GEF Project Database, 2011.

# INFORMATION EXCHANGE

The Secretariat of the Stockholm Convention is required under Article 9 of the Convention to serve as a clearing-house mechanism for information on persistent organic pollutants, including information provided by Parties, intergovernmental organizations and non-governmental organizations.

In response to this mandate, the Secretariat developed a strategic plan for eight years to implement a clearing-house mechanism for information exchange, with three major components: information capital, tools and infrastructure, and networks.

In addition to the achievements in the areas of information content and networking already mentioned in other sections of this publication, a number of achievements have been realized related to the tools and infrastructure supporting information exchange.

A Content Management System to support our web presence was implemented in 2006, resulting in a more decentralized approach of on-line content production; the delivery of user-friendly, interactive and searchable web products; and in a streamlined visual identity of the three Conventions Secretariats' websites, as part of the synergies process (see corresponding section hereafter).

That same year, an electronic system for reporting under Article 15 was launched, which has successfully facilitated the process of reporting by Parties who have been using it for two reporting cycles. The second version of this system is now available in the six official United Nations languages.

Similarly, a Documents Management System was also set up, to enable efficient knowledge management and productivity. Using such a system is a central piece of a paperless office strategy and an interface was built to facilitate the publication of relevant documents on our website.

In 2007, a contact database was implemented to better manage partners' requests and facilitate meeting registration and participation was implemented. As a result, the Secretariat is more efficiently tracking and reporting on attendance to meetings and their outcomes through personalized correspondence.

The Secretariat is also participating, on an ongoing basis, in a successful collaboration in interoperability projects with other Multilateral Environment Agreements, such as the UNEP/DELC Knowledge Management Initiative.

Finally, the Stockholm Convention is currently introducing a social networking platform for information exchange and to enhance expert-to-expert collaboration and mobilization of expertise. The platform is currently being tested with networking initiatives such as the PCB Elimination Network, the SafePlanet Campaign, the network of National Focal Points and other projects.


# PUBLIC AWARENESS AND OUTREACH – THE SAFE PLANET CAMPAIGN

Public awareness and outreach activities are an important pillar of the Stockholm Convention, a relatively young multilateral environmental agreement. Environmentally sound management of toxic chemicals is a process involving a wide range of sectors and stakeholders, and the public awareness and outreach activities of the Stockholm Convention were designed to address the resulting outreach needs.

The United Nations Safe Planet Campaign has been launched as the outreach vehicle for the Basel, Rotterdam and Stockholm conventions to provide concrete measures, new initiatives and viable solutions to current and emerging issues related to hazardous chemicals and wastes.

The Safe Planet Campaign goes beyond the traditional outreach channels of the Stockholm Convention and adds artistic exhibitions, videos and work with celebrities and new partners to the outreach portfolio. Safe Planet today has three flagships: (i) The UN Body Burden Forum, which highlights the traces of toxic chemicals found in every human being and our common responsibility for addressing hazardous chemicals and waste; (ii) sustainable consumption and production, highlighting the life-cycle of electronic products, greening waste management and POPs-free products; and (iii) chemical right-to-know, the effort to make sound chemicals management transparent and understandable for stakeholders, to ensure they enjoy opportunities to respond proactively to the challenges of ridding the world of POPs.

The Safe Planet Campaign is also sustaining a Facebook page with a growing global community of fans, exceeding 3,100 individuals at the end of 2010. The use of new electronic communication channels promotes awareness of the Convention and its objectives beyond those experts and government officials already cognisant of the problem. Thereby, the Safe Planet Campaign helps to raise the awareness of a wider audience on issues of chemicals management that exist in the products we use, the food we eat, or in the streams of waste generated at the end of the product life-cycles.

**Some figures on outreach activities:**

- 22 outreach events were organized or co-organized by the Stockholm Convention in 13 different countries between January 2010 and February 2011, with a total number of 5,810 attendees.
- 10 press releases for outreach were published from 2009 to 2010.
- As of 1 March 2011, the Safe Planet Facebook social network had 3,283 fans, 85,406 post views (for the previous 30 days), and 1,418 monthly active users.
- 23 publications were produced between 2010 and 2011, including 6 for general outreach purposes.

SafePlanet

# PROGRESS IN THE SYNERGIES PROCESS

The Basel, Rotterdam and Stockholm conventions share the common objective of protecting human health and the environment from hazardous chemicals and wastes.

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.

While maintaining the legal autonomy of these three multilateral environmental agreements, this unique process aims at strengthening 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.

One major achievement of the synergies process is increased collaboration at the level of the secretariats of the conventions: joint services in the areas of financial and administrative support, legal issues, information technology, information service and resource mobilization have been established and inter-secretariat thematic groups ensure cooperation on technical issues. In addition, a Joint Head for the Basel Convention Secretariat, the Stockholm Convention Secretariat and the UNEP part of the Rotterdam Convention Secretariat has been nominated for an initial period of two years. The Joint Head oversees the work of the three secretariats and ensures that the secretariats work in a coordinated manner.

In addition to initiating administrative reforms at the secretariat level, the synergies process has changed the way in which the conventions are implemented. Parties to the conventions and entities supporting countries in fulfilling their obligations under the conventions, such as regional centres, intergovernmental organizations and non-governmental organizations, also undertake efforts to increase cohesion among the conventions at the national and regional levels.

The synergies process is a shining example to other parts of the global environmental agenda, showing that enhanced international environmental governance can take place within a cluster of related multilateral environmental agreements and with related work of intergovernmental organizations.

Attaining the objective of human health and environmental protection through the elimination of persistent organic pollutants requires the coordinated action and contribution of a broad range of actors and stakeholders. In addition to cooperating with the Basel and Rotterdam conventions, the Stockholm Convention is also closely linked to the activities of other international frameworks, such as the Strategic Approach to International Chemicals Management (SAICM) and intergovernmental organizations such as UNEP, FAO, WHO, UNDP, UNIDO, the World Bank, the GEF and UNITAR. Cooperation with these entities ensures synergies and maximum added-value from the comparative advantages of partner institutions.

BASEL CONVENTION

Rotterdam Convention

Stockholm Convention

# LIST OF ACRONYMS

| | |
|---|---|
| **BAT** | Best available techniques |
| **BEP** | Best environmental practices |
| **COP** | Conference of the Parties |
| **FAO** | Food and Agriculture Organization of the United Nations |
| **GAPS** | Global Atmospheric Passive Sampling |
| **GEF** | Global Environment Facility |
| **GHG** | Greenhouse gases |
| **GMP** | Global monitoring plan |
| **HCB** | Hexachlorobenzene |
| **IPEN** | International POPs Elimination Network |
| **NFP** | National focal point |
| **NGO** | Non-governmental Organization |
| **NIPs** | National Implementation Plans |
| **OCP** | Official contact point |
| **PCB** | Polychlorinated biphenyl |
| **PCDD** | Polychlorinated dibenzo-p-dioxin |
| **PCDF** | Polychlorinated dibenzofuran |
| **PeCB** | Pentachlorobenzene |
| **PFOS** | Perfluorooctane sulfonic acid |
| **PFOSF** | Perfluotooctane sulfonyl fluoride |
| **POP** | Persistent organic pollutant |
| **POPRC** | Persistent Organic Pollutants Review Committee |
| **RECETOX** | Research Centre for Toxic Compounds in the Environment |
| **UN** | United Nations |
| **UNDP** | United Nations Development Programme |
| **UNEP** | United Nations Environment Programme |
| **UNIDO** | United Nations Industrial Development Organization |
| **UNITAR** | United Nations Institute for Training and Research |
| **WHO** | World Health Organization |

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