



National Reporting to CSD 18/19 by Switzerland

CHEMICALS

1. Overview

For Switzerland, the sustainable management of chemicals is an important priority, not only at the national level, but also internationally. Chemicals offer tremendous opportunities and benefits, they help to fight diseases and to enhance productivity in agriculture, and today's well-being would not be possible without chemicals. At the same time, they may also pose a challenge and risk to the environment and the human health. Moreover, in the light of the global interdependencies, the opportunities and benefits do not remain limited to one place, nor can the challenges be addressed effectively locally. Therefore, international cooperation to promote sustainable development is especially necessary in the field of chemicals.

Chemicals and waste have been one of the success stories since Rio. Important international legal instruments and frameworks have been adopted with regard to the sound management of hazardous chemicals and wastes. However, the existing rules and regulations are only as effective as their implementation. This is the reason why Switzerland is committed to support the implementation of chemicals and wastes policies in developing countries and countries with economies in transition. Furthermore, Switzerland is also committed to address the still remaining important gaps in the international chemicals and waste regime, namely in the areas of heavy metals and other inorganic pollutants.

The chemical industry is of major importance for Switzerland. For many years, the chemical and pharmaceutical industry has been Switzerland's leading export sector. As a result of strict regulations, there has been a sharp decrease in marketing of toxic products and in releases of known pollutants to the environment, e.g. heavy metals, dioxins and polychlorinated biphenyls (PCBs), as well as other persistent organic pollutants. However, little if anything is known about the environmental effects and fate of many chemicals still being manufactured today. For this reason, the testing and assessment of chemicals needs to be stepped up, and the scientific basis for their evaluation needs to be improved. This is particularly true in the case of endocrine disruptors and nanomaterials.

As a host of the most important international conventions and institutions on chemicals and waste management, Switzerland is at the center of international chemicals policies, and therefore has a specific responsibility in this domain. Over the last decade, it has played an active role within chemicals and waste policies and has initiated and launched many relevant processes. In this context, Switzerland has taken a leading role in the development of the Strategic Approach to International Chemicals Management (SAICM), in the process to

enhance synergies within the international chemicals and waste cluster, and in the proposal to launch negotiations for a new convention on mercury. In addition, Switzerland, together with the US, UNITAR and UNEP, has initiated the process towards phasing out primary mercury mining in Kyrgyzstan. Moreover, Switzerland supports the active implementation and the further development of the SAICM in particular with regard to the new and emerging issue nanotechnologies. Switzerland is similarly strongly involved in the UNITAR-led WSSD partnership to support the implementation of the Harmonized System of Classification and Labelling of Chemicals. Finally, Switzerland, together with Indonesia, has launched a Country-led Initiative to develop proposals for ensuring that the transboundary movement of hazardous wastes does not lead to their unsound management.

2. Assessment of hazards and risks of chemicals

The management of chemicals poses risks, given the wide variety of substances and the volumes used. According to a survey carried out in 2007, around 20'000 different substances are manufactured in Switzerland. Of these, only about 90 are produced in volumes of more than 1'000 tonnes per year. Of far greater importance are specialties such as pharmaceuticals, vitamins, fine chemicals, diagnostics and plant protection products: although these substances are produced in low and medium volumes only, they may have major impacts on the human health and the environment.

Impacts on soil

Generally speaking, Switzerland has established an extensive and well-functioning monitoring system that enables to continuously and meticulously measure the quality of its soils and water. Chemical contamination of the soil continues to pose certain challenges. Even though there are strictly speaking no completely uncontaminated soils left in Switzerland, it is estimated that around 90 % of open ground can be categorised as subject to low levels of contamination, with only 9 % subject to medium and 1 % to high levels of contamination. The most contaminated ground is in settlement areas, i.e. gardens, parks and green spaces.

Impacts on water

Groundwater quality is generally very good, but in areas of intensive agriculture and in built-up areas traces of plant protection products (PPPs) and chemicals used in industrial processes are often found. As part of nationwide pilot studies, the presence of pharmaceutical products in groundwater was therefore investigated for the first time. Active agents used in human medication were detected comparatively often at pumping stations near watercourses contaminated with effluent, whereas active substances from veterinary treatment were seldomly detected.

REACH Regulation

Many substances currently on the market have not yet been adequately tested and assessed. Of 4,638 substances included in the OECD list of HPV (high production volume) chemicals, only 860 have been assessed for its hazards for human health and environment and agreed upon its hazard profiles by OECD Member Countries by the end of 2007.

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It has been estimated that between 30,000 and 70,000 chemical substances are commercially available on the European market. For most substances, the information on the physical-chemical properties and the hazards for human health and environment is not sufficient to assess the possible risks associated with the use of the substance adequately. To address this issue, the European Community adopted the REACH Regulation (Registration, Evaluation, Authorisation and Restriction of Chemicals), which came into force on 1 June 2007. The REACH regulation eliminates some of the shortcomings of the former chemicals regulations. The central element of the new regulation is the reversal of the burden of proof, i.e. that substance manufacturers and importers are responsible for demonstrating safety in use. In the EU, a sound basis data on hazard properties of chemical substances that are produced or imported annually in quantities of one tonne or more, and the evaluation of possible risks is now a prerequisite for admission to the market.

This means that many substances that had previously been marketed without any knowledge of their potential risks must undergo toxicological and ecotoxicological testing. Switzerland is currently exploring the possibility of a deepened cooperation with the EU regarding REACH and a participation in ECHA's (European Chemicals Agency) activities. Switzerland's goal is to maintain its high level of protection for people and for the environment at the same time ensuring that Swiss companies' access to the European Single Market is not hampered by technical barriers to trade. Switzerland has adopted some of the provisions laid down under REACH, such as testing requirements and restrictions for certain substances in Annex XVII in its "Ordinance on Risk Reduction related to Chemical Products (ORRChem)" By early 2010 Swiss public administration will report to the Government (Federal Council), laying out different scenarios regarding a collaboration between Switzerland and the EU in the chemicals sector.

Harmonized System of Classification and Labelling of Chemicals

As underscored at the Johannesburg World Summit on Sustainable Development in 2002, Switzerland should do its utmost to introduce the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) at the same time as EU Member States. The EU's regulation on GHS, the so called Classification, Labelling and Packaging (CLP) Regulation (EC No 1272/2008) entered into force on 20 January 2009. The Regulation requires companies to classify, label and package their hazardous substances (mandatory by 2010) and mixtures (mandatory by 2015) according to the criteria of the GHS before placing them on the market. The Regulation also takes over certain provisions of [REACH](#) regarding the notification of classifications, the establishment of a list of harmonized classifications and the creation of a classification and labelling (C&L) inventory.

With the introduction of the CLP Regulation the Swiss regulation on the classification and labelling of chemicals differed from the EU. On 1 February 2009, Switzerland therefore amended its legislation and undertook the first steps necessary to avoid possible trade restrictions in this area. According to the Swiss "Ordinance on the protection against dangerous substances and preparations (OChem)" Switzerland allows trade of chemicals that are labelled according to regulation (EC) No 1272/2008 (CLP) for industrial uses. Swiss manufacturers and/or importers may label their chemicals according to the existing system or to GHS. With the next revision of the OChem classification, packaging and labelling of substances according to CLP regulation shall be applicable to all chemicals and mandatory by the 1st of December 2012 and for mixtures by 1st of June 2015.

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The Federal Office for the Environment (FOEN) carried out an economic assessment, in order to assess the impacts of the implementation of the GHS in the national chemicals legislation on the Swiss economy, especially on the most affected sectors of the chemicals industry. The results of the assessment show that the lowest costs would be caused by introducing the GHS in Switzerland with the same building blocks and the same schedule as in the EU. It is foreseen that the implementation of the GHS in the Swiss chemicals legislation is completed with a two years longer transition period for substances but the same transition period for mixtures as in the EU. Implementation of the GHS has been extensively supported by industry as through workshops organized by the Swiss Chemical Industry Association (SGCI Chemie Pharma Schweiz) with multi-stakeholder participation.

In the long term it can be expected that the worldwide introduction of the GHS will facilitate world trade in chemical products and will improve communication about dangerous properties of chemicals.

Pollutant Release and Transfer Register PRTR

The UN Economic Commission for Europe (UNECE) Protocol on Pollutant Release and Transfer Registers was signed in May 2003 in Kiev by 36 States and the European Union. On 27 April 2007, Switzerland became the second country to deposit the instrument of ratification of the Protocol to the Secretary General of the United Nations in New York.

The objective of the Protocol is to allow businesses, authorities and individuals to obtain information about annual pollutant releases and waste transfers by large industrial facilities and diffuse sources in national pollutant registers on the Internet. Within the framework of the Protocol, the same reporting requirement and data collection criteria apply to all member States, which means that information is comparable. Furthermore, by standardising the pollutant registers of internationally active firms, the same measurement methods and calculation models can be used at different locations.

Switzerland's current legal basis fully complies with the Protocol, whose requirements were incorporated into its Ordinance on the Register relating to Pollutant Release and the Transfer of Waste and of Pollutants in Waste Water, which came into effect on 1 March 2008. Both Swiss data and links to registers in other countries have been available since February 2009 in the SwissPRTR (Pollutant Release and Transfer Register) on the Web site of the Federal Office for the Environment (FOEN).

The SwissPRTR pollutant register provides annual information about the releases of 86 pollutants and transfers of waste and hazardous waste. Releases can be defined as emissions in the air, water and soil.

Substance flow analysis

In 1992, the Federal Council adopted a proposal by the National Council's Commission on the Environment, Spatial Planning and Energy (UREK) to conduct a national study of the most important pollutant flows in the environment. In a substance flow analysis, the source and development of a specific substance (chemical element or compound) or group of substances is recorded in quantitative terms, together with processes of transformation and pathways of disposal. The methodology employs the terminology and systems developed by Professor Baccini at the Swiss Federal Institute of Technology (ETH) in Zurich.

Substance flow analysis can be used to detect problematic substances at an early stage, to clarify the need for action, to determine the most promising control measures, to evaluate the effectiveness of measures already adopted, and to foresee future developments. Such analyses provide a basis for subsequent risk assessments or represent a starting point for the introduction of effective measures.

3. Sound management of chemicals

In 2005, Swiss chemicals legislation was brought into line with the EU legislation applicable at the time. The new regulations are beneficial to workers, consumers and the environment. For example, biocidal products are now subject to authorisation, and more stringent requirements are in force for the biodegradability of detergents. In addition, the use of certain heavy metals (lead, cadmium, mercury and hexavalent chromium) is prohibited in electrical and electronic equipment and in vehicles, and a total ban has been imposed on lead in paints. Placing on the market and use of the flame retardants pentabromodiphenyl ether and octabromodiphenyl ether has been banned and the placing on the market of certain products with contents of more than one percent of short-chain chlorinated paraffins has been prohibited. The use of particularly hazardous substances such as heavy metals and POPs is now heavily restricted or prohibited throughout Europe.

Implementation

The requirements for placing on the market and use of chemicals are based essentially on the: Chemicals Act and the Environmental Protection Act. Additional provisions for plant protection products and fertilisers are laid down in the Agriculture Act. The implementing provisions and ordinances to these Acts are to a large extent harmonised with the EU legislation on chemicals (see above).

Responsibility for implementing Swiss chemicals legislation is shared between the Confederation and the cantons. The authorities of the Confederation are responsible for the notification of new substances and chemicals with hazardous substances and for authorisation of biocides and plant protection products, and for examination whether manufacturers and importers of chemicals fulfill the self-supervision requirements according to the chemicals ordinance.

The authorities of the cantons are responsible for the enforcement of the chemicals legislation, in particular for supervision of the provisions on the placing on the market and use of chemicals. The authorities of the Confederation coordinate the market supervision activities of the cantonal authorities and provide technical and financial support. Market supervision includes for example checking compliance with product-related regulations (requirements relating to notification of new substances, authorisation of biocidal and plant protection products, restrictions for certain hazardous substances, labelling and packaging of chemicals, prevention of misleading advertising of chemicals, safety data sheets) or on-site checks on whether obligations for handling chemicals have been complied with (e.g. provisions on storage, special provisions on sales or dispensing such as the prohibition of self-service, or compliance with regulations on use).

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Ozone depleting substances

Switzerland has achieved all the agreed goals of the Montreal Protocol on substances that deplete the ozone layer : since 1996, the consumption of ozone-depleting substances (CFCs, halons, etc.) has been reduced to almost zero, with the exception of hydrochlorofluorocarbons (HCFCs), which will be completely banned from 2015. Few uses of ozone depleting substances remain for the fire protection (halons) and in the refrigeration – air conditioning (CFC, HCFC) sectors, which rely on existing stocks. All uses of Methyl bromide, including quarantine and pre-shipment uses, have been phased out. Slight consumption remains for exempted uses like research, analytic and feedstocks. Ozone depleting substances must be disposed of as hazardous wastes. Switzerland supports several research and observation activities related to atmospheric abundance of ozone depleting substances and UV radiation intensity. An improvement in the situation is apparent today, and if current efforts continue, the ozone layer is expected to recover to pre-1980 levels by 2060. Regarding the substitution of ozone depleting substances, Switzerland strives to promote the use of most environmentally friendly alternatives.

Substances stable in air

In addition to carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O), the greenhouse gases mentioned in the Kyoto Protocol include synthetic substances that share the common features of being highly persistent in the atmosphere, and exhibiting very high specific radiative forcing. These are hydrocarbons that are partially fluorinated (HFCs) or totally fluorinated (PFCs), as well as sulphur hexafluoride (SF₆).

The greenhouse potential of these substances, expressed as multiples of that of CO₂, are within the range of 140 to 11'700 for HFCs, from 6'500 to 9'200 for PFCs, and 23'900 for SF₆. Once emitted into the atmosphere, these substances have an impact on the environment for decades, centuries, or in certain cases for thousands of years.

These substances have been commercialized for the last 15 – 20 years, and make up around one and a half per cent of the anthropogenic increase in the greenhouse effect. However, a rapid increase can be seen in their consumption and emission, and therefore in their contribution to the anthropogenic increase in the greenhouse effect.

The regulations on their uses in Switzerland - in force since mid 2003 - are intended to stabilize their contribution to 2% by 2010. Since the adoption of the Kyoto Protocol, new fluorinated substances that are stable in the air and have a high greenhouse potential have appeared on the market: nitrogen trifluoride (NF₃) and fluoroethers. For coherence, the different substances mentioned above are put together in Swiss legislation under the heading "*Substances stable in air (SSA)*". It is intended to cover every fields of application and is based on the following principles: To limit the use of SSA to the applications for which other products or techniques are not applicable or are environmentally worse. To implement emission reduction measures for the allowed applications of SSA. To consider voluntary commitments developed by an industrial branch. SSA must be disposed of as hazardous wastes. To date, uses of SSA have been almost phased out in the foam, spray cans other than metered dose inhalers and fire protection sectors. SSA must be disposed of as hazardous wastes.

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Use of agricultural chemicals

In 2006, around 1350 tonnes of plant protection products were sold, consisting mainly of fungicides (47 %) and herbicides (44 %). The quantity sold has been decreasing for a number of years and older products have frequently been replaced with products that are effective in a more targeted way avoiding unwanted side-effects and that are used in smaller quantities. Nevertheless, the levels permitted under the Water Protection Ordinance (WPO) are often exceeded and certain toxic substances are still finding their way into the environment.

In the year 2008 a new programme on "Sustainable Use of Natural Resources" has been launched. It is directing financial resources to the support of biodiversity, the use of natural resources such as nitrogen, phosphorus and energy, and the optimisation of plant protection and land use. These efforts are intended to promote new techniques and forms of organisation. In addition new Environmental targets, the extent of organically farmed utilizable agricultural area (today 11%) and a more targeted use of the direct payments are significant foundations for improving the ecological impact of agricultural chemicals on the environment.

Generally, Switzerland is undertaking great efforts to avoid unnecessary spraying by promoting more targeted use. As an example, an early warning system has been put in place which monitors the spread of diseases and informs farmers in case their fields are likely to be affected by the spread. This way, farmers need not apply preventive spraying, but can use plant protection products in a more targeted way, i.e. only in specific cases when their harvest is in danger.

Formation and training programmes are further measures undertaken by Switzerland to reduce risk of exposure for workers to hazardous substances, but also to reduce contamination of the environment.

Nanotechnology

Nanotechnology offers a wide range of applications in medicine, energy technology, the storage of data, the manufacture of new materials, etc. The potential - and also the risks - of this new technology still remain difficult to assess, however. Switzerland has laid the ground for further investigations in the form of an action plan¹.

For the environment and health, nanotechnology brings opportunities, such as:

- Materials efficiency: reduced consumption of platinum in catalytic converters;
- Energy efficiency: lighter materials and therefore energy savings in transport or low-friction bearings in engineering;
- Alternatives to toxic substances: replacement of heavy metals in electronics;
- Pharmaceuticals: better administration of active agents in the treatment of cancer.

There are however indications that nanotechnology has potential risks:

- Toxicity to fish: the brain of the large-mouthed black bass has already been shown in one experiment to have been damaged by low concentrations of C60 molecules ("Buckminsterfullerenes").

¹ <http://www.bafu.admin.ch/chemikalien/01389/01393/01394/index.html?lang=en>

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- Daphnia toxicity: depending on the form of administration, water fleas can die when exposed to relatively low concentrations of C60 molecules and nanoscale titanium dioxide.
- Toxicity for human cells: C60 molecules are poisonous to human cell lines. They lose their toxicity if the surface of the molecules is chemically modified (hydroxylised).

In comparison the investment in research into applications, very little money has yet to be invested in the evaluation of the risks. In order to fill in the largest gaps of knowledge, a major effort is required.

Prevention of accidents

In Switzerland, 2'300 facilities with a chemical hazard potential, 4'000 km of railway lines, 7'850 km of roads and a 20 km stretch of the Rhine are covered by the Major Accidents Ordinance (StFV). Hazards are also posed by the transport of natural gas or crude oil through pipelines. The operators of these facilities and traffic routes are required to take appropriate safety measures, and inspections are carried out regularly by the authorities. In cases where an accident could have a major impact on the environment or the public, the operators have to conduct a risk assessment. This applies to about 9 % of all facilities. If necessary, risk reduction measures will be mandated by the authorities. At the end of 2005, 31 biotechnology facilities were covered by the Major Accidents Ordinance. Most of these are devoted to research and production and one third in the diagnostics sector. The continuous development of industry and technology means that the prevention of major accidents is an ongoing federal and cantonal responsibility. The coordination of spatial planning and major accident prevention at an early stage is becoming increasingly important as land use intensifies across Switzerland.

4. International activities

Switzerland is the host of the most important international conventions and institutions on chemicals and waste management. Namely, the following relevant organizations are based in Geneva: the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Rotterdam PIC Convention (The Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade), the Stockholm Convention on Persistent Organic Pollutants, the UNEP Chemicals Branch, the Secretariat of the Strategic Approach to International Chemicals Management (SAICM), the World Health Organization (WHO), the International Labor Organization (ILO), and the United Nations Institute on Training and Research (UNITAR). Being at the center of international chemicals policies both as host of important international institutions and an important industrial sector in this area, Switzerland has a specific responsibility in this domain. During the last decade it has therefore played a leading role within international chemicals and waste policies, has initiated and launched many relevant processes and has also been one of the principal international financial donors in this area.

Strategic Approach to International Chemicals Management (SAICM)

Switzerland has taken a leading role in the development of the Strategic Approach to International Chemicals Management (SAICM) which has been adopted by the International

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Conference on Chemicals Management (ICCM) on 6 February 2006 in Dubai. Switzerland remains a strong supporter of SAICM, both financially, institutionally and politically.

Switzerland supports active implementation and the further development of the SAICM. Switzerland has successfully lead the preparations of including nanotechnology as a new and emerging issue into SAICM. Given its general interest and responsibility in this area, Switzerland has similarly been strongly involved in developing proposals to ensure enhanced support for developing countries and countries with economies in transition in the implementation of SAICM. Namely, Switzerland is one of the main donors to the SAICM Quick Start Programme and Switzerland supports the development of a strong and predictable solution to ensure the financing of SAICM implementation based on a fair burden sharing.

POP, Stockholm Convention on Persistent Organic Pollutants

The Stockholm Convention on Persistent Organic Pollutants (POPs) was ratified by Switzerland on 30 July 2003 and came into force on 17 May 2004. Switzerland is the main donor to the Stockholm Convention. In Switzerland the manufacture, the placing on the market, the import for private use and the use of the initial substances mentioned in the POP is banned (under the Ordinance on Chemical Risk Reduction, ORRChem). In May 2009, nine new commercial products were included in the Stockholm Convention. The obligations this inclusion entails for Switzerland will become effective in 2010. Switzerland submitted its implementation plan of the POP in April 2006.

Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

On 11 September 1998, Switzerland together with around 60 other states and the EU signed the PIC Convention in Rotterdam. The Convention came into force on 24 February 2004. Switzerland is one of the main donors to the Stockholm Convention.

Switzerland ratified the PIC Convention on 10 January 2002, thereby expressing its international commitment, and - as an important chemical producer - its solidarity with developing countries, for which the cooperation required in the Convention is of great importance. The Swiss PIC Ordinance (ChemPICO) implements the provisions of the Convention as national law. The PIC Ordinance came into force on 1 January 2005.

Vienna Convention on the protection of the ozone layer and its Montreal Protocol on substances that deplete the ozone layer

Switzerland has signed the Vienna Convention on 22 March 1985 together with 19 other States and the European Community, and the Montreal Protocol on 16 September 1987, together with 23 other States and the European Community. Switzerland has ratified the Vienna Convention, the Montreal Protocol and its 4 amendments, including the London Amendment through which the Multilateral Fund (financial mechanism providing financial and technical assistance for the implementation of the Montreal Protocol in the developing countries) was established in 1990. Beyond its regular contributions to the Convention and Protocols trust funds, as well as to the Multilateral Fund, Switzerland has regularly actively supported the activities of the Montreal Protocol including through additional contributions for supporting the activities of the technical Assessment Panels, of the worldwide network of observation of the ozone layer, and for promoting the choice of the most environment friendly alternatives to the ozone depleting substances, particularly in developing countries. Since

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1990, Switzerland has called for an integrated approach for the phase out of the ozone depleting substances taking into consideration the climate impact of the substitutes considered.

Improved coordination of international activities

The implementation of an effective and efficient chemicals and waste policy has to occur in an integrated and coordinated manner. Coordinated chemicals policy at the national level strongly benefits from a coordinated international policy framework. Therefore, Switzerland has strongly promoted the strengthening of synergies, cooperation and coordination within the international chemicals and waste cluster already during the UNEP process on international environmental governance in 2001-2002. After the adoption of the Cartagena IEG decision in 2002, Switzerland successfully lobbied for the effective implementation of this decision.

- Within the process to develop a Strategic Approach on Chemicals Management (SAICM), Switzerland made several proposals on further concretising and operationalising the decision to develop an international chemicals and waste cluster.
- Underlining the necessity to enhance synergies, efficiencies and effectiveness in the international chemicals and waste cluster, Switzerland further offered to co-locate the secretariats of the Rotterdam PIC and Stockholm POPs Conventions within the emerging chemicals and waste cluster in Geneva.
- After the successful co-location of the secretariats of the new chemicals conventions in Geneva, Switzerland called for a further integration of the secretariats of the Basel, Rotterdam and Stockholm convention and convened an informal meeting in 2006 to present its idea about joint management for the three convention secretariats.
- The same year, Switzerland, supported by Norway and Senegal, presented at the COP 2 of the Stockholm Convention a draft decision calling for a joint head of the three convention secretariats. While the proposal for a joint head was not accepted by the COP, the Stockholm, Rotterdam and Basel Conventions established subsequently a joint working group to explore further possibilities to enhance synergies between the three chemicals and waste conventions. The Joint Working Group concluded its work in March 2008 and submitted a comprehensive package of measures to enhance synergies and cooperation between the three conventions, including proposals for joint secretariat services and a simultaneous extraordinary COP of the three conventions. These proposals have been adopted by the three COPs.

Switzerland remains fully committed to further enhance synergies, cooperation and coordination within the chemicals and waste cluster.

In addition, Switzerland generally advocates increased coordination between the different international conventions on the environment. Particular attention should be paid to technical co-operation between the Montreal Protocol and the Conventions on Climate Change, The institutions financing projects and activities intended to implement the Montreal Protocol should ensure that these projects are not detrimental to environmental protection efforts in other areas.

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Economic Development Cooperation activities

Under the Economic Development Cooperation of the Swiss State Secretariat for Economic Affairs (SECO), Switzerland has supported programs related to the sound management of chemicals in the Swiss partner countries for many years. SECO's relevant cooperation in the amount of several million Swiss francs per year includes²:

- Knowledge partnerships for the state-of-the-art recycling of electric and electronic waste (e-waste) with China, India, South Africa, Peru and Colombia;
- together with UNIDO, the establishment of National Cleaner Production Centers which offer eco-efficient solutions to the chemical industry, and introduce innovative concepts such as chemical leasing;
- correct disposal of PCB from transformers (South East Europe);
- hospital waste incinerators;
- municipal waste management (China, Cuba);
- waste water treatment plants; reduction of pesticide use through organic farming, e.g. organic cotton.

² For more information see: www.seco-cooperation.ch.