



Ministry of Environment of the Slovak Republic

# National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)

Update

---

*Implementation Plan for the Stockholm Convention of the Slovak Republic was published by the Ministry of the Environment of the Slovak Republic and has been approved by the Government Decision No. 443 on 5 September 2012.*

**Document compiled and prepared by:**

The Slovak Environmental Agency in cooperation with independent experts Ing. Miroslav Lacuška, CSc. and Ing. Marta Fratričová, on the basis of background documents supplied by members of an inter-sectoral working group for NIP update, consisting of experts in the areas of the environment, economy, agriculture and health, as well as representatives of the private sector.

Bratislava, June 2012

## Table of Contents

1	Introduction .....	4
2	Background.....	5
3	Current state of play .....	10
3.1	POPs pesticides .....	10
3.2	Evaluation and control of use of chemicals .....	10
3.3	Equipment and wastes with POPs content .....	11
3.4	Unintentionally produced POPs .....	13
3.5	Contaminated sites and releases from stockpiles and wastes.....	14
3.6	Monitoring.....	15
3.7	Information exchange and stakeholder participation .....	16
3.8	Raising public awareness with regard to POPs .....	16
3.9	Institutional and legislative background .....	17
3.10	Research and development .....	17
4	Action Plan .....	18
4.1	Implementation Strategy .....	18
4.2	Priorities and measures.....	21
4.3	Time schedule and financial plan.....	22
4.4	Measures to reinforce institutional and regulatory frameworks.....	26
4.5	Enhancing effectiveness of regulatory measures .....	28
5	Conclusions .....	30
6	List of acronyms .....	31
7	List of annexes.....	33

## 1 Introduction

The National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (NIP) was prepared in order to implement the obligations arising for the Slovak Republic (Slovakia) as a party to the Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention) in accordance with Article 7 of the Convention. This is a fundamental document to ensure the implementation of Slovakia's obligations arising under the Stockholm Convention. The preparation of this document was procured by the Ministry of the Environment of the Slovak Republic (MoE) and the document was approved by the Government of the Slovak Republic by its resolution No. 415 of 10 May 2006. The NIP contains objectives concerning the POPs management as measures to accomplish these objectives, as described under individual activities.

The Stockholm Convention became effective on 17 May 2004, including with respect to the Slovak Republic. The signatory parties to this Convention are obliged to adopt measures to eliminate chemical substances that belong to the POPs group. In compliance with the principle of human health and environmental protection, the document defines measures concerning the production ban of expressly specified POPs or reduction of their use, import and export, as well as with respect to the elimination of unintentional release of POPs produced by specified industrial sectors.

The Persistent Organic Pollutants (internationally referred to by the English acronym "POPs") are organic compounds that are resistant to environmental degradation. POPs are compounds with low volatility and long-term environmental persistence that are capable of intensive bioaccumulation in the food cycle. These compounds are released into the environment due to human activities, for example, their use in agriculture and industry, or due to unintentional activities (for example, as by-products of various manufacturing sectors), or due to accidents. If these substances are released into the air, they cannot virtually be removed by any cleaning operations. They are capable of long-range transport, contaminating even those areas and territories where they have never been produced or used (for example, the Arctic and the Antarctic).

As the POPs transported through air do not respect any geographical borderlines, the environmental protection against these substances is a subject-matter of numerous international activities aimed at the implementation of particular measures to reduce negative impacts of POPs on the environment. The first of such activities was the adoption of the Protocol on Persistent Organic Pollutants to the Convention on Long Range Transboundary Air Pollution in 1998. Subsequently, the Stockholm Convention was adopted in May 2001. The Convention covers the issue of unintentionally produced POPs such as dioxins and furans, the issue of intentionally produced POPs (used as pesticides or industrial liquids), environmentally sound management of waste containing POPs, decontamination of sites contaminated by POPs, monitoring, reporting, exchange of information and relevant research and development of alternatives to POPs.

The managing authority for the Stockholm Convention is the Conference of the Parties (COP), established under Article 19 of the Stockholm Convention. COP members include the parties to the Convention. The COP meets once in two years.

The COP-4, held in 2009, adopted new decisions by which nine new substances (new POPs) were included in Annex A, B and C to the Stockholm Convention.

In Annex A, chemicals to be eliminated from the use and production:

- alpha hexachlorocyclohexane ( $\alpha$ -HCH),
- beta hexachlorocyclohexane ( $\beta$ -HCH),
- chlordecone,
- hexabromobiphenyl (HBB),
- hexabromodiphenyl ether and heptabromodiphenyl ether
- lindane,
- pentachlorobenzene (PeCB),
- tetrabromodiphenyl ether and pentabromodiphenyl ether.

In Annex B, chemicals which have restricted use and production:

- Perfluorooctane sulfonic acid and its salts, perfluorooctane sulfonyl fluoride (so-called PFOS-based compounds).

In Annex C, chemicals subject to measures for the prevention of their unintentional production

- pentachlorobenzene.

The COP-5, held in 2011, included industrial endosulfan and its related isomers in Annex A to the Stockholm Convention.

Basic information about the new POPs are included in Annex 1 to this document.

Neither the original POPs (aldrin, chlordane, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene, PCB, DDT, PCDD/PCDF) nor the new POPs are currently produced or used in Slovakia. The available information also indicate that none of the chemicals which are included in the annexes to the Stockholm Convention as new POPs has been imported to or exported from Slovakia since 2007.

## 2 Background

The environmental policy of the Slovak Republic follows from and builds on the principles of sustainable social development within an economy based on the principles of a socially and ecologically oriented economy. Since the beginning of its existence, the environmental policy of the Slovak Republic has been developed through participation of state authorities in bilateral and multilateral international cooperation. Slovakia has thus confirmed its commitment to address environmental problems in coordination with other countries, participate in delivering joint solutions to regional and global environmental issues caused by transboundary impacts of pollutants and improve the conditions of natural and urban environments, and investigate reasons and remove consequences of pollution on the basis of common efforts of all cooperating stakeholders. On a state policy level, this commitment has translated into Slovakia's accession to international conventions that constitute an effective platform for an early exchange of reliable and most recent information in order to find common solutions to environmental problems extending over national borders. The same goal has been pursued by Slovakia, or more specifically, of the Slovak Environmental Agency (SEA), joining the European Environment Agency (EEA) as its direct partner, which was established in 1990 under Council Regulation 90/1210/EEC of 7 May 1990, as amended. The European Environment Information and Observation Network (EIONET) was simultaneously established, activities of which are coordinated by the EEA. The SEA, acting on behalf of the Slovak Republic in this respect, became an EEA member on 1 August 2001.

The causes and consequences of environmental pollution on the local, regional as well as global level are closely linked to the production, distribution and use of a large number of chemical substances and products made of such chemicals, including the last phase of their life cycle when they change into waste and need to be treated. International conventions adopted so far, focused on the prevention and mitigation of adverse impacts of pollutants (harmful, hazardous substances) and wastes containing such pollutants on the environment, serve as evidence of the scope and diversity of problems and issues related to the production, trading in and marketing of, import and export, and use (consumption) of a wide range of chemical substances and preparations, and to the elimination of their obsolete stocks, as well as to numerous analogical processes concerning pollutants-containing wastes (hazardous wastes) in the form of such chemicals (stocks of obsolete hazardous chemicals) or contaminated by them. This is closely linked to environmental contamination by pollutant emissions from the production, as well as those produced unintentionally, releases of harmful substances during their environmentally unsound management (for example, in the case of uncontrolled waste incineration, transport or dumping of hazardous waste), identification, classification and removal of environmental burdens, emission monitoring, activities intended to provide information to the public, exchange of information, education, research and development, etc.

Having acceded to the international conventions specified below, which then became part of its national legislation, the Slovak Republic has voluntarily undertaken to comply with the obligations arising from those conventions, in compliance with the principles of international law.

The first international convention pertaining to some of the aforementioned regulated processes to which the Slovak Republic acceded as a sovereign country (a direct successor country of the former Czechoslovak Federative Republic (CSFR)) is the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention). This Convention became effective (with respect to the former CSFR) on 5 May 1992: a notification procedure of Slovakia's succession to the Convention was completed on 28 May 1993, with effect from 1 January 1993. Slovakia is also bound by all amendments to this Convention adopted so far.

With respect to POPs management, similarly to other areas, Slovakia adopted a large number of institutional and legislative measures during its preparation for accession to the European Union (EU) which gradually laid down conditions on the national level for Slovakia to comply with the commitments arising from its planned accession to the Stockholm Convention.

The following, POPs management-related legislative measures of the Slovak Government preceded the adoption of the Stockholm Convention:

- Government Resolution No. 1138 of 6 December 2001, the "Integrated approximation Strategy in the Environment Chapter" was approved, and included Council Directive 96/59/EC of 19 June 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT);
- Government Resolution No. 180 of 27 February 2002, the MoE was assigned a task "to coordinate the implementation of measures to accomplish the objectives of the Waste Management Plan of the Slovak Republic by 2005" which also applies to hazardous wastes, including wastes containing POPs;
- Government Resolution No. 309 of 27 March 2002, the MoE was assigned a task "to coordinate work to continue inventory taking for equipment with PCB content and create conditions for inventory taking for equipment with PCB content":

- Government Resolution No. 349 of 10 April 2002, the MoE was assigned a task "to ensure the enforcement of the Stockholm Convention following its entry into force".

The underlying legislative instrument driving Slovakia's engagement in global international activities in the area of protection of human health and the environment, concentrated on the reduction of adverse impacts of POPs, was the Protocol on Persistent Organic Pollutants to the Convention on Long Range Transboundary Air Pollution (CLRTAP).

The Protocol on POPs was adopted on 24 June 1998 in Aarhus and became effective for Slovakia on 23 October 2003 in accordance with Notification of the Ministry of Foreign Affairs of the Slovak Republic (MoFA) No. 367/2003 Coll.

The Stockholm Convention became effective for Slovakia on 17 May 2004 in accordance with MoFA Notification No. 593/2004 Coll.

As an EU Member State, Slovakia carries out its environment policy on POPs in compliance with the law of the European Union which is also a signatory party to the Stockholm Convention. The basic legal act is Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC, as amended.

The international trading in hazardous chemicals and Prior Informed Consent procedures (PIC) for certain hazardous chemicals and pesticides is governed by the Rotterdam Convention on the Prior Informed Consent procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention). This Convention became effective for Slovakia on 26 April 2007 in accordance with MoFA Notification No. 280/2007 Coll.

The basic national legislative framework for the consistent fulfilment of Slovakia's obligations arising from its participation in the Stockholm Convention was established by the adoption of Act of the National Council of the Slovak Republic No. 127/2006 Coll. on POPs and on amendments to Act No. 223/2001 Coll. on wastes and on amendments to certain acts, as amended (POPs Act).

In accordance with the provision of §4 of this Act, Slovakia complied with the requirement to prepare an NIP as a basic document to ensure the implementation of the obligations arising for Slovakia under the Stockholm Convention. The Slovak Government adopted resolution No. 415 of 10 May 2006 to the NIP proposal and committed the minister of the environment to ensure continuous implementation of the NIP in connection with the National Strategic Reference Framework for 2007-2013 (NSRF 2007-2013) for the period until 2013, with an outlook for the period until 2025.

The content of the NSRF 2007-2013, the Operational Programme Environment, underlines Slovakia's interest in addressing the persisting adverse impacts of environmental burdens on the environmental conditions in the Slovak Republic. In the area of air protection, activities currently carried out for this purpose are included in Priority Axis 3 'Air protection and minimisation of adverse effects of climate change', for Operational Objective 3.1 'Air protection'. Relevant eligible activities, according to the Programme Manual to the Operational Programme Environment, version 7.1 of 5 January 2012, include projects designed to reduce pollutant emissions from stationary (energetic and manufacturing) sources and air quality monitoring projects and monitoring-related system and technical issues concerning its operation. Eligible areas include all Slovak regions except for the Bratislava region.

Under Priority Axis 4 'Waste management', Operational Objectives 4.3 and 4.4 are relevant for this purpose. Eligible activities under Operational Objective 4.3 'Environmentally sound treatment of hazardous waste' cover projects designed to reduce hazardous characteristics of

wastes (construction of relevant facilities for the treatment of hazardous characteristics of waste), hazardous waste management projects (construction of new and reconstruction of the existing hazardous waste management facilities), non-investment projects focused on the preparation of POPs waste collection and disposal, and investment projects for the collection and disposal of POPs waste and obsolete pesticides. Eligible activities under Operational Objective 4.4 'Addressing the issue of environmental burdens' include projects related to the monitoring and examining environmental burdens, and to draw up risk analyses, implementation projects for the remediation of highest-risk environmental burdens (in accordance with §3(r) of Act No. 569/2007 Coll. on geological works as amended) and projects to complete an information system on environmental burdens. Eligible area under Operational Objectives 4.3 and 4.4 covers the entire territory of the Slovak Republic.

In order to facilitate the process of elimination of environmental burdens, Act No. 409/2011 Coll. on certain measures in relation to environmental burdens and on amendments to certain acts was incorporated in the Slovak legislation, which has considerably reinforced administrative powers in particular with respect to the removal of environmental burdens that has been classified as high-priority environmental burdens in accordance with the procedure stipulated in Annex 3 to this Act.

Another international document relevant to the POPs management is the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention). The convention has been designed to reinforce the position of the public in environmental protection and improvement. The convention became effective for Slovakia on 5 March 2006 in accordance with MoFA Notification No. 43/2009 Coll.

One of the measures for the implementation of this convention was the adoption by the Slovak Republic of Act No. 211/2000 Coll. on free access to information which codifies the right of the public to early and complete information about environmental conditions and the causes and consequences of such conditions. With respect to the environmental matters, Act No. 205/2004 Coll. on the collection, storage and dissemination of environmental information and on amendments to certain acts was adopted, by which Directive No 2003/4/EC of the European Parliament and of the Council was transposed into the national legislation.

Through its accession to the Basel, Stockholm and Rotterdam conventions, as well as by its engagement in activities organised under decisions of the Governing Council of the United Nations Environment Programme (UNEP) in order to ensure coordination of activities performed by secretariats for individual conventions and their national structures not only within, but also among individual conventions, the Slovak Republic has shown its interest in active participation in achieving and utilizing synergies from the international environmental cooperation under the three related conventions.

Taking into account the aforementioned facts, it can be observed that, through the adoption of the NIP and its regular updates, Slovakia has ensured the necessary administrative support to:

- meeting all current objectives pursued under the Stockholm Convention and its amendments;
- funding and/or co-funding of activities to dispose of POPs waste (including POPs pesticides);
- non-investment activities related to addressing environmental burdens (monitoring, research, risk analyses) and investment activities for actual remediation of highest-risk environmental burdens.

The adoption of the NIP has enabled:

- to proceed with the meeting of objectives under the Stockholm Convention in accordance with the priorities set by the NIP;
- to continuously evaluate and subsequently update the objectives and measures set by the NIP;
- to carry out a nation-wide monitoring of the factual and timely fulfilment of objectives pursued by the Stockholm Convention according to the measures taken under the NIP.

The NIP is being updated in response to the inclusion of alpha-hexachlorocyclohexane, beta-hexachlorocyclohexane, chlordecone, hexabromobiphenyl, hexabromodiphenyl ether and heptabromodiphenyl ether, lindane, pentachlorobenzene, tetrabromodiphenyl ether and pentabromodiphenyl ether, endosulfan in Annex B, perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride acid in Annex B, and pentachlorobenzene in Annex C to the Stockholm Convention.

The NIP is updated in line with the following documents:

- **decisions adopted at COP-4 and COP-5 on new POPs, decision No. SC-4/10 through SC-4/18 of 8 May 2009** and decision No. SC-5/3 of 29 April 2011;
- relevant legal regulations applicable on the EU and Slovak level (Annex 2 to this document);
- regularly updated information on the implementation of NIP tasks for the years 2006 to 2009 as submitted to the Slovak Government for discussion and discussed on 17 June 2009 and 8 December 2010;
- 2009 State of the Environment Report of the Slovak Republic, prepared by the MoE;
- 2010 Annual Report on the Air Quality in the Slovak Republic, prepared by the Slovak Hydrometeorological Institute (SHMI);
- Waste Management Plan of the Slovak Republic for the years 2011-2015 (WMP) approved by Government Resolution No. 69/2012 of 22 February 2012.
- Government Policy Statement of the Slovak Republic for 2012-2016 of 27 April 2012, under which the Slovak Government will:
  - support the development of a uniform environmental monitoring and information system, environmental awareness-raising among the people, and provision of information about the environmental situation;
  - take measures to remove environmental burdens and to encourage the purposeful use of reclaimed lands;
  - introduce supporting instruments to reduce the volume of emissions produced by the industry and energy sectors and mobile sources, and to encourage the use of low-emission motor vehicles;
  - ensure that the supervision and monitoring of environmental safety and environmental condition of buildings, facilities and products be a prerequisite to eliminating environmental risks;
  - promote the development of an environmental awareness-raising which will require, among other things, extension of the network of information and training facilities;
  - encourage activities by municipalities, business operators and non-governmental organisations towards the recovery and rehabilitation of the damaged environment and the protection and revitalisation of ecosystems

in areas exposed to environmental burdens, as well as in protected areas, in order to improve the provision of ecosystem services as non-productive functions of agricultural, forestry and urban landscape.

### **3 Current state of play**

#### **3.1 POPs pesticides**

POPs pesticides are not currently used in the Slovak Republic. However, large stocks of obsolete pesticides still exist, as the result of a crucial change in agriculture after 1989. In view of the need to dispose of POPs pesticides, they are continuously searched for and registered. The Central Controlling and Testing Institute in Agriculture (CCTIA) is an authority responsible for agropesticides (plant protection preparations). As at 15 July 2011, a total quantity of 59,514.9 kg of waste from POPs pesticides was registered, which is being gradually disposed of. The disposal of POPs pesticides is governed by Act No. 223/2001 Coll. on waste and on amendments to certain acts as amended (Waste Act) and its implementing regulations in conjunction with Act No. 245/2003 Coll. on Integrated Pollution Prevention and Control and on amendments to certain acts as amended (IPPC Act).

Pesticides are currently regulated under Act No. 405/2011 Coll. on Phytosanitary Care and on amendments to Act of the National Council of the Slovak Republic No. 145/1995 Coll. on administrative fees as amended (Act on Phytosanitary Care) with respect to the plant protection preparations and under Act No. 217/2003 Coll. on conditions applicable to the placing of biocidal products on the market and on amendments to certain acts with respect to biocidal products. The Act on Phytosanitary Care implements Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and transposes and implements Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides.

Professional training on plant protection products represents an important activity in the agricultural sector pursuant to decree of the Ministry of Agriculture and Regional Development of the Slovak Republic (MoARD) No. 492/2011 Coll. on professional training on plant protection products in accordance with the Act on Phytosanitary Care and in line with EU goals to achieve the sustainable use of pesticides.

A successful systematic solution to this issue is facilitated by continuous fulfilment of individual measures defined under the following activities in the original NIP in 2006:

*3.3.1 (h) Activity: Identification and environmentally sound management of stocks, products used and wastes*

*3.3.1 (e) Activity: Evaluation and control of chemicals use*

#### **3.2 Evaluation and control of use of chemicals**

The issue of prevention of the production and use of new chemicals with POPs characteristics, evaluation and control of the use of new chemicals and inclusion of other chemicals on the lists in annexes to the Stockholm Convention is addressed in line with the Act on Chemical Substances and related regulations. The basic framework has been laid down by Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94

as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.

The basic national regulation governing this issue is Act No. 67/2010 Coll. on conditions applicable to the placing on the market of chemical substances and chemical mixtures and on amendments to certain acts (the Chemicals Act).

The Centre for Chemical Substances and Preparations (CCHLP) is an institution in charge of the evaluation of new chemical substances, including those with POPs characteristics, in compliance with the requirements under the Stockholm Convention. It is a competent national authority of the Slovak Republic responsible for the preparation and implementation of chemical legislation on the placement of substances, mixtures, detergents and biocidal products on the market. The MoARD is a competent national authority for plant protection products.

The Slovak Trade Inspection is a market supervisory authority. When performing its supervisory duties, it cooperates with CCHLP, as well as EU's supervisory authorities and supervisory authorities of other EU Member States.

In compliance with Article 3(2) of the Stockholm Convention, the issue of eliminating POPs import and export is also addressed in connection with the implementation of Regulation (EC) No 689/2008 of the European Parliament and of the Council of 17 June 2008 concerning the export and import of dangerous chemicals in conjunction with the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. A competent national authority in this respect is the Customs Administration of the Slovak Republic.

A successful systematic solution to this issue is facilitated by continuous fulfilment of individual measures defined under the following activities in the original NIP in 2006:

- 3.3.1 (c) Activity: *Elimination of POPs import and export*
- 3.3.1 (d) Activity: *Evaluation and control of use of chemicals*
- 3.3.1 (e) Activity: *Prevention of the production and use of new chemicals with POPs characteristics*
- 3.3.1 (f) Activity: *Exemption specification*

*Note: In relation to the definition of this activity following from Article 4 of the Stockholm Convention, the existing situation regarding the use of relevant POPs in Slovakia was assessed in the previous period. The assessment of POPs management in Slovakia indicated that Slovakia was not obliged to request the Secretariat for the Stockholm Convention for a specific exemption under Annex A and B to this convention.*

Slovakia also participates in ongoing activities arising from the work of the POPs Review Committee (POPRC). Seven national experts were nominated to the roster of experts for necessary consultations in this field, and Slovak representatives took part in POPRC sessions, held each year between 2006 and 2011 in Geneva, Switzerland, that discussed a number of new POPs.

### **3.3 Equipment and wastes with POPs content**

A gradual systematic solution has been ensured by means of individual measures performed under activity 3.3.1 (b), defined in the original 2006 NIP as "Decommissioning and disposal of PCB equipment".

The underlying activity involves continuous inventory of equipment containing polychlorinated biphenyls (PCBs) with volume higher than 5 dm<sup>3</sup> (contaminated equipment)

which is ensured by the SEA. Since the beginning of inventory taking in 2004, a total of 296 holders of contaminated equipment have been identified and registered. The total number of reported contaminated equipment, which is being gradually disposed of, represents 49,174 items. A total of 6,049 items of contaminated equipment were registered as at 31 December 2011. Pursuant to the Waste Act, PCBs and PCB-contaminated equipment should have been decontaminated or disposed of not later than by 31 December 2010. Any equipment that was not decontaminated or disposed of by the prescribed deadline is subject to inspection by the Slovak Environment Inspection (SEI). More information concerning the inventory of contaminated equipment can be found in Annex 3 to this document.

The continuous monitoring of the quantity of PCBs in installations that are part of the electricity grid or electricity offtake equipment is coordinated by the State Energy Inspection in accordance with the Waste Act.

Under project No. 2006/018-175.06.01/11, "Preparation of a strategy for inventory taking, treatment and disposal of small equipment containing PCBs in the Slovak Republic", implemented by the SEA with the use of EU's transitional funding under the Unallocated Institution Building Facility (UIBF), a *Technical Guide for Holders of Small Equipment Containing PCBs* was prepared. The guide was issued by the MoE in its official journal in 2009, year XVII, volume 4b.

Contaminated equipment is disposed of in the existing disposal facilities in Slovakia, operating under valid permits within the basic regime for hazardous waste management in compliance with relevant provisions of the Waste Act and related legislation. The disposal of contaminated equipment by combustion is provided by FECUPRAL. s.r.o., Prešov, disposal by non-combustion technology is ensured by DEKONTA. s.r.o. in its facility in Kuchyňa.

A project entitled "Removal of Barriers that Impede Adoption and Effective Implementation of Available Non-combustion Technologies for POPs Destruction and Demonstration of Viability of these Methods" (so-called "Demonstration project for PCB non-combustion technologies in Slovakia") was prepared under technical assistance from the Global Environmental Facility (GEF) for the implementation of the Stockholm Convention in the Slovak Republic, as well as for the implementation of other relevant EU legislation. The preparation of the project was linked to the process of elimination of negative impacts of PCB production in the former state-owned chemical company Chemko, n. p. Strážske, in the 1959-1984 period. The intended purpose of the project was the delivery of a non-combustion technology to dispose of chlorinated pollutants, PCBs in particular, and chlorinated pesticides in Slovakia. The basic financial budget was set to USD 20 million; of that, USD 10 million was supposed to be granted by the GEF, other project partners were expected to contribute the remaining USD 10 million. The work on this project was suspended by a MoE decision of 23 June 2011, based on an in-depth project progress and interim result analysis.

Even though the Slovak Republic requested the United Nations Industrial Development Organization (UNIDO) to cancel the "Demonstration project for PCB non-combustion technologies in Slovakia", the project-related administration contributed to the activation of institutions relevant to POPs issue in Slovakia. At the same time, it encouraged further projects focused on this issue and raised public awareness of the causes of POPs occurrence in the environment and of health protection against harmful effects of POPs. The proposed termination of the project has not been caused by the lack of state's interest in the implementation of the Stockholm Convention objectives but results from the uncertainties arising from the introduction of a new (untested) technology and related developments in the relations among individual stakeholders (project authors, co-funding project partners and holders of waste containing POPs, including PCBs).

### 3.4 Unintentionally produced POPs

The elimination of unintentionally produced POPs (un-POPs) is ensured as part of the fulfilment of the commitment to reduce emissions in the Slovak Republic, arising from the UNECE's Convention on Long-Range Transboundary Air Pollution and its implementing protocols, including the Protocol on POPs. The goal of this protocol is to reduce POPs emissions to their 1990 level. Slovakia has so far met this goal.

An emission inventory is ensured by the SHMU which publishes annual reports on the air quality in the Slovak Republic<sup>1</sup>. POPs emission inventory is prepared in line with internationally recommended methods in accordance with the source categorisation pursuant to the NFR (Nomenclature for Reporting), taking also into account recommendations by international task forces on emission inventory (UNECE TF on Emission Inventory).

This area is governed by the IPPC Act in Slovakia, based on an analysis of Stockholm Convention requirements, results of POPs emission inventory in Slovakia and situation analysis of technologies with respect to Best Available Techniques (BAT). Another important piece of national legislation in this respect is MoE Decree No. 391/2003 Coll. implementing Act No. 245/2003 Coll. on Integrated Pollution Prevention and Control and on amendments to certain acts, as amended by MoE Decree No. 63/2008 Coll. This legislation is based on Council Directive No 96/61/EC of 24 September 1996 on integrated pollution prevention and control; Directive No 2008/1/EC of the European Parliament and of the Council of 15 January 2008 on integrated pollution prevention and control has been in force since 20 February 2008.

As far as reduction of un-POPs is concerned, the sectors on which the implementation of BAT most needs to concentrate include ferrous and non-ferrous metal production, waste incineration and co-incineration, and chemical and paper industries which produce a vast majority of un-POPs that pollute other environmental media.

With respect to efforts of individual business entities to preserve their competitiveness, one can observe that considerable ecological investments have been made in the primary iron and steel manufacturing sector in Slovakia in the recent years, due to which the individual technologies comply with BAT. After the reconstruction of production facilities, the electrolytic production of aluminium is also in line with BAT.

A basic piece of legislation that governs waste incineration and co-incineration is Act No. 137/2012 Coll. on Air. Individual facilities must meet tight emission limits for waste incineration and co-incineration, including the emission limit of 0.1 ng TEQ/m<sup>3</sup> for PCDD/PCDF. Fifteen waste incineration plants and four waste co-incineration facilities currently operate in Slovakia, in compliance with applicable legislation.

In connection with Act No. 205/2004 Coll. on the collection, storage and dissemination of environmental information and on amendments to certain acts as amended, the National Register of Pollution has been set up to collect and keep information about releases and transfers of expressly specified substances, including POPs, into the environment. Internationally agreed pollutants that are subject to monitoring are listed in Annex 1 to this Act. It serves as the basis for the provision of basic data to the European Pollutant Release and Transfer Register established by Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006.

Elimination of uncontrolled thermal removal of organic substances from various types of wastes, such as wire cables and metallic parts of various products to be recovered as secondary

---

<sup>1</sup> [www.shmu.sk](http://www.shmu.sk)

raw materials for the secondary production of metals, is governed by the Waste Act and the following related legislation:

- MoE Decree No. 283/2001 Coll. on the implementation of some provisions of the Waste Act as amended;
- Government Regulation No. 153/2004 Coll. laying down the mandatory limits and deadlines for the scope of the re-use of parts of end-of-life vehicles, waste recovery from the processing of old vehicles and their recycling;
- Government Regulation No. 388/2005 Coll. laying down the mandatory limits for the recovery of electric and electronic waste and re-use, including the recycling of components, materials and substances as amended by Government Regulation No. 206/2010 Coll.;
- MoE Decree No. 125/2004 Coll. laying down details concerning the processing of end-of-life vehicles and on requirements on the manufacture of vehicles as amended;
- MoE Decree No. 315/2010 Coll. on the treatment of electrical and electronic equipment and electrical and electronic waste as amended.

In view of the fact that the importance of this sector will further increase, particularly with respect to efforts to provide for the maximum possible recycling of electric and electronic waste and end-of-life vehicles, taking into consideration growing pressures on the use of secondary raw materials and increasing the share of recycling activities, a gradual establishment of operations intended for these activities can be expected. To that end, electric and electronic scrap components (waste electric and electronic equipment, WEEE) have been included among commodities specified in the mandatory part of the WMP and Recycling Fund (RF) priorities, along with end-of-life vehicles that are considered a priority in terms of the separation of metals from non-metallic organic materials. When shaping this sector, efforts concentrate on avoiding the rise of undesirable practices and supporting BAT introduction, including grants from the RF.

Reducing the quantity of unintentionally produced POPs from the incineration of wood waste in Slovakia is ensured through gradual implementation of an efficient and effective biomass utilisation.

A gradual systematic solution to this issue is ensured by means of continuously implemented individual measures defined in the original NIP in 2006 as activity 3.3.1(g) "Reducing the total amount of releases from unintentional production".

### ***3.5 Contaminated sites and releases from stockpiles and wastes***

Despite the fact that no legislation concerning the identification of sites contaminated by POPs as given in annexes A, B and C of the Stockholm Convention was in place at the time of NIP adoption in 2006, several activities targeted at contaminated sites were underway in the Slovak Republic:

- definition of the term "environmental burden" (EB) in the amendment to the Geological Act as "the contamination of a site caused by human activity which poses a serious risk to human health, bedrock, groundwater and soil, with the exception of environmental damage";
- ecological survey at the sites contaminated by PCBs in the Sĺražske site and in former bitumen coating facilities;

- establishment of a control centre for the management, coordination and control of survey works and the preparation of the necessary remediation work, as well as for communication with cooperating bodies;
- introduction of the Information System on Environmental Burdens;
- preparation of the State Remediation Programme;
- adoption of Act No. 409/2011 Coll. on certain measures in relation to environmental burdens and on amendments to certain acts, which lays down, *inter alia*, the procedure concerning the designation, rights and obligations of a responsible person;
- allowing the public to access the website<sup>2</sup> in order to obtain the necessary information.

Slovakia prepared the State Programme of Environmental Burdens Remediation (SPEBR) in March 2010 which also includes the sites contaminated by POPs (PCB, POPs pesticides). This programme defines a further course of action in addressing environmental burdens with a view to gradually minimising their negative impact on the environment and human health. Moreover, the document identifies financial resources that can be spent on tackling the issue of environmental burdens, and it also gives an estimate of the costs.

At the same time, the Information System on Environmental Burdens was set up to collect data based on the project entitled "Systematic identification of environmental burdens in the Slovak Republic" implemented by the SEA between 2006 – 2008.

The Information System on Environmental Burdens includes the State Programme of Environmental Burdens Remediation, the Register of Documents on Environmental Burdens and the Register of Environmental Burdens.

A successful systematic solution to this issue is facilitated by continuous fulfilment of individual measures defined under activity No. 3.3.1(i) entitled "Identification and rehabilitation of contaminated sites" under the original NIP in 2006:

In Annex 4 to this document, several sites included in the Register of Environmental Burdens are given as an example.

The projects aimed at remediating the sites which are/may be exposed to POPs were financed from the funds allocated under the Operational Programme Environment. The list of such sites, including the list of projects supported in accordance with NIP, can be found in Annex 5.

### **3.6 Monitoring**

The monitoring is based on Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European pollutant release and transfer register. In the Slovak Republic, environmental information is collected, stored and disseminated in accordance with Act No. 205/2004 Coll. on the collection, storage and dissemination of environmental information and on amendments to certain acts and related legislation. The authority responsible for keeping the register of pollutants released to air and water in quantities exceeding the prescribed limits is the Slovak Hydrometeorological Institute (SHMI).

---

<sup>2</sup> <http://enviroportal.sk/environmentalne-temy/vybrane-environmentalne-problemY/environmentalne-zataze/informacny-system-ez>

### **3.7 Information exchange and stakeholder participation**

The exchange of information and the participation of stakeholders is organised by the SEA as the National Focal Point focusing on cooperation with the Secretariat of the Stockholm Convention and EU institutions in accordance with Article 9 of the Stockholm Convention. Within the meaning of Article 15 of the Stockholm Convention, the National Focal Point reports to the Conference of the Parties on the measures it has taken to implement the provisions of this Convention and on the effectiveness of such measures in meeting the objectives of the Convention.

The SEA also performs the reporting duties in connection with Article 12 of Regulation (EC) No 850/2004 on POPs as amended which obliges the Member States to:

1. provide the Commission every year with statistical data on the actual or estimated total production and placing on the market of any substance listed in Annex I (aldrin, chlordane, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene, PCB, DDT, chlordecone, hexabromobiphenyl and HCH) or Annex II of that Regulation,
2. provide, every three years, the Commission with:
  - information concerning stockpiles greater than 50 kg,
  - information compiled from release inventories for PCDD/PCDF, HCB, PCB and PAHs,
  - information on the presence of PCDD/PCDF and PCB in the environment with regard to the monitoring under Article 9 of the said Regulation in connection with appropriate programmes and mechanisms, consistent with the state of the art, for the regular provision of comparable monitoring data, as compiled by the Commission and the Member States in close cooperation with the Secretariat of the Stockholm Convention.

The SEA also coordinates the participation of stakeholders in this field, including the NIP update process, whereby making use of the working group establishment mechanism (ad hoc).

The Slovak Republic also participates in the preparation of effectiveness evaluation pursuant to Article 16 of the Stockholm Convention in line with the relevant activities of the individual EU institutions as regards the procedures and institutional mechanisms for determining non-compliance with the provisions of this Convention and for the treatment of Parties found to be in non-compliance.

A successful systematic solution to this issue is facilitated by continuous fulfilment of individual measures defined under the following activities in the original NIP in 2006:

3.3.2 (l) Activity: *Information exchange and stakeholder participation*

3.3.3 (n) Activity: *Reporting*

3.3.3 (o) Activity: *Effectiveness evaluation*

### **3.8 Raising public awareness with regard to POPs**

The task is being accomplished as part of the presentation of implemented projects focusing on POPs. In order to explain the POPs issue, seminars are held and leaflets, brochures and posters are published.

A successful systematic solution to this issue is also facilitated by continuous fulfilment of individual measures defined under activity No. 3.3.2(j) entitled "Public information, awareness and education" in the original NIP in 2006:

Up-to-date information is available on the websites of several stakeholders listed in Annex 6 to this document.

### **3.9 Institutional and legislative background**

In Slovakia, the institutional background for POPs management has not changed over time. It relies heavily on cooperation among experts from involved institutions under several ministries, such as the Ministry of the Environment, the Ministry of Economy, the Ministry of Agriculture, the Ministry of Finance and the Ministry of Health

The legislation related to POPs is in line with that of the EU. Annex 2 to this document contains a list of relevant applicable regulations.

### **3.10 Research and development**

Considering the fact that POPs management affects a wide range of the country's economic sectors, it was assumed that the individual support projects for activities under the NIP would be financed from the EU funds within the NSRF. This document represents a reference instrument to prepare the programming of funds and specifies the national priorities for co-financing under the Structural Funds and the Cohesion Fund during the 2007-2013 programming period. Environmental infrastructure and the protection of the environment are defined as a specific priority. The context indicators also include reducing the emission of basic pollutants, the issue of industrial waste, including waste containing POPs.

It was assumed that financial and technical assistance for POPs management would also be addressed as part of spending the EU's support funds under the Operational Programme Basic Infrastructure financed from the European Regional Development Fund with a focus on supporting, *inter alia*, the preparation and implementation of strategies and projects. However, Slovakia did not manage to prepare the fundamental support project entitled "Promoting the preparation and implementation of POPs strategies and projects for the 2007-2013 period".

Science, research and development can be supported under POPs management through the support for science and technology under the individual programmes within the ambit of the Slovak Research and Development Agency (SRDA)<sup>3</sup>.

The list of implemented projects addressing the POPs issue can be found in Annex 5 to this document.

With a view to ensuring coordination of the individual activities under POPs management, several consultations were held in connection with the individual measures defined under the following activities in the original NIP in 2006:

3.3.2 (k) Activity: *Information exchange and stakeholder participation*

3.3.3 (m) Activity: *Reporting*

Even as regards new POPs, attention should still be paid to the issue of POPs management. Activities focusing on research and development in the area of POPs management will be performed as part of support for research and development falling under the authority of the Ministry of Education in connection with the 7<sup>th</sup> Framework Programme, which is the EU's principal instrument for supporting science and research and which also covers areas relevant for POPs.

---

<sup>3</sup> [www.apvv.sk](http://www.apvv.sk)

## 4 Action Plan

### 4.1 Implementation Strategy

The NIP Implementation Strategy relies in particular on strategic documents (initiated and/or prepared by the Government and its ministries) and on action plans adopted to ensure their fulfilment. For the sake of completeness, the most important documents dated prior to the adoption of the NIP (until 2006) are included as well. They are supplemented by documents adopted in the period between 2007 and 2011, i.e., during the implementation of the NIP. The documents of the same kind, issued gradually for several programming periods (e.g., WMP), are listed together. Even though some of the action plans with expired deadline for compliance have not been evaluated yet (for instance, the Third Action Plan for the Environment and Health of the Slovak Population for 2006-2010), such evaluation is expected to take place in the future, in line with the adoption of their updated version.

The cornerstone of all strategies prepared in Slovakia for the purposes of environmental care is the so-called AGENDA 21, the final document of the UN Conference on Environment and Development held in Rio de Janeiro (1992). Twenty years following the "Earth Summit", the UN Conference entitled "Rio+20: towards the green economy and better governance" will be held in June 2012 in Rio de Janeiro to deal with a set of specific measures at the national, regional and international level, the details of which are given in the "Plan for Green Economy".

Based on the results and conclusions from the first conference and in connection with the analysis of the environmental situation in Slovakia, the document entitled "**Strategy, Principles and Priorities of the State Environmental Policy**" (approved by Government Resolution No. 619/1993 and by Resolution of the National Council of the Slovak Republic No. 339/1993) was approved in Slovakia as the first document of its kind.

By elaborating the above strategy into individual regions (by calculating the costs of proposed measures) and by breaking it down to sectors (for a total of 11 sectors), the **National Environmental Action Programme (NEAP)** (approved by Government Resolution No. 350/1996) and the **Second National Environmental Action Programme** (approved by Government Resolution No. 1112/1999) were prepared. The Third NEAP has never been discussed by the Government at any of its sessions and has never become an official document. Both of the prepared NEAPs were important in that they identified the problems which the individual sectors of environmental care (under an established classification) faced at that time, while identifying, in relevant cases, the respective territories and calculating the expected costs of measures undertaken with a view to meeting the individual NEAP objectives.

The year 2001 saw the preparation of the **National Strategy of Sustainable Development of the Slovak Republic** which the Government approved by Resolution No. 978/2001. Reducing the environmental burden represents one of the strategic objectives in sustainable development. The environmental pillars of sustainable development (related to POPs) are as follows: environmentally sound waste management, international transport of hazardous waste and environmentally sound management of chemical substances.

In order to elaborate the National Strategy of Sustainable Development into the individual areas, the **Action Plan of Sustainable Development in the Slovak Republic for 2005–2010** (approved by Government Resolution No. 574/2005 of 13 July 2005) was prepared to add more detail to sustainable development objectives while taking account of externalities and internal needs. The compliance with the objectives under the Action Plan of Sustainable Development was evaluated through adopted measurable indicators. The Action Plan of Sustainable Development for 2005-2010 also included the creation of a database of mandatory international agreements and documents related to sustainable development and assessed, as at

the date of its preparation, their fulfilment for the purpose of their incorporation into long-term strategic documents and economic policy of the Slovak Republic.

Partial POPs management solutions (in connection with waste containing POPs) can be found in the WMP: WMP 2005, as approved by Government Resolution No. 80 of 27 February 2002, for the period prior to the NIP adoption; WMP for 2006-2010 (approved by Government Resolution No. 118 of 15 February 2005), the validity period of which covers most of the time since NIP adoption until its update; and the remainder of the WMP for 2011-2015 (approved by Government Resolution No. 69 of 22 February 2012) preceding the adoption of this NIP update. Considering the fact that waste management legislation governs a significant portion of the range of issues related to POPs, the latest WMP represents an important background document for its preparation.

In reaction to the Lisbon Strategy, the Government approved Slovakia's Competitiveness Strategy until 2010 (The National Lisbon Strategy) by resolution No. 140 of 16 February 2005. Until the creation of the "Minerva" project, the action plans (for the areas of education and employment, science, research, information society and business environment) were approved by Government Resolution No. 557 of 13 July 2005 at the level of central government bodies (the approved tasks were also applicable to the Ministry of the Environment). In connection with the assessment of progress and the revision of the Lisbon Treaty, Slovakia prepared its own National Reform Programme for 2006-2008. As far as environmental policy is concerned, the priorities of the National Reform Programme also included reduction of environmental pollution, better environmental quality of the regions and protection from dangerous environmental risks and burdens, promotion of environmentally sound products and raising public awareness in environmental issues, as also recommended by the Stockholm Convention.

The legislative platform for the generally applicable conditions of the provision of state assistance to research and development is regulated by Act No. 172/2005 Coll. on the organisation of state support to research and development and on amendments to Act No. 575/2001 Coll. on the organisation of Government activities and the organisation of central state administration as amended. The Ministry's effort to raise environmental awareness among experts (in connection with the concepts of environmental education that have been prepared so far) is translated into practice by the SEA and its activities. Basic information concerning the state of play and developments with regard to the environment is made available to the public by the Ministry of the Environment through annual Reports on Environmental Situation in Slovakia pursuant to Act No. 17/1992 Coll. on the environment as amended and Act No. 205/2004 Coll. on the collection, storage and dissemination of environmental information and on amendments to certain acts as amended.

Furthermore, the POPs issue was incorporated in the NSRF for the 2007-2013 programming period, whereby laying the groundwork for the financial support for activities aimed at improving POPs management. The eligible activities to address selected POPs-related problems are contained in the Operational Programme Environment, Priority Axis 3 'Air protection and minimisation of adverse effects of climate change', Operational Objective 3.1, and Priority Axis 4 'Waste management', Operational Objectives 4.3 and 4.4 (more details are provided in Chapter 2).

For the sake of completeness, the Global Environment Facility (GEF) project entitled "Initial Assistance to the Slovak Republic in meeting the obligations under the Stockholm Convention on POPs" was implemented between 2003 and 2004 as part of the NIP preparation. The project resulted in the draft NIP, including draft action plans for POPs pesticides, equipment containing PCBs, un-POPs, contaminated sites and releases from stockpiles and wastes, monitoring, reporting and information exchange, public information concerning POPs and institutional and legislative measures for science and research in the area of alternative

products made of POPs. These drafts served as a resource for the preparation of the NIP as approved by Government Resolution No. 415 of 10 May 2006.

The most extensive information concerning Slovakia's horizontal strategic development is given in the document entitled "Strategy for Slovak Society Development until 2030" as the outcome of the project "The Vision and Strategy of Slovak Society Development". The project in question was undertaken with a view to reaching a consensus across the entire society as regards the fundamental priorities of its development in the course of ongoing changes in the external environment (as the decisive factor of the strategy) and the roles of the state (and its political leaders) on the one hand and the roles of entities relevant for the development of society on the other hand, within an exceptionally broad and diversified process of interlinked economic and social development aspects. The priorities and measures aimed at "Ensuring sustainable and secure growth" are discussed in Part 7 of a strategy bearing the same name. The issue of POPs management is most precisely addressed by the priorities and measures generalised in the area of "waste and waste management". An important measure focusing on the identified shortcoming concerning waste management planning has already been implemented through the publication of the WMP for 2011-2015, the draft of which underwent, as a strategic document, the Strategic Environmental Assessment procedure pursuant to Act No. 24/2006 Coll. on Environmental Impact Assessment and on amendments to certain acts.

The requirements for environmental sustainability also found their way into strategic documents focusing on Slovakia's energy policy approved by Government Resolution No. 29 of 11 January 2006. The policy document sets the basic goals and frameworks for energy sector development in the long-term so as to ensure the security of energy supply while maintaining optimum costs and adequate protection of the environment. This is also the case with the update of Slovakia's raw materials policy concerning minerals, as approved by Government Resolution No. 722 of 14 June 2004, and the industrial policy which, however, has not been approved by the Government to date. The EU's industrial policy overlaps with many other policies of the EU, for instance, those concerning science and research, education, the competitiveness policy or the environmental policy. For this reason, the relevant action plans (such as the action plan for energy efficiency) are being prepared to ensure compliance with the approved strategies.

Interlinked solutions to health, environmental and socio-economic problems and the need for inter-ministerial cooperation represent the basis for the Third Action Plan for the Environment and Health of People of the Slovak Republic for 2006-2010 (NEHAP III), approved by Government Resolution No. 10 of 11 January 2006. Priority Regional Objective IV stresses the need to focus on reducing the risk of diseases and damage to health when exposed to harmful chemical substances, physical phenomena and biological substances, as well as when working in a hazardous environment during pregnancy, childhood or adolescence. The activities target the monitoring of foreign substances in foodstuffs and feedstuffs, the evaluation of the imports and exports of harmful substances in accordance with applicable legislation and Slovakia's participation in a coherent system of human biomonitoring in cooperation with the World Health Organization (WHO) and the EU countries.

As at the NIP update, not all of the above strategic documents were assessed in terms of compliance within the individual periods to which they refer. Nonetheless, our overall observation is that the NIP, almost in all the areas it covers, is based on a diversified implementation strategy that can benefit from a broad range of strategic documents (as well as those elaborated by relevant ministries) which were adopted at the level of the Slovak Government. The above implies that it is implemented with the highest political support from the state.

## 4.2 *Priorities and measures*

The ranges of issues – considered as priorities intended for inclusion in the NIP – were identified according to the knowledge of the situation in the POPs issues in Slovakia (until 2006) and they resulted from a comprehensive assessment of the level of technical, institutional, legislative and other administrative support for meeting the Stockholm Convention objectives in areas that will have to be addressed in line with Slovakia's obligations under the above convention.

The first update was prepared five years following the approval of the initial NIP and incorporated practical experience and knowledge gained during the evaluation of the 2007-2011 period, while identifying the main obstacles to the implementation of the NIP.

As implied by the existing and envisaged national conditions in Slovakia in the medium-term (the consequences of the crisis on Slovakia's economy) and in the context of externalities (in particular as regards the economic development of the EU as a whole) while respecting the ongoing integration of Basel, Stockholm and Rotterdam conventions, the original priority issues – concentrated on the protection of human health and the environment – still remain topical for the implementation of the Stockholm Convention and are specified as follows:

1. **Adequate institutional capacity building**, the operation of which – in connection with the UNECE legislation and international conventions (Basel, Stockholm, Rotterdam and Aarhus) and in line with EU law – is necessary for activities in the following areas:
  - a) ensuring compatibility among relevant pieces of legislation at the national level (derived from EU law and international conventions);
  - b) introducing uniform procedures and institutional mechanisms for evaluating the effectiveness of compliance with the Convention in the Slovak Republic;
  - c) introducing uniform monitoring and reporting of substances falling under the Stockholm Convention;
  - d) administrative support (legislation, methodological assistance of the competent institutions) for a gradual introduction of BAT and Best Environmental Practices (BEP), primarily with respect to reducing un-POPs releases in the given case;
  - e) coordination of technological research and development in the area of alternative chemicals (by the Ministry of the Environment) with the relevant scientific and research institutions of the Slovak Academy of Sciences and expert organisations of the sectors involved (the Ministry of Health; the Ministry of Education, Science, Research and Sports; and the Ministry of Agriculture and Rural Development) as well as the private sector, while using the opportunities of international cooperation;
  - f) technical-organisational background for evaluating new chemical substances possessing POPs properties in terms of their persistence;
  - g) introducing uniform methods and procedures for supplementing the lists of POPs in annexes to the Convention for the purposes of early provision of information to experts and general public and for the NIP update;
  - h) preparing a uniform methodology for updating the NIP in accordance with the requirements of the Stockholm Convention, as required actually by SC Secretariat, and ensuring its adequate application in the national context;
  - i) environmentally sound management of POPs wastes, i.e., wastes consisting of, containing or contaminated with POPs, carried out under the guidance of experts preparing relevant manuals within the agenda of the Basel Convention;

- j) effective cooperation between experts responsible for the Stockholm Convention agenda in the Slovak Republic and experts responsible for analogous activities under the Basel Convention and the Rotterdam Convention in order to achieve synergy effects resulting from their coordinated action at the national and international level;
  - k) active participation of the Ministry of the Environment (organisations within environmental sector ) in the preparation and fulfilment of the other ministries' action plans adopted with a view to meeting the objectives related to the POPs issue.
2. **Disposal of PCB** and waste containing PCB in an environmentally sound manner, as recommended by the state and its programmes for this sector, based on the most recent technical and scientific developments.
  3. **Disposal of obsolete POPs pesticides stockpiles** , which can be found in the territory of the Slovak Republic as the so-called "historical waste" due to farming practices in the past. in a way that minimises the impact on human health and the environment, and with the help of international cooperation.
  4. **Decontamination of sediments containing PCB** in water bodies and adjacent land resulting from PCB production in the former Chemko, n. p. Strážske chemical company as part of a comprehensive solution to the environmental situation in the Zemplín region.
  5. **Performing a geological survey** of the environment, with a focus on identifying and verifying the presence of POPs pollution in bedrock, groundwater and soil, and its remediation pursuant to Act No. 569/2007 Coll. on geological works (the Geological Act) as amended and Act No. 409/2011 Coll. on certain measures in relation to environmental burdens and on amendments to certain acts.
  6. **Raising public awareness in environmental issues** in line with the prepared public relations plan, with a focus on raising public awareness of the properties of POPs and their impacts on human health and the environment.
  7. **Research and development related to POPs management** and coordination of these activities, which are undertaken by relevant institutions active in all fields of science and research as well as by universities and the private sector, with a view to ensuring a mutual exchange of information on the activities carried out and the results achieved.

For this reason, the continuous performance of the individual activities under the NIP remains a topical issue.

As implied by the current state of play with respect to new POPs, the following measures are necessary:

- a) inventory of new POPs occurring in the Slovak Republic;
- b) introduction of an integrated method to address the POPs management in the individual POPs areas;
- c) preparation of an analysis of the existing monitoring of the individual POPs areas;
- d) optimising the collection of relevant information from the monitoring while taking account of new POPs.

#### **4.3 Time schedule and financial plan**

The individual activities within the framework of POPs management essentially cover continuous fulfilment of obligations arising from Regulation (EC) No 850/2004 on POPs as

amended, which was published in connection with the Protocol to the UNECE Convention on Long-Range Transboundary Air Pollution on Persistent Organic Pollutants and in connection with the Stockholm Convention.

Considering the basic attribute of these documents, i.e., the protection of the environment and human health, these activities are guaranteed by the Minister of the Environment, as stated in Government Resolution No. 415 of 10 May 2006 concerning NIP.

For this reason, the MoE coordinates the discharge of the following notification obligations arising from the above international documents:

1. Report under Article 15 of the Stockholm Convention, which is sent to the Secretariat every four years;
2. Report on progress in the disposal of PCB, which is sent to the Secretariat of the Stockholm Convention every five years;
3. Information on the application of Regulation (EC) No 850/2004 on POPs, which is forwarded to the European Commission every three years pursuant to Article 12(1) of that Regulation;
4. Statistical data on the total production and the quantity of specified POPs placed on the market, which is provided to the European Commission every year in accordance with Article 12(2) of Regulation (EC) No 850/2004 on POPs;
5. Information on stockpiles of substances covered by Regulation (EC) No 850/2004 pursuant to Annex I and II (i.e., aldrin, chlordane, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene, PCB, DDT, chlordecone, hexabromobiphenyl, HCH), which is provided to the European Commission every three years pursuant to Article 12(3) of that Regulation;
6. Information on the presence of substances listed in Annex III of Regulation (EC) No 850/2004 on POPs in the environment, which is provided to the European Commission every three years.

The preparation of the documents for key notification obligations referred to above lends itself to creating the necessary projects which will make it possible to identify the required measures, outputs, supervisors and partial time schedules, including the allocation of the funds needed for their implementation.

The most important fact with respect to proposing particular projects in order to specify the allocation of the relevant funds is that the obligations under the above documents are gradually being complied with by the Slovak Republic. The measures adopted under national law in relation to the above obligations, as well as their implementation, are discussed in Chapter 3 "Current state of play".

The partial time schedules were proposed directly within the individual NIP chapters. By means of the NIP update (having used information available as at June 2012), the original deadlines for the tasks carried over to the next period were either confirmed or set anew – depending on the evaluation of the respective measures.

As in the previous period, the updated NIP will be implemented by the MoE and its expert organisations, the SEA in particular, which already set up the National Focal Point for the Stockholm Convention (NFP).

Cooperation with other organisations of the Ministry of the Environment – SHMU, SEI, Water Research Institute (WRI) and the State Geological Institute of Dionýz Štúr (SGIDŠ) and other participating ministries and organisations authorised by them, such as the CCHLP, the State Energy Inspection (SEI), the Slovak Innovation and Energy Agency (SIEA), the Public Health

Authority of the Slovak Republic (PHA), the State Veterinary and Food Administration of the Slovak Republic (SVFA), the Food Research Institute (FRI), CCTIA, etc – will be necessary as well.

As implied by the above, under such institutional coverage of the performance of activities related to the implementation of the Stockholm Convention objectives, high-quality cooperation, in terms of factual and timely performance, is required from all stakeholders, increasing the demands on the functioning of the NFP. In order to ensure a seamless flow of information, the organisations cooperating with the NFP are expected to forward to the NFP, on a regular basis and within the specified deadlines, their progress reports concerning the fulfilment of the measures in which they participate and to provide, if necessary, additional information upon request.

Tasks enshrined in the updated NIP may be splitted into the following categories according to the terms of fulfillment:

- Permanent tasks – to be performed on the fly (for instance, the operation of the NFP or the monitoring of POPs in different internationally agreed matrices);
- Medium-term tasks – with deadlines up to roughly three years (for instance, project design activities);
- Tasks aimed at accomplishing the Stockholm Convention objectives with long deadlines (such as elimination of the use of PCB by 2025 and ensuring environmentally sound management of the relevant waste until 2028).

The characteristics of the implemented tasks are considerably influenced by the fact that no substances included in annexes to the Stockholm Convention were produced in Slovakia at the time of NIP preparation (2006), and no such substances are produced even now (2012); the same equally applies to new POPs. This fact partially narrows down the scope of obligations arising for Slovakia under the Stockholm Convention.

The sequence in which the Stockholm Convention objectives related to waste containing POPs will be fulfilled is also addressed in general measures specified in the mandatory section of the WMP for 2011-2015 as part of "Basic measures for the implementation of objectives while minimising the impact of waste on human health and the environment (Section 3.2.1 of the WMP).

The evaluation of compliance with objectives under the WMP for 2011-2015 will be performed biennially. The same interval is proposed for the evaluation of the benefits of these measures' outputs with respect to the implementation of the NIP.

The NIP is updated after five years have passed since its publication, in the next to last year of the implementation of the current 2007-2013 NSRF. The remaining years covered by the updated NIP will belong to a new programming period of 2014-2020. These facts are relevant because the funds allocated for the environmental protection will have an extraordinary and, apparently, decisive importance on the financial coverage of the implementation of measures under the updated NIP.

In the current situation, the potential sources of funding for the implementation of the NIP are as follows:

1. Funds allocated to Slovakia under the cohesion policy - the Cohesion Fund and the Structural Funds for the respective programming period (2014-2020), as well as from other European funds;
2. Funds from the state budget of the Slovak Republic earmarked for the MoE and other sectors participating in the fulfilment of the Stockholm Convention objectives;

3. Funds accumulating to the Environmental Fund, the operation of which is regulated by Act No. 587/2004 Coll. on the Environmental Fund and on amendments to certain acts as amended (the sources of the Fund are defined in §3 of the Act);
4. Other sources (sponsorship...);
5. Private sector funds.

The acquired funds can be spent for specific purposes, with a distinction made between the costs of activities performed within the NIP implementation with respect to current expenditure (personnel expenses, wages and operating costs) and capital expenditure, in particular on:

A. Activities covered by personnel expenses and normal operating costs

- fulfilment of administrative duties arising for the Slovak Republic from its membership in the Stockholm Convention: the operation of the NFP, including the participation of Slovak representatives in activities organised by the Stockholm Convention, such as the meetings of the COP and of various working committees, as well as other foreign trips required to comply with obligations;
- cooperation between the NFP and the secretariats and structures of other conventions (Basel, Rotterdam, Aarhus,..) at the national and international level;
- activities as part of membership in national structures related to chemical substances, POPs, pesticides, etc.;
- activities of NFP's expert teams and other expert departments of institutions falling under the authority of the Ministry of the Environment and other ministries in order to comply with the Stockholm Convention objectives, such as monitoring, reporting and exchange of information;
- preparation of programmes, strategies, concepts, (such as methodological manuals) and other management and guidance tools for areas governed by the Stockholm Convention and the related documents at the central and local government level;
- projects aimed at increasing environmental effectiveness in the individual areas of environmental care and projects designed to raise awareness of POPs, etc.

B. Activities covered by personnel expenses and higher operating costs

- cooperation of the MoE, its expert organisations and other ministries with CCHLP in the evaluation and management of risks posed by chemical substances and biocidal products;
- cooperation of the MoE, its expert organisations and other ministries with the Ministry of Agriculture and Rural Development of the Slovak Republic in the assessment of environmental risks posed by plant protection products with respect to a sustainable use of pesticides in the context of cooperation under international conventions, and in the assessment and management of risks posed by plant protection products;
- standard operation of information subsystems for environmental monitoring, information systems application development, technical innovation in IT, setting up networks and information portals for electronic exchange and provision of information, etc.

C. Activities covered by high operational costs and capital expenditure:

- disposal of POPs waste: obsolete POPs pesticides stockpiles , wastes consisting of, containing or contaminated with PCB);
- disposal of equipment containing PCB/PCT in line with the WMP for 2011-2015;

- identification, risk analyses and remediation of environmental burdens (remediation of contaminated sites, facilities, uncontrolled landfills containing POPs, etc.);
- ecological investment in economic sectors (industry in particular) to ensure compliance with environmental standards by introducing BAT/BEP or environmental technologies in companies;
- proposing innovation of products based on the results of life-cycle analysis (LCA) which should alleviate the environmental (and occupational) burden associated with the presence of foreign substances throughout all product life-cycle stages;
- building environmental infrastructure (such as waste recovery and disposal facilities) in order to ultimately protect human health and improve the state of the environment.

In the case of several measures, it has become clear that their implementation (and, therefore, financing) will exceed the time horizon of ten years, which means that they will fall under the WMP after 2015, or the time horizon of the 2013-2020 programming period.

#### ***4.4 Measures to reinforce institutional and regulatory frameworks***

The requirement for the operation and further reinforcement of institutionally strong and highly effective organisations applies to all the areas covered by the Stockholm Convention. In the current situation, the implementation of obligations under the Stockholm Convention is ensured by state organisations directly managed by relevant ministries, which are national authorities competent for their scope of performance and internationally recognised. Their employees serve as delegated Slovak representatives in international organisations (for example, EU, EUROSTAT and EEA), as well as in global organisations (such as the UN, OECD) and in relevant international conventions and their structures.

The scope of organisations participating in the implementation of Stockholm Convention objectives and targets in Slovakia has remained unchanged compared to the previous period. Powers and competence relations at the level of ministries participating in the POPs issue changed in the 2006-2011 period, these changes, however, have not affected the conditions concerning the implementation of the tasks under the Stockholm Convention.

Selected data on some institutional functions delivered by participating entities are provided in Annex 7 to this document.

Main communication channels involved in the implementation of the NIP are as follows:

- MoE as a competent authority and the National Focal Point for the Stockholm Convention (NFP);
- Secretariat for the Stockholm Convention and the NFP;
- NFP and expert organisations under the ministries of economy, finance, agriculture and rural development, health, and education, science, research and sport;
- NFP and the CCHLP and CCTIA;
- NFP and SEA organisational units;
- Mutual cooperation of expert organisations under the ministries involved;
- NFP and local governments, non-governmental organisations, the business sector and general public: these flows also apply to relevant organisational units of expert organisations involved in the implementation of NIP measures.

These communication channels need to be further developed and expanded, at the national and international level, to particularly include cooperation with organisations with available scientific and research potential (universities, institutes of the Slovak Academy of Sciences, etc.) and with testing capacities in the areas of waste, water, air, soil and food. In order to provide laboratory testing, a Quality Assurance certified by accreditation is required pursuant to applicable guidelines of the Slovak National Accreditation Service (SNAS). In addition, testing facilities must have a Good Laboratory Practice (GLP) certificate awarded pursuant to §9 of Act No. 67/2010 Coll. on conditions applicable to the placing on the market of chemical substances and chemical mixtures and on amendments to certain acts (the Chemicals Act). Partners involved in the cooperation may also include private institutions with long-time experience in the provision of expert services.

Communication through electronic channels, also preferred by the Secretariat for the Stockholm Convention, plays an extraordinary role in prompt and operative communication at all vertical and horizontal levels (including on-line conferences).

The position of the SEA as a Focal Point for the Basel Convention, since 1993, has been of a great benefit in terms of cooperation between the NFP and other conventions. The SEA also covers activities of the Basel Convention Regional Centre, established in 1996. In addition, the SEA provides expertise to the MoE and other state authorities with respect to the technical and information aspects of waste management, as well as other activities related to the areas regulated under the Stockholm Convention.

Other tasks and responsibilities of the SEA include those in the area of chemical safety, within the scope of transferred competences, environmental management, environmental monitoring and information, environmental training and education, which means that a considerable portion of expertise necessary for the performance of activities directly associated with, or facilitating the fulfilment of Stockholm Convention objectives is concentrated in a single organisation falling under the Ministry of the Environment.

Competences entrusted to expert organisations involved in the implementation of Slovakia's obligations under the Stockholm Convention are based on precisely defined areas of their activity. Cooperation among participating ministries and their institutions is also facilitated by committees and work groups established to improve their exchange of information and address problems that require involvement of several expert groups. An example in this respect is the Inter-ministerial Committee for Chemical Safety, established upon the initiative of the Ministry of Health of the Slovak Republic.

The programme for further improvements in the quality of performance must also apply to testing and measurements that are necessary for individual areas of environmental monitoring with established quality assurance systems, certified by the independent organisation SNAS; testing and measurements must comply with relevant STN/EN/ISO technical standards and other systems of standards.

The highest demand on personnel capacities of individual institutions comes in particular from challenging tasks designed to provide for:

- timely and full transposition of EU legislation to the Slovak legal system, internally coherent in all regulated areas;
- preparation of draft National Implementation Plans (action plans), cross-sectoral programmes, methodology guidelines and other information, educational and awareness-raising materials through which Parties to the Convention implement, on the national level, concepts, strategies and procedures adopted at Stockholm Convention COPs;

- managerial tasks within international cooperation organised under the Stockholm Convention and cooperation between this convention and other conventions (Basel, Rotterdam);
- Slovakia's active engagement in global initiatives with a decisive influence on the effectiveness of adopted procedural decisions on the issues of a uniform approach to the environmentally sound management of wastes containing POPs, relevant monitoring of POPs occurrence in the environment, reporting and other measures crucial to the accomplishment of Stockholm Convention objectives;
- transfer of most recent knowledge of BAT, BEP and environmental technologies into business practice with respect to reducing un-POPs releases in response to international technological research and development in the area of alternative chemicals;
- solutions designed to eliminate the impacts of the production and use of POPs and other chemicals, taking into account specific circumstances of individual contaminated areas and, at the same time, possibilities of environmentally sound disposal of wastes containing POPs, stocks of obsolete pesticides, etc., in regionally accessible facilities. etc.;
- mobilisation of all relevant economic and social sectors that may contribute to a swifter recovery of damage caused by the production and use of POPs in the territory of the Slovak Republic in the past.

At the time of preparation of the NIP (with the same situation expected to continue over the next few years, as well), Slovak economy, considerably affected by the conditions in the EU, has been going through an intricate development which reflects (in addition to the adoption of other measures) in cuts in public spending (fiscal restrictions). Under these circumstances, any increases in budgetary funds of state organisations are unlikely. Therefore, further internal development of relevant institutions may be ensured, now and over the period of the next five years, primarily through streamlining of organisational structures, internal management links on the vertical and horizontal levels, cuts in operating costs, improvements in personnel's qualification and utilization of external cooperation to implement the necessary tasks. Budgetary funds of relevant institutions can, however, be increased from external sources of funding, for example, international cooperation programmes intended for new EU Member States, in particular.

An administrative way to reinforce the institutional framework of state environmental organisations is through a permanent process of improving the quality of legislative framework, for example, for the performance of state supervision in individual areas of environmental care or reinforcement of the position of information system operators with respect to the collection of data for the monitoring purposes, etc.

#### ***4.5 Enhancing effectiveness of regulatory measures***

Proposals to enhance effectiveness of regulatory measures follow from the existing experience with the implementation of the NIP. Some of the proposals have already been incorporated in the present NIP update.

The crucial goal of the NIP update is the actual creation of conditions for the implementation of measures, not their quantity and/or level of detail of their preparation. This is also one of the reasons why the scope of adopted measures has been narrowed down to those that are crucial to the meeting of Stockholm Convention objectives. A brief overview of the possible means to enhance effects of regulatory measures does not supplement the measures already mentioned, but shows the forms and methods for better enforcement of the adopted measures in practice.

The effectiveness of regulatory measures apply to:

- performance of the NFP and other state authorities involved in the implementation of the NIP;
- activities continuously performed under the NIP (in general);
- fulfilment of individual NIP measures;
- budget and use of financial resources for the implementation of the NIP and its modifications;
- transfer and dissemination of information obtained through the participation in relevant events abroad.

The following approaches to the implementation of measures are recommended for specifically defined areas:

With respect to the NFP and other state authorities involved:

- to incorporate measures concerning the activities of the NFP and all organisational units of relevant state institutions involved in the NIP implementation into yearly plans of activities of their umbrella organisations and monitor the fulfilment of these measures by assessing the fulfilment of yearly plans of activities;
- to use *ad-hoc* established working groups and committees as necessary, consisting of representatives delegated by individual ministries, to improve coordination of NFP activities with cooperating organisations;
- to look into the introduction of advanced on-line communication technologies for a fast and effective exchange and transfer of information between the NFP and cooperating entities, both at the national and international levels;
- to provide information to both experts and the general public on the conclusions of Stockholm Convention COPs and other significant events of this convention, as well as cooperating conventions, on a regular, up-to-date and targeted basis.

With respect to the NIP (as a whole):

- to analyse and evaluate changes in external conditions (legislative, economic) with major impacts on the implementation of the NIP;
- to identify internal technical and organisational obstacles to the NIP implementation by means of regular monitoring and early assessment (for example, organisational changes in other participating organisations);
- to assess the factual implementation of cross-sectoral measures in cooperation with relevant stakeholders;
- to regularly update the MoE management on the progress in NIP implementation;
- to ensure the selection of appropriate communication media to inform the public about the NIP implementation (for example, through regional and local newspapers).

With respect to the fulfilment of individual NIP measures:

- to continuously assess long-term measures and to adopt tasks for this purposes to be incorporated in yearly plans of activities of involved organisations;
- to timely analyse general and specific causes of non-fulfilment of individual measures;

- to regularly communicate area/site-specific measures with competent state and local authorities;
- to avoid factual and time discrepancies with measures adopted under different action plans and where some measures coincide and/or are interlinked, to assess any problems that occur in the whole relevant context.

With respect to the budget and the use of financial resources:

- to update the portion of budgetary funds from state resources in accordance with the state budget structure;
- to objectify the budget regularly in accordance with the acquiring of data having an impact on budgetary funds (inaccuracies in inventory, costs of waste disposal, etc.);
- to systematically search for extra-budgetary funds as additional sources for the funding of measures, in particular with respect to financially underestimated measures or measures where a need has been identified to increase their budgets;
- to incorporate in the documents for the 2014-2020 programming period the possibility to fund conceptual and strategic documents (programmes, plans, strategies) where ministries are eligible applicants;
- to monitor progress achieved under the measures linked to the factual performance which are included in other action plans (programmes) with secured financial coverage and their inclusion in the assessment of the effectiveness of the costs spent.

With respect to international cooperation:

- to ensure qualified delegates to participate in Stockholm Convention COP sessions and cooperating conventions and in events organised under those conventions, having an obligation to provide reports from foreign business trips in a standard form to an agreed group of stakeholders;
- to commission specific persons for individual organisations and adopt organisational procedures at the NFP level; to ensure targeted dissemination of information provided by secretariats for individual conventions to all stakeholders;
- to ensure effective international cooperation through human resources with the necessary expertise and language skills and to train personnel capacities involved in international cooperation;

The real benefits delivered through the implementation of the updated NIPSC in terms of human health and the environment will depend not only on how reliable and targeted the defined scope of adopted measures is, but also how efficiently and effectively the funds obtained for its implementation has been spent.

## 5 Conclusions

The NIP is updated after five years have passed since its publication. In the next to last year of the implementation of the current 2007-2013 NSRF. The remaining years covered by the updated NIP will belong to a new programming period of 2014-2020. These facts are relevant because the funds allocated for the environmental protection will have a decisive importance on the financial coverage of the implementation of measures under the updated NIP.

The primary purpose of the NIP update is to make sure that real conditions for the fulfilment of relevant measures are created, having a crucial impact on the accomplishment of Stockholm Convention objectives.

The characteristics of implemented measures are influenced by the fact that no POPs originally included in the lists under the Stockholm Convention were produced in Slovakia at the time of NIP preparation in 2006, and no such POPs are produced even now, in 2012. The same equally applies to new POPs. This fact partially narrows down the scope of obligations arising for Slovakia under the Stockholm Convention.

From the medium-term perspective, it follows from the existing as well as envisaged national conditions in Slovakia that, taking into consideration the consequences of the crisis on Slovakia's economy, in the context of externalities of the EU economy as a whole, and respecting the ongoing integration of Basel, Stockholm and Rotterdam conventions, one can observe that the original priority issues, focused on the protection of human health and the environment, still remain topical for the implementation of the Stockholm Convention.

The key finding made is that the NIP is implemented with the highest political support from the state and, almost in all the areas it covers, is based on a diversified implementation strategy that can benefit from a broad range of strategic documents adopted at the level of the Slovak Government and further elaborated by relevant ministries concerned.

At the same time, under the existing institutional coverage of the performance of activities related to the implementation of the Stockholm Convention objectives, high-quality cooperation, in terms of factual and timely performance, is required from all stakeholders, increasing the demands on the functioning of the NFP.

## 6 List of acronyms

BAT	Best Available Techniques
BEP	Best Environmental Practices
CCHLP	Centre for Chemical Substances and Preparations
CLRTAP	Convention on Long-range Transboundary Air Pollution
COP	Conference of the Parties
DDT	1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane
EEA	European Environment Agency
UNECE	United Nations Economic Commission for Europe
EIONET	European Environment Information and Observation Network
EUROSTAT	Statistical Office of the European Community
GEF	Global Environmental Facility
HBB	hexabromobiphenyl
HCB	hexachlorobenzene
HCH	hexachlorocyclohexane
MoARD	Ministry of Agriculture and Rural Development of the Slovak Republic

MoESRS	Ministry of Education, Science, Research and Sports of the Slovak Republic
MoH	Ministry of Health of the Slovak Republic
MoFA	Ministry of Foreign Affairs of the Slovak Republic
MoE	Ministry of the Environment of the Slovak Republic
NEAP	National Environmental Action Programme
NEHAP	National Environmental Health Action Plan
NIP	National Implementation Plan for the Stockholm Convention for the Slovak Republic
NSRF	National Strategic Reference Framework of the Slovak Republic
OECD	Organization for Economic Co-operation and Development
UN	United Nations Organization
PCB	polychlorinated biphenyls
PCDD/PCDF	polychlorinated dibenzo-p-dioxins and dibenzofurans
PeCB	pentachlorobenzene
PFOS	perfluorooctane sulfonic acid and its salts
PIC	Prior Informed Consent
WMP	Waste Management Plan of the Slovak Republic
POPRC	POP Review Committee
POPs	Persistent Organic Pollutants
REACH	Registration, Evaluation, Authorisation and Restriction of Chemical substances
RF	Recycling Fund
RPHA	Regional Public Health Authority
SEA	Slovak Environmental Agency
SHMI	Slovak Hydrometeorological Institute
SIEA	Slovak Innovation and Energy Agency
SEI	Slovak Environmental Inspection
GLP	Good Laboratory Practice
SNAS	Slovak National Accreditation Service
SR	Slovak Republic
SMU	Slovak Medical University
SEI	State Energy Inspection
SVFA	State Veterinary and Food Administration of the Slovak Republic
CCRIA	Central Controlling and Testing Institute in Agriculture
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization

un-POPs	unintentionally produced POPs
PHA	Public Health Authority of the Slovak Republic
VOC	Volatile Organic Compound
FRI	Food Research Institute
RIPSP	Research Institute for Pedology and Soil Protection
WHO	World Health Organization

## **7 List of annexes (in Slovak language)**

1. Basic information on new POPs included in the annexes to the Stockholm Convention
2. List of relevant legislation
3. Selected PCB inventory data
4. Selected areas from the Register of Environmental Burdens
5. Projects focused on POPs
6. List of stakeholders
7. Selected data on stakeholders

## Príloha č. 1

### Základné informácie o novo zaradených POPs do príloh Štokholmského dohovoru

V tejto časti uvádzame len stručné informácie o 10 nových POPs, z ktorých: chlórdekon,  $\alpha$ -hexachlórcyklohexán,  $\beta$ -hexachlórcyklohexán, lindán, pentachlórbenzén, endosulfán sa zaraďujú medzi pesticídy; hexabromdifenyl, hexabromdifenyléter a heptabromdifenyléter, pentachlórbenzén, perfluorooctane sulfónová a jej soli a perfluoroktansulfonylfluorid, tetrabromdifenyléter a pentabromdifenyléter medzi tzv. priemyselné chemikálie a medzi un-POPs patrí pentachlórbenzén.

#### $\alpha$ - a $\beta$ - hexachlórcyklohexány ( $\alpha$ - a $\beta$ - HCH)

V minulosti sa používali ako insekticídy, ktoré v súčasnosti vznikajú už len ako vedľajšie produkty pri výrobe lindánu.

$\alpha$ - a  $\beta$ - HCH boli používané v zmesi s  $\gamma$ -HCH ako „technický HCH“ v poľnohospodárstve na ochranu dreva. Technický HCH, ktorý sa syntetizoval z benzénu a chlóru, sa skladal z (65-70) %  $\alpha$ -HCH, (7-10) %  $\beta$ -HCH, (14-15) %  $\gamma$ -HCH (lindán) a ďalších prímiesi.

Čistením lindánu sa odstránili reziduá, ktoré obsahovali prakticky neinsekticídne izoméry HCH (predovšetkým alfa- a beta-), ktoré sa ďalej používali ako medziprodukty pri výrobe iných chemikálií.

$\alpha$ -HCH a  $\beta$ - HCH sa nevyskytujú v prostredí prirodzene, do prostredia sa dostávajú pri používaní technického HCH. Technický HCH bol používaný hlavne v šesťdesiatich a sedemdesiatich rokoch 20. storočia a aj niekoľko desiatok rokov po ukončení jeho používania sa stále nachádza v pôdach, aj vo vodnom prostredí. Môže sa bioakumulovať a biomagnifikovať v biotope.

#### Chlórdekon

Chlórdekon je perzistentný, má schopnosť kumulovať sa v potravinových reťazcoch. Bol používaný ako insekticíd na ochranu plodín ako sú banány, citrusy a tabak a aj ako surovina na výrobu ďalších insekticídov. V poľnohospodárstve sa používal od roku 1958. Na území SR nebol chlórdekon vyrábaný ani používaný.

#### Hexabrombifenyl (HBB)

Hexabrombifenyl patrí do skupiny polybromovaných bifenylov (PBBs), ktoré sa používali ako spomaľovače (retardéry) horenia. Boli pridávané do rôznych materiálov používaných ako vybavenie domácností, kancelárií atď. (nábytok, elektronika). PBBs boli používané ako prídavky do plastov malých spotrebičov (ABS – akrylonitril-butadién-styrén), ďalej ako impregnácie čalunení, povrchov a molitanových výplní sedadiel v dopravných prostriedkoch. PBBs nie sú v materiáloch pevne chemicky viazané, takže sa môžu uvoľňovať do prostredia pri používaní a pri spracovaní týchto materiálov (recyklácia, spaľovanie).

#### Tetrabromdifenyléter a pentabromdifenyléter (tetra-BDE a penta-BDE)

Bromované difenylétery sa označujú skratkou BDE. Ide o skupinu organických zlúčenín brómu (celkom 209 látok príbuzných štruktúrou a vlastnosťami), ktoré spomaľujú alebo zastavujú horenie organických látok a väčšinou sú vyrábané ako zmesi. Všeobecne sa rozlišujú tri základné typy BDE v závislosti na počte atómov brómu v každej molekule. Najvýznamnejší BDE je penta-BDE. Komerčne dostupná zmes penta-BDE je zmesou látok so štyrmi až šiestimi

atómami brómu.

Komerčné zmes pentaBDE je veľmi perzistentná, bioakumulatívna a má potenciál pre environmentálny prenos.

BDE sa vyznačujú tým, že sú nehorľavé a preto sa penta-BDE používa hlavne ako samozhášací prostriedok v polyuretánovej pene pri výrobe nábytku a čalúnení a v menšom rozsahu je používaný v tvrdých plastoch a lepidlách.

V EÚ je zákaz predaja a používania penta-BDE a okta-BDE od roku 2004. Špecifická výnimka pre registrujúce krajiny (do roku 2030) je na recykláciu zmesí obsahujúcich uvedené chemické látky.

#### **Lindán**

Bol používaný ako širokospektrálny insekticíd na semená a ochranu pôdy, v skleníkoch, na ochranu dreva, ale aj proti parazitom vo veterinárnej a humánnej aplikácii. Má špecifickú výnimku na použitie v zdravotníctve ako farmaceutický výrobok - proti všiam a svrabu.

V prípade lindánu ide o izomér 1,2,3,4,5,6-hexachlórcyklohexánu, ktorý patrí nielen do skupiny POPs, ale aj do skupiny prchavých organických látok (VOC).

Prírodné zdroje emisie lindánu neexistujú, môže však unikáť zo skládok nebezpečných odpadov alebo eróziou pôdy, do ktorej bol v minulosti aplikovaný. V ovzduší sa môže lindán vyskytovať naviazaný na prachové častice alebo ako plyn. V atmosfére môže zotrvať dlho a môže byť transportovaný na dlhé vzdialenosti.

#### **Pentachlórbenzén**

Bol pôvodne používaný pri výrobe PCB výrobkov, vo farbiarstve aj ako fungicíd a retardér horenia. Môže sa uvoľňovať ako neúmyselne produkovaný POPs, pri spaľovaní a v niektorých priemyselných procesoch. Pentachlórbenzén sa môže vyskytovať v odpadových vodách z papieri, celulózok, železiarní, oceľiarní, ropných rafinérií, chemických tovární, skládok odpadov a čistiarň odpadových vôd.

Do prostredia sa môže tiež dostať pri používaní látok, ktoré obsahujú pentachlórbenzén ako prímies. Zdrojom emisií môžu byť tiež dielektrické kvapaliny s obsahom pentachlórbenzénu. Môže sa uvoľňovať aj pri spaľovaní zmesového komunálneho odpadu, pokiaľ sú prítomné organické chlórované látky alebo uhlíkovodíkové polyméry a chlór. V súčasnosti je do prostredia emitované len minimálne množstvo pentachlórbenzénu.

#### **Kyselina perfluoroktánsulfónová, jej soli a perfluóroktánsulfónfluorid (zlúčeniny na báze PFOS)**

Tieto zlúčeniny patria do skupiny syntetických fluórovaných látok (perfluóralkylované zlúčeniny), ktorá obsahuje niekoľko desiatok zlúčenín. Dôležitými podskupinami sú perfluórované organické surfaktanty (surfaktant - látka ovplyvňujúca povrchové napätie) a fluórované organické polyméry. Mezi najsledovanejších zástupcov perfluórovaných zlúčenín patria: perfluóroktánsulfónová kyselina a jej soli (PFOS), hlavne fluorid kyseliny perfluóroktánsulfónovej (PFOSF), ďalej perfluóroktánsulfonamid (FOSA) a kyselina perfluóroktánová (PFOA).

Zlúčeniny na báze PFOS, vzhľadom na svoje povrchovoaktívne vlastnosti boli používané v mnohých aplikáciách, napr. ako protipožiarne peny.

Registrujúce krajiny, ktoré požiadali o výnimku v zmysle Štokholmského dohovoru, ich môžu používať pri výrobe fotografických prístrojov, antireflexných náterov, polovodičov, hydraulických kvapalín v lietadlách, na pokovovanie v uzavretých systémoch, ako média v lekárskech prístrojoch, ako požiarne peny a insekticídy.

Výskyt zlúčenín na báze PFOS v životnom prostredí je len z antropogénnych zdrojov, pretože sa prirodzene v prostredí nevyskytujú. Uvoľňujú sa hlavne pri vlastnej výrobe, pri kompletizácii komerčných výrobkov, počas distribúcie a priemyselného aj domáceho používania, aj zo

skládok odpadov a čistiarní odpadových vôd.

### Endosulfán

Je známy ako širokospektrálny insekticíd, ktorý sa aj v súčasnej dobe využíva na ochranu rôznych plodín proti škodcom, najmä kávy, pšenice, bavlny, ryže a sóje. Preto je pre registrujúce krajiny daná možnosť požiadať o špeciálnu výnimku na riadené špecifické použitie v pesticídnych prípravkoch.

Technický endosulfán je zmes dvoch izomérov (alfa- a beta- endosulfán) spolu s malým množstvom nečistôt. Endosulfán sa uvoľňuje do prostredia pri aplikácii ako insekticíd alebo prostriedok na konzerváciu dreva. V SR sa endosulfán nevyrába a podľa dostupných informácií nie je realizovaný ani dovoz endosulfánu.

Podrobné informácie o chemickej štruktúre jednotlivých POPs, vlastnostiach, vplyvu na životné prostredie, humánných rizikách a ich použití sú dostupné na internetovej stránke Štokholmského dohovoru<sup>4</sup>.

Ďalšie voľnopristupné informácie o POPs sú dostupné prostredníctvom „Globálneho informačného systému pre hodnotenie životného prostredia“ (Global Environmental Assessment Information System, GENASIS)<sup>5</sup>, ktorého gestorom je Ministerstvo životného prostredia Českej republiky.

Prehľad jednotlivých POPs, ktoré sú v súčasnosti predmetom Štokholmského dohovoru, je v nasledujúcej tabuľke. Pri každej chemickej látke je uvedené registračné číslo (CAS), pod ktorým sú chemické látky registrované a popísané v databáze Chemical Abstract Service Registry Number.

### POPs Štokholmského dohovoru

POPs			nové POPs		
chemická látka	CAS č.	príloha ŠD	chemická látka	CAS č.	príloha ŠD
aldrin	309-00-2	A	alfa-hexachlórcyklohexán	319-84-6	A
chlórdan	57-74-9	A	beta-hexachlórcyklohexán	319-85-7	A
DDT	50-29-3	B	chlórdekon	143-50-0	A
dieldrin	60-57-1	A	hexabrombifenylyl	36355-01-8	A
endrin	72-20-8	A	hexabromdifenylyléter a heptabromdifenylyléter	*1)	A
heptachlór	76-44-8	A	lindán	58-89-9	A
hexachlórbenzén	118-74-1	A, C	pentachlórbenzén	608-93-5	A, C
mirex	2385-85-5	A	PFOS	*2)	B
toxafén	8001-35-2	A	tetrabromdifenylyléter a pentabromdifenylyléter	*3)	A
PCB		A, C	endosulfán	*4)	A
PCDD / PCDF		C			

<sup>4</sup><http://chm.pops.int/Convention/ThePOPs/tabid/673/Default.aspx>

<sup>5</sup><http://www.genasis.cz/index.php?page=pops>

## \*Vysvetlivky:

- 1) „Hexabromdifenyléter a heptabromdifenyléter“ znamenajú :  
2,2',4,4',5,5'-hexabromdifenyléter (BDE-153, CAS č.: 68631-49-2),  
2,2',4,4',5,6'-hexabromdifenyléter (BDE-154, CAS č.: 207122-15-4),  
2,2',3,3',4,5'.6 heptabromdifenyléter (BDE-175, CAS č.: 446255-22-7),  
2,2',3,4,4',5',6-heptabromdifenyléter (BDE-183, CAS č.: 207122-16-5)  
a ďalšie hexabromdifenylétery a heptabromdifenylétery prítomné v komerčnom  
oktabromdifenylétere.
  
- 2) Kyselina perfluóroktánsulfónová (CAS č. 1763-23-1), jej soli\*\* a  
perfluóroktánsulfónfluorid (CAS č. 307-35-7)  
\*\*Například:  
perfluóroktánsulfonát draselný (CAS č. 2795-39-3);  
perfluóroktánsulfonát lítny (CAS č. 29457-72-5);  
perfluóroktánsulfonát amónny (CAS č. 29081-56-9);  
perfluóroktánsulfonát dietanolamónny (CAS č. 70225-14-8);  
perfluóroktánsulfonát tetraetylamónny (CAS č. 56773-42-3);  
perfluóroktánsulfonát didecyldimetylamónny (CAS č. 251099-16-8)
  
- 3) „Tetrabromdifenyléter a pentabromdifenyléter“ znamenajú:  
2,2',4,4'-tetrabromdifenyléter (BDE-47, CAS No: 40088-47-9)  
2,2',4,4',5-pentabromdifenyléter (BDE-99, CAS No: 32534-81-9)  
a ďalšie tetrabromdifenylétery a pentabromdifenylétery prítomné v komerčnom  
pentabromdifenylétere.
  
- 4) „Endosulfán“ znamená:  
technický endosulfán (CAS No: 115-29-7)  
a jeho súvisiace izoméry (CAS No: 959-98-8 a CAS No: 33213-65-9) a endosulfán  
sulfát (CAS No: 1031-07-8)

**Príloha č. 2****Zoznam relevantných právnych predpisov**POPs

Oznámenie MZV SR č. 593/2004 Z. z. o prijatí Štokholmského dohovoru o POPs

Oznámenie MZV SR č. 367/2003 Z. z. o prijatí POPs k Dohovoru o diaľkovom znečisťovaní ovzdušia prechádzajúcom hranicami štátov

Nariadenie (ES) č. 850/2004 Európskeho parlamentu a Rady z 29. apríla 2004 o POPs, ktorým sa mení a dopĺňa smernica 79/117/EHS v aktuálnom znení

Smernica Rady 96/59/ES zo 16. septembra 1996 o zneškodnení PCB a polychlórovaných terfenylov (PCB/PCT)

Zákon č. 127/2006 Z. z. o POPs a o zmene a doplnení zákona č. 223/2001 Z. z. o odpadoch a o zmene a doplnení niektorých zákonov v znení neskorších predpisov

Vyhláška MŽP SR č. 135/2004 Z. z. o dekontaminácii zariadení s obsahom PCB

informovanosť

Oznámenie MZV SR č. 43/2006 Z. z. o prijatí Dohovoru o prístupe k informáciám, účasti verejnosti na rozhodovacom procese a prístupe k spravodlivosti v záležitostiach životného prostredia (Aarhusský dohovor)

Smernica 2003/35/ES Európskeho parlamentu a Rady z 26. mája 2003, ktorou sa ustanovuje účasť verejnosti pri navrhovaní určitých plánov a programov týkajúcich sa životného prostredia, a ktorou sa menia a dopĺňajú s ohľadom na účasť verejnosti a prístup k spravodlivosti, smernice Rady 85/337/EHS a 96/61/ES

Zákon č. 205/2004 Z. z. o zhromažďovaní, uchovávaní a šírení informácií o životnom prostredí a o zmene a doplnení niektorých zákonov v znení neskorších predpisov

chemické látky

Rozhodnutie Rady z 19. decembra 2002 o schválení, v mene Európskeho spoločenstva, Rotterdamského dohovoru o udeľovaní predbežného súhlasu po predchádzajúcom oznámení pre určité nebezpečné chemikálie a prípravky na ochranu rastlín v medzinárodnom obchode (2003/106/ES)

Oznámenie MZV SR č. 280/2007 Z. z. o prístupe SR k Rotterdamskému dohovoru o udeľovaní predbežného súhlasu po predchádzajúcom ohlásení na dovoz a vývoz vybraných nebezpečných chemických látok a prípravkov

Nariadenie EP a Rady (ES) č. 689/2008 o vývoze a dovoze nebezpečných chemikálií v aktuálnom znení

Smernica Európskeho parlamentu a Rady 98/8/ES zo 16. februára 1998 týkajúca sa uvádzania biocídnych výrobkov na trh v aktuálnom znení

Nariadenie Európskeho parlamentu a Rady (ES) č. 1907/2006 z 18. decembra 2006 o registrácii, hodnotení, autorizácii a obmedzovaní chemických látok (REACH) a o zriadení Európskej chemickej agentúry, o zmene a doplnení smernice 1999/45/ES a o zrušení nariadenia Rady (EHS) č. 793/93 a nariadenia Komisie (ES) č. 1488/94, smernice Rady 76/769/EHS a smerníc Komisie 91/155/EHS, 93/67/EHS, 93/105/ES a 2000/21/ES v aktuálnom znení

Nariadenie Európskeho parlamentu a Rady (ES) č. 1272/2008 z 16. decembra 2008 o klasifikácii, označovaní a balení látok a zmesí, o zmene, doplnení a zrušení smerníc 67/548/EHS a 1999/45/ES a o zmene a doplnení nariadenia (ES) č. 1907/2006 v aktuálnom znení

Zákon č. 67/2010 Z. z. o podmienkach uvedenia chemických látok a chemických zmesí na trh a o zmene a doplnení niektorých zákonov (chemický zákon)

Zákon č. 217/2003 Z. z. o podmienkach uvedenia biocídnych výrobkov na trh a o zmene a doplnení niektorých zákonov v znení neskorších predpisov

### pesticídy

Nariadenie Európskeho parlamentu a Rady (ES) č. 396/2005 z 23. februára 2005 o maximálnych hladinách rezíduí pesticídov v potravinách a krmivách rastlinného a živočíšneho pôvodu v aktuálnom znení

Nariadenie Európskeho parlamentu a Rady (ES) č. 1107/2009 z 21. októbra 2009 o uvádzaní prípravkov na ochranu rastlín na trh a o zrušení smerníc Rady 79/117/EHS a 91/414/EHS

Smernica Európskeho parlamentu a Rady 2009/128/ES z 21. októbra 2009, ktorou sa ustanovuje rámec pre činnosť Spoločenstva na dosiahnutie trvalo udržateľného používania pesticídov

Zákon č. 405/2011 Z. z. o rastlinolekárskej starostlivosti a o zmene zákona Národnej rady Slovenskej republiky č. 145/1995 Z. z. o správnych poplatkoch v znení neskorších predpisov

Nariadenie vlády Slovenskej republiky č. 373/2008 Z. z., ktorým sa ustanovujú požiadavky na uvádzanie prípravkov na ochranu rastlín na trh v znení neskorších predpisov

Vyhláška MPRV SR č. 485/2011 Z. z., ktorou sa ustanovujú podrobnosti o prípravkoch na ochranu rastlín

Vyhláška MPRV SR č. 488/2011 Z. z., ktorou sa ustanovujú podrobnosti o zásadách a opatreniach na ochranu zdravia ľudí, zdrojov pitnej vody, včiel, zveri, vodných a iných necieľových organizmov, životného prostredia a osobitných oblastí pri používaní prípravkov na ochranu rastlín

Vyhláška MPRV SR č. 491/2011 Z. z. o vedení záznamov o prípravkoch na ochranu rastlín a nahlasovaní údajov, podmienkach a postupoch pri skladovaní a manipulácii s prípravkami na ochranu rastlín a čistení použitých aplikačných zariadení

Vyhláška MPRV SR č. 492/2011 Z. z. o odbornom vzdelávaní v oblasti prípravkov na ochranu rastlín

Zákon č. 217/2003 Z. z. o podmienkach uvedenia biocídnych výrobkov na trh a o zmene a doplnení niektorých zákonov v znení neskorších predpisov

Nariadenie vlády SR č. 152/2007 Z. z., ktorým sa ustanovujú podrobnosti dokumentácie k žiadosti o autorizáciu biocídneho výrobku a podrobnosti dokumentácie k žiadosti o registráciu biocídneho výrobku s nízkym rizikom a podrobnú špecifikáciu údajov predkladaných pred uvedením biocídneho výrobku a podrobnú špecifikáciu údajov predkladaných pred uvedením biocídneho výrobku s nízkym rizikom na trh

Nariadenie vlády SR č. 329/2007 Z. z., ktorým sa vydáva zoznam účinných látok vyhovujúcich na zaradenie do biocídnych výrobkov

Nariadenie vlády SR č. 188/2008 Z. z., ktorým sa vydáva zoznam účinných látok s nízkym rizikom vyhovujúcich na zaradenie do biocídnych výrobkov s nízkym rizikom

Vyhláška MH SR č. 383/2003 Z. z., ktorou sa ustanovujú podrobnosti o postupe a špecifikácii zásad hodnotenia biocídnych výrobkov a biocídnych výrobkov s nízkym rizikom

Vyhláška MH SR č. 517/2004 Z. z., ktorou sa ustanovujú podrobnosti o špecifických činnostiach jednotlivých ústredných orgánov štátnej správy v rámci hodnotenia biocídnych výrobkov a biocídnych výrobkov s nízkym rizikom a hodnotenia účinných látok pre biocídne výrobky

### odpady

Oznámenie MZV SR č. 60/1995 Z. z. o pristúpení SR k Bazilejskému dohovoru o riadení pohybov nebezpečných odpadov cez hranice štátov a ich zneškodňovaní

Smernica Európskeho parlamentu a Rady 2008/98/ES z 19. novembra 2008 o odpade a o zrušení niektorých smerníc

Zákon č. 223/2001 Z. z. o odpadoch a o zmene a doplnení niektorých zákonov v znení neskorších predpisov

Vyhláška MŽP SR č. 283/2001 Z. z. o vykonaní niektorých ustanovení zákona o odpadoch v znení neskorších predpisov

Nariadenie vlády SR č. 153/2004 Z. z., ktorým sa ustanovujú záväzné limity a termíny pre rozsah opätovného použitia častí starých vozidiel, zhodnocovania odpadov zo spracovania starých vozidiel a ich recyklácie

Vyhláška MŽP SR č. 125/2004 Z. z., ktorou sa ustanovujú podrobnosti o spracúvaní starých vozidiel a o požiadavkách na výrobu vozidiel v znení neskorších predpisov

Vyhláška MŽP SR č. 127/2004 Z. z. o sadzbách pre výpočet príspevkov do RF, o zozname výrobkov, materiálov a zariadení, za ktoré sa platí príspevok do RF, a o podrobnostiach o obsahu žiadosti o poskytnutie prostriedkov z RF v znení neskorších predpisov

#### elektrozariadenia a elektroodpady

Smernica Európskeho parlamentu a Rady č. 2002/95/ES z 27. januára 2003 o obmedzení používania určitých nebezpečných látok v elektrických a elektronických zariadeniach

Smernica Európskeho parlamentu a Rady 2002/96/ES z 27. januára 2003 o odpade z elektrických a elektronických zariadení (OEEZ)

Nariadenie vlády SR č. 388/2005 Z. z., ktorým sa ustanovujú záväzné limity pre zhodnotenie elektroodpadu a pre opätovné použitie a recykláciu komponentov, materiálov a látok v znení nariadenia vlády SR č. 206/2010 Z. z.

Vyhláška MŽP SR č. 315/2010 Z. z. o nakladaní s elektrozariadeniami a s elektroodpadom v znení neskorších predpisov

#### obaly

Smernica Európskeho Parlamentu a Rady č. 94/62/ES z 20. decembra 1994 o obaloch a odpadoch z obalov

Zákon č. 119/2010 Z. z. o obaloch a o zmene zákona č. 223/2001 Z. z. o odpadoch a o zmene a doplnení niektorých zákonov v znení neskorších predpisov

Vyhláška MŽP SR č. 91/2001 Z. z. o vykonaní niektorých ustanovení zákona o obaloch

#### ochrana životného prostredia

Zákon č. 137/2010 Z. z. o ovzduší

Zákon č. 261/2002 Z. z. o prevencii závažných priemyselných havárií a o zmene a doplnení niektorých zákonov v znení neskorších predpisov

Zákon č. 24/2006 Z. z. o posudzovaní vplyvov na životné prostredie a o zmene a doplnení niektorých zákonov v znení neskorších predpisov

Zákon č. 245/2003 Z. z. o integrovanej prevencii a kontrole znečisťovania životného prostredia a o zmene a doplnení niektorých zákonov v znení neskorších predpisov

#### environmentálne záťaž

Zákon č. 569/2007 Z. z. o geologických prácach (geologický zákon)

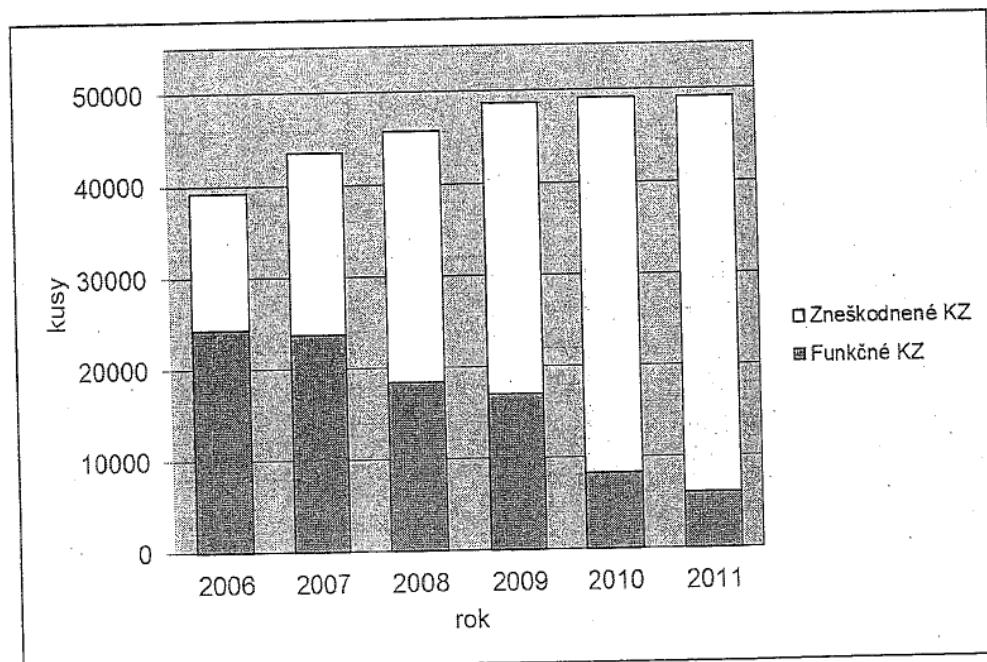
Zákon č. 409/2011 Z. z. o niektorých opatreniach na úseku environmentálnej záťaž a o zmene a doplnení niektorých zákonov

## Príloha č. 3

**Vybrané údaje z oblasti inventarizácie PCB**

Inventarizácia je výsledkom sumarizácie hlásení držiteľov kontaminovaných zariadení. Od začiatku inventarizácie v roku 2001 sa do zoznamu zaregistrovalo 296 držiteľov a celkový počet nahlásených zariadení s obsahom PCB je 49 174 kusov. Ku koncu roka 2011, teda rok po zákonom stanovenej lehote dekontaminovať alebo zneškodniť zariadenia obsahujúce PCB v objeme väčšom ako 5 dm<sup>3</sup> environmentálne vhodným spôsobom, bolo v zozname držiteľov kontaminovaných zariadení evidovaných ešte 6 049 kusov zariadení, ktorých držiteľia si v zákonnej lehote (31. 12. 2010) nespĺnili svoju povinnosť. Priebežné výsledky inventarizácie SAŽP uverejňuje na svojej internetovej stránke zoznam držiteľov<sup>6</sup>, ktorí majú kontaminované zariadenia ešte v prevádzke.

Prehľad stavu inventarizácie kontaminovaných zariadení (KZ) k 31. 12. 2011 je uvedený v grafe 1.

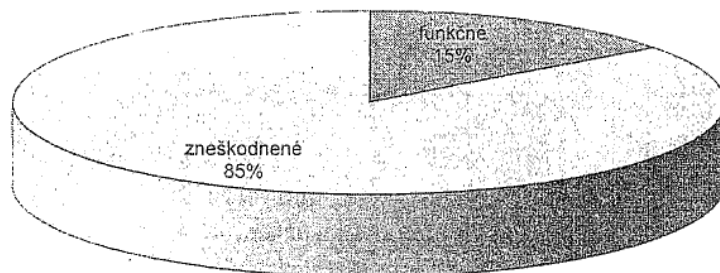


Graf 1: Prehľad stavu inventarizácie KZ k 31. 12. 2011 (Zdroj: SAŽP)

Percentuálne znázornenie stavu zneškodnenia kontaminovaných zariadení v SR v roku 2011 je uvedené v grafoch 2 a 3.

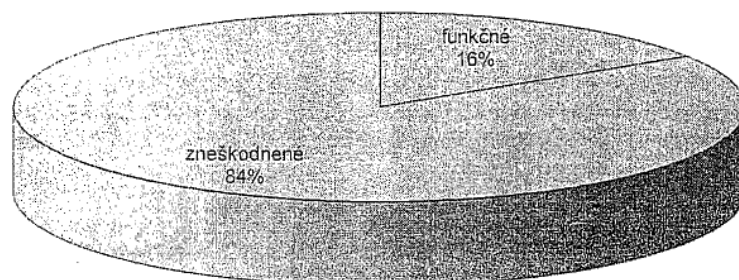
<sup>6</sup> <http://www.sazp.sk/public/index/go.php?id=2098&lang=sk>

Celková hmotnosť KZ [t]



Graf 2: Podiel hmotnosti zneškodnených a funkčných KZ k 31.12.2011 (Zdroj: SAŽP)

Celková hmotnosť náplne [t]



Graf 3: Podiel hmotnosti náplne zneškodnených a funkčných KZ k 31.12.2011 (Zdroj: SAŽP)

*POZN. - Hmotnosť zariadení ako aj hmotnosť náplne je iba odhad na základe počtu nahlásených kontaminovaných zariadení s použitím hmotnosti najčastejšie sa vyskytujúceho typu kontaminovaného zariadenia, nakoľko nahlásované údaje sú často neúplné kvôli znemožnenej identifikácii zariadenia*

Z vyššie uvedených údajov je zrejmé, že v SR je ešte stále cca 12 % evidovaných kontaminovaných zariadení. Mnohé z nich síce obsahujú PCB v objeme menšom ako 5 dm<sup>3</sup>, ale väčšina držiteľov vlastní viac takýchto zariadení. Podľa smernice Rady 96/59/ES o zneškodnení PCB a polychlórovaných terfenylov (PCB/PCT), v prípade silových kondenzátorov sa hranica 5 dm<sup>3</sup> rozumie ako súčet oddelených objemov kombinovaného prístroja. Držitelia týchto zariadení konajú v rozpore s národnou aj európskou legislatívou a tým môžu byť sankcionovaní.

Príloha č. 4 Vybrané územia z Registra environmentálnych zariadení, ktoré obsahujú agrochemikálie (prípravky na ochranu rastlín, hnojivá, bez špecifikácie POPs pesticídov)

Kraj	Oblasť	Obec	Názov lokality v registri EZ	Register	K	K1	K2	K3	Informácia z Registra EZ na www.enviro.parrilisk.sk	odhad množstva v tonách	držiteľ EZ alebo vlastník
Banskobystrický	Brezno	Závodka nad Hronom	BR (020) / Závodka nad Hronom - areál Poľnospol Plus	A	22	22	0	0	Sklad pesticídov sa dlhodobo nepoužíva a uložené nebezpečné látky tvoria staré zásoby po bývalých ŠM n.p. Závodka n/lonom	2	s. r. o.
Banskobystrický	Krupina	Rykyňčice	KA (005) / Rykyňčice - sklad starých agrochemikálií	A	78	29	28	21	Chemikálie a obaly sú voľne uložené na betónovej podlahe v miestnosti, podmienky skladovania sú nevyhovujúce, aktuálne je ohrozenie podzemných vôd. Situáciu zhoršuje blízkosť povrchového toku a využívaných studní	2	fyzická osoba
Banskobystrický	Lučenec	Šurice	LC (008) / Šurice - bývalé PD - pesticídny sklad	A	28	0	28	0	Dlhodobé skladovanie chemikálií v poškodených obaloch v množstve cca 5000 kg. Budova skladu je vetraná, s poškodenou strechou.	5	fyzická osoba
Banskobystrický	Revúca	Magnezirovce	RA (002) / Magnezitovce - pesticídny sklad	A	28	0	28	0	V budove sú uložené vrecia, sudy, škattule od rôznych herbicídnych, fungicídnych a iných pesticídnych prípravkov, v značnej miere poškodenia.	4,5	obec a Spol. podnikov a urbármikov
Banskobystrický	Rimavská Sobota	Včelince	RS (020) / Včelince - sklad pesticídov	A	31	0	31	0	V areáli bývalého družstva sú agrochemikálie umiestnené na troch lokaltách. V skladoch sa nachádza približne 2000 kg starých pesticídov.	2	s. r. o.
Banskobystrický	Rimavská Sobota	Hostišovce	RS (006) / Hostišovce - sklad pesticídov	A	28	0	28	0	Schátraná budova skladu sa nachádza v bývalom poľnohospodárskom družstve Hostišoviec. Budova je zastrešená, neuzamknutá.	1	fyzická osoba
Banskobystrický	Rimavská Sobota	Orávka	RS (010) / Orávka - sklad pesticídov MAIA	A	28	0	28	0	Zastrešená budova, v ktorej sú skladované pesticídne prípravky je neuzamknutá a vetraná. V sklade sa nachádzalo približne 600 kg starých pesticídnych prípravkov.	0,6	s. r. o.
Banskobystrický	Rimavská Sobota	Jestice	RS (008) / Jestice - pesticídny sklad	A	31	0	31	0	V schátratej budove boli uskladňované agrochemikálie. Časť týchto agrochemikálií bolo odvezených. V sklade sa nachádzalo cca 100 kg starých pesticídnych prípravkov.	0,1	nevysporiadateľný pozemok
Banskobystrický	Rimavská Sobota	Orávka	RS (009) / Orávka - kaštieľ - sklad pesticídov	A	31	0	31	0	Starý pesticídny sklad sa nachádza v schátratej kaštieli. Väčšina starých pesticídov je odvezená.	0,1	reštituent

Kraj	Oblasť	Obec	Názov lokality v registri E/Z	Regisťer	K	K1	K2	K3	Informácia z Registra E/Z na www.enviroportal.sk	odhad množstva v tonách	držiteľ E/Z alebo vlastník
Banskobystrický	Veľký Krtuš	Veľká Čalomyňa	VK (004) - Veľká Čalomyňa - pesticídny sklad	A	22	22	0	0	V sklade sú uskladňované stare chemikálie v poškodených obaloch v množstve cca 10 ton. majiteľ skladu nie je známy. Sklad zaradený na základe indicii SIŽP	10	neznámy
Banskobystrický	Veľký Krtuš	Olováry	VK (001) - Olováry - pesticídny sklad	A	32	0	32	0	Chemikálie po bývalom PD Olováry v množstve cca 2000 kg. v poškodených obaloch. Sklad zaradený na základe indicii SIŽP	2	Poľnohosp. družstvo
Banskobystrický	Zár nad Hrohom	Kosorin	ZII (004) - Kosorin - sklad pesticídov	A	40	22	0	18	V sklade sa nachádza cca 2 500 kg bližšie neidentifikovaných agrochemikálií. Objekt je bez strechy a dažďové vody z objektu vytekajú mimo jeho priestor a následne vsakujú do okolitého terénu. Kosorínsky potok je cca 120 m	2,5	s r o
Bratislavský	Senec	BolDOG	St. (001) - BolDOG - S od obce - sklad pesticídov	A	74	38	36	0	Opportúne čo najrýchlejšie zneškodnenie chemikálií. Odstránenie celého schátrálneho kontaminovaného objektu a realizáciu priestunku znečistenia zemin a podzemných vôd	5	obec
Košický	Ľubušov	Čelovec	TV (004) - Čelovec - sklad pesticídov	A	66	19	36	11	Agrochemikálie z bývalej poľnohospodárskej činnosti sú nevhodne uskladnené (tuzamknuté) v starom mlyne, priamo v strede obce Čelovec. Z roztrhaných a zničených obalov sú pesticídy roztrúsené a rozliate po zemi. Z budovy sa šíri zápach	2	neznámy
Košický	Ľubušov	Šimik	TV (010) - Šimik - sklad pesticídov - bývalé PD	A	56	21	22	13	V schátralom družstve sú voľne pohodené pesticídy po bývalej činnosti. Prístup k pesticídom je voľný, nie je ohradený plotom. Predstavuje riziko ohrozenia mlieka ľudí, ale aj životného prostredia	2	Poľnohosp. družstvo
Nitriansky	Levice	Nová Dedina	IV (012) - Nová Dedina - sklad pesticídov	A	72	28	29	15	Účinné látky skladovaných pesticídov: OMNIDEL - Sodné soli 2,2 dichloropropiónovej kyseliny (Na-DCP), STUTOX - zvlášť nebezpečný jed (fosfid zinočnatý). Prípravky sú uložené v nevhodných podmienkach, obaly sú poškodené a roztrúsené po podlahe. Prípravky sú pozostatkom po bývalej poľnohospodárskej činnosti družstva	2,5	s r o

Kraj	Oblasť	Obec	Názov lokality v registri EZ	Registier	K	K1	K2	K3	Informácia z Registra EZ na <a href="http://www.environment.sk">www.environment.sk</a>	odhad množstva v tonách	držiteľ EZ alebo vlastník
Nitriansky	Levice	Turá	LV (024) / Turá - sklad pesticídov	A	28	0	28	0	V sklade sa nachádzajú pesticídy kvapalného skupenstva (cca 80 l) a tuhého skupenstva (cca 50 kg), ktoré sú po expiračnej dobe. Podľa objektu je znečistená pesticídi	0,13	Obec
Prešovský	Humenné	Lubiša	HE (007) / Lubiša - areál PD	A	78	29	28	21	Uzatvorený ale prístupný sklad zvyškov agrochemikálií a neidentifikovaných chemikálií v množstve cca 2,5 tony, v nevyhovujúcom technickom stave pre skladovanie uvedených látok, susedné priestory sú drevovýroba	2,5	s. r. o.
Prešovský	Bardejov	Nížna Polianka	BJ (025) / Nížna Polianka - sklad agrochemikálií	A	74	28	26	20	Nepoužíteľné a neidentifikovateľné agrochemikálie skladované v množstve cca 800 kg v papierových obaloch nevyhovujúcim spôsobom v drevenom nezaizolovanom sklade s možnosťou úniku do podzemných vôd a kontaminácie zemin.	0,8	s. r. o.
Prešovský	Humenné	Hankovce	HE (001) / Hankovce - areál PD	A	59	22	22	15	Po zániknutom PD zostal nevyhovujúci sklad s obsahom nespotrebovaných a nepoužíteľných agrochemikálií v množstve cca 500 kg. Okolie sklada je znečistené hnojivcou a organickými hnojivami	0,5	Polnohosp. družstvo v likvidácii
Prešovský	Humenné	Rovné	HE (016) / Rovné - areál PD	A	75	29	28	18	V opustenej budove s betónovou strechou je uložených cca 2 tony agrochemikálií rôznych druhov aj neidentifikovateľných a nezaizolovaných proti nepovolným osobám. Terajší užívateľ areálu nie je vlastníkom budovy ani pesticídov	2	s. r. o.
Prešovský	Snina	Osadné	SV (005) / Osadné - sklad pesticídov v areáli bývalého PD	A	76	28	28	20	Sklad nepoužitých starých a neidentifikovateľných agrochemikálií v množstve cca 500 kg v samostatnej nevyhovujúcej a nezaizolovanej miestnosti, z ktorej je možný únik chemikálií do podzemných vôd a kontaminácia zemin.	0,5	s. r. o.
Prešovský	Svidník	Soboš	SK (012) / Soboš - sklad agrochemikálií	A	81	30	33	18	Agrochemikálie sú uložené vo viacerých miestnostiach murovanej budovy s poškodenou strechou a podlahou. Sú znehodnocované zražkovou vodou a rozpustené prenikajú do podlažia stavby. Sú indície o kontaminácii podzemnej vody v studni blízkeho rodinného domu.	4	Polnohosp. družstvo

Kraj	Okres	Obec	Názov lokality v registri EZ	Register	K	K1	K2	K3	Informácia z Registra EZ na <a href="http://www.enviroportal.sk">www.enviroportal.sk</a>	odhad množstva v tonách	držiteľ EZ alebo vlastník
Prešovský	Svidník	Dubová	SK (061) Dubová - sklad agrochemikálií	A	78	30	28	20	V opustených priestoroch PD zostali dva sklady agrochemikálií. Drevený o veľkosti cca 6x3 m s obsahom cca 500 kg pesticídov a zdemolovaný murovaný sklad so zvyškami cca 300 kg priemyselných hnojív. Zo skladov je možná kontaminácia zemin aj podzemnej vody.	0,8	Poľnohosp družstvo
Prešovský	Vranov nad Topľou	Čaklov	VT (003) Čaklov - areál bývalého PD	A	67	25	30	12	Na spevnenej neprekytej ploche je bez zabezpečenia uložených cca 1 tona trichloracetátu nátría s rokom výroby 1989 v poškodených obaloch.	1	Poľnohosp družstvo
Prešovský	Vranov nad Topľou	Komárany	VT (015) Komárany - sklad agrochemikálií	A	81	32	28	21	Okrem agrochemikálií v poškodených obaloch vo vnútri zdemolovaného skladu je časť agrochemikálií neznámeho druhu roztrúsená aj v okolí skladu a kontaminovaná voda je pravdepodobne aj v blízkej podzemnej nádrži na odpadovú vodu z hygienickej sítěčky skladu	0,1	Poľnohosp družstvo
Trnavský	Dunajská Streda	Malé Dvorníky	DS (014) Malé Dvorníky - sklad pesticídov	A	71	37	34	0	Starý sklad-pesticídov, ktorý obsahuje pesticídy po zarútení lehoty - rozsypané po celom sklade	2	neznámy

Súčet odhadnutých množstiev nevhodne skladovaných agrochemikálií v tonách

57,63

Ujvvelivky:

- A - časť registra A - pravdepodobná environmentálna záťaž  
 B - časť registra B - environmentálna záťaž (potvrdená prieskumom)  
 K = K1 + K2 + K3  
 K celková klasifikácia environmentálnej záťaže (EZ)  
 K1 vyjadruje riziko pre podzemnú vodu  
 K2 riziko z prchavých a toxických látok na obyvateľstvo  
 K3 riziko pre povrchovú vodu  
 K - 35 lokality s nízkou prioritou  
 K - od 35 do 65 lokality so strednou prioritou  
 K - 65 lokality s vysokou prioritou

## Príloha č. 5

### Projekty so zameraním na problematiku POPs

Inštitucionálne posilnenie manažmentu kontaminovaných zariadení s obsahom PCB v Slovenskej republike

<http://www.sazp.sk/public/index/go.php?=-1443&id1=1443&idf=437&lang=sk>

Vypracovanie stratégie inventarizácie, nakladania a zneškodňovanie malých zariadení s obsahom PCB v Slovenskej republike

<http://www.sazp.sk/public/index/go.php?id=1765&lang=sk>

Systematická identifikácia environmentálnych záťaží Slovenskej republiky

<http://www.sazp.sk/public/index/go.php?id=1433>

Atlas sanačných metód environmentálnych záťaží

<http://envirozataze.enviroportal.sk/AtlasSanMetod/AtlasSanMetod.aspx>

Regionálne štúdie hodnotenia dopadov environmentálnych záťaží na životné prostredie pre vybrané kraje (regióny)

<http://www.sazp.sk/public/index/go.php?id=1745>

Dobudovanie Informačného systému environmentálnych záťaží

<http://www.sazp.sk/public/index/go.php?id=1746>

Príprava zberu a zneškodnenia odpadov kontaminovaných PCB vo vybraných lokalitách okresu Michalovce

<http://www.opzp.sk/na-stiahnutie/ziadosti/ziadosti-k-vyzve-opzp-po4-09-4-z-2.6.2009-schvalene.pdf>

Initial Assistance to the Slovak Republic to Meet Obligations under the Stockholm Convention on Persistent Organic Pollutants

<http://europeandcis.undp.org/home/cst/show/D81C0CB0-F203-1EE9-B419EE8ABDD358BD>

Bioremediácia pôd a sedimentov kontaminovaných perzistentnými organickými polutantami - polychlórovanými bifenyli (PCB)

<http://www.chtf.stuba.sk/kbcht/research2.php>

Bioremediácia pôd kontaminovaných degradačnými produktmi pesticídov typu chlórovaných fenolov: potenciálne využitie organominerálnych komplexov (OMC), humínových kyselín a zeolitu.

<https://is.stuba.sk/vv/projekty.pl?projekt=2242;podrobnosti=1;zalozka=4>

Fyzikálno-chemické a biologické remediačné postupy a technológie na znižovanie koncentrácie PCB v životnom prostredí

[http://www.sazp.sk/slovak/periodika/sprava/sprava2003/kapitoly/veda\\_2003.pdf](http://www.sazp.sk/slovak/periodika/sprava/sprava2003/kapitoly/veda_2003.pdf)

Biotechnological use of the microorganisms for biodegradation of persistent organic pollutants (POPs) at decontamination of environment (soil and waters); the effect of POPs as environmental stress factors on microbial cells

<https://is.stuba.sk/vv/projekty.pl?projekt=1607;podrobnosti=1;zalozka=4>

Technology for decontamination of the polychlorinated biphenyls (PCBs)

<https://is.stuba.sk/vv/projekty.pl?zalozka=5>

Ecotoxicity, biodegradation, and bioremediation of PCB-contaminated sediments

<https://is.stuba.sk/vv/projekty.pl?zalozka=5>

Biodegradácia a bioremediácia perzistentných a toxických organických chlórovaných prioritných látok - kontaminantov pôd, sedimentov a vôd.

<https://is.stuba.sk/vv/projekty.pl?zalozka=5>

Technológie na znižovanie koncentrácie PCB

<https://is.stuba.sk/vv/projekty.pl?projekt=1604;podrobnosti=1;zalozka=1>

Remediačné postupy PCB

<https://is.stuba.sk/vv/projekty.pl?projekt=1603;podrobnosti=1;zalozka=1>

Banking of biological and environmental samples from an area with increased environmental exposure to PCBs in east Slovakia

[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Banking of biological and environmental samples from an area with increased environmental exposure to PCBs in east Slovakia

[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Poškodenie sluchu polychlórovanými bifenyli u detí

[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Štúdium vplyvu vybraných zdrojov dioxínov na kontamináciu životného prostredia a prenosu do krmív a potravín

[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Účinky expozície PCB a dioxínom na mentálny a psychomotorický vývoj dočiat

[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Štúdium expozície obyvateľstva Slovenska dioxínom a príbuzným zlúčeninám

[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Vplyv prenatálnej a postnatálnej expozície polychlórovanými bifenyli (PCB), na imunitnú odpoveď

[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Expozícia PCB a vývoj nervového systému u detí

[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Zmeny kognitívneho vývinu detí s environmentálnou expozíciou polychlórovaným bifenyli

[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Štúdium vplyvu vybraných toxických prvkov ( Pb, Cd a Hg) za spolupôsobnosti PCB na hladiny hormónov štítnej žľazy a neurobehaviorálny vývoj dieťaťa  
[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Použitie geografického informačného systému (GIS) na analýzu kontaminácie PCB na východnom Slovensku  
[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Dlhodobá environmentálna expozícia PCB a školská zrelosť detí  
[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Health Risk from Low-Dose and Long-Term PCB Exposure QLK4-2000-00488 PCBRISK  
[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Early Childhood Development and PCB exposure in Slovakia # R01-CA96525 U.S.  
[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

PCB and Early Childhood Development in Slovakia  
[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

FIRCA-PCB and Otodevelopment in Eastern Slovakia  
[http://www.szu.sk/userfiles/file/PPP/realizovane\\_projekty.pdf](http://www.szu.sk/userfiles/file/PPP/realizovane_projekty.pdf)

Environmentálna expozícia PCB a poškodenie sluchu  
<http://www.szu.sk/index.php?id=271&menu=>

The development, validation and implementation of human systemic Toxic Equivalencies (TEQs) as biomarkers for dioxin-like compounds (SYSTEQ)  
<http://www.szu.sk/index.php?id=285>

Dlhodobá environmentálna expozícia PCB a školská zrelosť detí  
<http://www.szu.sk/index.php?id=261&menu=>

Early Disease Biomarkers of PCB-exposed Human Population  
<http://www.szu.sk/index.php?id=290&menu=>

## Príloha č. 6

**Zoznam zainteresovaných subjektov**

Ministerstvo životného prostredia SR	<a href="http://www.minzpz.sk">http://www.minzpz.sk</a>
Slovenská agentúra životného prostredia	<a href="http://www.sazpz.sk">http://www.sazpz.sk</a>
Slovenský hydrometeorologický ústav	<a href="http://www.shmu.sk">http://www.shmu.sk</a>
Výskumný ústav vodného hospodárstva	<a href="http://www.vuvh.sk">http://www.vuvh.sk</a>
Štátny geologický ústav Dionýza Štúra	<a href="http://www.geology.sk">http://www.geology.sk</a>
Slovenská inšpekcia životného prostredia	<a href="http://www.sizpz.sk">http://www.sizpz.sk</a>
Ministerstvo hospodárstva SR	<a href="http://www.economy.gov.sk">http://www.economy.gov.sk</a>
Štátna energetická inšpekcia	<a href="http://www.sei.sk">http://www.sei.sk</a>
Centrum pre chemické látky a prípravky	<a href="http://www.cchlp.sk">http://www.cchlp.sk</a>
Ministerstvo zdravotníctva SR	<a href="http://www.health.gov.sk">http://www.health.gov.sk</a>
Úrad verejného zdravotníctva SR	<a href="http://www.uvzsr.sk">http://www.uvzsr.sk</a>
Slovenská zdravotnícka univerzita	<a href="http://www.szu.sk/">http://www.szu.sk/</a>
Ministerstvo pôdohospodárstva a rozvoja vidieka SR	<a href="http://www.mpsr.sk">http://www.mpsr.sk</a>
Ústredný kontrolný a skúšobný ústav poľnohospodársky	<a href="http://www.uksup.sk">http://www.uksup.sk</a>
Štátna veterinárna a potravinová správa SR	<a href="http://www.svssr.sk">http://www.svssr.sk</a>
Výskumný ústav pôdoznalectva a ochrany pôdy	<a href="http://www.vupop.sk">http://www.vupop.sk</a>
Ministerstvo školstva, vedy, výskumu a športu SR	<a href="http://www.minedu.sk">http://www.minedu.sk</a>
Agentúra na podporu výskumu a vývoja	<a href="http://www.apvv.sk">http://www.apvv.sk</a>
Ministerstvo financií SR	<a href="http://www.finance.gov.sk">http://www.finance.gov.sk</a>
Finančná správa SR	<a href="http://www.financnasprava.sk">http://www.financnasprava.sk</a>
Colné úrady Finančnej správy SR	<a href="http://www.colnasprava.sk">http://www.colnasprava.sk</a>
Ministerstvo zahraničných vecí SR	<a href="http://www.foreign.gov.sk">http://www.foreign.gov.sk</a>
Slovenská akadémia vied	<a href="http://www.sav.sk">http://www.sav.sk</a>

## Príloha č. 7

## Vybrané údaje o zainteresovaných subjektoch

Názov organizácie	Skratka	Rezort-zriaďovateľ	Vybrané inštitucionálne funkcie a činnosti
Slovenská agentúra životného prostredia, Centrum odpadového hospodárstva a environmentálneho manažérstva	SAŽP, COHEM	MŽP SR	Národný kontaktný bod pre Štokholmský dohovor; notifikačný orgán vo vzťahu k Európskym spoločenstvám; reporting voči Európskej komisii; ČMS Odpady (monitoring vzniku odpadov a nakladania s nimi) a prevádzky ďalších informačných systémov
Slovenský hydrometeorologický ústav	SHMÚ	MŽP SR	monitorovanie kvalitatívnych a kvantitatívnych parametrov stavu ovzdušia a vôd na území SR, v rámci ČMS Voda (subsystémy: povrchové vody, podzemné vody a ďalších 6 subsystémov) a ČMS Ovzdušie (celoplošná monitorovacia sieť na meranie znečisťujúcich látok ovzdušia)
Výskumný ústav vodného hospodárstva	VÚVH	MŽP SR	Integrovaný monitoring bodových zdrojov znečistenia, hodnotenie rizika pesticídov pre registračný proces; Národné referenčné laboratórium pre oblasť vôd na Slovensku
Štátny geologický ústav Dionýza Štúra	ŠGÚDŠ	MŽP SR	ČMS Geologické faktory: charakteristika antropogénnych sedimentov - zahŕňa chemické analýzy sedimentov charakteru environmentálnych zátŕaží.
Slovenská inšpekcia životného prostredia	SIŽP	MŽP SR	Výkon štátneho dozoru vo veciach starostlivosti o životné prostredie a funkcia miestnej štátnej správy na úseku integrovanej prevencie a kontroly znečisťovania životného prostredia.
Centrum pre chemické látky a prípravky	CCHLP	MH SR	Centrum je orgán štátnej správy s postavením národného orgánu Slovenskej republiky na úseku uvedenia látok, zmesí, detergentov a biocídnych výrobkov na trh, hodnotenia látok, klasifikácie, označovania, balenia látok a zmesí v rozsahu pôsobnosti chemického zákona a osobitných predpisov.
Štátna energetická inšpekcia	ŠEI	MH SR	Štátny dozor na úseku odpadového hospodárstva vo vzťahu ku kontaminovaným zariadeniam.
Ústredný kontrolný a skúšobný ústav poľnohospodársky	ÚKSÚP	MPRV SR	ÚKSÚP je orgánom štátnej správy v oblasti prípravkov na ochranu rastlín v rozsahu pôsobnosti podľa zákona o rastlinolekárskej starostlivosti.

Názov organizácie	Skratka	Rezort-zriaďovateľ	Vybrané inštitucionálne funkcie a činnosti
Štátna veterinárna a potravinová správa SR	ŠVPS SR	MPRV SR	ČMS Cudzorodé látky v potravinách a krmivách (cieľový monitoring, monitoring spotrebného koša a poľovnej zveri a rýb, sledovanie POPs/PCB, PAU, reziduá pesticídov); prevádzkovanie národných referenčných laboratórií.
Výskumný ústav potravinársky	VÚP	MPRV SR	Hodnotenie rizika, analýza kontaminantov v potravinách
Výskumný ústav pôdoznanectva a ochrany pôdy	VÚPOP	MPRV SR	ČMS Pôda (monitorovanie organických kontaminantov PCB, PAU v pôdach)
Úrad verejného zdravotníctva SR	ÚVZ SR	MZ SR	Aktivita na úseku hygieny životného prostredia: posudzovanie zdravotných aspektov z chemických karcinogénov v životnom a pracovnom prostredí a z POPs; analýza kontaminantov v potravinách pre dojčatá a malé deti (PCB, benzo(a)pyrén).
Slovenská obchodná inšpekcia	SOI	MH SR	Výkon štátneho dozoru na úseku odpadového hospodárstva vo vzťahu k akumulátorom, batériám a elektrozariadeniam vo fáze výroby.
Úrad pre normalizáciu, metrológiu a skúšobníctvo SR	ÚNMS SR		V riadiace pôsobnosti ÚNMS sú zriadené organizácie komplexne zabezpečujúce činnosti technickej normalizácie, metrologickej služby, akreditačných služieb a programov kvality v SR.
Štatistický úrad Slovenskej republiky	ŠÚ SR		Plní úlohy štátnej štatistiky a úlohy stanovené ďalšími všeobecne záväznými predpismi (ŠÚ SR je zriaďovateľom príspevkovej organizácie INFOSTAT); informačný zdroj štatistických údajov pre potreby analýz, štúdií, spracovanie koncepčných a strategických materiálov.
Slovenská zdravotnícka univerzita	SZU	MZ SR	Národné referenčné centrum pre dioxíny a príbuzné zlúčeniny
Vysoké školy a univerzity technického zamerania		MŠVVŠ SR	Programy a projekty, zväčša v rámci medzinárodnej spolupráce zamerané na oblasť priemyselnej ekológie a technológií.