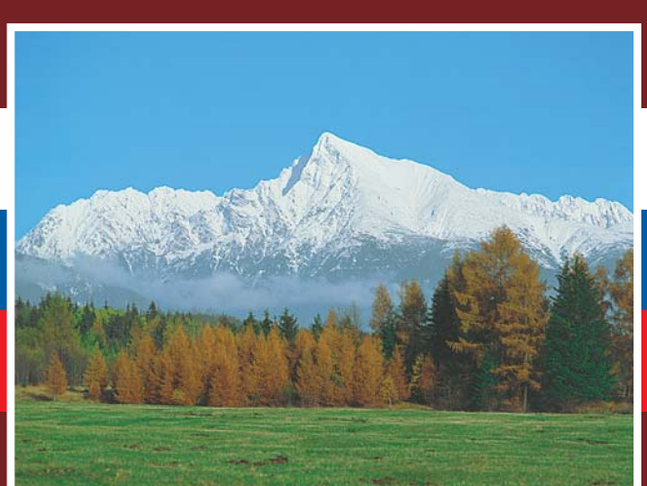
Ministry of the Environment
of the Slovak Republic

STATE OF THE ENVIRONMENT REPORT SLOVAK REPUBLIC 2007



Slovak Environmental Agency

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A selected dangerous chemical substance and a selected dangerous chemical agents, use of which should be limited, can be introduced to market on condition they will not be harmful for human life and health and for the environment...

§ 28 par. 3 of the Act No. 163/2001 Coll. on Chemical Substances and Chemical Agents as subsequently amended

• CHEMICAL RISK FACTORS

Chemical substance

Centre for chemical substances and products (CCHSP), is the national authority in the area of chemicals and products. Its mission is to manage the safety of chemical substances, products and detergents, in relation to their introduction to market, as well as authorization and registration of biocidal products in accordance with the EU legislation for life and health protection, and in compliance with environmental protection principles. MoE SR has contuinued in its close cooperation with the supervising authority over the chemical legislation (SR Ministry of Economy).

On June 1, 2007, a new EC Regulation 1907/2006 became effective in all EU member states. This legislation addresses registration, evaluation, authorisation, and restriction of chemical substances (REACH) and also establishes the European Chemical Agency. This legislation amends and supplements Directive 1999/45/EC and supersedes Council Regulation (EEC) 793/93 and Commission Regulation (EC) 1488/94, Council Directive 76/769/EEC, and Commission directives 91/155/EEC, 93/67/EEC, 93/105/EC, and 2000/21/EC (hereinafter only „the REACH regulation“). Over the last two decades and in light of new, progressive technologies, management of chemicals was re-evaluated and the Ministry of Environment of SR subsequently implemented impact assessment in line with the coming Slovak legislation related to environmental protection. In compliance with the provisions of REACH, businesses that produce or import chemicals will be responsible to adopt necessary risk management measures that follow the assessed risks associated with their chemicals, based on information on these substances. This regulation established the European Chemical Agency (hereinafter only "agency"), which will control chemical substances. It will be necessary to restructure restrictions regarding the use of certain chemicals and to substitute the effective Council Directive 76/769/EEC.

Changes arising from the amended Council Directive 67/548/EEC will be transposed and subsequently implemented by the SR Ministry of Economy into the Slovak legal system. This will specifically be done through novelization of Act 163/2001 Coll. on chemical substances and chemicals as amended. **Important objective of the REACH regulation is to encourage substituting hazardous chemicals with less hazardous chemicals or technologies wherever there are suitable alternatives. However, also these alternatives must be very strictly controlled and monitored. Environmental control and monitoring will be the responsibility of the SR Ministry of Environment, through its organizations.**

The **Rotterdam Convention** on prior informed consent procedure for certain hazardous chemicals and pesticides in international trade is a major international law instrument to improve international regulation of trade with certain hazardous substances and pesticides. This Convention entered in effect **for Slovakia on April 26, 2007**. The Rotterdam Convention represents a suitable instrument to limit the use of hazardous chemical substances at global level.

SAICM

Ministry of Foreign Affairs of Slovak Republic nominated the Ministry of Environment, department of environmental risk management, to be the national contact site for Strategic approach to international chemicals management (SAICM) in Slovakia. In 2007, MoE SR was involved in preparing the strategy and participated in workshops of the SAICM organizations.

POPs-management

POPs-management in SR involves relevant activities as part of the initial phase of international document implementation pursuant to EC Regulation 850/2004 on POPs, amended by Council Regulation (EC) 1195/2006, Council (EC) Regulation 172/2007, and Commission (EC) Regulation 323/2007. In 2007, Commission Decision 2001/639/EC which establishes common format for submitting determined and measured data and information.

Priorities of this area include elimination of POPs-pesticides and PCB-containing waste. With regard to the need for funds to address this issue, there is a possibility to receive a contribution from **The Environment Operational Programme, the Waste Management Priority Axis 4** being part of the 4.3. operational objective, focused on environment-friendly hazardous waste handling approaches.

Xenobiotics in the food chain

Limits published in the Slovak Food Codex that are compatible with the EU limits regulate the volumes of xenobiotic substances added to food to extend its life cycle, improve technological production concept, aroma, colouring agents, as well as contaminants from industrial production and environmental pollution.

Monitoring of the cccurrence of xenobiotic substances in the components of environment and the products of agricultural and food production is carried out in two ways – through a random control, and a regular monitoring.

Testing for xenobiotics is carried out by testing organisations under the valid legislation, with the goal to prevent the flow of unacceptable foods to the consumer. Results from the tests serve as the basis for adopting immediate decisions.

Monitoring of xenobiotics collects information on the status and trends in pollution of individual components of environment, as well as information on health safety of local foods. Results from the monitoring, including the risk assessment, serve as a basis for adoption of preventive measures.

- **Monitoring of xenobiotics in the food chain**

Partial monitoring system called: **Xenobiotic in foods and forage** is composed of three subsystems:

- Co-ordinated focus-specific monitoring (CFM) has been used since 1991
- Consumption pool monitoring (CPM) has been used since 1993
- Monitoring of game, wildlife, and fishes (MGF) has been implemented since 1995

Partial monitoring system has been connected to the GEMS/FOOD EURO international monitoring system since 1994.

Coordinated focus-specific monitoring (CFM) has the objective to determine actual mutual relationship between the degree of contamination of agricultural land, irrigation water, feeding water, crop and animal production, within the primary agricultural production, and obtain information on the contamination of individual food chain components.

45 132 samples were extracted over the entire monitored period (17 years), containing **2 827** limit-exceeding samples, which represents **6.3%.** Monitoring was carried out for 668 agricultural subjects (in 75 districts), analyzing soil samples from 457,000 ha. **In 2007**, total number of **1 549 samples** were extracted from 626 hunts and subsequently analysed for content of chemicals, nitrates, and nitrites. Monitoring was implemented for 51 agricultural subjects in 37 districts, with analysis of the soil samples from 28 994 ha, including the crop produced from this soil.

Summary of results from Coordinated Target Monitoring in 2007

Commodity	No. of analyses	No. of samples	No. of limit-exceeding samples of IS	% IS	Xenobiotic substances
Soil	5 836	958	0	0	
Water	1 564	182	2	1.1	
Including:					
Water for irrigation purposes	972	108	0	0	

Water for feeding	592	74	2	2.7	Nitrates
Forage	2 931	388	0	0	
Including:					
Forage from hunts	1 960	303	0	0	
Trough forage samples	971	85	0	0	
Raw matter	3 148	389	0	0	
Including:					
Raw matter of plant origin	1 096	180	0	0	
Raw matter of animal origin	2 052	209	0	0	

Source: FoRI SR

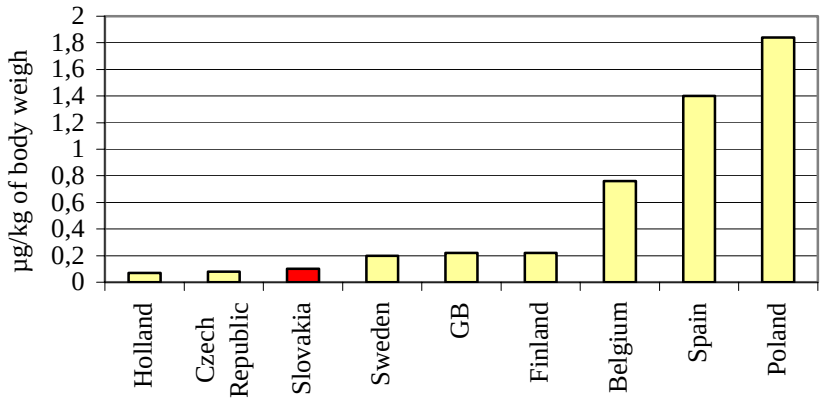
We can say that in terms of the overall assessment of contamination by all xenobiotic substances at once per individual commodities, percentage of the limit-exceeding samples dropped **since 1991,** while it must be noted that the limit values have been changing over the period of 16 years.

The major selected chemical contaminants include cadmium, nitrates, nitrites, and PCB.

Objective of the **Consumption pool monitoring (CPM)** is to obtain data on contamination of foods within the consumer network and subsequently assess exposition of the population to the monitored contaminants. Samples are purchased from the commercial network twice a year (May, September) at 10 Slovak sites. 27 basic food items is sampled within the consumption pool (based on statistical consumption) together with drinking water samples from public water supplies. MSK focuses primarily on determining the intake of individual xenobiotics into the human organism, in order to assess exposition of the population and compare it with the permitted tolerable weakly intake (PTWI) as well as acceptable daily intake (ADI).

Over the period of **fifteen years, 10 931 samples** were analysed, including **510** samples, i.e. **4.7%** that exceeded permitted limit values, especially in nitrates, chemical elements, and pesticides. **In 2007, 554 samples** were analysed, including **16** samples (i.e. **2.9 %)** that were unacceptable.

Comparison of the weekly absorption of mercury by the human organism between Slovakia and other world countries



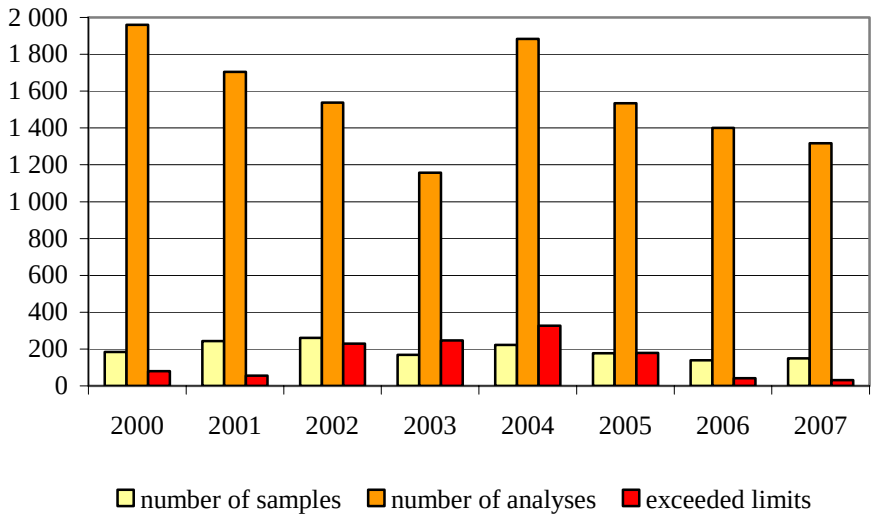
Source: FoRI

Compared with available international data, the SR may be considered among countries with **lowest values** of weekly intake of arsenic, cadmium, mercury, chrome, nickel, lead, and nitrates by the human organism.

Monitoring of game, wildlife and fishes is carried out in order to continue collecting data and information on impacts of ecological factors of the external environment on a selected type of game in designated regions of Slovakia. In 2007, monitoring continued with its focus on acquiring information on environmental loads, especially on the occurrence of levels of contaminants such as PCB, persistent organic pollutants, dioxins, and high-risk substances in fish caught from rivers and lakes of the east-Slovakia region.

Over the period of **thirteen years, 3 355 samples** were extracted within the monitoring, of which **21.6%** did not comply with the limit values. Greatest number of non-compliant samples over the whole monitored period was detected for chemical elements and PCBs. In **2007, 149 samples** were extracted, of which **21.5%** exceeded the limits.

Comparison of number of samples, analyses, and exceeded limits (total) for the years 2000-2007



Source: SVA SR