



MINISTRY OF THE ENVIRONMENT OF THE SLOVAK REPUBLIC



**STATE OF THE ENVIRONMENT REPORT
SLOVAK REPUBLIC 2006**





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 continued in its close cooperation with the supervising authority over the chemical legislation (SR Ministry of Economy). MoE SR took on the following functions:

- implementation and transposition of the EU legislation in the area of chemicals and products into the Slovak legal system,
- development of common positions for ad-hoc meetings of the REACH taskforce group, preparation of instructions, and development of positions for various conferences on the proposed REACH management,
- development of a material for the Slovak accession to the Rotterdam convention.

In June 2006, the SR Ministry of Economy submitted to the Government a document on the approval of the Slovak accession to the **Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade** (Convention), which is a significant international legal instrument for the improvement of international regulation of trade with certain hazardous chemicals and products for the protection of plants. SR Ministry of Economy functions as the administrative authority for the selected industrial chemicals and selected products for the protection of plants. The Ministry is meanwhile the contact site for the area of

selected industrial chemicals. Ministry of agriculture is the contact site for the area of selected products for the protection of plants.

CCHSP cooperates with the Slovak Environment Agency and Regional Health Institute in Banska Bystrica in the area of **assessment of new chemicals** at the national level. CCHSP updated and revised the reports on risk assessment for two new chemicals – Dusantox L and Dusantox SPPD, adding the accompanying information by the notifier. It requested a cooperation of other responsible authorities in the member countries in the assessment of other two chemicals – Dastib 845, and Benzylpethidine Base, that were announced before May 1, 2004 in another member country. Due to the fact that the manufacturer resides in Slovakia, EC transferred on to CCHSP the responsibility for developing the documenting report, developing the risk assessment, and proposing the tests.

Pesticides

Preliminary position statement of the Slovak Republic (in August 2006) together with **preliminary positions for the meetings of the Task Force group for the area of environment** were developed and approved to accompany the EU documentation on pesticides. Space for professional discussion and clarification of opinions to the mentioned documents was created within the activities of the Specialised Commission for plant protection products and mechanisation agents. The Commission was formed under the provision of an effective Act 193/2005 Coll. on phytomedical care within the scope of the SR Ministry of Agriculture. MoE SR and its professional institutions including WRI, SHMI are also part of this commission.

Xenobiotics in the food chain

Monitoring of the occurrence 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:

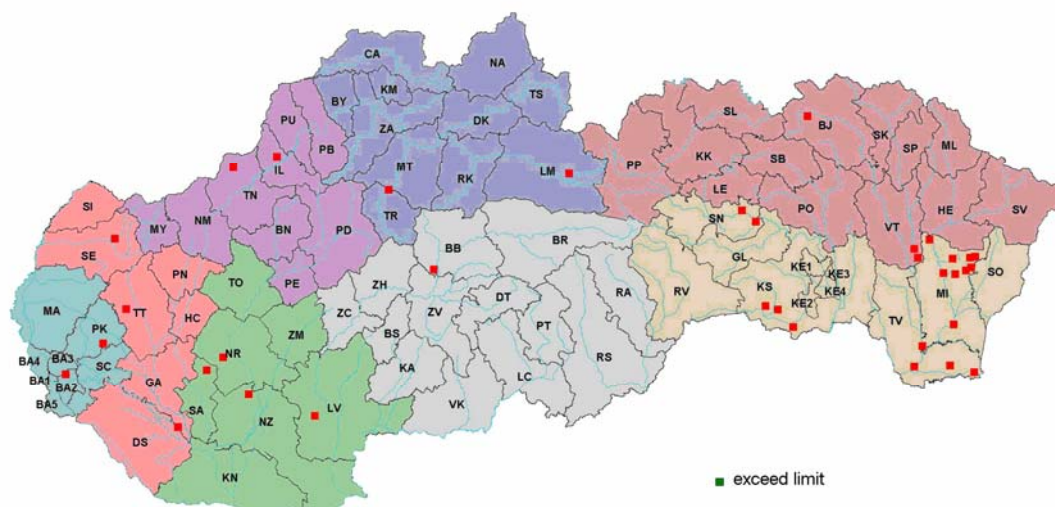
- Co-ordinated focus-specific monitoring (CFM) has been used since 1991
- Consumption pool monitoring (CPM) has been used since 1993
- Monitoring of game, wildlife, and fishes (MGF) has been implemented since 1995

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.

In 2006, total number of 1 997 samples were extracted and subsequently analysed for content of chemicals, polychlorinated biphenyls (PCB), nitrates, and nitrites. Monitoring was implemented for 78 agricultural subjects in 47 districts, with analysis of the soil samples from 35 822 ha, including the crop produced from the soil.

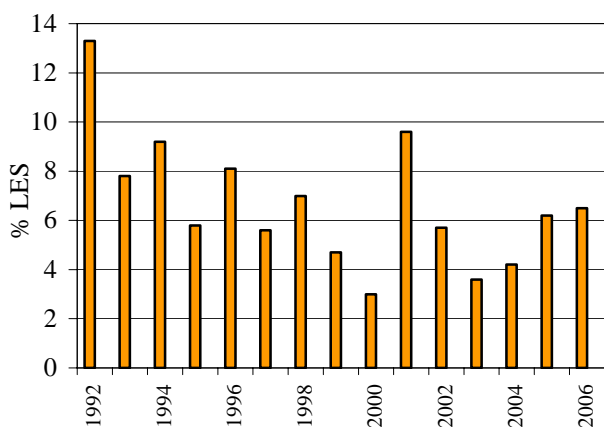
Monitored sites within the CFM with occurrence of the exceeding values of the xenobiotics in all monitored commodities in 2005



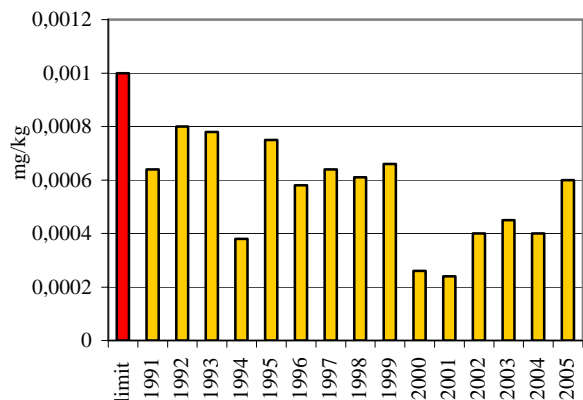
Source: SEA, FoRI SR

Of total number of extracted samples, **0.5 %** (10 samples) **did not comply** with set limit values. Unacceptable findings were recorded for the following commodities: water for animal feed (7 samples – iron, manganese, nitrates), forages from hunts (2 samples – nitrates), raw material of the animal origin (1 sample – mercury in the beef liver).

Comparison of percentage changes of the limit-exceeding samples (LES) of all xenobiotics since 1991 in all commodities together (%)



Comparison of the average findings of mercury in milk since 1991

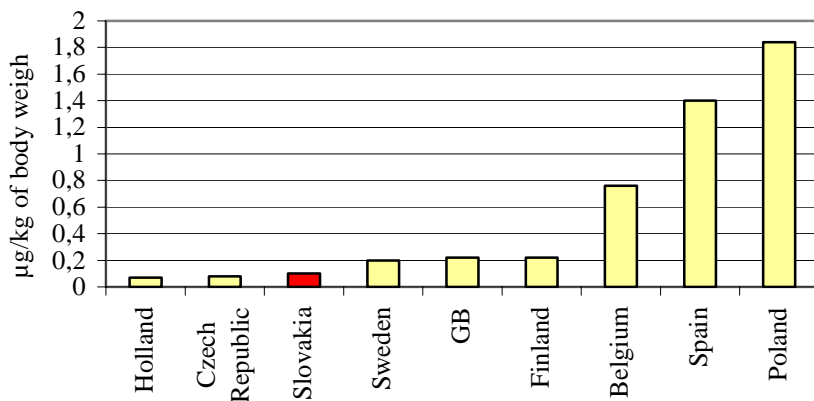


Source: FoRI

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 weekly intake (PTWI) as well as acceptable daily intake (ADI). **In 2006**, 668 samples (20 924 analyses) were analysed, including 11 samples (1.6 %) that were unacceptable. Limit-exceeding values were recorded for the following: fruits (2 samples – pesticides), pork (1 sample – residues of antibiotics), fruit products (2 samples – pesticides), beer, malt (3 samples – nitrosamines), drinking water for the population (3 samples – PAH, mercury, lead).

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 (Ministry of Health SR) in 2006 tested 139 samples of clove-hoofed game, hunting fish, fungi, lichens, small feather game, and water. Of 1 400 analyses, 42 exceeded the limit values. 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.

◆ **Control of xenobiotics in food chain**

31 210 samples (230 663 analyses from domestic production) come from monitoring of xenobiotic compounds in soil, water, forage, raw material, and food of the plant and animal origin in 2005. Of these, 1 226 did not meet the valid sanitary limits for the monitored parameters. The analysis included 2 016 soil samples, inputs to soil and plant material, 9 575 water samples, 1 217 forage samples, and 18 403 food samples. Further, tested were 4 447 imported samples, 115 samples of exceptional cases, and 18 030 samples under agrochemical soil testing. Water showed the greatest number of limit-exceeding events.