

***Ministry of Environment  
of the Slovak Republic***



***STATE OF THE  
ENVIRONMENT REPORT  
SLOVAK REPUBLIC  
2010***



***Slovak Environmental Agency***

## ENVIRONMENTAL RISK FACTORS

### • PHYSICAL RISK FACTORS

#### Key questions and key findings

##### ◆ Key questions

- How significant is the load effecting the population due to the contents of artificial radionuclide agents in the food chain components?
- Is the operation of nuclear power plants in Slovakia safe?

##### ◆ Key findings

- Contents of artificial radionuclide agents in the basic food groups and forage types was at the detection limit and their contribution to radiation load on the public resulting from their potential ingestion is insignificant.
- Number and character of events in individual nuclear facilities in 2010 showed that their operation is reliable, safe, and free of major faults.

#### Radiation protection

**Environmental radioactivity monitoring** was carried out in compliance with the MoE SR Act 355/2007 Coll. on protection, promotion and development of public health, and pursuant to the MoE SR Resolution 524/2007 Coll. which sets forth details regarding the radiation monitoring network.

Public Health Authority of the Slovak Republic carries out radiation situation monitoring and collection of data in Slovakia for the purposes of irradiation assessment and assessment of the effects of radiation on the health of the population.

In 2010, total number of 413 samples from the environment was extracted and 1 363 radiochemical analyses were conducted, along with 5 616 radiometric measurements.

Basic radiological indicators within the **drinking water** samples extracted under the environmental monitoring scheme did not exceed the benchmark values for implementation of measures.  $^{90}\text{Sr}$  volume activities were lower than 0.01 Bq/l and less than 0.02 Bq/l for  $^{137}\text{Cs}$ .

**Surface and waste water** showed the maximum activity of 0.03 Bq/l for  $^{90}\text{Sr}$ , and 0.05 Bq/l for  $^{137}\text{Cs}$ .

Volume activities of tritium within drinking water samples and atmospheric precipitations stayed at the MDA level (minimum detectable activity) (2.0 Bq/l), and in the interval of up to < MDA - 86.0 Bq/l for surface water. Highest detected activities for tritium were in waste water from EBO and EMO, ranging between 30.0 and 4 670.0 Bq/l. The highest detected value was  $7\,916 \pm 14$  Bq/l (EMO waste water - May) No exceeded values for the concentration limit  $1.95 \cdot 10^5$  Bq/l were detected in tritium discharged into the environment.

$^{90}\text{Sr}$  activities within the **atmospheric fallout** sampled ranged from < 0.33 (MDA) - 0.90 Bq/m<sup>2</sup> and for  $^{137}\text{Cs}$  within 0.7 – 3.50 Bq/m<sup>2</sup>.

$^{90}\text{Sr}$  content within the **arable land** ranged from 0.60 - 1.3 Bq/kg, and for  $^{137}\text{Cs}$  from 1.60 to 22.00 Bq/kg.

Outcomes from the monitoring of individual **food chain components** and **agricultural products** in 2010 suggest that the content of artificial radionuclide agents of  $^{137}\text{Cs}$  and  $^{90}\text{Sr}$  within the basic food categories and forage types was at the detectable level and their contribution to the radiation load on the public from their potential ingestion is insignificant.

Comparison of the outcomes of monitoring of milk, agricultural products, and arable land obtained in the vicinity of the nuclear power plants of Jaslovské Bohunice and Mochovce, as well as at other sites in Slovakia, did not show a significant difference in their radioactive contamination.

### Activity of nuclear installation

In Slovakia in 2010, there were altogether 4 operated blocks of nuclear power plants (NPP) with nuclear reactors of the VVER-440 type. Two of them were in Mochovce, and the other two in Bohunice. Still, other two blocks of AE Bohunice V-1 are in phase-out stage before their final elimination.

#### List of nuclear installation in the SR and their operators

Location	Nuclear installations	Operator
<b>Mochovce</b>	NPP Mochovce, 1 <sup>st</sup> and 2 <sup>nd</sup> block NPP Mochovce 3 <sup>rd</sup> and 4 <sup>th</sup> block under construction	<b>SE, Inc.</b>
<b>Bohunice</b>	NPP V-2, 3 <sup>rd</sup> and 4 <sup>th</sup> block	
<b>Bohunice</b>	NPP Bohunice V-1 NPP Bohunice A-1 Repository of Spent Nuclear Fuel (SNF) Technologies of treatment and processing RAW	<b>JAVYS, Inc.</b>
<b>Mochovce</b>	Final treatment of liquid RAW Republic deposit RAW	

Source: NRA SR

#### NPP V-1 Bohunice

First block of NPP Bohunice V-1 was put out of operation in December 2006, and in February 2009 the block was switched into regime 8, meaning that the fuel from the reactor was transported out to the Temporary spent fuel storage (MSVP). Reactor and the primary circuit is assembled and filled with pure condensate.

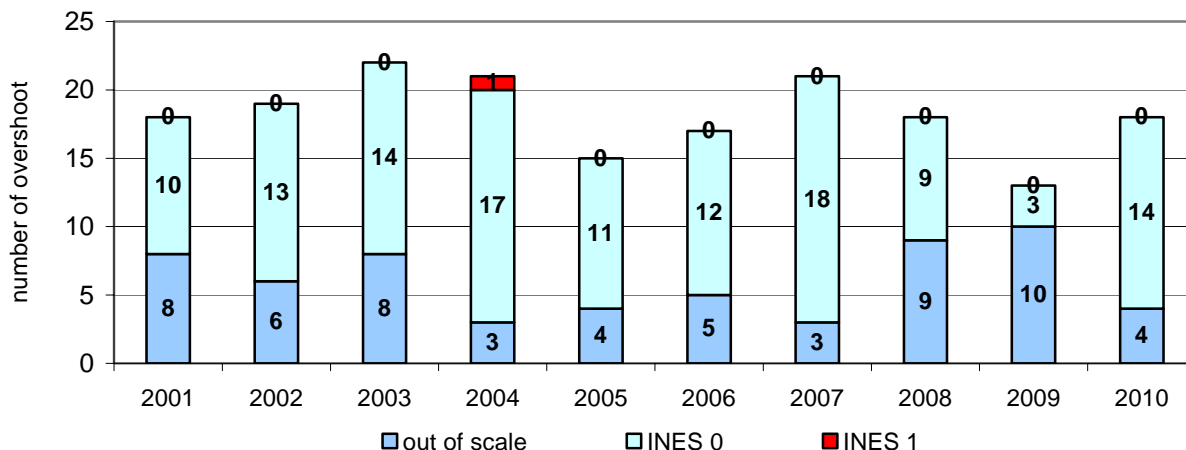
Second V-1 block put out of operation in 2008 was put in mode no. 7, i.e. fuel from the reactor was transported out to the storage pool next to the reactor, and 300 fuel assemblies were stored at the MSVP. Toward the end of 2010, there were still 13 pcs of spent fuel assemblies found inside the pool. Reactor and the primary circuit is assembled and filled with pure condensate.

Works performed during the year focused on reaching compliance with the criteria for obtaining the license for the 1st elimination phase. These included mainly the gradual taking out of the spent nuclear fuel to the MSVP, and processing the stored RAW originating from the operation of nuclear facilities.

**NPP V - 2 Bohunice**

Since 2010, both V-2 blocks have been operated at an increase reactor heat output of 1 471 MW, which represents an increase by 7%, compared to the original projected output. At the same time, electric output also increased up to 500 MW. The number and character of events and occurrences in 2010 was within the realm of common technological malfunctions, without a unique safety issue. Based on the outcomes of the NRA SR control and assessment activities, the operation of NPP was assessed as reliable in 2010, with no major failures in the area of nuclear safety.

**Number of occurrences of block NPP V-2 Bohunice**

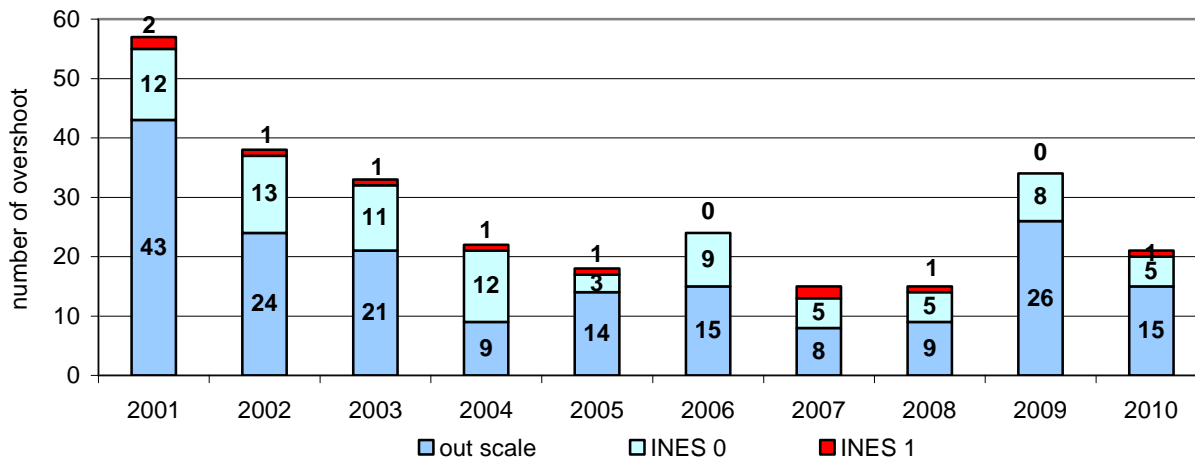


Source: NRA SR

**NPP Mochovce 1,2**

The Mochovce NPP comprises two blocks with the VVER 440 reactor type. The 1<sup>st</sup> and 2<sup>nd</sup> blocks of this NPP worked reliably during the year at an increased heat output of 107%. The number and character of events and occurrences in 2010 was within the realm of common technological malfunctions, without a unique safety issue. Events that occurred at NPP Mochovce 1, 2 did not have a major impact on nuclear safety. Based on the outcomes of the NRA SR control and assessment activities, the operation of NPP Mochovce 2 was assessed as safe in 2010.

**Number of occurrences of block NPP Mochovce 1, 2**



Source: NRA SR

**Interim Spent Nuclear Fuel Storage of Jaslovské Bohunice**

serves to temporary store spent fuel from the EBO V-1 and EBO V-2 NPPs before it is transported to a reprocessing facility, or permanently disposed of at a repository. In 2010 during the operation there was no case of non-compliance with the conditions of nuclear and radiation safety and operation directions; hence, the operation may be assessed as safe and reliable.

**Technology of processing and treatment of radioactive atomic waste (RAW)**

is operated by the JAVYS, Inc. This installation includes two bitumen lines, cement line, and the Bohunice RAW Treatment Centre. Outcomes of the control activities suggest that the operation of NI Technologies for radioactive waste processing and treatment may be assessed as safe.

**National Radioactive Waste Repository Mochovce (NRWR)**

is a multi-barrier discharge site of the surface type, designed for final storage of solid and solidified RAW generated at the operation and phaseout of NPP, at research institutes, in laboratories, and in hospitals in Slovakia. JAVYS, Inc. is the operating company.

Inspection activities at the NRWR in 2010 focused on the process of receiving the radioactive waste to the repository, and on controlling of the properties of fibre-reinforced concrete containers by the site operator. Based on the outcomes of control activities, operation of the National Radioactive Waste Repository in Mochovce may be assessed as safe, without a negative impact on environment.

**Liquid RAW Final Treatment Facility (LRW FTF) in Mochovce**

is in the ownership of JAVYS, Inc. and aims at final processing of liquid radioactive waste from the operation of NPP Mochovce into the form appropriate to be stored within radioactive waste deposit. Technology consists of two individual processes involving bituminization and cementation.

Inspection activity focused on controlling the compliance with the nuclear safety criteria, as well as the criteria for supervising the RAW handling and RAW minimisation, with no major faults detected.

**Handling of spent fuel and radioactive waste**

Handling of radioactive waste constitutes an integrated system that includes the collection, separation, storage, processing, treatment, manipulation, and discharge of radioactive waste.

In 2009, NPP Mochovce generated 54 m<sup>3</sup> of liquid and 17 695 kg of solid radioactive waste, while NPP Bohunice generated 28.44 m<sup>3</sup> of liquid and 13 991 kg of solid radioactive waste.

**RAW stored at the JAVYS, a.s. facilities**

At nuclear facilities that are to be discarded (NPP A -1) secondary RAW are generated in connection with de-contaminating, dismantling, and demolition works. From the historical perspective, RAW from the Bohunice NPP A - 1 presents a unique issue, since the waste at this facility was not consistently separated and recorded during the facility's operation. Major part of liquid RAW from operation has already been treated to be stored, or its activity level has been reduced. Continually emerging concentrates (app. 40 m<sup>3</sup> per year) are treated through bituminisation every year. As of the

end of 2010, the summary inventory of liquid RAW (including the non-thickened) was 1 003.77 m<sup>3</sup>. Summed-up volumes of solid RAW at NPP A-1 reached 784.4 m<sup>3</sup> of non-metallic RAW in 2010, and 825 tonnes of metallic RAW. Overall volume of stored contaminated soil and debris reached in 2010 the value of 18 405 m<sup>3</sup>. Products from cement and bituminisation lines that are stored at the Bohunice NPP A -1 storage facilities prior to their treatment, represent almost 64 m<sup>3</sup>.

#### **RAW stored at the Mochovce National discharge site of RAW**

As of the end of 2010, there were total 2 471 pcs. reinforced concrete containers stored, which represents app. 7 413 m<sup>3</sup> reinforced RAW from NPP A-1, NPP V-1, NPP V-2, and NPP Mochovce 1,2.

## • CHEMICAL RISK FACTORS

### Key questions and key findings

#### ◆ Key questions

- What is the trend in the contents of xenobiotics within the food chain?

#### ◆ Key findings

- Comparison of the outcomes from the long-term monitoring suggests, especially in the case of heavy metals, a considerable improvement in the situation with the agricultural production in Slovakia. The most significant reduction is shown for cadmium. At present, most non-compliant samples result from the assessment of the mercury content.
- There is a gradual decrease in the contamination of game and fish; however, contamination still persists in industrial areas such as the region of Spiš and Gemer, Michalovce, and the area of Žiar nad Hronom. High average findings have been recorded for copper, lead, and mercury.
- In terms of the maximum permissible intakes by the human organism, none of the contaminants reached even half of the permissible limit.

### Monitoring of xenobiotics in the food chain

Volumes of xenobiotic substances in foods are regulated by limits published in the Slovak Food Code and compatible with the EU limits.

Monitoring for xenobiotic substances within the food chain focuses on the food chain components such as soil and inputs into soil, drinking water, feeding and irrigation water, forage, feedstock and food of the plant and animal origin from domestic production as well as from import. It has been implemented through the Partial Monitoring System (PMS). Partial monitoring system called: **Xenobiotic in foods and forage** is composed of **three subsystems**:

- Coordinated 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)

**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.

**49 491 samples** were extracted over the entire monitored period (19 years), containing **2 963** limit-exceeding samples, which represents 6.0%. **In 2009**, total number of **2 246 samples** were extracted



from 378 hunts and subsequently analysed for content of chemicals, nitrates, and nitrites. Monitoring was carried out for 35 agricultural subjects (in 24 districts), analyzing soil samples from 28 446 ha, including the crop produced from this soil. Samples with limit-exceeding values in 2009 have been detected in feeding water, especially for nitrites and nitrates, and in case of soil, for mercury, cadmium, lead, chromium, and arsenic.

#### ◆ Consumption pool monitoring (CPM)

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 9 Slovak sites.

Exposition of the public to xenobiotic substances is compared with permissible tolerable weekly intake for arsenic, cadmium, mercury, lead, tolerable daily intake for nickel, recommended daily dose for chromium, and acceptable daily intake for nitrates, PCBs, and pesticides. In each consumption basket there are analyses conducted for chemical elements, nitrates, nitrites, polyaromatic hydrocarbons, PCBs, selected pesticides residuals, residuals from veterinary medications, from microtoxins, as well as selected additives. Radioactive contamination was monitored for the samples of milk and drinking water.

Over the period of **seventeen years, 11 694 samples** were analysed, including **514** samples, i.e. **4.4%** that exceeded permitted limit values, especially in nitrates and chemical elements.

27 basic food items and drinking water (abstracted since 2007) are sampled for the consumption basket. In 2009, 411 samples were analysed, of which 4 (nitrates, cadmium, and thiabendazol) did not comply with the set limits. Outcomes of the consumption basket monitoring are assessed against the total intake of xenobiotic substances by the human organism, and they serve for scientific risk assessment for these substances.

#### ◆ Monitoring of game, wildlife, and fishes

Monitoring of game, wildlife and fishes has been carried out since 1995 with the goal to gather information on the impact of the environmental contamination on the selected species of game and fish. (from free water formations) Since 1985, in total, there have been analysed 3 617 samples of fish, game, mushrooms, forest products, as well as feeding water and sediments from water formations. The set limits were exceeded by 20.8%; in the case of fish the findings were mainly negative due to increased contents of PCB, dioxins, mercury, and cadmium. Higher values for cadmium and mercury have been shown also for game and mushrooms. In 2009, there were 139 samples abstracted, of which 6.5% exceeded the limit, just like in the previous time period, exceeded were the limits for PCB in fish from 4 regions of Slovakia (Spišská Nová Ves, Šaľa, Senec, and Žilina).



## • ENVIRONMENTAL LOADS

### Key questions and key findings

#### ◆ Key questions

- What is the documented scope of environmental loads?

#### ◆ Key findings

- As of the end of 2010, the total of 924 probable environmental loads was recorded in Slovakia, and 246 existing environmental loads.

### Present situation in the area of environmental loads and its solutions

In 2010, the Slovak Government Regulation no. 153/2010 approved the **National Programme of Remediation of Environmental Loads** representing a strategic document in this area for the years 2010 - 2015. It sets out priorities for environmental loads policy that are to be complied with through objectives and individual activities broken up into short-term, medium-term, and long-term time horizons.

On 05/08/2010, **Resolution of the Ministry of Agriculture, Environment and Regional Development of the Slovak Republic No. 340/2010** was adopted, which amends the Resolution 51/2008 executing the Geology Act. The mentioned amended Resolution provides detailed characteristics of the geological survey of the environment (including the survey and inspection of probable environmental loads or existing environmental loads, and once confirmed the existence of one, actual and potential risks of the environmental load are assessed in view of the present and future use of territories, and the geological documentation for proposed remediation of the environmental load are gathered). Next, definitions for environmental loads and environmental loads system are provided. Annex to Resolution contains an analysis of risks imposed by the polluted area.

Works on the draft of the **act on selected measures in the area of environmental loads and on amendments to selected laws** started in 2010.

Works that aimed to support initiatives in the area of environmental loads remediation through the funds obtained from the **Operation Programme of Environment** were completed for two projects:

- **Regional studies of environmental loads impact assessment for selected regions**, SEA (2008 - 2010)
- **Atlas of the remediation methods**, SGI (2008 - 2010)

Works on the project of **Completion of the environmental loads information system** still continued (SEA, 2008 - 2013). The project's aim is to complete the environmental loads information system, including its connectedness to other IS, as well as to implement an awareness-raising campaign regarding the system.

As of the end of 2010, the information system of environmental loads contained **924 probable and 246 existing environmental loads, and 696 remedied and recultivated sites**.

## • NATURAL AND TECHNOLOGICAL HAZARDS

### Key questions and key findings

#### ◆ Key questions

- What is the trend in the number of events that negatively impact the environment?
- What is the trend in the consequences of events that negatively impact the environment?

#### ◆ Key findings

- Number of events of extraordinary water deteriorations over the last three years has remained roughly at the same level.
- Over the last three years the Slovak Environmental Inspection (SEI) has not detected any event leading to a deteriorated air quality.
- Number of fires in 2010 dropped, compared to 2009. On the long-term basis (2000-2010) the trend in fires shows fluctuating characteristics. Still, none of these years shows less than 8 000 fire events.
- From the hydrological standpoint, the year 2010 was very humid, which resulted in the occurrence of extensive floods.
- Total direct damages caused by fires in 2010 were 69 148.4 thous. EUR. On the long-term basis (2000-2010) this is the highest recorded damage volume.
- Total costs and damages caused by floods in 2010 reached the value of 526.31 mill. EUR.

### Accidental deterioration of water quality

In 2010, SEI recorded 100 extraordinary water deteriorations (EWD) - number of events over the last three years has remained at the same level. Of all recorded events, 42 were cases relating to surface water, and 58 were cases of threats or contamination of ground water.

#### Special declination or quality menace of water of the SR in the years 2000-2010

Year	EDW recorded by SEI	Special deterioration of water					
		Total number	Surface Watercourses and basins	Water courses	Total number	Ground Pollution	Endangerment
2000	82	55	2	9	27	3	24
2001	71	46	1	4	25	1	24
2002	127	87	1	6	40	5	35
2003	176	134	2	3	42	0	42
2004	137	89	1	10	48	11	37
2005	119	66	2	5	53	2	51
2006	151	94	0	3	57	6	51
2007	157	97	1	4	60	4	56
2008	102	49	0	6	53	4	49
2009	101	50	1	3	51	7	44
2010	100	42	0	2	58	2	56

Source: SEI

When compared with the previous year, the number of EWD caused by crude oil products and waste water decreased. On the contrary, the share of livestock excrements, insoluble substances,

caustic agents, and other substances on water deterioration increased. In three cases it was impossible to establish the kind of harmful or critically harmful substance.

#### Progress in number of WQEDA according to the sort of WDS in the years 2000–2010

Sorts of water deteriorative Substances (WDS)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Oil substances	33	40	64	59	70	63	69	76	65	65	60
Alkalis	2	2	5	3	1	0	3	4	2	0	3
Pesticides	0	0	1	0	3	0	2	0	0	0	0
Excrements of farm animals	5	4	9	21	15	14	14	12	7	2	10
Silage fluids	4	0	2	1	1	0	0	0	0	0	0
Industrial fertilisers	0	0	0	1	0	0	0	0	0	0	1
Other toxic substances	12	5	3	3	0	4	4	5	2	1	1
Insoluble substances	5	2	6	11	3	4	3	3	2	2	4
Waste water	10	10	17	35	20	10	28	24	15	17	12
Other substances	2	1	3	7	10	8	6	7	3	1	6
Water detrimental substances impossible to determine	9	7	17	35	14	10	22	24	6	1	3

Source: SEI

Not even in 2010 was there any extraordinary water deterioration caused by pollution source outside the Slovak Republic. Unknown pollution producers have contributed to EDW with the significant and stable 15%, while the share of so-called foreign organisations on EDW was 16%.

Just like in the previous years, in 2010, human factor and poor technical condition of equipment or facilities for hazardous substances were the most frequent causes for EDW. Road transport and transportation have shown the greatest contribution to total EDW, with international travel operators and carriers being the greatest producers.

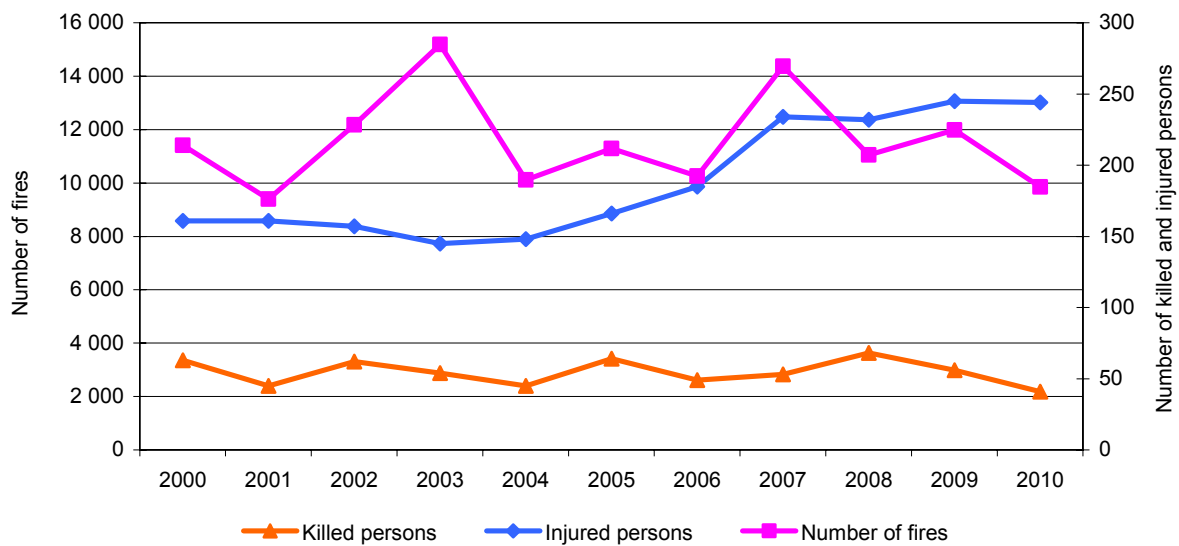
## Fire risk

In 2010 were documented in the SR **9 851 fires**, causing 41 casualties and 244 injured. Although the number of fires dropped, direct material damage reached 69 148.4 thous. EUR, while the volume of preserved values was calculated at 353 695.7 thous. EUR.

In terms of damage cause by fires in individual industrial sectors, **most fires occurred again in the household sector** – 1 884, with 26 casualties and 153 injured persons. Direct material damage reached the value of 6 219.9 thous. EUR). In terms of fire statistics, **transport** shows the second greatest number of fires – 1 235, occasioning direct material damage at 6 612.7 thous. EUR, with 3 casualties and 16 injured persons. Least number of fires was recorded in the **commercial** sector, with 118 fires and direct material damage totalling 5 395.5 thous. EUR.

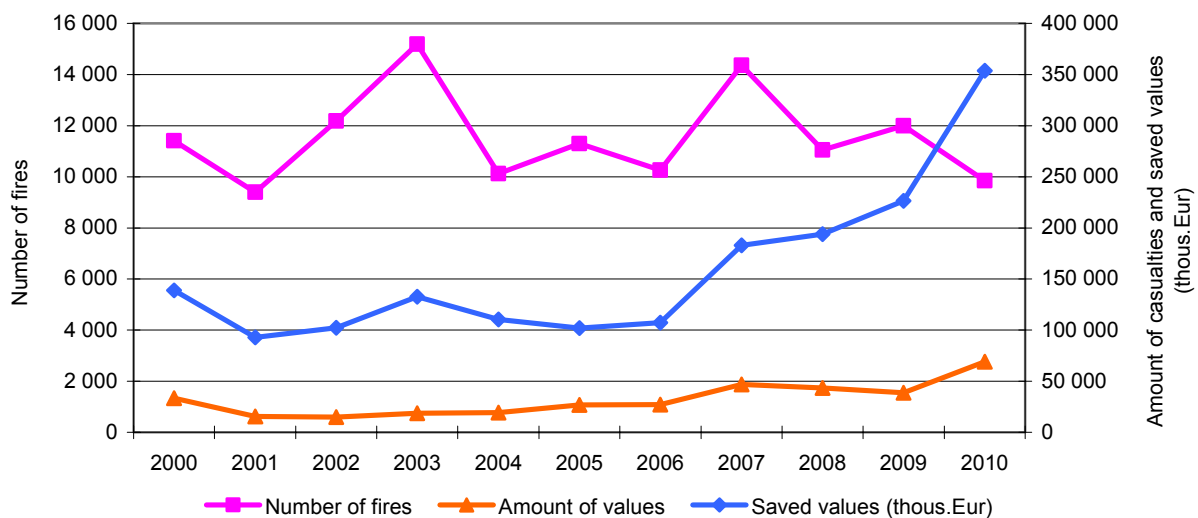
From the perspective of administrative distribution of territory, **most fires** occurred in 2010 in the Prešov region (1 711), while **least** fires were recorded in the Trenčín region (883). **Greatest damage** due to the occurrence of fires was recorded in the Bratislava region (18 982.3 thous. EUR) and the **least** in the Prešov region (1 782.3 thous. EUR).

Relationship between number of fires and number of killed or injured persons in 2000-2010



Source: FPRS Mol SR

Relationship between number of fires and number of casualties or amount of saved values in 2000-2010



Source: FPRS Mol SR

## Floods

In 2010, there were 1 100 municipalities afflicted with floods, with 30 574 houses flooded (cellars and basements), 8 461 non-residential premises flooded, 92 079.7 ha of flooded agricultural land, 3 657.1 ha of flooded forestland, and 7 268.8 ha of flooded municipal land. 44 380 inhabitants felt the aftermath of the floods, including 10 085 persons who had to be evacuated.

Total cost and damages by floods in the SR in 2010 amounted to 526.31 mil. EUR, including the rescue costs of 17.93 mil. EUR, safety works of 27.53 mil. EUR, and material damage amounted to 480.85 mil. EUR.

Damage to state-owned property caused by floods totalled 241.33 mil. EUR, while damage to private property reached 48.47 mil. EUR. Damage to municipal property reached 76.54 mil. EUR and 57.7 mil. EUR in case of properties belonging to upper regional administrative areas. Damage to the property of legal and natural entities reached 57.34 mil. EUR.

**Act No. 7/2010 Coll. on the protection against floods** became effective in February of 2010. The Act incorporates the provisions of the Directive of the EP and of the Council 2007/60/EC on the assessment and management of the flood risks. Objective of this act is to create a framework for flood risk assessment and management in order to minimize adverse effects on the human health, environment, cultural heritage, and economic activities.

#### Floods aftermath over the period of 2004-2010

Year	Number of flood stricken residential	Flooded Territories (ha)	Damages by floods (mil. Eur)	Costs (mil. Eur)		Total costs and damages (mil. Eur)
				Rescue activities	Maintenance and safety activities	
2004	333	13 717	34.91	1.23	3.42	39.56
2005	237	9 237	24.03	2.24	2.67	28.94
2006	512	30 730	47.90	5.98	6.42	60.30
2007	60	339	2.49	0.30	0.21	3.00
2008	188	3 570	39.75	3.59	2.51	45.85
2009	165	6 867	8.41	1.59	1.30	11.30
2010	1 100	103 006	480.85	17.93	27.53	526.31

Source: MoA SR, MoE SR, WRI

## • GENETIC TECHNOLOGIES AND GENETICALLY MODIFIED ORGANISMS

### Key questions and key findings

#### ◆ Key questions

- Is there an impending risk for Slovakia associated with the use of genetic technologies and genetically modified organisms?

#### ◆ Key findings

- Slovakia adopted a system of legal protection in the area of using genetic technologies and genetically modified organisms, that is fully compatible with the EC policies. The use of genetic technologies and genetically modified organisms is subject to a stringent process of assessment and approval in order to minimize the risk.

### Using of genetic technologies and genetically modified organisms

The area of using genetic technologies and genetically modified organisms (GMO) within the Slovak legal code is addressed by the Act No. 151/2002 Coll. on the use of genetic technologies and genetically modified organisms as amended by the Act No. 587/2004 Coll., and the MoE SR Regulation 399/2005 executing this Act as amended by Regulation 312/2008 Coll..

The law makes it possible to use genetic technologies and genetically modified organisms in three ways:

- in enclosed areas (devices),
- intentional release, including
  - a) introduction to the environment,
  - b) introduction to the market.

#### ◆ Using of genetic technologies and genetically modified organisms in vitro

Plans the use of genetic technologies and genetically modified organisms in enclosed areas (laboratories, greenhouses, cultivating rooms, and other enclosed facilities) is divided into four at risk categories (RC), while the RC 1 represents no or negligible risk, RC 2 means small risk, RC 3 means medium risk, and RC 4 means significant risk.

Based on the received applications, the Slovak Ministry of Environment in 2010 issued permission to five users to use, for the first time, closed facilities and had no objections to the nineteen reports it received that dealt with the start of activities in closed facilities. Of the number of 21 users, two carried out the RT 2 activities.

As to date, the Ministry has not received applications for permission to start the RT3 and 4 activities.

**◆ Intentional release**

In 2010, the Slovak Ministry of Environment issued 3 permissions for testing cultivation of genetically modified corn, and 1 permission for testing cultivation of genetically modified sugar cane.

**◆ Biological safety commission**

Commission for the biological safety (commission) is the professional consulting body to the Ministry of Environment of the SR in the area of biological safety. Commission administered by the department of biological safety of the Slovak Ministry of Environment of the SR has 11 permanent members and 15 experts who come from a wide spectrum of professionals in the area of science or other sectors, together with state officers appointed for the individual involved resorts, and representatives of the public, including users and citizens.

The committee met 20 times in 2010. The commission commented on the reports adopted by the EU, proposals to issue licenses for the first use of closed facilities, and on the notification reports on launching operations in closed facilities.