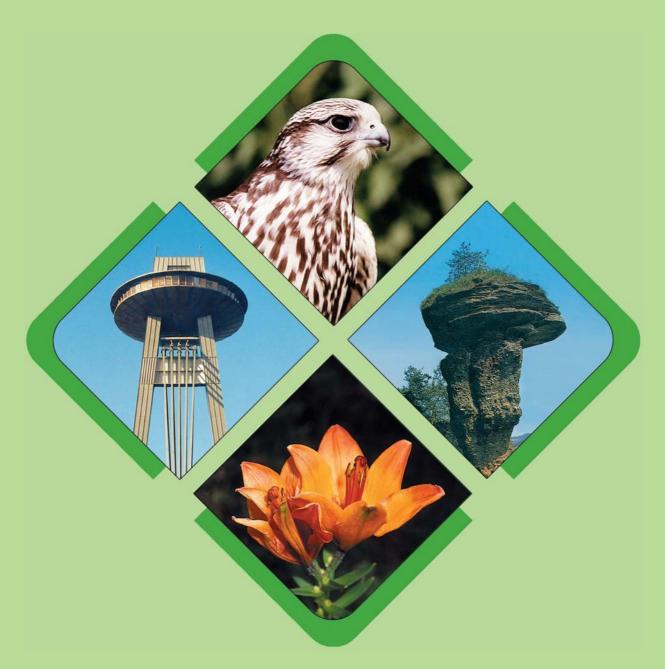**MINISTRY OF THE ENVIRONMENT OF THE SLOVAK REPUBLIC**

STATE OF THE ENVIRONMENT REPORT

SLOVAK REPUBLIC 2006

*Everybody has the right to get prompt and thorough **information on the condition of the environment** and on the reasons and consequences of this condition.*

Article 45 of the Constitution of the Slovak Republic

COMPLEX ENVIRONMENTAL MONITORING AND INFORMATION SYSTEM

• LEGAL OUTCOMES AND CONCEPTS

Environmental monitoring and information technology are built pursuant to Act number 261/1995 Coll. on State information technology system, Concept of the information system of the ministry, and in the year 2000 on the resolution of the Slovak government number 7/2000 on approved concepts of completion of the complex environmental monitoring information system. The goal is to ensure and make available environmental information on the state of environment and involve the public in decision-making processes. This is in line with Act no. 205/2004 Coll. on gathering, maintaining and disseminating information on environment.

• ENVIRONMENTAL MONITORING SYSTEM

The System of environmental monitoring is an indispensable tool to know the environment and ensure environmental care. The System contains partial monitoring systems (PMS) installed at selected centres. The Information monitoring system (IMS, www.enviroportal.sk/ism) with the goal to create a homogeneous, interconnected information unit consistingof partial IMSs. The unit is able to provide most objective report on the actual state of components of environment and due to interconnected databases is generally accessible through the Internet.

PMS	Guarantor	Centre	Monitored subsystem	
Air quality	MoE SR	Slovak Hydro Meteorological Institute	Level of pollution Ground atmospheric level – air above the whole Slovak territory is divided into 2 agglomerations and 8 zones.	
Meteorology and climatology	MoE SR	Slovak Hydro Meteorological Institute	Network of ground synoptic and air stations Network of meteorological radars Meteorological satellite measurements Network of stations with climatology observation programme Network of precipitation measuring stations Network of stations measuring solar radiation and total atmospheric ozone	Network of phenological stations Network of measuring soil temperature and soil humidity Network of measuring in the ground atmospheric level Aerologic station Storm detection station network
Water	MoE SR	Slovak Hydro Meteorological Institute	Surface water quantitative indicators Groundwater quantitative indicators Surface water quality Groundwater quality	Thermal and mineral water Irrigation water Recreational water bodies
Radioactivity	MoE SR	Slovak Hydro Meteorological Institute	Environmental radioactivity - Ground atmospheric level at monitoring sites	
Waste	MoE SR	Slovak Environmental Agency Banská Bystrica	Waste generation and disposal in Slovak Republic Waste reclamation facilities	Waste reclamation facilities Interstate transport of hazardous waste
Biota	MoE SR	SR State Nature Conservancy Banská Bystrica	Fauna Flora	
Geological factors	MoE SR	State Geological Institute of Dionýz Štúr in Bratislava	Landslides and other slope deformities Erosion processes Monitoring of erosion processes Soils of unstable volume Effect of mineral exploitation on environment Change to anthropogenic sediments Stability of rock massifs below historic objects	Anthropogenic sediments burried Tectonic seismic activity of territory Monitoring of snowcap chemical composition Monitoring of seismic phenomena Active alluvial sediments Volume activity of Radon in geological layers
Soil	MoA SR	Soil Science and Conservation Research Institute in Bratislava	Basic network Key locations Special network of sites	Spatial monitoring of agricultural lands Forest land monitoring
Forests	MoA SR	National Forest Centre in Zvolen	Extensive periodical monitoring - 112 permanent monitoring areas Intensive periodical and continuous monitoring – 7 permanent monitoring areas	
Xenobiotic substances	MoA SR	Food Research Institute in Bratislava	Coordinated focal monitoring Consumption pool monitoring	Monitoring of game and fish

Source: MoE SR

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Financial resources spent on environmental monitoring (thous. SKK)

PMS	Year				
	2002	**2003**	**2004**	**2005**	**2006**
Air quality	28 651	27 600	18 400	16 900	28 971
Meteorology and climatology	28 300	33 200	35 000	26 031	76 013
Water	44 434	35 330	24 192	43 717	44 447
Radioactivity	2 668	1 792	1 454	1 500	2 545
Waste	3 500	3 500	3 500	3 800	1 040
Biota	600	169	600	1 000	1 000
Geological factors	10 000	10 000	10 000	10 000	10 000
Soil	9 200	9 200	9 200	9 600	9 100
Forests	1 720	2 900	2 900	4 400	8 000
Xenobiotic substances	27 032	28 400	27 381	12 454,2	15 301
Total costs	**156 105**	**152 091**	**132 627**	**129 402,2**	**196 417 000**
Costs of MoE SR	118 153	111 591	93 146	102 948	164 016

Source: MoE SR

• ENVIRONMENTAL INFORMATION SYSTEM

Environmental information system integrates information from environmental monitoring, information from environmental assessment, and spatial information on territory. Other generated information support activities of environment authorities and subjects that enforce legislation within the Slovak environmental law. These include mainly the Ministry of Environment of the Slovak Republic (MoE SR) and its affiliated organisations, as well as other institutions under different ministries. MoE SR and its daughter organisations maintain other databases, information systems, and internet and intranet portals to support their activities and present their outcomes.

Information on the organisational structure and responsibilities may be found in the Catalogue of the Environmental Data Sources of Metainformation System and the upcoming Special Public Information List. For more information on the organisational structure and pertinent responsibilities, see EnviroInfo meta-information system.

Enviroportal is the gateway to all the mentioned environmental information (www.enviroportal.sk) that gathers data sources through the Ministry's local computer network.

Overview of the major information systems and databases created and maintained at the SR Ministry of Environment, that contain environmental information

Name of Information System	Operator	Description of IS	In operation since*
Information Environmental System (IES)	SEA	Draws information from the following systems, subsystems, and databases.	
Enviroportal	SEA	Gateway to environmental information with up-to-date reports including information on amendment procedures, together with discussion forums, and information on environment-related events - www.enviroportal.sk.	2005
Meta-information on Environment	SEA	Summary information on organisation and competencies within the Ministry of Environment.	new version since 2005
GEMET database	SEA	Multi-lingual lexicon of environmental terminology	
Environmental videography	SEA	Online catalogue of films and video programmes related to environment.	2005
Information monitoring system (ISM)	SEA	Integrates information from ten partial monitoring subsystems. See the overview above.	1999, new version since 2005
Information system on territory (IST)	SEA	Ensures spatial data needed for decision making within the territory and for spatial interpretation of database-retrieved data. IST provides for report, processing, and publishing of spatial data on environment, both within the Ministry of Environment SR, as well as in public. Strong emphasis is placed on harmonisation with activities on the national, as well as international level, and respecting the upcoming EU Resolution for INSPIRE.	2004
Information system on the state of environment (ISS)		ISS consists of information files, both in text and table formats, that describe the state of environment over a recent time period. The information is categorised by environment components, indicators, and years. Some information is assessed in relation to impacts of economic activities.	
Information system of environment departments and offices (IS EDO)	SEA	IS EDO gradually ensures information support for public administration activities in the area of environmental creation and protection. Therefore, it consists of subsystems defined as duties of the state administration for the area of environment under Act No. 525/2003 Coll. on state administration of environmental protection.	2004
Information system of the environmental impact assessment	SEA	IS on the state, process, and outcomes of environmental impact assessment. Ensures information flow among participants to the EIA process (proponent, pertinent authority, permitting authority, impacted authority, impacted municipality, public, and qualified persons). The System has the form of a web application through which the impacted authorities connect onto the central database. After authorisation and verification steps, they may input their own data as well as retrieve information.	2006 - Impact assessment of strategic documents
IS of integrated pollution prevention	SEA	After completed, the system will provide information on the status, process, and outcomes of the IPPC permit process, as well as on closely relating activities, including the best available technologies. Creating an IS	first part since 2005

and control (IPPC)		will secure information support for the execution of state administration activities within the specific area. Meanwhile, this will create a mechanism for collecting, assessment, and supply of information to the public. Pursuant to the IPPC law, state administration is carried out by the Ministry of Environment (MoE SR) and the Slovak Environmental Inspection. (SEI).	
Information system of major industrial accidents	SEA	Makes available documents relating to the whole process of major industrial accidents prevention, including preparation of their reports for JRC.	2004
Regional Waste Information System	SEA	Provides for system of gathering data on waste management activities, registers of waste generators and keepers, data on waste generation and disposal, as well as records of operators and waste reclamation and elimination facilities, records of landfills, and records of hazardous substances transport.	2002
IS POVAPSYS	SHMI	IS should help through: 1. Increasing the prior forecast and warning time, which will create conditions for better protection of property and lives against floods,2. Ensure more exact and more reliable forecasts and warnings,3. Ensure a greater number of forecasts for specific time periods and for more locations,4. Provide outcomes and data available through the Internet or directly by the user. 5. Interconnect information with Hungary, Ukraine, Poland, Czech Republic, Austria, and Germany.	first part since 2005
Hydrological Information System	SHMI	Includes Slovak hydrological data by different modes of operation - long-term information on individual network of stations (catalogues), and detected or otherwise acquired hydrological data (registers).	
Climatology and Meteorology Information System	SHMI	Addresses operational and research activities of all climatology and some meteorology fields.	
Complex Water Register	SHMI	Contains selected information and data on the state of surface and ground water, information on the volume and quality of water formations, data on surface water extraction, on the volume of discharged water, on produced and discharged waste water contamination, acquired from water users through their mandatory notification to SHMI.	
Databases of single sources of water contamination	SHMI	Keeps information on location and character of potential sources of contamination of surface and groudwater.	
National Emission Inventory System	SHMI	Includes information on operators, emissions, and technologies of large and medium-size air pollution sources.	
State Register of Protected Areas	SMNPaS, SNC SR	Includes data on graphical layers and databases from the area of spatial and individual protection of flora and fauna, and biotopes of European and national significance (State Register of Protected Areas, SSPA and LSPA, Protected Trees Catalogue, Natura2000SK) and their updates, catalogue of increments of Protected Areas (PA) and Protected Zones (PZ), Catalogue on PA and PZ.	gradually since 2002
Databases	SMNPaS	Protected Bird Territories database (since 2004), Cave Database of Slovak Republic (since 2003), Journal Database System BACH.	
Information system of	SNC SR	Database of taxons and biotopes (since 2002), Database of Waterfalls (since 2004), database of bear	

taxons and biotopes and other nature protection databases		monitoring (since 2003), CITES database (since 2004), Database of barrier components in landscape, Database of introduced and invasive taxons of plants and animals, Database of Europe's significant taxons of animals and plants.	
International taxonomic information system and other databases	ZOO Bojnice	International Species Information System Database - international inventory system of animals raised in ZOO, Yearbook of the Union of Czech and Slovak ZOOs.	
Databases	WRI	Water management plans of watersheds (surface and groundwater sources, water demand and regional water management strategies), Water management balance (data on balance assessment profiles, flows and impacts on water utilisation), Hydro-energy potential of watercourses (water bodies constructed, under construction, and planned, large and small aquatic power plants) Database of watercourses, Database of yields and extractions from water sources, Information Water Supplies and Sewerage Systems administered by water management companies and municipal offices, Geographical Information System on drinking water supply and sewerage system installation in Slovak villages in connection to Water Supply and Sewerage Database, Data on Water Management Construction funded from investments, and on operations in Slovakia, Drinking Water Quality Indicators Database, Database of production and qualitative composition of sludge from municipal wastewater treatment plants, its use and elimination, Database of water contamination dealing with organisations, technologies, substances, and their elimination, Database of technological and operation data of wastewater treatment plants, Database of technological and operation data of water treatment plants, Database of surface and groundwater sources, large and small water dams and water management protection zones.	
Databases and GIS layers	SCA	DSPELEO National database of cave, Hydrological, climatic and bio-speleological monitoring, Geographical Information System of Cave Protection.	
Databases	SMM	BACH and AMIS Collection Database Systems.	
Databases	SEI	Databases from the activities of the inspection for waste, water, air, nature protection, and IPPC.	
Databases and registers	SGI DS	Register of bores (since 2000) and HG wells, abandoned mining sites, slides, Register of mapping (since 2002), Register of geological mapping (since 2002), Register of geo-physical mapping, Register of geo-chemical mapping, Register of surveillance and perspective surveillance areas, Landfill Register, Register of Exclusive Deposits (since 2002), Register of Physical Documents (since 2000), Register of old environmental loads on the rocks, Register of Digitalized Geological Maps, Digitalized Geological Map of the Slovak Republic (since 2006).	
Register of basic residential units	SEA	Register of basic residential units is the basic numeric reference for the IES components. It provides for spatial identification of information. Definite spatial identification (localisation) of elements is one of the basic conditions for mutual communication and interconnectedness of public administration information systems.	

Source: MoE SR

* missing information *In operation since:* means that the operation began before 2002.