



## Environmental Protection

## Economics of Environmental Protection

Financial support and funding for the purposes of environmental protection is provided from State budget of the Slovak Republic (ŠR SR) through budgetary provisions of selected ministries and through the State Environmental Fund of the SR (ŠFŽP SR). The contribution of particular Ministries to the total amount of capital investment (1 825 485 thousand Sk in 1997) was as follows:

- the Ministry of the Environment (MŽP SR) - 1 071 983 thousand Sk (58.7 % of total)
- the Ministry of Agriculture (MP SR) - 377 139 thousand Sk (20.7 % of total)
- the Ministry of Health (MZ SR) - 113 695 thousand Sk (6.2 % of total)
- the Ministry of Defence (MO SR) - 141 300 thousand Sk (7.7 % of total)
- the Ministry of Education (MŠ SR) - 34 397 thousand Sk (1.9 % of total)
- the Ministry of Labour, Social Affairs and Family (MPSVaR SR) - 5 993 thousand Sk (0.3 % of total)
- the Ministry of Economy (MH SR) - 33 008 thousand Sk (1.8 % of total)
- the Ministry of Transport, Post and Telecommunication (MDPaT SR) - 175 thousand Sk (0.0% of total)
- the Ministry of Justice (MS SR) - 22 293 thousand Sk (1.3 % of total)
- the Ministry of Culture (MK SR) - 9 800 thousand Sk (0.5 % of total)
- the Ministry of Finance (MF SR) - 5 726 thousand Sk (0.3 % of total)
- the Office for the Strategy Development of Society, Science and Technology of SR (ÚRSVT SR) - 9 976 thousand Sk (0.6 % of total).

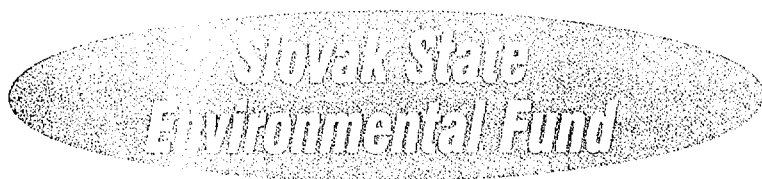
Financial contribution of the above mentioned Ministries to the total capital investment (excluding MŽP SR) amounted to 753 502 thousand Sk which represented 41.3 % of total investment.

Table 122 Environmental investments of the SR Ministries coming from the State budget and the State Environmental Fund (ŠFŽP) - in thousand Sk

Sector Ministry	WWTP sewerage system	other WM actions	Waste management	Air protection	Total	%
MŽP SR	364 795	260 137	103 872	343 179	1 071 983	58.7
MP SR	55 700	321 439	-	-	377 139	20.7
MS SR	10 005	1 500	-	10 788	22 293	1.3
MPSVaR SR	-	-	-	5 993	5 993	0.3
MO SR	37 352	85 235	-	18 713	141 300	7.7
MK SR	-	-	-	9 800	9 800	0.5
MZ SR	1 000	-	700	111 995	113 695	6.2
MH SR	506	-	19 464	13 038	33 008	1.8
MV SR	-	-	-	-	-	-
MŠ SR	2 433	13 903	300	17 761	34 397	1.9
MDPaT SR	175	-	-	-	175	0.0
MF SR	5 726	-	-	-	5 726	0.3
ÚRSVT SR	-	-	9 176	800	9 976	0.6
<b>Total</b>	<b>477 692</b>	<b>682 214</b>	<b>133 512</b>	<b>532 067</b>	<b>1 825 485</b>	<b>100.0</b>

WWTP - waste water treatment plant  
WM - waste management

Source: relevant Ministries



In 1997, 1 037 applications for ŠFŽP financial support were approved (compared to 1 023 applications in 1996). On the grounds of issued approvals, agreements on ŠFŽP financial support totalling 1 184 427 thousand Sk were signed (as opposed to 1 224 336 thousand Sk in 1996). Financial support for selected spheres was as follows:

Table 123 ŠFŽP SR financial support according to the spheres

Sphere	Number	Thousands Sk
Public water supplies	209	228 915
Waste water treatment plants and sewerage system	252	364 795
Air protection	259	343 179
Waste management	120	103 872
Nature conservation	76	34 458
Other water management facilities	23	31 222
Other activities	49	47 258
Research and promotion	49	30 728
<b>Total</b>	<b>1 037</b>	<b>1 184 427</b>

Source: ŠFŽP SR

Financial resources for reduction of direct damages on the environment caused by serious accidents were released after official approval of the Minister of the environment. In 1997, 298 350 thousand Sk were spent on dealing with 4 emergency situations directly endangering the environment (compared to 1 762 007.80 Sk spent in 6 cases in 1996).

Environmental protection expenses classed as investment subsidies amounted to 990 176 220.76 Sk. The state as of December 31<sup>st</sup>, 1997 represented additional subsidies from 1996 resulting from the lack of financial resources available at the end of 1996, using subsidies allocated in 1997 and subsidies balance from the final calculation.

Table 124 Allocated and actually spent financial provisions provided by ŠFŽP SR in 1997 and 1996 (thousand Sk)

Kind of activity	Year 1996			Year 1997		
	Financial resources provided	Financial resources actually spent		Financial resources provided	Financial resources actually spent	
		Investment subsidies	Non-Investment subsidies		Investment subsidies	Non-Investment subsidies
Public water supplies	221 995	215 646	-	228 915	189 364	-
Waste water treatment plants and sewerage system	398 198	361 714	-	364 795	326 906	-
Air protection	337 360	318 067	-	343 179	261 314	-
Waste management	147 284	140 066	-	103 872	92 174	-
Nature conservation	8 725	-	18 643	34 458	-	22 799
Other water management facilities	32 218	17 937	-	31 222	16 915	-
Other activities	35 176	35 862	-	47 258	56 565	-
Research and promotion	23 380	-	21 547	30 728	-	23 383
Accidents	1 762	591	-	298	754	-
<b>Total</b>	<b>1 226 098</b>	<b>1 089 883</b>	<b>40 190</b>	<b>1 184 725</b>	<b>943 992</b>	<b>46 182</b>

Source: ŠFŽP SR



Economic instruments of the environmental protection are understood as a part of economy management instruments complex leading to effective exploitation of natural resources and pollution reduction. The following table shows total capacities of the selected economic tools applied in 1997 (in comparison to 1996 in million Sk).

Table 125 Revenues from the selected economic instruments

Type of payment in million Sk	1997	1996	Difference	Recipient
<b>Payments for pollution</b>				
Penalties for air pollution	392	412	- 20	ŠFŽP SR
Penalties for waste water discharge	195	234	- 39	ŠFŽP SR
Penalties for waste disposal	174	220	- 46	ŠFŽP SR
<b>Payments for natural resources exploitation</b>				
Payments for groundwater extraction	4.6*	13*	- 8.4	ŠFŽP SR
	305.7	129.5	+ 176.2	ŠVF
Payments for surface water extraction	940	915	+ 25	watershed administration
Payments for water supply from public water supplies	2 674	2 352	+ 322	water supply and sewerage administration
Taxes for occupied agricultural land	868	567	+ 301	ŠFOZPPF
Taxes for occupied forest land	33	125	- 92	ŠFZL
Reimbursement for mining facilities and exploited minerals	138	130	+ 8	ŠR SR
Exploited minerals separately	134	126	+ 8	

\* Past period debts for payment for groundwater extraction were demanded on the grounds of judicial proceedings (in 1997) and part of payments was paid back in the first quarter of 1995 from the Ministry of Agriculture (in 1996). Source: MŽP SR

Table 126 Penalties imposed by Environmental State Administration Authorities (thousand Sk) - ŠFŽP SR as recipient

Penalties / Sector	1997	1996	Difference
Air protection	2 083	6 346	-4 263
Water protection	8 769	9 705	-936
Waste management	10 731	15 068	-4 337
Nature conservation	852	8 452	- 7 600
Total	22 435	39 571	-17 136

Source: ŠFŽP SR

## Environmental law



In 1997, preparation of legislative framework and policy making process regarding environmental issues further continued in effort to approximate them to the EU valid legislative system. The following generally valid regulations were enacted:

- 229/1997 Coll. THE ACT which amends the Act No. 50/1976 Coll. on Territorial Planning, and on Building Order (the Building Act), in wording of later provision
- 46/1997 Coll. THE GOVERNMENT ORDER of the Slovak Republic which declares binding part of the territorial plan of large territorial area of Košice region
- 47/1997 Coll. THE GOVERNMENT ORDER of the Slovak Republic on Pieniny National Park
- 182/1997 Coll. THE GOVERNMENT ORDER of the Slovak Republic on the Nízke Tatry National Park
- 258/1997 Coll. THE GOVERNMENT ORDER of the Slovak Republic on Poloniny National Park
- 259/1997 Coll. THE GOVERNMENT ORDER of the Slovak Republic on Muránska planina National Park
- 41/1997 Coll. REGULATION of the Ministry of the Environment of the Slovak Republic on ascertaining of amounts of contaminating substances and data on meeting specified limits of contamination
- 268/1997 Coll. REGULATION of the Ministry of the Environment of the Slovak Republic on the Fuel quality requirements, operative inventory management and range, kind and way of providing information to the air protection authorities.

The following generally valid obligatory judicial regulations were proposed and elaborated:

- Water Act proposal
- Ozone Layer Protection Act proposal
- State Environmental Fund Act proposal
- State Geological Administration and Geological Services Act proposal (Geology Act)
- Access to Environment Information Act proposal
- Waste Act proposal
- Territorial Planning and Building Order Act proposal (Building Act)





## Environmental Impact Assessment



In 1997, in accordance to the Act of the NC SR No. 127/1994 Coll. On Environmental Impact Assessment, 160 proposed activities, facilities and constructions were assessed. 43 were subject to survey procedure and 117 were subject to obligatory assessment.

In 1997, assessment procedures were completed for 69 constructions, facilities and activities. With regard to insignificant environmental impact MŽP SR decided that 21 proposed actions would not be reviewed in accordance to legal framework. The most numerous group from among the assessed proposed actions included 19 proposals concerning waste management, 14 proposals on road and motorway construction and 7 proposals concerning water facilities construction.

During the period of legal procedures, final provisions issued by MŽP SR complied in all cases with the proposed measures on reduction of negative environmental impacts.

## Environmental Assessment and Eco-labelling



The Slovak Government adopted the National Programme of Environmental Assessment and Eco-labelling (NPEHOV) by the Resolution No. 97 from February 6, 1996. Once organisation and administration network was established, this national programme was officially declared by the Slovak Minister of the environment of the SR on April 15, 1997 and published together with its initial directives. Initial directives concerned the following groups of products:

- Directive No. 0001 - 100% cotton bed linen
- Directive No. 0002 - toilet paper from 100% recycled fibres
- Directive No. 0003 - paper tissues made of recycled fibres
- Directive No. 0004 - plastic products containing waste plastics
- Directive No. 0005 - water soluble coatings

- Directive No. 0006 - water soluble adhesives and binders
- Directive No. 0007 - electric household washing machines.

Right to use label 'Environment Friendly Product 0001' was given to the product:

- 100% cotton bed linen of Technoconsulting - TEXICOM s.r.o. Ružomberok.

Right to use 'Label Environment Friendly Product 0002' was given to the following products:

- Toilet paper up to 25 grams per m<sup>2</sup> "Z" two-ply Harmasan 'Lekno' and 'Brečtan'
- Toilet paper more than 25 gram per m<sup>2</sup> "Z" one-ply Harmasan 'Mýval', 'Divý mak', 'Encián' of Harmanecké papierne a.s. Harmanec.

Right to use label 'Environment Friendly Product 0005' was given to the following products:

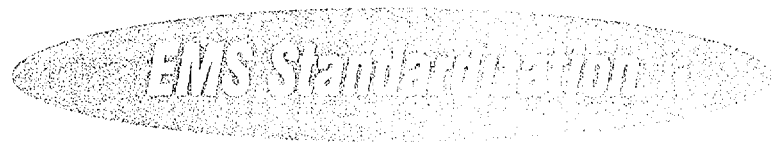
- Dispersed acrylic mate paint Ekokryl mat V 2045
- Dispersed acrylic lustrous paint Ekokryl lesk V 2062
- Paint Farmal V 2073 of Chemolak a.s Smolenice.

The right to use label 'Environment Friendly Product' terminates at the end of 1999.



Following the trend in other developed countries, the Slovak Republic is trying to establish an effective system focusing on the monitoring of environmental impacts of producers, manufacturers and other organisations, together with products, technologies used and services provided.

Apart from the environmental legislation and other systematic measures, Environmental Management Systems (EMS) are being gradually introduced. These systems represent generally applicable method of organisation management linking together environment protection principles, general principles of organisation running with objective of achieving environmental and economic goals.

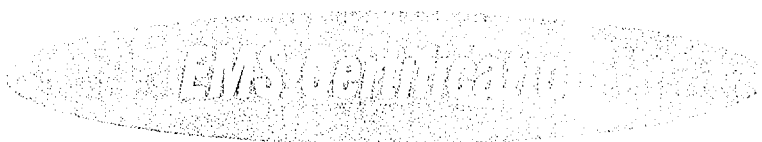
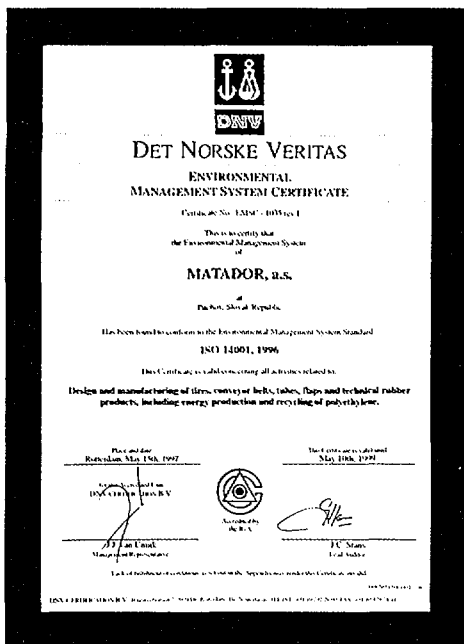


Main principles for EMS introduction into companies and organisations are formed by ISO14000 group of standards called Environmental Management and issued by the International Organisation for Standardization Committee ISO/TC 207. In December 1996, Technical Normalization Committee TNK NO 72 called Environmental Management was officially declared by the Slovak Institute of Technical Normalization attached to ÚNMS Bratislava. The TNK is under

supervision of the Ministry of the Environment. Within its responsibilities the following standards were reviewed in 1997:

- STN EN ISO 14001 - Environmental Management Systems (Specification completed with manual)
- STN EN ISO 14004 - Environmental Management Systems (General instructions comprising principles, systems and supporting techniques)
- STN EN ISO 14010 - Environmental Auditing (General principles)
- STN EN ISO 14011 - Environmental Auditing (Auditing procedures, EMS Auditing)
- STN EN ISO 14012 - Environmental Auditing (Qualification criteria for environmental auditors).

The above mentioned standards will be issued in 1998.



ISO 14001 Standard is the certification standard for EMS implementation and certification. As it is not an obligatory standard, it was designed in a way that it can be applied in any size and type of organisation and type of organisation taking into consideration various geographical, cultural and social conditions. Efficiency of the implemented system is verified by certification auditing. Certification auditing results are used by certification organisation in the process of issuing official certificates.

Table 127 In 1997, in compliance with ISO 14001 Standard the following Slovak organisations were issued with certificates

Organisation	Certificate issued	Certifying body
MATADOR a.s. Púchov	15 <sup>th</sup> May 1997	DET NORSKE VERITAS Netherlands
SLOVNAFT a.s. Bratislava	18 <sup>th</sup> July 1997	SQS Switzerland
Division Cold Rolling VSŽ OCEĽ s. r.o. Košice	26 <sup>th</sup> August 1997	RW TUV Germany

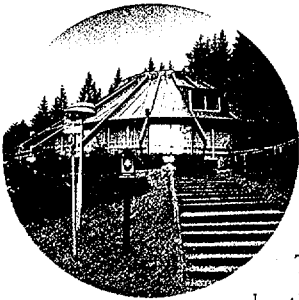
### Accreditation of EMS Certification Authorities in the Slovak Conditions

Technical Committee for Accreditation of EMS Certification Authorities (TVA-COE) attached to the Slovak Accreditation system started to work on January 1, 1997.

Within its responsibilities, TVA-COE has elaborated accreditation methodology based on EN 45012, ISO/IEC Guide 61 and EAC Guide 5 Standards, and meeting the EARA international criteria, a group of assessors and environmental auditors for accreditation and certification procedures was formed.



## Environmental Education



The Government of the SR approved the Environmental Education Conception by the Resolution No. 846 from 25th November, 1997 focusing at

- pre-school and school environmental education improvement
- general environmental education
- informing citizens about the environmental situation
- environmental education of the state administration staff
- international co-operation in environmental education.

In April 1997, International Exhibition of Equipment and Technologies for the Environment Protection and Conservation ENVIRO Nitra took place for the second time. This event is being annually organized to celebrate 'Earth Day'.

III. year of International Festival of Films, TV Programmes and Videos ENVIROFILM (oriented on environmental issues) has become a permanent part of the activities organized on the occasion of the International Environment Day. International jury reviewed 72 films from 19 countries with a main award being given to the Danish film 'Páchnuci hrniec s rybami' directed by Steen Jensen. Films participating in the 4-day festival were presented to more than 4 500 people in both Banská Bystrica and Zvolen.



Within its programme, festival also included conferences on Landscape - Mankind - Culture and Conservation and on possible exploitation of karst environment for medical purposes. Seminar on environmental education problems was designed for teaching staff; seminar 'Environmental Management' focused on the National Programme of Environmental Assessment and Eco-labelling,' seminar on the Effective Management of Poľana PLA - Biosphere Reserve was aimed for nature conservationists. Public-oriented ones were 'Green dis-





cussions' on various environmental topics such as:

- environmental situation
- natural resources exploitation and protection
- international aspects of speleotherapy in the Slovak Republic.

Inge Aarhus, co-ordinator of the Committee for Environment and Nature Conservation assisting preparation of the Lillehamer Winter Olympic Games 1994 presented results of its work.

Several exhibitions were organised within ENVIRO-FILM framework. The exhibition called **Green World** - the largest one and for the first time organised biennially and on international level - attracted highest number of visitors and received positive comments from the public. 4 564 paintings

and other works of art from 281 schools from Slovakia, Russia and Greece were received for the competition. The following exhibitions offered a new perspective on environmental education and environmental issues:

- Attractions of Banská Bystrica organized in co-operation with the Central Slovak Museum
- Ozone Layer Protection and Water protection and its Effective Extraction organized by SHMÚ
- Otis tarda and its protection
- Photographic exposition called Fauna, Flora and Landscape of the Strážovské vrchy Hills and the Súľovské skaly Rocks NNR.

Upon festival completion, presentation of festival films carried on in 9 other towns of Slovakia, helping to raise public awareness of environmental issues.

The first **Environmental Education Centre (EEC)** Poniklec in Manínska Tiesňava attached to the Slovak Environment Agency was established by the MŽP SR with the prospective of setting up EEC centres in all regions of Slovakia. The EEC main objective is to draw attention to environmental education problems and to raise public awareness of environmental issues. Their activities should be adjusted to specific regional conditions.



Periodical magazine of the Slovak Academy of Sciences (SAV) called **The Environment**, periodical magazine **Protected Areas of Slovakia** and popular magazine **ENVIROMAGAZÍN** continued to be published by SAŽP.

