

Summary reports of the **SLOVAK REPUBLIC** under the Protocol on Water and Health in accordance with article 7



Public Health Authority of the Slovak Republic



Ministry of Environment of the Slovak Republic



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Background

Slovak Republic ratified Protocol on Water and Health in 2001, elaborated in relation to the UN/I Convention on the Protection and Use of the Transboundary Watercourses and International Lakes dated 1992, in order to support and improve water use. The Protocol provisions apply in Slovak Republic to surface waters and ground waters, closed water bodies, bathing waters, drinking water supplies and sanitation. The Protocol is focused at support of health and its protection on each level of decision making process in national and international context as well. Its implementation should ensure proper water exploitation, improved water management, protection of water ecosystems and prevention of their damages, control and decrease frequency of water related diseases, etc..

This national report has been prepared according to article 7 of Protocol on Water and Health and also according to provided templates in cooperation of the Public Health Authority of the Slovak Republic and the Ministry of Environment of the Slovak Republic.

Part One

General aspects

1. Were targets and target dates established in your country in accordance with article 6 of the Protocol?

YES NO IN PROGRESS

Setting of national targets under Protocol on Water and Health in Slovakia has been performed two times, but involvement of public and non-governmental organizations into this process is still not satisfied. In spite of this we have set the national targets in a way which corresponds with the article 6 of the Protocol and that they reflect actual needs and problems, we tried to improve the spheres which are of public attention continuously, e.g. quality of drinking water from public supply but also from individual water sources, bathing water, prevention from diseases related to water and many others. The part of national targets was and is therefore oriented on fulfilment of obligations towards the European Union, part on establishing new information systems on quality of drinking water and bathing water where public can find information needed.

2. Were they published and, if so, how?

Information about the Protocol on Water and Health: national targets and their fulfillment, responsible institutions are available on the website of the Public Health Authority of the Slovak Republic, which is a national coordinator of Protocol on Water and Health.

http://www.uvzsr.sk/index.php?option=com_content&view=article&id=1234%3Aprotokol-onvode-anzdravi&catid=36%3Aorganizana-truktura&Itemid=105 (21.2.2013, 13:00)

In addition, some other institutions provide basic information about the Protocol on Water and Health, Water Convention such as Government Office of the Slovak Republic, Ministry of Health of the Slovak Republic, Water Research Institute, Slovak Environmental Agency, etc.

[http://www.mzv.sk/servlet/content?MT=/App/WCM/main.nsf/vw_ByID/ID_BDFA0F8449A80739C125763500337369_SK&OpenDocument=Y&LANG=SK&PAGE_VSETKYZMLUVY-DWMCEA-7XEFBY=9&MENU=medzinarodne_zmluvy-vsetky_zmluvy&TG=BlankMaster&URL=/LDM/contractmzv.nsf/\(vw_ByID\)/ID_4D7598CE63FFD9B6C125711B005BBAB](http://www.mzv.sk/servlet/content?MT=/App/WCM/main.nsf/vw_ByID/ID_BDFA0F8449A80739C125763500337369_SK&OpenDocument=Y&LANG=SK&PAGE_VSETKYZMLUVY-DWMCEA-7XEFBY=9&MENU=medzinarodne_zmluvy-vsetky_zmluvy&TG=BlankMaster&URL=/LDM/contractmzv.nsf/(vw_ByID)/ID_4D7598CE63FFD9B6C125711B005BBAB) (21.2.2013, 13:00)

http://www.vuvh.sk/download/VaV/Vystupy/Brozura_O_pitnej_vode_SJ.pdf (21.2.2013, 13:00)

<http://www1.enviroportal.sk/dohovory/dohovory-detail.php?dokument=278> (21.2.2013, 13:00)

3. Has your country established national or local arrangements for coordination between competent authorities for setting targets? If so please describe, including information on which public authority(ies) took the leadership and coordinating role, which public authorities were involved and how coordination was ensured.

The responsible institutions for targets fulfilment are the Ministry of Health of the Slovak Republic in cooperation with the Ministry of Environment of the Slovak Republic. The responsible body for implementation of the Slovakia's commitments under the Protocol is health sector, namely the Public Health Authority of the Slovak Republic.

Coordination at national and international level is ensured through the focal point.

4. Which existing national and international strategies and legislation were taken into account?

Branch of the Ministry of Health of the Slovak Republic:

The National Council of the Slovak Republic expressed its agreement with the Protocol by the resolution No. 1495 from 19 June 2001 and President of the Slovak Republic ratified it on 12 September 2001. The instrument of ratification was deposited with the Secretary-General of the United Nations, deposition of

the Convention was on 2 October 2001. The Protocol entered into force on 4 August 2005 on the basis of Article 23, paragraph 1 and in the Slovak Republic it came into force on 4 August 2005 under the same article.

Branch of the Ministry of Environment of the Slovak Republic:

Key strategy in water sector of the Slovak Republic is in harmony with European Union water strategy - implementation of the Water Framework Directive and all relevant water directives.

Ministry of Environment of the Slovak Republic is the designated competent authority for the application of Water Framework Directive rules in the SR territory.

Legal position of the competent authority:

Ministry of Environment of the Slovak Republic is a central body of the state administration for creation and protection of the environment including water management, protection of water quality and quantity and its effective exploitation, fishery except economic fish farming pursuant to the Act No. 139/2003 Coll., amending the Act No. 575/2001 Coll. on organisation of the operation of the Government and organisations of central state administration, as amended, amending the Act No. 312/2001 Coll. on civil service, as amended, amending certain acts, as amended.

Ministry of Environment of the Slovak Republic responsibilities:

Ministry of Environment of the Slovak Republic responsibilities is defined by the Act No. 364/2004 Coll. on waters, amended by the Act No. 384/2009 Coll. The roles resulting from this act are ensured by the Ministry of Environment of the Slovak Republic in cooperation with subordinated organisations:

- Slovak Hydrometeorological
- Water Research Institute (National reference laboratory for waters in Slovakia; Calibration laboratory for water gauging stations)
- Slovak Water Management Enterprise, s.e., Banská Štiavnica
- Slovak Environmental Agency
- State Geology Institute of Dionýz Štúr

International relationships:

Slovakia is a signatory to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) and the Convention on Cooperation for the Protection and Sustainable Use of the River Danube. An International Commission for the Protection of the Danube River was established on the basis of the Convention on Cooperation for the Protection and Sustainable Use of the River Danube that plays a role of coordinator of Water Framework Directive implementation in this international river basin.

Commissions for transboundary waters serve as a platforms for the Water Framework Directive implementation at the international level, that were established on the basis of bilateral agreements between the Slovak Republic and the neighbouring countries.

5. Was cost-benefit analysis of targets set performed, and if so how?

When setting targets of the Protocol on Water and Health in 2007 a clause of financial, economic, environmental impacts; impacts on employment and business environment was prepared. It stated: Financial resources to achieve under the auspices of the Ministry of Health and coordinated by the Ministry of Environment will be provided within the limits of other tasks for the financial years. The objectives of the Protocol on Water and Health will be performed depending on funding. The funds of the Ministry of Environment are the estimated expenditure for achieving the targets of the Concept of Water Management Policy till 2015, which the Government of the Slovak Republic noted in February 2006. The targets 1 to 3 of the proposal don't require extra funding.

Estimates of the Ministry of Health will be paid from the funds of the state budget and European Union funds. All activities for the years 2007 - 2012 in health sector will be financed by the Public Health Authority and the Regional Public Health Authority.”

No other extra money to carry out the objectives of the Protocol were allocated.

Name of target	Responsible sector	Deadline	Finance (€)
1. Increase proportion of public high quality water supply users	Environment + municipalities	2015	1, 8 milliards
2. Improved situation in the sector of waste water treatment and release	Environment + municipalities	2015	3, 1 milliards
3. Implementation of Water Framework Directive	Environment	2015	6, 4 milliards
4. Improved quality and health safety of drinking water; solving the problem of exceeded limits for nitrates in public supplies	Environment + Health	2011	33 194
5. Implement effective measuers for prevention of water related diseases, monitoring of appearance of infectious and non-infectious water related diseases till 2012.	Health	2012	53 110
6. Implemeted new information system on public water supply	Health	2012	398 327
7. Implemented new information system on quality of bathing water in natural as well as artificial swimming pool	Health	2008	182 567
8. Publishing of manual for owners of individual water sources, public awareness campaign for water with emphasis on private well owners	Health	2008	4 979
9. Cooperation with NGOs, water companies, municipalities in water issues	Health	2008	3 319

Table 1: A proposal for funding the targets of the Protocol on Water and Health in Slovak Republic for the years 2007 – 2015 which was approved by the Government of the Slovak Republic in 2007

6. What has been done in your country to ensure public participation in the process of target setting in accordance with article 6, paragraph 2, and how was the outcome of public participation taken into account in the final targets set?

Slovak government imposed on ministers of health and environment to secure implementation of the Protocol in the Slovak Republic and elaborate measures in cooperation with Association of Towns and Villages of Slovakia and Union of Towns of Slovakia. In that time the Slovak Republic had been preparing for access to the European Union and related problems had to be solved: mainly legislation (transposition of European Union legislation concerning water and health into the law system of the Slovak Republic), institutional securing, cross sector cooperation, monitoring of water quality, monitoring of diseases related to water, building of capacities including human resources, involvement of public and non-governmental organizations.

Setting of national targets of Protocol on Water and Health in Slovakia has been performed two 2 times, but involvement of public and non-governmental organizations into this process is still not satisfied. In spite of this we have set the national targets in a way which corresponds with the article 6 of the Protocol and that they reflect actual needs and problems, which are of public attention continuously, e.g. quality of drinking water from public supply but also from individual water sources, bathing water, prevention from

diseases related to water and many others. The part of national targets was and is therefore oriented on fulfilment of obligations towards the European Union, part on establishing new information systems on quality of drinking water and bathing water where public can find relevant information.

Ministry of Environment of the Slovak Republic has consulted with public the Water Management Plan of Slovakia and its Program of Measures, elaborated in accordance with the Water Framework Directive.

In scope of implementation of Water Framework Directive on transboundary water with Poland (bilateral cooperation) both countries have been inviting each other for public consultation in relevant river basin districts. These meetings have been focused on water management problems/pressures and measures.

Another part of national goals is focused on education of public in the field of water and cooperation with non-governmental organizations, water companies and towns.

Ministry of Health of the Slovak Republic in cooperation with Ministry of Environment of the Slovak Republic are responsible for fulfilment of national targets. *National report on securing of obligations of the Slovak Republic resulting from Protocol on Water and Health* is submitted in two years period to the government.

Process of approval is the same like processes before ratification of the Protocol on Water and Health.

7. Provide information on the process by which this report has been prepared, including information on which public authorities had the main responsibilities, which other stakeholders were involved, etc.

This report was prepared in cooperation of Public Health Authority of the Slovak Republic with Ministry of Environment of the Slovak Republic and it contains data and information mainly from following institutions:

- Ministry of Health SR (Public Health Authority of SR, 36 Regional Public Health Authorities, Spa and Spring Inspectorate),
- Ministry of Environment SR (46 local departments of environment, The Slovak Environmental Inspection),
- scientific institutions and branch institutions (Water Research Institute, Slovak Hydrometeorological Institute, Slovak Environmental Agency,),
- Slovak Water Management Enterprise,
- municipalities.

Coordinator of preparing of national report was Public Health Authority of the Slovak Republic. The draft of national summary has undergone the process of review and was approved by the council of Minister of Health.

8. Report any particular circumstances that are relevant for understanding the report, e.g., whether there is a federal and/or decentralized decision-making structure, or whether financial constraints are a significant obstacle to implementation (if applicable).

Significant/serious obstacles do not exist for implementation of Protocol (all inhabitants have access to drinking water in harmony with definition of WHO/UNICEF; process of waste water treatment continues to fulfil requirement of 91/271/EEC directive).

But for better implementation of Protocol on Water and Health in the Slovak Republic constrains are:

- *finance* (most of tasks of Protocol are performed by state budget- health and environment sector funds)
- *personal capacity* (in competent sectors are still missing experts who would deal with topics of Protocol)

9. Please describe whether and, if so, how emerging issues relevant to water and health (e.g., climate change) were taken into account in the process of target setting.

In the Slovak Republic is long period valid regulation, that in case of drought period, priority for water use is given to supply of inhabitants.

Important role plays Flood Directive (and its connection to the Water Framework Directive) which requires elaboration of the map of flood risk and plans of management of flood risks. These are important tools for protection of inhabitants and their health and safety of water sources.

Emerging and relatively new issues related to water and health (e.g. climate change, water scarcity and drought, new chemical substances etc.) are taken into consideration on national level in harmony with agenda on EU level – implementation of water directives and Blueprint. New Common Implementation Strategy for years 2013-2015 is under preparation and should be approved by first half of 2013.

Part Two

Common indicators¹

I. Quality of the drinking water supplied

A. Context of the data

Please provide general information related to the context of the data provided under sections B and C below:

1. What is the population coverage (in millions or per cent of total national population) of the water supplies reported under this indicator?

In the Slovak Republic groundwater is primarily intended for drinking water supply under the valid Water Law No. 384/2009 Coll. and its amendments.

In the sense of WHO/UNICEF definition all inhabitants of the Slovak Republic have access to safe drinking water sources.

Definition of drinking water public supply in the Slovak Republic: minimum 50 inhabitants or 10m³ water per day.

Number of population served in large areas in the SR increased since **2005**, when safe drinking water was supplied to 4,5941 million inhabitants (total population of SR - 5,3867 million), it was 85,3 %; in **2006** to 4,6534 million (total population of SR - 5,3904 million), it was 86,3 %; in **2007** to 4,6537 million (total population of SR - 5,401 million), it was 86,2 %. The total population supplied from public water supplies in **2008** was 86,3 % of the population (total population of SR - 5,4123 million); in **2009** 86, % (total population 5,4249 mil.); in **2010** 86,6% (total population 5,4353 mil.); in **2011** 86,9% (total population 5,4353 mil.).

2. Do the water supply systems reported here supply the urban population only or both the urban and rural populations?

Supply system of safe drinking water includes both urban and rural population in Slovakia without separation of evidence urban or rural.

Areas of drinking water supply are divided into:

- a) 2 big areas : 5000-50 000 inhabitants and more than 50 000 inhabitants
- b) 3 small areas: population: 50-500; 500–2 000; 2 000–5 000.

Data reported to European Commission (EC) concerning individual water directives are available at Central Data Repository (Eionet network): <http://cdr.eionet.europa.eu/sk/eu>.

3. Specify where the samples/measurements are taken (e.g., treatment plant outlet, distribution system or point of consumption).

The owners of public water systems or their operators ensure raw water quality control at source and water quality control in the distribution network. Water companies, municipalities or other legal bodies and persons can operate public water systems if they have license for public water system of appropriate category. In case of identification of exceeded limit values of parameters that are defined by limit or highest acceptable limit value the operator is obliged to inform immediately the corresponding Regional Public Health Authority. The extent number and frequency of water quality control depends on the

¹ In order to allow an analysis of trends for all Parties under the Protocol, please use wherever possible 2005 — the year of entry into force of the Protocol — as the baseline year.

volume of supplied water and number of supplied inhabitants. Drinking water quality in Slovak Republic is monitored by Public Health Authority of the Slovak Republic and 36 Regional Public Health Authorities in their competency in the framework of performance of state health surveillance. Drinking water quality is monitored in the spot of end user, as a part of specialised roles of public health bodies.

Data in part *B* - Bacteriological quality and *C* - *Chemical quality* are data of monitoring quality of drinking water at the tap of consumers.

4. In the reports, the standards for compliance assessment signify the national standards. If national standards for reported parameters deviate from the WHO guideline values, provide information on the values (standards) used for calculation.²

The Slovak Republic transposed and implemented all relevant European directives on water. Requirements for drinking water quality, applicable to all European Union member states are given by Drinking Water Directive (98/83/EC), which is implemented by the Slovak Government Order No. 354/2006 Coll., laying down the requirements for water intended for human consumption and quality control of water intended for human consumption, as amended by the Slovak Government Order No. 496/2010 Coll.. Standards for drinking water quality in the directive are based on WHO recommendations. When compared to the European Union regulation, Slovak Government Regulation No. 354/2006 Coll. contains additional 30 drinking water quality parameters, as follows: Colony Count 37°C, colorless flagellates, living organisms (excluding flagellata colorless), filamentous bacteria (excluding iron and manganese bacteria), micromycetes determinable microscopy, dead organisms, iron and manganese bacteria, abioseston, silver, dichlorobenzene, monochlorobenzene, styrene, tetrachloromethane, toluene, xylenes, bromodichloromethane, 2,4-dichlorophenol, chlordioxide, chlorites, chloroform, ozone, 2,4,6-trichlorophenol, absorbance, total dissolved solids, temperature, zinc, magnesium, calcium, pooled concentration of calcium and magnesium, microcystins.

The following tables are based on the data requirements of European Union legislation as national information systems are set up for reporting data to the European Commission. However, each table is provided to compare the WHO guideline value and the parameter values according to European Union requirements.

B. Bacteriological quality

Indicator to be used: WatSan_S2: The percentage of samples that fail to meet the national standard for *E. coli* and the percentage of samples that fail to meet the national standard for *Enterococci*.

² In order to ensure consistency and quality of the data sets resulting from sampling programmes, countries may wish to consider ensuring compliance with appropriate international standards for sampling programmes. Examples of such international standards are the ISO 5667 family of standards, in particular:

- 5667-1:2006 Guidance on the design of sampling programmes and sampling techniques;
- 5667-3:2003 Guidance on the preservation and handling of water samples;
- 5667-5:2006 Guidance on sampling of drinking water from treatment works and piped distribution systems;
- 5667-11:2009 Guidance on sampling of groundwaters.

<i>WatSan_S2</i>	<i>WHO guideline value</i>	<i>Parametric value</i> (Drinking water Directive 98/83/EC)	<i>Baseline value</i> (2005 – Protocol entered into force % Non-comply samples)	<i>Previous value</i> (2010 – the 1. reporting cycle) % Non-comply samples)	<i>Current value</i> (2012 % Non-comply samples)
E. coli	0 number/100 ml	0 number/100 ml	2,62 %	3,37 %	1,83 %
Enterococci	0 number/100 ml	0 number/100 ml	3,52 %	3,19 %	2,77 %

C. Chemical quality

Indicator to be used: WatSan_S3. All countries shall monitor and report on the percentage of samples that fail to meet the national standard for chemical water quality with regard to the following:

- Fluoride;
- Nitrate and nitrite;³
- Arsenic;
- Lead;
- Iron;
- five additional physico-chemical parameters.

<i>Substance</i>	<i>WHO guideline value</i>	<i>Parametric value</i> (Drinking Water Directive 98/83/EC)	<i>Baseline value</i> (2005 – Protocol entered into force) % Non-comply samples according DWD	<i>Previous value</i> (2010 – the 1. reporting cycle) % Non-comply samples according DWD	<i>Current value</i> (2012) % Non-comply samples according DWD
Fluoride	1,5 mg/l	1,5 mg/l	0,14 %	0 %	0,1 %
Nitrate	50 mg/l	50 mg/l	1,2 %	0,47 %	0,33 %
Nitrite	3 mg/l	0,5 mg/l	0,02 %	0,11 %	0,3 %
Arsenic	0,01 mg/l	0,01 mg/l	3,2 %	1,24 %	0,68 %
Lead	0,01 mg/l	0,01 mg/l	0,35 %	0,58 %	0,1 %
Iron	-	0,2 mg/l	8,24 %	7,53 %	4,52 %
Pesticides –total	-	0,0005 mg/l	0 %	0 %	0 %
Benzo(a)pyrene	0,0007 mg/l	0,00001 mg/l	-	0 %	0 %

³ As defined in the WHO Guidelines for drinking-water quality.

Benzene	0,01 mg/l	0,001 mg/l	0 %	0 %	0 %
Cadmium	0,003 mg/l	0,005 mg/l	0 %	0 %	0 %
Mercury	0,006 mg/l	0,001 mg/l	0,91 %	0,1 %	0 %
Nickel	0,07 mg/l	0,02 mg/l	0,25 %	0 %	0 %
Cyanide	-	0,05 mg/l	0,14 %	0 %	0 %
Copper	2 mg/l	2 mg/l	0 %	0 %	0 %
Chloride	-	250 mg/l	0 %	0,1 %	0 %
Trihalomethanes - total	-	0,1 mg/l	0,88 %	0 %	0 %

II. Reduction of the scale of outbreaks and incidence of infectious diseases potentially related to water

In the table, there are the numbers reported only related to water.

	<i>Incidence</i>		<i>Number of outbreaks</i>	
	<i>Baseline (2005)</i>	<i>Current value (2012)</i>	<i>Baseline (2005)</i>	<i>Current value (2012)</i>
Cholera	0	0	0	0
Bacillary dysentery (shigellosis)	0	0	0	0
EHEC^a	0	0	0	0
Viral hepatitis A	0	0	0	0
Typhoid fever	0	0	0	0

^a Enterohaemorrhagic E. coli.

III. Access to drinking water

<i>Percentage of population with access to drinking water</i>	<i>Baseline value 2005</i>	<i>Previous value 2008</i>	<i>Current value 2011</i>
Total	85,3 % (4,5941 mil. inhabitants)	86,3 % (4,6704 mil. inhabitants)	86,9 % (4,7238 mil. inhabitants)
Urban	Evidence is not managed for rural and urban population extra	Evidence is not managed for rural and urban population extra	Evidence is not managed for rural and urban population extra
Rural	Evidence is not managed	Evidence is not managed	Evidence is not managed

	for rural and urban population extra	for rural and urban population extra	for rural and urban population extra
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Definition of drinking water public supply in the Slovak Republic: minimum 50 inhabitants or 10 m³ water per day.

In the sense of WHO/UNICEF definition all inhabitants of the Slovak Republic have access to safe drinking water sources.

IV. Access to sanitation

<i>Percentage of population with access to sanitation</i>	<i>Baseline value 2005</i>	<i>Previous value 2008</i>	<i>Current value 2011</i>
Total	Number of inhabitants connected to public sewerage system : 3,0755 mil. (55,16%)	Number of inhabitants connected to public sewerage system : 3,1966 mil. (59,06%)	Number of inhabitants connected to public sewerage system : 3,26004 mil. (61,58 %)
Urban	Evidence is not managed for rural and urban population	Evidence is not managed for rural and urban population	Evidence is not managed for rural and urban population
Rural	Evidence is not managed for rural and urban population	Evidence is not managed for rural and urban population	Evidence is not managed for rural and urban population

Sanitation is performed in harmony with EU legislative – the Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment (Directive 91/271/EEC).

V. Effectiveness of management, protection and use of freshwater resources

For European Union countries

Ecological status (potential) of surface water bodies

<i>Percentage of surface water classified as:</i>	<i>Baseline value 2007/2008 % of WB</i>	<i>Previous value 2009* % of WB</i>	<i>Current available value 2010* % of WB</i>
High status	27,7	29,12	0,30
Good status	36,0	35,65	70,21
Moderate status	32,9	31,82	25,36
Poor status	3,0	2,94	3,70
Bad status	0,4	0,47	0,43

Total number/volume of water bodies classified	1760	1700 ¹⁾	1648 ²⁾
Total number/volume of water bodies in the country	1760	1760	1760

- 1) Ecological potential has been assessed in 60 water bodies designated as heavily modified water bodies(HMWB)/artificial water bodies (AWB)
- 2) Ecological potential has been assessed in 112 water bodies designated as HMWB/AWB;
- * Preliminary assessment , second RBMP - final assessment will covers the whole period of 2009 – 2012

Note: preliminary assessment of the year 2009 and 2010 is a combination of the assessment based on monitoring activity as well as the estimation of the risk

Chemical status of surface water bodies

<i>Percentage of surface water bodies classified as</i>	<i>Baseline value 2007/2008 % of WB</i>	<i>Previous value 2009* % of WB</i>	<i>Current „available” value 2010* % of WB</i>
Good status	95,0	93,86	90,00
Poor status	5,0	6,14	10,00
Total number/volume of water bodies classified	1760	1760	1760
Total number/volume of water bodies in the country	1760	1760	1760

* Preliminary assessment , second RBMP - final assessment will covers the whole period of 2009 – 2012

Note: preliminary assessment of the year 2009 and 2010 is a combination of the assessment based on monitoring activity as well as the estimation of the risk

Status of groundwaters

<i>Percentage of groundwaters classified as</i>	<i>Baseline value 2007/2008 % of WB</i>	<i>Previous value</i>	<i>Current value</i>
Good quantitative status	93,3	-	-
Good chemical status	82,7	-	-
Poor quantitative status	6,7	-	-
Poor chemical status	17,3	-	-
Total number/volume of groundwater bodies classified	75 ³⁾	-	-
Total number/volume of groundwater bodies in the country	101	-	-

- 3) Groundwater bodies (26 geothermal structures) were not evaluated in the first river basin management plan due to the absence of data on their exploitation potential.

Ground water sources are preferably used for drinking water supply.

Water use

Please provide information on the water exploitation index at the national and river basin levels for each sector (agriculture, industry, domestic), i.e., the mean annual abstraction of freshwater by sector divided by the mean annual total renewable freshwater resource at the country level, expressed in percentage terms.

<i>Water exploitation index</i>	<i>Baseline value 2005</i>	<i>Previous value 2008</i>	<i>Current value 2011</i>
Agriculture	2,1 %	2,9 %	4,3 %
Industry^a	87,8 %	80,5 %	77,0 %
Domestic use^b	10,1 %	16,6 %	18,8 %

Note : 1) Data in table above related to surface water.

2) Figures relevant to title "Domestic use" refer to public water supply system only

3) Figures relevant to "Industry" refer to total number, including cooling water

^a Please specify whether the figure includes both water abstraction for manufacturing industry and for energy cooling.

^b Please specify whether the figure only refers to public water supply systems or also individual supply systems (e.g., wells).

Part Three

Targets and target dates set and assessment of progress

I. Quality of the drinking water supplied (art. 6, para. 2 (a))

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National target: ***Improved quality and health safety of drinking water; solving the problem of exceeded limits for nitrates in public supplies***

This target is set on national but also on local level. Deadline for target is the year 2011. The Public Health Authority of the Slovak Republic is responsible for implementation of this target.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Requirements for the quality of drinking water and its suppliers obligations are stated in the Act No. 355/2007 Coll. on protection, promotion and development of public health and amending certain acts, as amended and Government Regulation No. 354/2006 establishing requirements for water intended for human consumption and quality control of water intended for human consumption as amended by the Government. 496/2010 Coll.. Indicators of quality and health safety of drinking water in Slovakia are in accordance with European Parliament and Council Directive 98/83/EC on the quality of water intended for human consumption. If the water does not meet the limits of its quality indicators, the chemical parameters listed in Annex 1, Part B of the Drinking Water may be granted. The maximum limit value set except for the indicator should not pose a threat to health. The validity of each exemption is limited to a maximum of three years and at the end of its period validity check is performed to demonstrate the improvement of drinking water quality. Giving the first exception is not subject to the obligation to notify the European Commission, granting conditional second exception is aimed at evaluating control deficiencies in water quality. Inspection results and the reasons for the decision shall be communicated to the European Commission. In exceptional circumstances, a Member State may ask the Commission for a third exception. The request for exemption must include an assessment of the health risks resulting from non-hygienic limit fed population.

3. Assess the progress achieved towards the target.

Overflow occurrence of nitrates in the past belonged to a common reason for granting exceptions to public water. There are currently no public water systems supplying over 5000 people in place. No exceptions for nitrate (or other chemical indicators in Annex 1, Part B of the drinking water) and overflow occurrence of nitrate remains a problem in the case of public and individual wells.

Example: Currently, the problem persists with water supply „Sikenička” community. From 25.6.2011 to 24.6.2014 derogation is allowed for use of tap water „Sikenička” village, which supplies 478 inhabitants. Drinking water quality does not meet the limit specified in the regulations of the SR Government No. 354/2006 establishing requirements for water intended for human consumption and quality control of water intended for human consumption as amended by the Government. 496/2010 Coll. in parameter nitrates. Due to the overflow of manganese, water treatment plant (in operation since 2007) is constructed on public water system. West-Slovak Water Company, as responsible entity, intends to solve the problem of nitrates by connection on public water system of remote village „Gabčíkovo-Kolta-Želiezovce” within the

"Region Želiezovce, drinking water supply" (the group water supply system Hronovce). This project is ongoing.

Example: A specific case is, if drinking water satisfies the requirements of existing law, but there is a suspicion on health safety of the water because of its treatment. In this case, it is necessary to prepare health risk assessments, as it was with „Rimavská Sobota group water supply system“. In August 2011, experts in the field of public health, worked in a study Assessment of health risks from intake of drinking water that the health security is assured combined disinfection (chlorine dioxide, chlorine gas and sodium hypochlorite). The study objective of health risk assessment was to assess the expected health effects of drinking water intake on each public supply consumption site in „Rimavská Sobota“. The water source of group water supply system is surface water tank „Klenovec“. Water clearing from water reservoir is multistage and with combined disinfection. The water treatment plant into the water dispenses chlorine dioxide. Depending on the water quality status and length of pipe in the villages and the technical condition of reservoirs, if necessary, carry out additional chlorine gas and disinfection with sodium hypochlorite so that the water in each public supply consumption site meet water quality requirements under legislations. The exposure assessment was approached in a conservative concept so as to cover all the health risks of individual substances - residues of disinfectants and their degradation products, which are found in drinking water. The evaluation of the results of water samples from consumption sites (supplied with a total of 30 408 people in 20 villages) showed that the combined method of disinfection of drinking water in the water supply system does not pose a health risk for adult or for the pediatric population from long-term intake of this drinking water.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets and target dates did not have to be revised.

5. If you have not set a target in this area, please explain why.

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National target: **Implement new information system on public supply**

This target is set on national but also on local level. Deadline for target is the year 2012. The Public Health Authority of the Slovak Republic is responsible for implementation of this target.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

The reason for setting this target was inoperable and effete information, which focused on data quality drinking water in Slovakia. Another reason was the fulfillment of reporting obligations of the drinking water quality in large and small supply zones to the European Union. The new information system was created in accordance with the requirements of current legislation of the SR and the European Union. In addition to the fact that the system will make available selected relevant information on the quality of drinking water to the general public with the possibility to display statistical information (an overview of water quality at community, district or regional level for a given time interval, time line for selected water quality parameters with a graphical representation of the proportion of satisfactory and non-compliant

samples), also will significantly facilitate the work with water quality data for reporting on drinking water quality to the European Commission. The new information system is designed as a web application. System was funded by the European Union (UIBF 2006). In the frame of the Operational Programme Environment sum of 198,9 mil Euros has been allocated for drinking water supply area from Cohesive Fund 2007-2013.

3. Assess the progress achieved towards the target.

Set target has been achieved, and fully helps in the processing of drinking water quality data in Slovakia. System is working since 2010.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets and target dates did not have to be revised.

5. If you have not set a target in this area, please explain why.

II. Reduction of the scale of outbreaks and incidents of water-related disease (art. 6, para. 2 (b))

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National target: **Implement effective measures for prevention of water related diseases, monitoring of appearance of infectious and non-infectious water related diseases till 2012.**

Target date is 2012. The Public Health Authority SR is responsible for implementation of these targets. This target is on national but also on local level.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

One of the priority tasks of public health in Slovakia is regular monitoring of drinking water quality. Results of monitoring in consumer can point to the possibility of emergence and spread of infectious diseases associated with water. Health care providers, medical and clinical laboratories are required to notify the occurrence of infectious diseases and suspected infection to Regional Public Health Authorities. Reports are sent to central register of infectious diseases, which is part of Slovak epidemiological information system (EPIS). The basic legal document dealing with target 5 is the Act No. 355/2007 Coll. on protection, promotion and development of public health, amending certain acts, as amended. The system also corresponds with the European Centre for Diseases Prevention and Control criteria on quality classification of communicable diseases and the quality of reporting of data on portable diseases. The system besides collection, processing and presentation of data on communicable diseases includes a Rapid Alert System, which enables rapid information to professional public about outbreaks of serious communicable diseases in Slovakia and European Union countries, thereby enabling to take appropriate action.

3. Assess the progress achieved towards the target.

In general, we can say that the quality of water in Slovakia is high. More than 80% of drinking water is groundwater, which is exposed to the least possible negative effects of pollution. This fact is also reflected in the incidence of epidemics and infectious diseases related to water. During the period 2008 - 2011 there were recorded 25 cases where the transmission factor of infectious agents was drinking water from the public water supply. In 234 cases it was from uncontrolled private water sources (mountain wells, stream, unsecured individual sources, etc.). On the other hand, it is needed to say that the quality of water in individual private sources (wells) is ensured and monitored by the well owner. In general, the incidence of water-related diseases compared to total population of Slovakia (5.435 millions) is not high. With regard to the incidence of child nitrate methemoglobinemia over the last five years we have seen only five cases of the disease with 1 death. The fatal case was an individual drinking from water wells.

ICD-10 Code	Name disease	Total No. of cases
A020	Salmonella enteritis	1
A033	Shigellosis caused by Shigella sonnei	2
A045	Campylobacter enteritis	3
A081	Acute gastroenteropathy due to Norwalk agent	1
A09	Infectious gastroenteritis and colitis, unspecified	18

Table 2: The incidence of diseases transmitted by drinking water from public water systems in the Slovak Republic in 2008 - 2011, according to the International Classification of Diseases

In 2012, Public Health Authority of the Slovak Republic prepared indicator Supply of drinking water in relation to the incidence of infectious diseases transmissible by drinking water in the Slovak Republic within European Environmental and Health Information System (EHIS), which is presented on website: http://www.uvzsr.sk/docs/info/zp/factsheet_pitna_voda.pdf

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets and target dates did not have to be revised.

5. If you have not set a target in this area, please explain why.

III. Access to drinking water (art. 6, para. 2 (c))

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National target: *Increase of number of inhabitants which are supplied by public water supply network + Implementation of Water Framework Directive*

Concrete number is not set up. Basic document for development of public water system is the Strategy for Water Management Policy until year 2015.

Water Management Plan of Slovakia approved the Slovak Government by the decision No. 109 of February 10, 2010 sets up policy for implementation of the Water Framework Directive, including the Programme of Measures, which is its part.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

In the frame of the Operational Programme Environment sum of 198.9 mil Euros has been allocated for drinking water supply area from Cohesive Fund 2007-2013. National source of money Environmental Fund of the Slovak Republic contributes to development of public water supply system as well.

3. Assess the progress achieved towards the target.

In year 2005 85,3 % (4,5941 mil. inhabitants) were supplied with drinking water from public water supply network. This number increased in year 2008 up to 86,3 % (4,6704 mil. inhabitants) and in year 2011 up to 86,9 % (4,7238 mil. inhabitants).

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets and target dates did not have to be revised.

5. If you have not set a target in this area, please explain why.

IV. Access to sanitation (art. 6, para. 2 (d))

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National targets: **Improved situation in the sector of waste water treatment and release + Implementation of Water Framework Directive** (Implementation of the Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment)

Main milestones:

- treatment of urban waste water in agglomerations with more than 10,000 population equivalent (PE) until end of 2010 and more than 2,000 PE until end of year 2015. Others targets are described in the Operational Programme Environment (www.opzp.sk),
- implementation of the Water Framework Directive and all others EU relevant directives focused on pollution reduction.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Legislation:

- Water Law No. 384/2009 Coll. and its amendments
- basic document for implementation of the Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment is National Programme of the Slovak Republic for Performance of Council Directive 91/271/EEC concerning urban waste water treatment. This document is up dated in two years period.
- except this one Plan for Development of Public Waterworks and Public Sewerage has been elaborated.
- Water Management Plan of Slovakia approved the Slovak Government by the decision No. 109 of February 10, 2010 sets up policy for implementation of the Water Framework Directive, including the Programme of Measures, which is its part.

Financial sources:

Cohesive Fund, Structural Funds, state budget (Table 1).

3. Assess the progress achieved towards the target.

Percentage of population with access to improved sanitation	Baseline value year 2005	Baseline value year 2008	Current value year 2011
Total	Number of inhabitants connected to public sewerage system : 3,0755 mil. (57,09 %)	Number of inhabitants connected to public sewerage system : 3,1966 mil. (59,06 %)	Number of inhabitants connected to public sewerage system : 3 347 307 mil. (61,58%)
	of that in houses connected to sewerage system with WWTP: 2,9714 mil. (55,16 %)	of that in houses connected to sewerage system with WWTP: 3.1069 mil. (57, 52 %)	of that in houses connected to sewerage system with WWTP: 3 260 041 mil. (59,98%)

number of waste water treatment plans	468	577	616
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Table 3: the progress achieved in sanitation area from 2005 to 2011 year

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets and target dates did not have to be revised.

5. If you have not set a target in this area, please explain why.

V. Levels of performance of collective systems and other systems for water supply (art. 6, para. 2 (e))

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National targets: *Increased proportion of public high quality water supply users + Implementation of Water Framework Directive*

- ensurance of quality and quantity of water for water supply
- monitoring of water sources

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Legislation:

- Water Law No. 384/2009 Coll. and its amendments
- Governmental Order No. 354/2006 Coll.,
- Water Management Plan of Slovakia, which includes Programme of Measures, in which are included many different measures focused on water quality and quantity protection,
- Standards for Water Quality in Public Waterworks and Public Sewerage,
- Requirements for drinking water quality, applicable to all European Union member states are given by Drinking Water Directive (98/83/EC), which is implemented in the Slovak Republic by Governmental Order No. 354/2006 Coll., laying down the requirements for water intended for human consumption and quality control of water intended for human consumption. Standards for drinking water quality in the directive are based on WHO recommendations. Slovakia has 6 indicators which are more stringent than the limits laid down in directive compared with the Drinking Water Directive (98/83/EC); namely boron, cadmium, copper, cyanide, chloride and pH.

Finance : Table 1

Difficulties: financial sources.

3. Assess the progress achieved towards the target.

	year 2005	year 2008	year 2011
amount of samples meeting requirements for drinking water quality in all parameters (%)	89,59	91,84	92,05
capacity of water resources (l/s)	33 848	33 876	33 527
length of water supply network (km)	25 719	27 377,3	28 777

Table 4: the progress achieved in drinking water supply from 2005 to 2011 year

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets and target dates did not have to be revised.

5. If you have not set a target in this area, please explain why.

VI. Levels of performance of collective systems and other systems for sanitation (art. 6, para. 2 (e) continued)

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National target: *Improved situation in the sector of waste water treatment and release + Implementation of Water Framework Directive*

-implementation of the Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment.

Main milestones:

-treatment of urban waste water in agglomerations with more than 10,000 population equivalent (PE) until end of 2010 and more than 2,000 PE until end of year 2015. Others targets are described in the Operational Programme Environment (www.opzp.sk).

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Legislation:

-Water Law No. 384/2009 Coll. and its amendments

-basic document for implementation of the Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment is the National Programme of the Slovak Republic for Performance of implementation of Council Directive 91/271/EEC concerning waste water treatment. This document is updated in two years period.

-except this one: the Plan of Development of Public Waterworks and Public Sewerage has been elaborated.

- Standards for Water Quality in Public Waterworks and Public Sewerage

- Water Management Plan of Slovakia approved the Slovak Government by the decision No. 109 of February 10, 2010 sets up policy for implementation of the Water Framework Directive, including the Programme of Measures, which is its part.

- National Programme of the Slovak Republic for Performance of Council Directive 91/271/EEC concerning urban waste water treatment

Financial sources :

Cohesive Fund, Structural Funds, state budget (Table 1).

3. Assess the progress achieved towards the target.

	Baseline value year 2005	Current value year 2008	Current value year 2011
total percentage of population with access to improved sanitation	Number of inhabitants connected to public sewerage system : 3,0755 mil. (57,09 %) of that in houses connected to sewerage system with WWTP: 2,9714 mil. (55,16 %)	Number of inhabitants connected to public sewerage system : 3,1966 mil. (59,06 %) of that in houses connected to sewerage system with WWTP: 3,1069 mil. (57, 52 %)	Number of inhabitants connected to public sewerage system : 3, 347 307 mil. (61,58%) of that in houses connected to sewerage system with WWTP: 3, 260 041 mil. (59,98 %)
number of waste water treatment plants	468	577	616
length of sewerage networks (km)	7690	9266,4	11 210,5

Table 5: the progress achieved in the sector of waste water treatment

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Revision is managed in two years interval in harmony with the National Programme of the Slovak Republic for Performance of Council Directive 91/271/EEC concerning urban waste water treatment.

Data reported to European Commission (EC) concerning individual water directives, including Directive 91/271/EEC, are available at Central Data Repository (Eionet network) :

<http://cdr.eionet.europa.eu/sk/eu>.

5. If you have not set a target in this area, please explain why.

VII. Application of recognized good practices to the management of water supply, (art. 6, para. 2 (f))

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National targets: *Increased proportion of public high quality water supply users + Implementation of Water Framework Directive*

- ensurance of quality and quantity of water for water supply
- monitoring of water sources

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Legislation:

- Water Law No. 384/2009 Coll. and its amendments
- Governmental Order No. 354/2006 Coll.,
- Water Management Plan of Slovakia, which includes Programme of Measures, in which are included many different measures focused on water quality and quantity protection,
- Standards for Water Quality in Public Waterworks and Public Sewerage,
- Requirements for drinking water quality, applicable to all European Union member states are given by Drinking Water Directive (98/83/EC), which is implemented in the Slovak Republic by Governmental Order No. 354/2006 Coll., laying down the requirements for water intended for human consumption and quality control of water intended for human consumption. Standards for drinking water quality in the directive are based on WHO recommendations. Slovakia has 6 indicators which are more stringent than the limits laid down in directive compared with the Drinking Water Directive (98/83/EC); namely boron, cadmium, copper, cyanide, chloride and pH..

Finance : Table 1

Difficulties: financial sources.

3. Assess the progress achieved towards the target.

	year 2005	year 2008	year 2011
amount of samples meeting requirements for drinking water quality in all parameters (%)	89,59	91,84	92,05
capacity of water resources (l/s)	33 848	33 876	33 527
length of water supply network (km)	25 719	27 377,3	28 777

Table 6: the progress achieved in drinking water supply from 2005 to 2011

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets and target dates did not have to be revised.

5. If you have not set a target in this area, please explain why.

VIII. Application of recognized good practice to the management of sanitation (art. 6, para. 2 (f) continued)

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National targets: *Improved situation in the sector of waste water treatment and release + Implementation of Water Framework Directive*

- described in: National Programme of the Slovak Republic for Performance of Council Directive 91/271/EEC concerning urban waste water treatment
- nutrient reduction in harmony with requirements of Council Directive 91/271/EEC concerning urban waste water treatment

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

- application of the Standards for Water Quality in Public Waterworks and Public Sewerage,
- use of techniques which lead to achievement of targets set up in Council Directive 91/271/EEC concerning urban waste water treatment

3. Assess the progress achieved towards the target.

Percentage of population with access to improved sanitation	Baseline value year 2005	Current value year 2008	Current value year 2011
Total	Number of inhabitants connected to public sewerage system : 3,0755 mil. (57,09 %) of that in houses connected to sewerage system with WWTP: 2,9714 mil. (55,16 %)	Number of inhabitants connected to public sewerage system : 3,1966 mil. (59,06 %) of that in houses connected to sewerage system with WWTP: 3,1069 mil. (57,52 %)	Number of inhabitants connected to public sewerage system : 3,347 307mil. (61,58%) of that in houses connected to sewerage system with WWTP: 3,260 041 mil. (59,98%)
number of waste water treatment plants	468	577	616

Table 7: the progress achieved in the sector of waste water treatment from 2005 to 2011

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

National Programme of the Slovak Republic for Performance of Council Directive 91/271/EEC concerning urban waste water treatment is updated each two years

5. If you have not set a target in this area, please explain why.

IX. Occurrence of discharges of untreated wastewater (art. 6, para. 2 (g) (i))

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National target: *Improved situation in the sector of waste water treatment and release + Implementation of Water Framework Directive*

-implementation of the National Programme of the Slovak Republic for Performance of Council Directive 91/271/EEC concerning urban waste water treatment. There is stated, that waste water treatment plants have to be built with appropriate treatment.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

The Plan of Development of Public Waterworks and Public Sewerage allows/ensures treatment of waste water in agglomerations below 2000 PE. In certain conditions - support from EU funds. This one is used seldom, because main national target is waste water treatment in agglomerations above 2000 PE (obligation from European Union : Accession Treaty).

Water Management Plan of Slovakia includes Programme of Measures, which are split on basic measures and additional measures. Treatment of untreated waste water from agglomerations below 2000 PE belongs to additional measures.

3. Assess the progress achieved towards the target.

	year 2005	year 2008	year 2011
water discharged to watercourses altogether (m ³)	443 mil.	403,5 mil.	414,6 mil.
of that treated wastewater (m ³)	428,2 mil	395,3 mil.	406,5 mil.
untreated water (m ³)	15,1 mil	8,2 mil.	8,1 mil.
%	3,41 %	2,03 %	1,95 %

Table 8: the progress achieved in the sector of waste water treatment from 2005 to 2011

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

National Programme of the Slovak Republic for Performance of Council Directive 91/271/EEC concerning urban waste water treatment is updated each two years.

5. Assess the progress achieved towards the target.

X. Occurrence of discharges of untreated storm water overflows from wastewater collection systems to waters within the scope of the Protocol (art. 6, para. 2 (g) (ii))

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

Targets not set up yet.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Legislation does not exist.

At present sewerage system is mostly uniform. In new constructed sewerage system is already built divided sewerage. Rainfall tanks with satisfactory capacity are built in the process of waste water treatment plans reconstructions.

3. Assess the progress achieved towards the target.

No data for progress assessment.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets not set up yet.

5. If you have not set a target in this area, please explain why.

Legislation does not exist.

At present sewerage system is mostly uniform. In new constructed sewerage system is already built divided sewerage. Rainfall tanks with satisfactory capacity are built in the process of waste water treatment plans reconstructions.

XI. Quality of discharges of wastewater from wastewater treatment installations to waters within the scope of the Protocol (art. 6, para. 2 (h))

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National targets: *Improved situation in the sector of waste water treatment and release + Implementation of Water Framework Directive*

- implementation of Directive 91/271/EEC.
- implementation of the Water Framework Directive 2000/60 EC with objective to reach good status of water
- implementation of others European Union relevant directives focused on pollution reduction

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Legislation:

- Water Law No. 364/2004 Coll. in wording of its later amendments
- Governmental Order No. 269/2010 Coll. which sets up requirements on good water status in the wording of Governmental Order No. 398/2012

All relevant European Union directives are transposed into Water Law No. 364/2004 Coll. in wording of its later amendments and into Governmental Order No. 269/2010 Coll. which sets up requirements on good water status in the wording of Governmental Order No. 398/2012

3. Assess the progress achieved towards the target.

Improvement of discharged waste water quality and following improvement of surface water quality.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets and target dates did not have to be revised.

5. If you have not set a target in this area, please explain why.

XII. Disposal or reuse of sewage sludge from collective systems of sanitation or other sanitation installations (art. 6, para. 2 (i), first part)

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National targets: *Improved situation in the sector of waste water treatment and release + Implementation of Water Framework Directive*

-maximal use of sewage sludge and minimalisation of its storage at waste disposals

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Legislation:

- Water Law No. 364/2004 Coll. in wording of its later amendments
- Water Management Plan of Slovakia and its Programme of Measures
- Governmental Order No. 279/2011 Coll. (which contains Programme of Measures, purpose of its achievement of environmental objectives)
- Waste Law No. 223/2001 Coll. in wording of its later amendments
- Law on application of sewage sludge into soil No. 188/2003 Coll. in wording of its later amendments
- Programme of Waste Management of the Slovak Republic

Education:

Education of state administration, education programmes, implementation of good agriculture practice, Rural Development Programme

3. Assess the progress achieved towards the target.

Based on existing law sewage sludge management is transparent. Also decrease of sewage sludge contamination.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Present legislation is satisfactory.

5. If you have not set a target in this area, please explain why.

XIII. Quality of wastewater used for irrigation purposes (art. 6, para. 2 (i), second part)

This point is not relevant for the Slovak Republic (no use of waste water for irrigation).

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

3. Assess the progress achieved towards the target.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

5. If you have not set a target in this area, please explain why.

XIV. Quality of waters which are used as sources for drinking water (art. 6, para. 2 (j), first part)

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National targets: *Increased of proportion of public high quality water supply users + Implementation of Water Framework Directive*

- ensure quality and quantity of water for water supply,
- monitoring of water sources.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Legislation:

All relevant European Union directives have been transposed into:

- Water Law No. 364 /2004 Coll., in wording of its later amendments
- Governmental Order No. 269/2010 Coll. which sets up requirements on achievement of good water status, in the wording of Governmental Order No. 398/2012
- Requirements for drinking water quality, applicable to all European Union member states are given by Drinking Water Directive (98/83/EC), which is implemented in the Slovak Republic by Governmental Order No. 354/2006 Coll., laying down the requirements for water intended for human consumption and quality

control of water intended for human consumption. Standards for drinking water quality in the directive are based on WHO recommendations. Slovakia has 6 indicators which are more stringent than the limits laid down in directive compared with the Drinking Water Directive (98/83/EC); namely boron, cadmium, copper, cyanide, chloride and pH.

3. Assess the progress achieved towards the target.

	year 2005	year 2008	year 2011
amount of samples meeting requirements for drinking water quality in all parameters (%)	89,59	91,84	92,05

Table 9: the progress achieved for drinking water quality from 2005 to 2011

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets and target dates did not have to be revised.

5. If you have not set a target in this area, please explain why.

XV. Quality of waters used for bathing (art. 6, para. 2 (j), second part)

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National target: ***Implemented new information system on quality of bathing water in natural as well as artificial swimming pool***

Target date was 2008. The Public Health Authority of the Slovak Republic is responsible for implementation of these targets. This target was on national but also on local level.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

The reason for setting this target was absent information, a system that would store and process data on water quality in natural and artificial pools. Another reason was the fulfillment of reporting obligations of the bathing water quality to the European Union. The information system was created in accordance with the requirements of current legislation of the Slovak Republic and the European Union. The system was funded by the European Union (UIBF 2004). The system is available to the public with current information on water quality in individual swimming pools. Information System was designed as a web application.

3. Assess the progress achieved towards the target.

Set target has been achieved, and fully helps in the processing of bathing water quality data in natural and artificial pools in Slovakia. Target is fulfilled.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets and target dates did not have to be revised. This target was designed 6 years ago. Legislation (European and national) has changed. During the use, the system showed deficiencies and incorrect functionality. The system would need update. In early 2011, the analysis was conducted in collaboration with Regional Public Health Authority. The main shortcomings of the system were defined. List of requirements and comments on information system has been sent to the Slovak Environmental Agency, which is its administrator, to preliminary setting off the funds needed to upgrade the system. A rough estimate was on 12 000 €. Ever since it is looking for a way how to finance the modernization of the system but so far unsuccessfully.

5. If you have not set a target in this area, please explain why.

XVI. Quality of waters used for aquaculture or for the production or harvesting of shellfish (art. 6, para. 2 (j), third part)

This point is not relevant for the Slovak Republic.

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

3. Assess the progress achieved towards the target.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

5. If you have not set a target in this area, please explain why.

XVII. Application of recognized good practice in the management of enclosed waters generally available for bathing (art. 6, para. 2 (k))

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

3. Assess the progress achieved towards the target.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

5. If you have not set a target in this area, please explain why.

In this area there was no need to designate a national or local target, because the Slovak Republic has all the regulations in conformity with the European Union regulations. Directive 2006/7/EC of the European Parliament and of the Council, concerning the management of bathing water quality and repealing Directive 76/160/EEC. The Directive (2006/7/EC) entered into force in March 2006, containing instructions on improving the management of bathing sites by, for example, using bathing water profiling, emergency planning and better information for the public. The Directive is implemented by the Act No. 355/2007 Coll. on protection, promotion and development of public health, amending certain acts, as amended and Ministry of Health of the Slovak Republic Regulation No. 309/2012 Coll. about the requirements for bathing water.

In Slovakia, at the national level it is also valid Ministry of Health of the Slovak Republic Regulation No. 308/2012 Coll. about the requirements for water quality, water quality control and requirements for operation equipment operating areas, facilities for the natural swimming pool and artificial swimming pool.

XVIII. Identification and remediation of particularly contaminated sites (art. 6, para. 2 (I))

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National targets: *Implementation of Water Framework Directive*

Programme Declaration of the Slovak Government of May 2012 states that among basic priorities of environmental policy of the Slovak Republic belongs except others taking of measures for remediation of environmental burdens.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Legislation:

-Law No. 569/2007 Coll. on geological works (Law on Geology)

-Ordinance of the Ministry of Environment of the Slovak Republic No. 51/2008 Coll. which performs Law on Geology in the wording of Ordinance No. 340/2010 Coll.

-Law No. 409/2011 Coll. on some measures concerning environmental burden and its amendments

Strategy:

State Programme of Environmental Burdens Remediations for years 2010-2015.

3. Assess the progress achieved towards the target.

Updated information on status of individual environmental burden is available in *Information System of Environmental Burdens* on web page of the Ministry of Environment of the Slovak Republic: www.enviro.gov.sk.

Assessment of progress achieved is planned in year 2014.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Assessment of progress achieved is planned in year 2014. After that revision of targets could start, if necessary.

5. If you have not set a target in this area, please explain why.

XIX. Effectiveness of systems for the management, development, protection and use of water resources (art. 6, para. 2 (m))

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

National targets: *Implementation of the Water Framework Directive*

+ Flood Directive and others relevant water directives.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Water Management Plan of Slovakia and its Programme of Measures contains all relevant data and information, measures etc. which are needed for fulfilment of Water Framework Directive implementation. Process of Water Framework Directive and also other water directives implementation will ensure improvement and effectiveness of water management system, flood protection, development, protection and use of water and nature resources.

3. Assess the progress achieved towards the target.

Progress achieved is reported in WISE system on European Union level in harmony with individual water directives requirements concerning reporting obligations and reporting dates.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Revision of some targets, resp. new target setting are described in document approved on European Union level in year 2012: *A Blueprint to safeguard Europe's Water Resources*. Individual tasks/activities are at present incorporated into Common implementation Strategy (CIS) for years 2013-2015 which is under preparation. Approval of CIS 2013-2015 is supposed by end of May 2013.

5. If you have not set a target in this area, please explain why.

XX. Additional national or local specific targets

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

Target: ***Publishing of manual for owners of individual water sources, public awareness campaign for water with emphasis on private well owners***

The part of the objective had to be realized by the end of 2008 (***Publishing of manual for owners of individual water sources***) and the second part is fulfilled continuously according to actual needs. The Public Health Authority of the Slovak Republic is responsible for implementation of this target. This target is set on national but also on local level.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

The priority is the provision of sufficient quantities of high-quality and timely information about public drinking water supply, water quality of public water supply, water quality of artificial pool and spa and natural bathing waters, as well as educational information such as a biological value and importance of drinking water for human health in proper drinking regime (especially in summer), the health effects of contaminated water on the human body, methods of disinfection of drinking water, whether swimming or water etc.

3. Assess the progress achieved towards the target.

Example 1: ***Abnormal situations.*** In Slovakia we have extensive experience with floods. The ability to predict, be prepared for such situation and then deal with them, the first long-term policy strategy based on the experience and science-based evidence. The territory of the Slovak Republic was hit in the spring and summer of 2010 extreme floods, which affected more than 33 000 inhabitants. It was flooded nearly 28 000 houses and 7 000 commercial buildings, more than 97 000 hectares of the territory, of which approximately 7 000 hectares in municipalities and caused enormous flood damage. During the floods, people had secure access to safe drinking water and adequate sanitation.

Public Health Authority through the media and websites informed about the basic principles of hygiene after the flooding, issued a publication entitled *Floods and health protection rules in floods*, which was distributed to the damaged communities. Regional Public Health Authorities provided free testing of drinking water samples from individual sources. The occurrence of too many mosquitoes was observed. Public Health Authority established a nonstop telephone line where experts answered on citizen questions about the basic hygiene requirements for health after the flooding. They also provided advices how to proceed in case of devaluation of own drinking water sources. Public Health Authority cooperated with the Slovak Red Cross, who had an interest about education in health area during flooding and consequently ensured an assistance to the affected floodplain.

In relation to flooding, the Government approved in October 2010 Program landscape revitalization and integrated river basin management of the Slovak Republic and its implementation project. The program is a system utility not only for flood prevention and for reducing flood risks, but also for reducing the risks of drought and other natural disaster emergencies. The philosophy of the program is to change civilization access to water and to the country.

Example 2: **World Water Day**. Increased public concern about drinking water and testing drinking water from its own resources is recorded every year on the occasion of World Water Day. This international celebration of water is based on the initiative of the United Nations back in 1992 and every year in Slovakia it involves either government organizations through their institutions, as well as private water companies, the media and schools. These institutions test some water quality indicators, mostly nitrates and nitrites. During the day advice and consultations are given to citizens. During World Water Day in 2012, the authorities on protection of public health examined 3 437 samples of water from own wells. 1175 samples exceeded the limit values in parameter nitrates. Nitrites were examined in 3033 samples, of which 55 exceeded the highest threshold. In many cases, brought water is used only as municipal water for example for watering gardens. Importantly, the finding of a number of alarming levels of nitrates and nitrites in the water which was used for drinking for the entire family, including infants, prevented further deterioration of health.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets and target dates did not have to be revised.

5. If you have not set a target in this area, please explain why.

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

Target: **Cooperation with NGOs, water companies, municipalities in water issues**

The part of the objective had to be realized by the end of 2010 and the second part is fulfilled continuously according to actual needs. The Public Health Authority of the Slovak Republic is responsible for implementation of this target. This target is set on national but also on local level.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

The collaboration of public health authorities with Water Companies and villages is primarily about solving the specific situation in each region. The most common is the case of floods, when there is a threat not only to individual water sources but also for water sources for public supply.

3. Assess the progress achieved towards the target.

Example 1: **Media Campaign**. Association of Water Companies under the auspices of the Ministry of Health of the Slovak Republic after a successful campaign in 2009 prepared in May - June 2011 media campaign with name „I drink healthy water, I drink from water tap“. The aim of media campaign was to reach mainly children in form of photo competition titled „Water - my friend“ and remind them that in summer, just water from public water supply is ideal for drinking regime. The campaign was primarily aimed at children, although ambition was to reach the whole family. The idea of campaign was to remind tap water mainly for primary school children who daily consume drinks with high content of sugar,

colorings and caffeine, which is not conducive to their health. Especially in summer, correct drinking regime is important for each of us.

Example 2: **International Water Assessment Center activities** (hosted in the Slovak Republic previous period)

Activities during years 2010-2012:

-pilot projects focused on climate change adaptation in the region of East and South-East Europe, Kaukazus, Central Asia

-project meta data base for strenghtening of management information in pilots river badin (Ukraine, Moldova, Tagikistan, Kitgizia, Uzbekistan, Kazachstan, Afganistan, Turkmenia)

-cooperation with projects focused on transboundary waters; projects managed vy NATO, UNDP, GEF, ICPDR, GWP

-preparation of the Second Assessment of transboundary rivers, lakes and groundwaters

-managing of trainings, education, web pages

-preparation of new projects focused of safety of dams in Midd Asia -project in cooperation with NATO focused on hydrological warning system in river basin Pripyat.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Targets and target dates did not have to be revised.

5. If you have not set a target in this area, please explain why.

Part Four

Overall evaluation of progress achieved in implementing the Protocol

The Slovak Republic is a small country in the heart of Europe, with the area of 49,035 km² and a population of approximately 5, 4 millions. Slovakia adopted and ratified the Protocol on Water and Health in 2001. Intention was to point out the importance and seriousness of water quality on the human health. The first national targets in harmony with Protocol on Water and Health were set in 2001 and updated in 2007.

Key factors for human health concerning water management issues is to guarantee safe drinking water for population and sanitation. These activities are high importance on national level and also from point of view of fulfillment of European Union obligations.

Annual Report *Water Management in the Slovak Republic* published by the Ministry of Environment of the Slovak Republic (available on web page as well: www.enviro.gov.sk) contains information concerning drinking water supply and sanitation in Slovakia. Except these there are published all key relevant information concerning water management, e.g. legislation, institutional aspects, financial issues, river basin districts, surface water, ground water (bodies), international co-operation, floods and flood protection programmes, economic analysis, research, environmental trainings etc.

Annual Report *Water Balance* is focused on many quantitative aspects of water, water use etc. This information is available on web page of the Slovak Hydroloteorological Institute: www.shmu.sk.

Water Management Plan of Slovakia and its Programme of Measures which contains all relevant data as required by the Water Framework Directive is published on webpage: www.vuvh.sk.

Flood risks management issues deliverables as required Flood Directive are published on web page: www.enviro.gov.sk.

The first records about public water supply in Slovak Republic is from the 14th century. In 1950, around 20% of population was supplied from public water supplies. Nowadays, it is about 87% of the population. The largest building boom in the public water supply was in the '60s – '70s of the last century and it was associated with increased consumption of drinking water and its low price. In 2011, the length of the water supply network (without connections) was 28 777 km. The length of sewerage network in 2011 reached 11 211 km. In present, the Slovak Republic has 17 Water Companies. Water Companies provide about 95% of water supply services related to the operation of public water systems and sewerage systems in Slovakia.

Drinking water supply by public water supply network	1995	2000	2005	2008	2011
Total number of inhabitants (mil.)	5, 3637	5, 4006	5, 3867	5, 4123	5, 4353
Proportion [%]	79,4	82,9	85,3	86,3	86,9

Table 10: Progress achieved during implementation of Protocol on Water and Health (ratification in 2001)

Slovakia has fortunately enough quality water as evidenced by the low number of water related diseases. Further, we have the largest river island in Europe and the largest reservoir of drinking water in Central Europe. That is „Žitný island“. Žitný island is a static reservoir of underground water with accumulation of more than 15 000 m³ of quality water and with usable quantity 24,8 m³ per second. It is surrounded by the River Danube, lies in the southwest of Slovakia and has an area of almost 1900 km². Below the surface there is a huge wealth. There is a 10 billion m³ of quality drinking water. Water is replenished again and again with water leaking from the river and is located at a depth of 10 to 700 m below the surface.

The role of public health is to protect, promote and develop the health of the population. Already in 1876 it was established the Act XIV in the Slovak Republic that provided a wide range of a variety of health issues, including protective vaccination, cleanliness of the environment (including water) and sanitation issues. The hygiene security of drinking water, which is a water prevention following water related diseases has also a

long tradition. The first standard for drinking water quality was in 1959. This technical standard had 36 parameters of quality and was valid for the Czechoslovakia.

Significant progress has been made concerning urban waste water treatment. Still there is a need to fulfill obligations of the Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment until year 2015.

Data concerning implementation if there directives are regularly reported into WISE on European Union level.

Population with access to sanitation	1995	2000	2005	2008	2011
Number of inhabitants connected to public sewerage system: (mil.)	2,7389	2,6450	3,0755	3,1966	3, 3473
(%)	52,5	54,7	57,09	59,06	61,58
of that in houses connected to sewerage system with WWTP: (mil.)	2,5926	2,5381	2,9714	3,1069	3, 2600
(%)	51,5	52,49	55,16	57,52	59,98
number of waste water treatment plants	255	363	468	577	616

Table 11: Progress achieved during implementation of Protocol on Water and Health (ratification in 2001)

Data reported to European Commission concerning individual water directives are available at Central Data Repository (Eionet network) : <http://cdr.eionet.europa.eu/sk/eu>.

Status/progress of activities under the umbrella of the Common Implementation Strategy (Water Framework Directive), of which new version (under preparation at present) incorporates *A Blueprint to Safeguard Europe's Water Resources* is available on web page: circabc.europa.eu.

Present and future challenge is elimination of priority substances and other chemical substances in waters. Other major challenge for the future will be to maintain the quality of water resources, their protection, to solve situation related with climate change, further building sewerage networks but also attempt to involve NGOs in the action under the Protocol on Water and Health. On the other hand, a very important role in the performance itself but also in the actual setting of national targets of the Protocol on Water and Health will play a political will, support but also responsibility. Of course, for successful implementation of national targets considerable funds are also needed, which is nowadays problematic not only in Slovakia but also in other countries.


Slovakia is a democratic state and Slovak government is aware of the fact that opened attitude of public institutions towards citizens is an important part of creating of space for trust of citizens towards the state and its institutions. In the sense of this and also in accordance with the Slovak Constitution and Freedom of information act No. 211/2000 Coll. of Laws and also the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) citizens have a chance to express themselves and get involved in the process. However, experience shows that this is a demanding process. To arouse a public interest is a topic of limited potential.

Part Five


Information on the person submitting the report

The following report is submitted on behalf of the **Slovak Republic** in accordance with article 7 of the Protocol on Water and Health.

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