

# Template for summary reports in accordance with article 7 of the Protocol on Water and Health

## Executive summary

*Please provide an overall evaluation of the progress achieved in implementing the Protocol in your country during the reporting period. Please provide a short description of the main steps taken and highlight important achievements, key challenges, success factors and concrete good practice examples.*

*Suggested length: maximum 2 pages*

Slovak Republic adopted and ratified Protocol on Water and Health in 2001. Main intention was to point out the importance and seriousness of water quality to human health and safe environment for living. The first national targets in harmony with protocol on Water and Health were set in 2001 and updated two times in year 2007 and 2014.

Since none of the target was fulfilled to the end of the previous year 2018, there was not necessary to set new targets up to now. During the reporting period, authorities responsible for the individual objectives continued to fulfill its obligations.

During the fulfilment of the objectives relating to the raising public awareness, all responsible institutions observed significant public and national experts demand in obtaining of the information and educating.

Despite the fact that within the last summary report, there were already mentioned some partial results in particular from laboratory examinations, by continuing the analyses new results have been added which are not yet processed into final conclusions.

## Part one General aspects

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

*Please provide detailed information on the target areas in part two.*

YES  NO  IN PROGRESS

*If targets have been revised, please indicate the date of adoption and list the revised target areas. Please provide detailed information in part two.*

Slovak Republic has set up own 3<sup>rd</sup> national targets in the first half of 2014. Whereas these targets are not yet fulfilled, there are no other targets that have been revised since 2014.

2. Were targets and target dates published and, if so, how?

*Please explain whether the targets and target dates were published, made available to the public (e.g., online, official publication, media) and communicated to the secretariat.*

Last revised 3<sup>rd</sup> national targets were presented at specialist and expert forums, conferences, and they were also published in magazines and on websites ([http://www.uvzsr.sk/docs/info/zp/Protokol\\_o\\_vode\\_a\\_zdravi\\_narodne\\_ciele\\_2014.pdf](http://www.uvzsr.sk/docs/info/zp/Protokol_o_vode_a_zdravi_narodne_ciele_2014.pdf)). The Slovak Republic formally informed WHO and UNECE Secretariat about revision of the targets.

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.

Ministry of Health of the Slovak Republic and the Ministry of Environment of the Slovak Republic are institutions responsible for implementation and fulfilment of the Protocol on Water and Health in the Slovak Republic.

The Public Health Authority of the Slovak Republic is institution which took the leadership and coordinating role in all areas (setting targets, reporting national reports, organization of workshops and meetings if it needs and etc.).

In process of targets setting and fulfilment are involved these institutions:

- health sector: Ministry of Health of the Slovak Republic, Public Health Authority of the Slovak Republic and 36 Regional Public Health Authorities, Inspectorate of Spa and Springs and National Reference Centre for Drinking Water;
- environmental sector: Ministry of Environment of the Slovak Republic (Water Section, Section of Geology and Natural Resources), State Nature Protection of the Slovak Republic, Water Research Institute; Slovak Environmental Agency;
- interior sector: Office of the Governmental Plenipotentiary for Romany Communities;
- municipalities.

4. Was a programme of measures or action plan developed to support implementation of the targets? If so, please briefly describe that programme or plan, including how financial implications were taken into account.

Some targets of the Protocol are supported by updated (2<sup>nd</sup>) Water Plan of the Slovak Republic (implementation of the Water Framework Directive “WFD”) from 22 December 2015, which contains the Programme of Measures. These are focused on: reduction of organic pollution, reduction of nutrients, reduction of priority substances and other relevant substances and hydrological changes; and on problems with quality and quantity of groundwater. Concrete measures are published in annexes of the Programme of Measures (Slovak language): <https://www.minzp.sk/sekcie/temy-oblasti/voda/koncepcne-aplanovacie-dokumenty/vodny-plan-slovenska-aktualizacia-2015/>.

Financial issues are described in Part two points III. and IV.

5. 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?

The proposal of updated national targets went through national legislative process including comments from the public via internet portal where exists opportunities to put comments of proposals like individual person, NGO, state institutions etc. But the public had no relevant comments.

In branch of the Ministry of Environment of the Slovak Republic proposal of the Water Plan of the Slovak Republic, including Programme of Measures has been discussed with public in harmony with Article 14 of the WFD (more information in previous point).

6. Please provide information on the process by which this report has been prepared, including information on which public authorities had the main responsibilities and what other stakeholders were involved.

The Public Health Authority of the Slovak Republic prepared national summary report for Fourth reporting cycle under the UNECE-WHO/Europe Protocol on Water and Health

in cooperation of Ministry of Health of the Slovak Republic and the Ministry of Environment of the Slovak Republic.

7. Please report any particular circumstances that are relevant for understanding the report, including whether there is a federal and/or decentralized decision-making structure.

Significant 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 requirements of 91/271/EEC directive in harmony with the Programme of Measure of the 2<sup>nd</sup> Water Plan of the Slovak Republic ).

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

- finance:

Ministry of Health of the Slovak Republic: most of the tasks of Protocol are performed by state budget - health and environment sector funds.

Ministry of Environment of the Slovak Republic: for implementation of 91/271/EEC directive are used money mainly from state budget and from the Operating Programme Quality of Environment. There is still lack of money for fulfilment of requirements of this directive.

- personal capacity:

In Health sector, there is perceived the lack of personal capacities in fulfilling the tasks set by the goals and in the reporting process

## **Part two**

### **Targets and target dates set and assessment of progress**

*For countries that have set or revised targets and target dates, please provide information specifically related to the progress towards achieving them. If you have not set targets in a certain area, please explain why.*

*For countries in the process of setting targets, please provide information on baseline conditions and/or targets considered under the relevant target areas.*

*Suggested length: one page (330 words) per target area.*

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

### **National target No. 3 – Improvement of quality and safety of drinking water**

1. Deadline is year 2020. Target is set at the local level. For target fulfilment is responsible Public Health Authority of the Slovak Republic + competent Regional Public Health Authorities, Water companies and municipalities. Slovakia has set this target to improve the health safety of drinking water, by limiting or complete absence of chlorine-based disinfection for the selected water source of public water supply.

During the distribution of drinking water from public water supply to the consumers in Slovakia, it is most often used combination of multiple chlorine disinfectants (usually sodium hypochlorite and chlorine). In specific cases, that can lead to formation of disinfection by-products (further “DBP”). Toxicological studies have confirmed that some of these compounds are carcinogenic and have negative effect on reproduction and development of foetus.

2. Since 2012, the public health sector has been cooperating with water operators in specific projects (“Drinking water quality and disinfection by products”). There were chosen few public water supply systems in good technical condition, with long – term satisfied drinking water quality in distribution network and with quality water resources. Drinking water quality was monitored before and after chlorination in selected chemical, microbiological and biological indicators in accordance with national legislation. To identify the presence of DBP in drinking water, ecotoxicological tests have been used to detect water pollution without knowing its chemical composition. The intention was to develop such proposals for drinking water supply, in which the health risk from the presence of DBP for the supplied population would be as low as possible. Laboratories of public health sector investigated the presence of DBP using ecotoxicological and selected chemical tests. For the acute ecotoxicity, tests organisms *Thamnocephalus platyurus*, *Vibrio fischeri* and *Desmodesmus subspicatus* were used. Selected DBP (chlorites, chlorates and bromates) were analysed in samples of water, where chlorine-based disinfection was used. The content of total organic carbon was also detected. During the project, several other public water supplies were also gradually involved. Water supply systems use different water sources (surface water, underground water) as well as various methods of water treatment and disinfection (chlorine dioxide, sodium hypochlorite, UV radiation, ozonisation). A database of all laboratory results from the projects that have been carried out is currently being prepared, the results are being evaluated and data are being processed into the final report, which should be completed in the second half 2019.

3. Results that are evaluated so far verify that DBP are generated in the course of drinking water chlorination. Ecotoxicological tests for the majority of selected water supply systems confirmed that after addition of chlorine, specific chemical substances exhibiting positive ecotoxicological effects on selected living organisms were formed. The ongoing results and experience of the projects have already contributed to the legislative changes introduced by the new legislation in 2016 and 2017 related to the chemical treatment of drinking water and the detection of DBP. Two new indicators have been introduced into the scope of the quality control to verify the development of DBP (chlorates and haloacetic acids).

4. Improving of quality and safety of drinking water helps to eliminate scale of outbreaks and incidents of water-related diseases in accordance with programme of work within Agenda 2030.

5. Slovakia has set two national targets in this area

### **National target No. 4 – Monitoring of pesticides in drinking water**

1. Deadline is year 2020. Target is set at the national and local level. For target fulfilment is responsible National reference Center for drinking water at the Public Health Authority of the Slovak Republic and competent regional Public Health Authorities. Slovakia has set this

target to improve the health safety of drinking water, by reviewing actual monitoring of pesticides in water sources which are situated near by agricultural soil. During the performing of the target, it has been shown that the problem of the occurrence of pesticides in water needs to be dealt with in a comprehensive way, in cooperation with other stakeholders and in all water sources; therefore the original content and scope of the target have been expanded. Even though it is declared decreasing amount of plant protection products used in our country and abroad during recent years, pesticides and their metabolites are considered to be one of the most risky chemicals that cause continual contamination of drinking water and its sources. Water monitoring confirms that in environment there are still contained some pesticides (including metabolites of substances) even though their usage have been already prohibited in the past (eg atrazine in 2004, alachlor in 2007 or acetochlor in 2013). Due to the fact that pesticides are broad and diverse group of chemicals, the effects of which depend on many factors, it is necessary to monitor those pesticides which are current and significant in terms of their use, behavior in the environment as well as their effects on living organisms to minimize health risks in the environment.

2. During the last years, inter-departmental activities in the field of pesticides were intensified. Communication and cooperation took place in particular with the representatives of the departments which approve the plant protection products usage in the Slovak Republic, respectively, supervise their use (Ministry of Agriculture and rural development of the Slovak Republic, The Central Control and testing Institute in Agriculture) and which monitors them in underground and surface water sources (Ministry of Environment of the Slovak Republic, Water Research Institute, Slovak Hydrometeorological Institute). Several meetings at the level of experts as well as heads were carried out with the aim to create a list of pesticides and their metabolites that are necessary to be monitored in drinking water supplies. Following the need for protection of the territories which are important sources of drinking water, Ministry of Environment of the Slovak Republic in partnership with health and agricultural departments released new Act on Protected Water Management Areas (LEX Zitny Ostrov).

3. At the end of 2018, elaborated recommendations for monitoring of the pesticides in drinking water and sources were published. The aim of the recommendations is to provide the procedure to determine their presence or presence of their metabolites and to identify the pesticides that are current in our environment. At the beginning of the 2019, the list of pesticides which are recommended to be monitored in water intended for human consumption was established. This list contains of 89 pesticides and their metabolites and based on results will be reviewed as needed.

4. Monitoring of pesticides helps to take necessary measures to prevent impacts of pesticide substances to environment and public health by improving of quality of the drinking water in accordance with programme of work within Agenda 2030.

5. Slovakia has set two national targets in this area

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

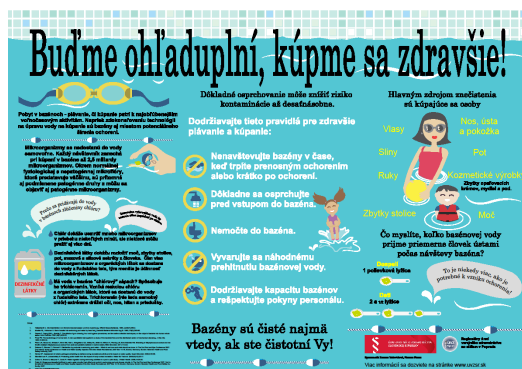
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

**National target No. 6 – Reduction of health risks related to bathing water quality**

1. Deadline is year 2020. Target is set at the national level. For target fulfillment is responsible Public Health Authority of the Slovak Republic and competent Regional Public Health Authorities. Slovakia has set this target to gain information regarding water-related diseases. Despite the fact that Public Health Authorities annually monitor the quality of bathing water in 80 natural waters, 200 summer seasonal artificial swimming pools and 300 year-round artificial swimming pools, there is a lack of statistical data at the national level about diseases and the medical problems related to non-complying quality of bathing water at natural waters as well as an artificial swimming pool.

2. Public Health Authority of the Slovak republic in cooperation with one of the Regional Public Health Authorities prepared and published before bathing season 2017 leaflet “Let’s be considerate, let’s be bathe healthier” (see picture). The material was intended for public and points to the importance of following hygiene rules before entering the pools and reminds visitors of the basic principles of staying at the swimming pools areas. By following these rules, visitors can significantly contribute to keep compliant bathing water quality and to reduce health risks from bathing. Leaflets were distributed to all Regional Public Health Authorities and than provided to the swimming pools operators. In addition to the Slovak version, the English and Hungarian versions were also released.



Picture 1: Leaflet - Let’s be considerate, let’s be bathe healthier

Before the bathing season 2018, Public Health Authority of the Slovak Republic published an online anonymous “Questionnaire for the occurrence of diseases related to bathing water quality”. Questionnaire was available at the website of the Public Health Authority of the Slovak Republic and some Regional Public Health Authorities. During the summer, questionnaire was filled by 144 respondents, of which mostly young people at the age of 24 to 35. Most respondents (about 57 %) preferred to visit artificial pools (swimming pools), less natural swimming pools (about 23 %) and the least visited were natural water areas with unorganized recreation, without operator (about 18 %). About 41 % of respondents verified bathing water quality before entering the recreational area. Respondents who checked the quality of bathing water, the most often sources of those information were Public Health of the Slovak Republic website (approx. 37 %), various websites on the internet (25 %) and Regional Public Health Authorities websites (approx. 20 %). 20 % respondents mentioned health problems after bathing which can be divided into several groups: skin, gastrointestinal,

gynekological and ocular. Almost 38 % respondents visited a doctor. In two cases, the hospitalization was necessary.

3. Raising the public awareness by providing actual information and recommendations has always been a success and has a great importance to protect human health. Although there are diseases than might be related to bathing water quality, there is no legal obligation at the national level to investigate causes of the diseases. The only legal obligation for doctors in this case is to report epidemiological situations to Regional Public Health Authorities. All cases are submitted to epidemiological informational system. In order to clarify the cause, this system was during last months uploaded and factors were more specified.
4. Activities carried out to meet the objective of this target help to contribute a fulfilling of Goal 3 of Agenda 2030 - Ensure healthy lives and promote well-being for all at all ages.
5. Slovakia has set one national target in this area.

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

#### **National target No. 2 – Increasing the supply of safe drinking water from public water supply systems**

1. Increasing % of the population supplied with safe drinking water from public water supply - set in accordance with Art. 6 (2) (a) | a), b), c), e), f), l), m), n); point 5 (a) a), b), c), d); Art. 7 points 3 and 4 of the Protocol. The target No. 2 is set at local level. The deadline for achieving the target is 2020. Responsibility for the implementation of the objective is water companies and municipalities, Ministry of Environment of the Slovak Republic within its scope (legislative aspects, implementation of EU directives, conceptual and planning documents, financial support for the implementation of projects within the financial resort options).

Municipalities and relevant water companies are responsible for ist fulfillment. Today 88.9 % of the total Slovak population (4.836 million inhabitants in 2017) is supplied with drinking water from the public water system. The general interest is to gradually increase the number of inhabitants supplied with the safe drinking water and to prevent water-borne diseases within the limits of available funding capacities of the state. Indicators of quality and safety of drinking water in Slovakia meet the limits of the Water Framework Directive, furthermore Slovakia monitors also other indicators of drinking water quality.

<i>Percentage of population with access to drinking water</i>	<i>Basic value (2005)</i>	<i>Value reported in the previous reporting cycle (2011)</i>	<i>Value reported in the previous reporting cycle (2014)</i>	<i>Current value in (2017)</i>
<i>of total</i>	<i>85.3% (4.5941 million of inhabitants)</i>	<i>86.9% (4.7238 million of inhabitants)</i>	<i>87.7% (4.753 million of inhabitants)</i>	<i>88.9% (4.836 million of inhabitants)</i>
<i>municipal</i>	<i>The evidence does not differentiate between the town and country population.</i>	<i>The evidence does not differentiate between the town and country population.</i>	<i>The evidence does not differentiate between the town and country population.</i>	<i>We do not keep a separate statistics for the rural areas and towns.</i>

**Table 1:** Percentage of population with access to drinking water

Data provided by the national official statistical database.

2. The Slovak Government approved the Water Plan of the Slovak Republic consisting of the Danube River Basin Management Plan and the Vistula River Basin Management Plan. The Public Water Supply System and Public Sewer System Development Plan in Slovakia is annexed to the Water Plan of Slovakia and the Slovak Government took note of it. The Development Plan recommends the Governors of the self-governing regions and mayors to ensure the construction of public water supply systems in compliance with this Development Plan.

(<http://www.minzp.sk/sekcie/temy-oblasti/voda/verejne-vodovody-verejne-kanalizacie/plan-rozvoja-verejnych-vodovodov-verejnych-kanalizacii-uzemie-sr/>). Updated regional plans are published on the websites of the relevant district offices of the Region. The water management infrastructure pursuant to Slovak and EU legislation is getting improved also under the Operating Programme Quality of Environment for 2014-2020 if the public sewer system is built at the same time. The detailed information on the use of funds of the Operational Programme Quality of Environment for 2014 – 2020 are published on the web page <http://www.op-kzp.sk/>. Further funds such as the Integrated Regional Operating Programme for 2014-2020, Rural Development Programme and Environment Fund are also used for funding the drinking water supply from the public water systems. Money from these funds is requested by the villages, towns and regional water companies.

3. Access to drinking water for inhabitants supplied by the public water systems increases through the available financial instruments. The measurable progress in relation to the connection to the public water systems rose from 88.6 % in 2016 to 88.9 % in 2017 which means that the number of inhabitants connected to the public water systems rose by 22 287 individuals. Expansion of the water supply networks to which the new consumers of drinking water will be connected.

4. The construction of new water supply networks enables the access of most Slovak inhabitants to drinking water complying with the goals of Agenda 2030. Targets and target deadlines did not have to be revised.

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.



2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5 of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

**National target No.5 - Improvement of wastewater treatment and wastewater collecting**

1. Improvement of the sewage, treatment and discharge of municipal wastewater - set out in Art. 6 (2) (a | d), e), f), g), h), i); point 5 (a) a), b), c); Art. 7 points 3 and 4 of the Protocol. The target is set at the national level with a deadline of 2020, respectively. 2023. The municipalities and relevant water companies are responsible for its implementation. The purpose of setting the target is to meet the needs of the population and to protect the environment, which is essential for the protection of waters and their sustainable management. Discharged uncleaned, respectively. poorly treated wastewater negatively affects the quality and condition of water under the source of pollution. Therefore, one of the most important measures to improve such a situation is to ensure the sewage, treatment and discharge of municipal wastewater in accordance with the requirements of Directive 91/271 / EEC concerning urban waste water treatment.

	<i>Basic value (2005)</i>	<i>Value reported in the previous reporting cycle (2011)</i>	<i>Value reported in the previous reporting cycle (2014)</i>	<i>Current value in (2017)</i>
Total percentage of population living in the houses with the public sewer system	Number of inhabitants connected to the public sewer system: 3.0755 million (57.1 %)  of that in the houses connected to the public sewer system with the water treatment installation: 2.9714 million (55.2 %)	Number of inhabitants connected to the public sewer system: 3.347,307 million (61.6%)  of that in the houses connected to the public sewer system with the water treatment installation: 3.260 million (60.0 %)	Number of inhabitants connected to the public sewer system: 3.5061 million (64.7 %)  of that in the houses connected to the public sewer system with the water treatment installation: 3.4531 million (63.7 %)	Number of inhabitants connected to the public sewer system: 3.682 million (67.7 %)  of that in the houses connected to the public sewer system with the water treatment plant: 3.6555 million (67.2 %)
<b><i>Number of water treatment plants</i></b>	468	616	692	697

**Table 2:** Percentage of inhabitants living in the houses connected to the public sewer system  
Data provided by the national official statistical database.

Today 67.7 % of the total Slovak population (3.682 million in 2017) lives in the houses connected to the public sewer system. The general interest is to gradually increase the number of inhabitants connected to the public sewer system and protect environment having the fundamental role in water protection and their sustainable management.

2. The Slovak Government approved the Water Plan of Slovakia consisting of the Danube River Basin Management Plan and the Vistula River Basin Management Plan. The Programme of Measures of the Water Plan of Slovakia contains the basis measures – for agglomerations of more than 2000 person equivalent and additional measures – for agglomerations of less than 2000 equivalent inhabitant. The purpose of these measures is to help achieve the targets defined in the Treaty of Accession of Slovakia with regard to the Council Directive 97/271/EEC concerning Urban Waste Water Treatment. The Public Water Supply System and Public Sewer System Development Plan in Slovakia is annexed to the Water Plan of Slovakia that the Slovak Government took note of and it is the basic framework document guiding the preparation, planning and construction of sewer networks and water treatment plants. The Development Plan recommends the Governors of the self-governing regions and mayors to ensure the construction of public water supply systems in compliance with this Development Plan (<http://www.minzp.sk/sekcie/temy-oblasti/voda/verejne-vodovody-verejne-kanalizacie/plan-rozvoja-verejnych-vodovodov-verejnych-kanalizacii-uzemie-sr/>). Updated regional plans are published on the websites of the relevant district offices of the Region. The water management infrastructure pursuant to Slovak and EU legislation is getting improved also under the Operating Programme Quality of Environment for 2014-2020 especially for agglomerations of more than 2000 person equivalent not complying with the requirements of the Council Directive 91/271/EEC concerning urban waste water treatment. The detailed information on the use of funds of the Operational Programme Quality of Environment for 2014 – 2020 are published on the web page <http://www.op-kzp.sk/>. Further funds such as the Integrated Regional Operating Programme for 2014-2020, Rural Development Programme and Environment Fund are also used for funding the drinking water supply from the public water systems. Money from these funds is requested by the villages, towns and regional water companies.

To improve the collection and treatment of urban waste water the new obligations for waste water producers were defined in Act No. 364/2004 Coll. on Water as amended and in Act No. 442/2002 Coll. on Public Water and Sewer Systems as amended.

3. Access to the waste water collection and treatment by the public sewer system increases through the available financial instruments. The measurable progress in relation to the connection to the public sewer systems rose from 66.7 % in 2016 to 67.7 % in 2017 which means that the number of inhabitants rose by 79 118 individuals. Expansion of the sewer networks to which the new waste water producers will be connected.

4. The new collection systems enable the waste water collection and treatment by the public sewer system and they help to protect environment, in particular groundwater and surface water in compliance with the targets submitted in Agenda 2030.

5. The targets are defined in the Treaty of Accession of Slovakia in relation to the Council Directive 97/271/EEC concerning urban waste water treatment and in the Water Plan of Slovakia.

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5 of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

### **National target No. 2 – Increasing the supply of safe drinking water from public water supply systems**

1. Increasing % of the population supplied with safe drinking water from public water supply - set in accordance with Art. 6 (2) (a) | a), b), c), e), f), l), m), n); point 5 (a), b), c), d); Art. 7 points 3 and 4 of the Protocol. The target No. 2 is set at local level. The deadline for achieving the target is 2020. Responsibility for the implementation of the objective is water companies and municipalities, Ministry of Environment of the Slovak Republic within its scope (legislative aspects, implementation of EU directives, conceptual and planning documents, financial support for the implementation of projects within the financial resort options).

Municipalities and relevant water companies are responsible for its fulfillment. Today 88.9 % of the total Slovak population (4.836 million inhabitants in 2017) is supplied with drinking water from the public water system. The general interest is to gradually increase the number of inhabitants supplied with the safe drinking water and to prevent water-borne diseases within the limits of available funding capacities of the state. Indicators of quality and safety of drinking water in Slovakia meet the limits of the Water Framework Directive, furthermore Slovakia monitors also other indicators of drinking water quality.

2. The following acts were amended:

- No. 355/2007 Coll. on the Protection, Promotion and Development of Public Health as amended
- No. 442/2002 Coll. on Public Water Systems and Sewage Systems as amended regulations
- Regulation of the Ministry of Health of the Slovak Republic No. 242/2017 Coll. laying down the Details on Drinking Water Quality, Monitoring Programme and Risk Management in Drinking Water Supply.

3. Evaluation of the progress towards the target

	<i>Basic value (2005)</i>	<i>Value reported in the previous reporting cycle (2011)</i>	<i>Value reported in the previous reporting cycle (2014)</i>	<i>Current value in (2017)</i>
Number of samples meeting the requirements for the quality in all parameters of drinking water (%)	89.59	92.05	99.6	99.7
Water-supply source capacity (l/s)	33.848	33.527	34.057	34.214
Length of water supply network (km)	25.719	28.777	29.438	30.306

**Table 3:** Progress achieved in the drinking water supply (2005 – 2017)

4. Targets and target deadlines did not have to be revised.
5. The national targets of Slovakia:
  - Increasing the percentage of inhabitants supplied by the public water system with healthy and safe drinking water
  - Improving quality and health and safety of water

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

### **National target No.5 - Improvement of wastewater treatment and wastewater collecting**

1. Improvement of the sewage, treatment and discharge of municipal wastewater - set out in Art. 6 (2) (a) | d), e), f), g), h), i); point 5 (a) a), b), c); Art. 7 points 3 and 4 of the Protocol. The target is set at the national level with a deadline of 2020, respectively. 2023. The municipalities and relevant water companies are responsible for its implementation. The purpose of setting the target is to meet the needs of the population and to protect the environment, which is essential for the protection of waters and their sustainable management. Discharged uncleaned, respectively. poorly treated wastewater negatively

affects the quality and condition of water under the source of pollution. Therefore, one of the most important measures to improve such a situation is to ensure the sewage, treatment and discharge of municipal wastewater in accordance with the requirements of Directive 91/271 / EEC concerning urban waste water treatment.

Obligations of the owners of public sewer systems and operators of these systems are imposed by laws and implementing provisions through which the regular monitoring of collected and treated water quality is conducted. National targets of Slovakia are as follows:

- Improving situation in the field of urban waste water collection, treatment and discharge
- Implementation of the Water Framework Directive
- Implementation of the Council Directive 91/271/EEC concerning urban waste water treatment

Eligible actions ensuring implementation of national targets are stated in the Operational Programme Quality of Environment [www.op-kzp.sk](http://www.op-kzp.sk)

2. Legislative measures:

- Amendment to Act No. 364/2004 Coll. on Water as amended
- Amendment to Act No. 442/2002 Coll. on Public Water and Sewer Systems as amended
- National Programme of the Slovak Republic for implementation of the Council Directive 91/271/EHS concerning urban waste water treatment (updated every two years the last time in 2018)
- Public water and sewer system development plan for Slovakia (updated every six years, the last update valid from 2016 – 2021)
- Water Plan of Slovakia consisting of the Danube River Basin Management Plan and Vistula River Basin Management Plan and their joint Programme of Measures (Development Plan is annexed to the Water Plan of Slovakia (WPS). It is fundamental document for the whole territory of Slovakia, both these documents are conceptual Development Plan and Water Plan of Slovakia are updated at the same time every 6 years, the last version valid from 2016 – 2021; the basin has its separate Management Plan containing an individual chapter Programme of Measures for the Danube River Basin and Programme of Measures for the Vistula River Basin)

3. Evaluation of the progress towards the target

	<i>Basic value (2005)</i>	<i>Value reported in the previous reporting cycle (2011)</i>	<i>Value reported in the previous reporting cycle (2014)</i>	<i>Current value in (2017)</i>

Total percentage of population living in the houses with the public sewer system	Number of inhabitants connected to the public sewer system: 3.0755 million (57.09 %) of that in the houses connected to the public sewer system with the water treatment plant: 2.9714 million (55.16 %)	Number of inhabitants connected to the public sewer system: 3.3473 million (61.58%) of that in the houses connected to the public sewer system with the water treatment plant: 3.260 041 million (59.98 %)	Number of inhabitants connected to the public sewer system: 3.5061 million (64.67 %) of that in the houses connected to the public sewer system with the water treatment plant: 3.4531 million (63.69%)	Number of inhabitants connected to the public sewer system: 3.682 million (67.72 %) of that in the houses connected to the public sewer system with the water treatment plant: 3.6555 million (67.23 %)
Number of water treatment plants	468	616	692	697
Length of sewer system (km)	7690	11.210	12.565	14.067

**Table 4:** Progress achieved in the collection and treatment of urban waste-waters (2005 – 2017)

4. The target is revised in a two-year cycle in compliance with the requirements of the European Commission in the National Programme of the Slovak Republic for implementation of the Council Directive 91/271/EEC concerning Urban Waste Water Treatment. Data submitted to the European Commission are available in the Central Data Repository (Eionet network: <http://cdr.eionet.europa.eu/sk/eu>)

5. The national targets are set (see the above point 1)

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

### **National target No. 2 – Increasing the supply of safe drinking water from public water supply systems**

1. Increasing % of the population supplied with safe drinking water from public water supply - set in accordance with Art. 6 (2) (a) | a), b), c), e), f), l), m), n); point 5 (a) a), b), c), d); Art. 7 points 3 and 4 of the Protocol. The target No. 2 is set at local level. The deadline

for achieving the target is 2020. Responsibility for the implementation of the objective is water companies and municipalities, Ministry of Environment of the Slovak Republic within its scope (legislative aspects, implementation of EU directives, conceptual and planning documents, financial support for the implementation of projects within the financial resort options).

- Increasing the percentage of inhabitants supplied with healthy and safe drinking water by the public water system
  - Improving quality and health and safety of water
  - Monitoring pesticides in water
2. Legislative measures:
- No. 355/2007 Coll. on the Protection, Promotion and Development of Public Health as amended
  - No. 442/2002 Coll. on Public Water Systems and Sewage Systems as amended
  - Regulation of the Ministry of Health of the Slovak Republic No. 242/2017 Coll. laying down the Details on Drinking Water Quality, Monitoring Programme and Risk Management in Drinking Water Supply.
  - Measures stated in the Programme of Measures of the Water Plan of Slovakia related to ensuring the quality and quantity of drinking water
3. Evaluation of the progress towards the target

	<i>Basic value (2005)</i>	<i>Value reported in the previous reporting cycle (2011)</i>	<i>Value reported in the previous reporting cycle (2014)</i>	<i>Current value in (2017)</i>
Number of samples meeting the requirements for the quality of all parameters of drinking water (%)	89.59	92.05	99.6	99.7
Water-supply source capacity (l/s)	33.848	33.527	34.057	34.214
Length of water supply network (km)	25.719	28.777	29.438.3	30.306

**Table 5:** Progress achieved in the drinking water supply (2005 – 2017)

- 4. Targets and target deadlines did not have to be revised.
- 5. The national targets are set (see the above point 1) and they are gradually met.

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

*For each target set in this area:*

- 1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

**National target No.5 - Improvement of wastewater treatment and wastewater collecting**

1. Improvement of the sewage, treatment and discharge of municipal wastewater - set out in Art. 6 (2) (a | d), e), f), g), h), i); point 5 (a) a), b), c); Art. 7 points 3 and 4 of the Protocol. The target is set at the national level with a deadline of 2020, respectively. 2023. The municipalities and relevant water companies are responsible for its implementation. The purpose of setting the target is to meet the needs of the population and to protect the environment, which is essential for the protection of waters and their sustainable management. Discharged uncleaned, respectively. poorly treated wastewater negatively affects the quality and condition of water under the source of pollution. Therefore, one of the most important measures to improve such a situation is to ensure the sewage, treatment and discharge of municipal wastewater in accordance with the requirements of Directive 91/271 / EEC concerning urban waste water treatment.

Obligations of the owners of public sewer systems and operators of these systems are imposed by laws and implementing provisions through which the regular monitoring of collected and treated water quality is conducted. National targets of Slovakia are as follows:

- Improving situation in the field of urban waste water collection, treatment and discharge
- Implementation of Water Framework Directive
- Implementation of Council Directive 91/271/EEC concerning urban waste water treatment
- reduction of nutrients in compliance with the requirements of Directive
- National Programme of the Slovak Republic for implementation of the Council Directive 91/271/EEC concerning urban waste water treatment

2. Legislative measures:

- Amendment to Act No. 364/2004 Coll. on Water as amended
- Amendment to Act No. 442/2002 Coll. on Public Water and Sewer Systems as amended
- National Programme of the Slovak Republic for implementation of the Council Directive 91/271/EEC concerning urban waste water treatment
- Public water supply and sewer system development plan for Slovakia
- Water Plan of Slovakia consisting of the Danube River Basin Management Plan and Vistula River Basin Management Plan and their joint Programme of Measures

3. Evaluation of the progress towards the target

	<i>Basic value (2005)</i>	<i>Value reported in the previous reporting cycle (2011)</i>	<i>Value reported in the previous reporting cycle (2014)</i>	<i>Current value in (2017)</i>



Total percentage of population living in the houses with the public sewer system	Number of inhabitants connected to the public sewer system: 3.0755 million (57.09 %) of that in the houses connected to the public sewer system with the water treatment plant: 2.9714 million (55.16 %)	Number of inhabitants connected to the public sewer system: 3.3473 million (61.58%)  of that in the houses connected to the public sewer system with the water treatment plant: 3.260 041 million (59.98 %)	Number of inhabitants connected to the public sewer system: 3.5061 million (64.67 %)  of that in the houses connected to the public sewer system with the water treatment plant: 3.4531 million (63.69%)	Number of inhabitants connected to the public sewer system: 3.682 million (67.72 %)  of that in the houses connected to the public sewer system with the water treatment plant: 3.6555 million (67.23 %)
Number of water treatment plants	468	616	692	697

**Table 6:** Progress achieved in the collection and treatment of urban waste-waters (2005 – 2017)

4. National Programme of the Slovak Republic for implementation of the Council Directive 91/271/EEC concerning urban waste water treatment is updated every two years
5. The national targets are set (see the above point 1) and they are gradually met.

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

### **National target No.5 - Improvement of wastewater treatment and wastewater collecting**

1. Improvement of the sewage, treatment and discharge of municipal wastewater - set out in Art. 6 (2) (a) | d), e), f), g), h), i); point 5 (a) a), b), c); Art. 7 points 3 and 4 of the Protocol. The target is set at the national level with a deadline of 2020, respectively. 2023. The municipalities and relevant water companies are responsible for its implementation. The purpose of setting the target is to meet the needs of the population and to protect the environment, which is essential for the protection of waters and their sustainable management. Discharged uncleaned, respectively. poorly treated wastewater negatively affects the quality and condition of water under the source of pollution. Therefore, one of the most important measures to improve such a situation is to ensure the sewage, treatment and discharge of municipal wastewater in accordance with the requirements of Directive 91/271 / EEC concerning urban waste water treatment. National targets:

- Improving situation in the field of urban waste water collection, treatment and discharge
  - Implementation of the Water Framework Directive
  - Implementation of the Council Directive 91/271/EEC concerning urban waste water treatment
  - National Programme of the Slovak Republic for implementation of the Council Directive 91/271/EEC concerning urban waste water treatment; 356 of defined agglomerations of more than 2000 p.e. shall achieve compliance under Article 3 of Directive (construction of collecting systems) under Article 4 and 5 of Directive (requirements for capacity and technology of waste water treatment plants according to the size of agglomeration)
2. Legislative measures:
- Amendment to Act No. 364/2004 Coll. on Water as amended
  - Amendment to Act No. 442/2002 Coll. on Public Water and Sewer Systems as amended
  - National Programme of the Slovak Republic for implementation of the Council Directive 91/271/EEC concerning urban waste water treatment
  - Public water supply and sewer system development plan for Slovakia
  - Water Plan of Slovakia consisting of the Danube River Basin Management Plan and Vistula River Basin Management Plan and their joint Programmes of Measures (basic measures – for agglomerations of more than 2000 p.e.; additional measures for agglomerations of less than 2000 p.e.)
3. Evaluation of the progress towards the target

	<i>Basic value (2005)</i>	<i>Value reported in the previous reporting cycle (2011)</i>	<i>Value reported in the previous reporting cycle (2014)</i>	<i>Current value in (2017)</i>
water discharged to watercourses altogether (m <sup>3</sup> /year)	443 million	414.6 million	436.6 million	427.7 million
of that treated wastewater (m <sup>3</sup> /year)	428.2 million	406.5 million	430.1 million	424.2 million
untreated water (m <sup>3</sup> /year)	15.1 million	8.1 million	6.5 million	3.5 million
untreated water (%)	3.41	1.95	1.49	1.22

**Table 7:** Progress achieved in the collection and treatment of urban waste-waters (2005 – 2017)

4. The National Programme of the Slovak Republic for implementation of the Council Directive 91/271/EEC concerning urban waste water treatment specifies agglomerations not complying with the requirements of Directive – updated every two years.
5. The national targets of Slovakia are set and they are gradually met.

## **X. Occurrence of discharges of untreated storm water overflows from wastewater collection systems (art. 6, para. 2 (g) (ii))**

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

### **National target No.5 - Improvement of wastewater treatment and wastewater collecting**

1. Improvement of the sewage, treatment and discharge of municipal wastewater - set out in Art. 6 (2) (a) | d), e), f), g), h), i); point 5 (a) a), b), c); Art. 7 points 3 and 4 of the Protocol. The target is set at the national level with a deadline of 2020, respectively. 2023. The municipalities and relevant water companies are responsible for its implementation. The purpose of setting the target is to meet the needs of the population and to protect the environment, which is essential for the protection of waters and their sustainable management. Discharged uncleaned, respectively. poorly treated wastewater negatively affects the quality and condition of water under the source of pollution. Therefore, one of the most important measures to improve such a situation is to ensure the sewage, treatment and discharge of municipal wastewater in accordance with the requirements of Directive 91/271 / EEC concerning urban waste water treatment.

National targets are described in §6 of the Governmental Order No. 269/2010 which sets up requirements for good water status. Before the Governmental Order No. 269/2016 came into force sewer system was mostly uniform. In new constructed sewer systems areas built divided sewers. Rainfall tanks with satisfactory capacity are built in the process of waste water treatment plans reconstructions

2. Implementation of Article 6 of the Slovak Government Order No. 269/2010 Coll. laying down the requirements for the achievement of good water status
3. Data on the volume of treated water cannot be currently found in our databases. Data are not available yet.

## **XI. Quality of discharges of wastewater from wastewater treatment installations (art. 6, para. 2 (h))**

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

**National target No.5 - Improvement of wastewater treatment and wastewater collecting**

1. Improvement of the sewage, treatment and discharge of municipal wastewater - set out in Art. 6 (2) (a | d), e), f), g), h), i); point 5 (a) a), b), c); Art. 7 points 3 and 4 of the Protocol. The target is set at the national level with a deadline of 2020, respectively. 2023. The municipalities and relevant water companies are responsible for its implementation. The purpose of setting the target is to meet the needs of the population and to protect the environment, which is essential for the protection of waters and their sustainable management. Discharged uncleaned, respectively. poorly treated wastewater negatively affects the quality and condition of water under the source of pollution. Therefore, one of the most important measures to improve such a situation is to ensure the sewage, treatment and discharge of municipal wastewater in accordance with the requirements of Directive 91/271 / EEC concerning urban waste water treatment.

National targets of Slovakia:

- Improving situation in the field of urban waste water drainage, treatment and discharge
- Implementation of the Water Framework Directive
- Implementation of the Council Directive 91/271/EEC concerning urban waste water treatment
- National Programme of the Slovak Republic for implementation of the Council Directive 91/271/EEC concerning urban waste water treatment; 356 of defined agglomerations of more than 2000 p.e. shall achieve compliance under Article 3 of Directive (construction of collecting systems) under Article 4 and 5 of Directive (requirements for capacity and technology of waste water treatment plants according to the size of agglomeration)

2. Legislative measures:

- Amendment to Act No. 364/2004 Coll. on Water as amended
- Amendment to Act No. 442/2002 Coll. on Public Water and Sewer Systems as amended
- Slovak Government Order No. 269/2010 Coll. laying down the requirements for the achievement of good water status
- National Programme of the Slovak Republic for implementation of the Council Directive 91/271/EEC concerning urban waste water treatment
- Public water supply and sewer system development plan for Slovakia
- Water Plan of Slovakia consisting of the Danube River Basin Management Plan and Vistula River Basin Management Plan and their joint Programmes of Measures (basic measures – for agglomerations of more than 2000 p.e.; additional measures for agglomerations of less than 2000 p.e.)

3. Gradually the collection systems and water treatment plants are built and priority is given to agglomerations of more than 2000 person equivalent, to agglomerations of less than 2000 p.e. in the protected groundwater zones and then to other agglomerations.
4. The target meets the commitments of the Slovak Republic arising from the Treaty of Accession of Slovakia in relation to the waste water collection and treatment pursuant to the Council Directive 91/271/EEC concerning urban waste water treatment.
5. The targets for Slovakia are set and they are gradually fulfilled in relation to the quality of discharged treated urban waste water.

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

### **National target No.5 - Improvement of wastewater treatment and wastewater collecting**

1. Improvement of the sewage, treatment and discharge of municipal wastewater - set out in Art. 6 (2) (a | d), e), f), g), h), i); point 5 (a) a), b), c); Art. 7 points 3 and 4 of the Protocol. The target is set at the national level with a deadline of 2020, respectively. 2023. The municipalities and relevant water companies are responsible for its implementation. The purpose of setting the target is to meet the needs of the population and to protect the environment, which is essential for the protection of waters and their sustainable management. Discharged uncleaned, respectively. poorly treated wastewater negatively affects the quality and condition of water under the source of pollution. Therefore, one of the most important measures to improve such a situation is to ensure the sewage, treatment and discharge of municipal wastewater in accordance with the requirements of Directive 91/271 / EEC concerning urban waste water treatment.

National targets:

- Improving situation in the field of urban waste water drainage, treatment and discharge
  - Implementation of Water Framework Directive 2000/60/EC
2. Legislative measures:
- Act No. 364/2004 Coll. on Water as amended
  - Act No. 188/2003 Coll. on Application of Bottom Sediments and Sewage Sludge to Soil as amended

- Act 79/2015 Coll. on Waste as amended
- Waste Management Programme of the Slovak Republic
- Programme of Measures of the Water Plan of Slovakia
- The goal is the waste recovery and use of sewage sludge.

3. 85.5 % of the total production of sewage sludge from water treatment plants was recovered and of that 63.13 % was recovered through the soil processes and 22.45 % of sewage sludge was biologically processed and used for energetic recovery. Regarding landfill, 4.83 % of sewage sludge was disposed in landfills and 9.59 % of sewage sludge was temporarily deposited in the water treatment plants.

Year	Amount of sewage sludge (dry tons)							
	In total	recovered				disposed of		temporarily stored
		application to agricultural soil	application to forest soil	composting and other recovery	energy recovery	incineration	land-filling	
2007	55,305	0	0	42,315	0	0	3,590	9,400
2008	57,810	0	0	38,368	0	0	8,676	10,766
2009	58,582	0	0	47,056	0	0	2 696	8,830
2010	54,760	923	0	47,140	0	0	16	6,681
2011	58,718	358	0	50,111	0	0	2,306	5,943
2012	58,706	1,254	0	46,446	3,196	0	1,615	6,195
2013	57,433	518	0	45,261	5,008	0	1,666	4,980
2014	56,883	8	0	36,524	16,038	0	1,073	3,240
2015	56,242	0	0	34,689	16,913	0	1,709	2,932
2016	53,054	0	0	34,695	10,975	68	2,359	4,957
2017	54,517	0	0	34 416	12,238	0	2,636	5,227

Table 8: Disposal/resuse of sewage sludge (years 2007 – 2017)

4. The current legislation is adequate and aimed at mostly sewage sludge recovery not its landfill disposal.
5. Application of sewage sludge complies with the requirements of Water Framework Directive 2000/60/EC and other directives.

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

This is not relevant for Slovakia (treated waste water is not used for irrigation due to the water sufficiency).

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
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))**

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

##### **National target No. 8: Surveillance of cyanobacteria expansion in water reservoirs**

National target No. 8 is partially focused on cyanobacterial proliferation and cyanotoxins occurrence in water reservoirs which are used as sources for drinking water and in waters used for bathing (see also in part XV.).

1. Deadline is year 2020. Target is set at the national level. For target fulfillment is responsible Public Health Authority of the Slovak Republic + competent Regional Public Health Authorities. European requirements on cyanobacteria are set only in Bathing Water Directive 2006/7/EC but not sufficiently. Requirements cover cyanobacterial proliferation and adoption of measures but without concretely monitoring parameters and limit values. The reason for target setting was to obtain an overview of the actual occurrence of cyanobacteria and cyanotoxins in surface water waters (used for bathing or as sources for drinking water) and to determine the species composition of cyanobacteria blooms with an emphasis on the presence of invasive species. Some cyanobacterial species produce toxins accumulated in water and this can be risk for human health.
2. Slovakia set legislative requirements for monitoring of cyanobacteria at the national level. At the beginning, the Public Health Authority of the Slovak Republic prepared a water quality assessment scheme for natural water bodies. Within this scheme, there are specific steps that must be taken in place by Regional Public Health Authorities in the course of visual inspection and sampling. Furthermore, the scheme referred to the subsequent process of continuing laboratory testing of biological indicators and assessment of the situation on site. The Public Health Authority regularly realizes training for staff of Regional Public Health Authorities. It consist of theoretical part (legislative requirements, ISO norms, how to do visual inspection, sampling etc.) and practical part in situ.
3. Over the past years it was highlighted problems with increasing growth of cyanobacteria in three water reservoirs in central Slovakia (Klenovec, Málinec, Turček). The most common and dominant representatives of cyanobacterial blooms at Málinec and Klenovec are *Woronichinia naegeliana*, *Aphanizomenon flos-aquae* and different species of *Microcystis*

and *Dolichospermum*. The most common cyanobacterial blooms at the Turček reservoir are *Aphanizomenon gracile*, *A. flos-aquae* and *Planktothrix rubescens* creating red algae blooms.

In context of monitoring of the cyanobacteria presence in water reservoirs, water intended for human consumption is not yet threatened by cyanotoxins. According to *The Decree of the Ministry of Health of the Slovak Republic No 247/2017 on requirements for drinking water quality, drinking water quality control, monitoring and management risk of drinking water supply*, the limit of parameter microcystin LR” in drinking water is set 1 mg/l. This parameter is set over the framework of European requirements of Drinking Water Directive 98/83/EC.

4. Activities carried out to meet the objective of this target help to contribute a fulfilling of Goal 3 of Agenda 2030 - Ensure healthy lives and promote well-being for all at all ages.

5. Slovakia has set 2 targets in this area

#### **National target No. 12 – Improving of water resources protection**

1. Strengthening the protection of water resources - established in accordance with Art. 4 (2) (a) | c) Protocol

2. The target is set at the national level, the date of its fulfillment is the period of 2015 - 2020. The Ministry of the Environment and State Nature Protection of the Slovak Republic are responsible for implementation.

The objective is to draw attention to the issue of water resources. In protected areas, restrictions on activities that cannot be carried out in the individual stages of protection are set. In this way, the protection of water resources is also ensured, especially in mountain areas where PV sources and springs and mineral water springs are located.

In 2018, the MoE SR prepared the Act on Protected Water Management Areas (Lex - Žitný ostrov), which is intended to protect not only Žitný ostrov, but all ten of the most precious areas in which the largest groundwater reserves in Slovakia are located. The Ministry of Health of the Slovak Republic and the Ministry of Culture of the Slovak Republic cooperated with the Ministry of the Environment on the preparation of the Act, based on existing legislation. The law will enter into force on 1 January 2019.

Strengthening the protection of water resources through nature conservation is also ensured through:

- protected areas whose subject of protection is dependent on water; j. protected areas / areas designated for the conservation of habitats or species where the maintenance or improvement of water status is an important factor in their conservation and maintenance, including the relevant sites of the Natura 2000 European Protected Areas established under Directive 92/43 / EEC of 21 May 1992 on the conservation of habitats, of wild fauna and flora (areas of Community importance) and of Directive 2009/147 / EC of 30 November 2009 on the conservation of wild birds (protected bird areas),
- protection of groundwater habitats (or ecosystems),
- performance of state administration in the field of nature and landscape protection pursuant to Act no. 543/2002 Coll. on Nature and Landscape Protection, as amended, which contributes to the achievement of the objective by limiting activity, which also helps to ensure the protection of water resources,
- Implementation of the updated Wetland Care Program of Slovakia for the years 2015 - 2021 and its Action Plan for Wetlands for 2015 - 2018 (approved by Government Resolution No. 304/2015 of 3 June 2015).



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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

### **National target No. 7: Mapping of enteroviruses occurrence in bathing water**

1. Deadline is year 2019. Target is set at the national level. For target fulfillment is responsible Public Health Authority of the Slovak Republic. Legislative requirements for monitoring of enteroviruses are not being neither on national nor European level. This target was set because there are no relevant data regards occurrence of enteroviruses in bathing waters of Slovak Republic.
2. Public Health Authority of the Slovak Republic identified 26 natural bathing waters and 5 artificial pools to monitor microbiological and biological activation. Throughout the period, guidance for enteroviruses occurrence monitoring in bathing waters was sent every year to all project participants and selected Public Health Authorities. Determination of the samples was carried out according to standard methodology recommended by the WHO. Enteroviral RNA detection was carried out by the means of reverse PCR (RT-PCR) method and nested PCR method. For 6 years of enteroviruses monitoring were collected and investigated 208 samples. During the 2012-2015, the molecular – biological analyses and enteroviruses detection was accomplished by National Reference Center for enteral viruses at the Slovak Health University in Bratislava. The samples taken in 2016 a 2017 were analysed at the Department of Medical Microbiology at Public health Authority by PCR methods. Microbiological quality of water was monitored in indicators Escherichia coli, intestinal enterococci and beyond legislation also coliform bacteria. Occurrence, frequency and species diversity of cyanobacteria, algae and other organisms were observed in surface waters. Indicators producers, consumers and cultivation amoebas were microscopically examined in the waters of artificial pools. Sampling, processing and sample preparation for PCR analyses were completed in 2017. Due to the personal changes and lack of time, it was not possible to complete all laboratory examinations. and to produce a final report. For this reason, the submission of the final report will be delayed.
3. The proposed PCR method is still in the process of standardization, but in the future it can be applied in practice for the detection of enteroviruses in water samples. The sample preparations do not interfere with the PCR method. The results of enteroviruses monitoring can be crucial in the future process of preparation of new legislation for quality monitoring of waters used for bathing. Enteroviruses are currently being tested by PCR methods in samples taken during 2017 and a database of all laboratory results is being prepared.
4. Activities carried out to meet the objective of this target help to contribute a fulfilling of Goal 3 of Agenda 2030 - Ensure healthy lives and promote well-being for all at all ages.
5. Slovakia has set 2 targets in this area

### **National target No. 8: Surveillance of cyanobacteria expansion in water reservoirs**

1. Deadline is year 2020. Target is set at the national level. For target fulfillment is responsible Public Health Authority of the Slovak Republic + competent Regional Public Health Authorities. European requirements on cyanobacteria are set in Bathing water Directive 2006/7/EC but not sufficiently. Requirements cover cyanobacterial proliferation and adoption of measures without concretely monitoring parameters and limit values. Legislative requirements for monitoring of cyanobacteria are set only on national level. Target was set at the national level to obtain an overview of the actual occurrence of cyanobacteria and cyanotoxins in surface waters (used for bathing or as sources for drinking water) and to determine species composition of cyanobacteria blooms with an emphasis on the presence of invasive species.

2. Slovakia set legislative requirements for monitoring of cyanobacteria at the national level. At the beginning, the Public Health Authority of the Slovak Republic prepared a water quality assessment scheme for natural water bodies. Within this scheme, there are specific steps that must be taken in place by Regional Public Health Authorities in the course of visual inspection and sampling. Furthermore, the scheme referred to the subsequent process of continuing laboratory testing of biological indicators and assessment of the situation on site. The Public Health Authority regularly realizes training for staff of Regional Public Health Authorities. It consist of theoretical part (legislative requirements, ISO norms, how to do visual inspection, sampling etc.) and practical part in situ.

3. Over the past years it was highlighted problems with increasing growth of cyanobacteria in six bathing waters (Šaštín-Stráže, Zemplínska šírava, Vinné, Bátorovce-Lipovina, Košice - jazero, Kuchajda). The most common and dominant representatives of cyanobacterial blooms are *Microcystis aeruginosa*, *Woronichinia naegeliana*, *Aphanizomenon flos-aquae* and *Dolichospermum flos-aqua* producing toxins microcystin (LR, YR RR) and toxin cylindrospermopsin. During the last bathing season it was also recorded unusual water flower consisting of *Microcystis ichthyoblabe* with high toxicity and high measured value of microcystins and also *M. novacekii*. We observed also the occurrence and overgrowth of new invasive species of cyanobacteria - *Cylindrospermopsis raciborskii* producing toxin cylindrospermopsin. It comes from the tropics and its occurrence in our country may be related to changes in climatic conditions. This taxon occurs in several, mostly warm localities at Slovak Republic, but only as a part of algae blooms. Its proliferation was not yet recorded.

4. Activities carried out to meet the objective of this target help to contribute a fulfilling of Goal 3 of Agenda 2030 - Ensure healthy lives and promote well-being for all at all ages.

5. Slovakia has set 2 targets in this area

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

This part of the Report is irrelevant for Slovakia. Slovakia is landlocked country and we do not have any information on either the production or harvesting of shellfish

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

At the time of last target setting was not considered necessary to define a target in this area.

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

### **National target No 9 - The issue of environmental burdens threatening water resources**

1. The issue of environmental burdens threatening water resources - established in accordance with Art. 4 (2) (a) | c), Art. 5 (b), Art. 6 (2) (a) | 1), Art. 9 (1) (a) | b) Protocol

The target is set at national level in line with the State Environmental Burden Reduction Program (2010 - 2015), updated every 6 years. The target date is 2027 or 2030. The Ministry of the Environment is responsible for implementation. The national targets are defined in compliance with the State Remediation Programme of Environmental Burdens for 2016-2021 (prepared in 2015, updated in 6 years) which constitutes the basic conceptual document addressing remediation of environmental burdens.

2. Legislative measures:

- Act No. 569/2007 Coll. on Geological Works (Geological Act)
- Act No. 409/2011 Coll. on certain measures in relation to environmental burdens and on the amendment and supplements to certain acts
- Ministry of Environment of the Slovak Republic No. 1/2015-7 of 28 January 2015 on the preparation of risk assessment of contaminated site define the general principle of this analysis Strategy:
- State Remediation Programme of Environmental Burdens for 2016-2021
- Financial support from the Operational Programme Environment for 2007 – 2013 (real absorption of funds by 2015) and Operational Programme Quality of Environment for 2014-2020; state budget and private sector.

3. The progress achieved in published on the Information system - Environmental burdens of the Ministry of Environment of the Slovak Republic web page:

<http://www.minzp.sk/skody-havarie/enviromentalne-zataze/enviromentalne-zataze/>

4. The target is revised every six years under the State Remediation Programme of Environmental Burdens

5. The targets are gradually met through the implementation of relevant measures.

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

Common implementation Strategy (“CIS”) for the Water Framework Directive (2000/60/EC) and the Floods directive (2007/60/EC) was launched in 2001 to work towards a successful implementation of the core legislation on water at EU level.

The CIS Work Programme for the period 2016-2018 was based on the experience with the implementation of the WFD, Directive on Environmental Quality Standards, Groundwater Directive and also Floods Directive between their entry into force in 2015.

The CIS Work Programme for period 2019-2021 should include results of the assessment of the second River Basin Management Plans and first Flood Risk Management Plans and has to be active part of ongoing process of Fitness Check of EU water legislation. From point of view of the Protocol, information about present process of updating of Drinking Water Directive is important.

All relevant information obtained from results and skills from the CIS processes until now have to be applied in the process of WFD revision (planned in 2019) and there are available at web page CIRCABC.

## **XX. Additional national or local specific targets**

*In cases where additional targets have been set, for each target:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

### **National target No. 10: Raising of public awareness in relation to natural healing waters and natural mineral waters**

1. Deadline is year 2020. Target is set at the national level. For target fulfillment is responsible the Inspectorate of Spa and Springs. This target was set to satisfy growing public demand for information about natural healing waters and natural mineral waters.
2. On the web site of the Ministry of Health of the Slovak Republic in the section Healthcare/Inspectorate of Spas and Springs, information and data on activities of the Inspectorate of Spa and Springs are continuously published. Also actual legislation in force is published, as well as the Statute of the State Spa Commission, which is established at the Ministry of Health of the Slovak Republic as the first level administrative body in this section as well as the list of members of the State Spa Commission and also a list of accredited laboratories authorized to perform analyzes of natural medicinal waters and natural mineral waters. This information is continually updated. Within the scope of its staff capacities and due to the fact that no specific financial resources have been earmarked to fulfill this objective (eg to publications, information materials, brochures, leaflets, etc.), it focused on extending the information to web site of the Ministry of Health of the Slovak Republic in the field of mineral waters. During 2015 it was an explanation of the terminology used and the definition of competences of the Ministry of Health SR in this area. In the next phase (2016 - 2018) some tabs with information were added in the section "Health Care / Spa Inspectorate and Spa":

Within new subtitle “*Resource user obligations*”, there are mentioned legal obligations of resource users, i.e. natural or legal persons which are authorized by the Ministry of Health SR to use natural healing resources or natural mineral resources, such as maintenance of balneotechnical, balneotherapy or filling facilities in the technical condition according to a special regulation, ensuring the implementation of physical, chemical, physico-chemical, microbiological and biological analyzes of natural healing water and natural mineral water; introduction and operation of a monitoring system of sources and observation boreholes connected to the Central Monitoring System of the Ministry of Health of the Slovak Republic according to the conditions of permission to use the source; registration, fulfillment of reporting obligations, requesting the necessary consent of the Ministry of Health, implementation of measures to ensure the use of resources and others obligations set out in the resource use authorization.

Within new subtitle “*Balneo-engineer*”, there are mentioned basic information on providing professional supervision over the use and protection of natural healing resources and natural mineral resources through a professionally competent person - balneotechnology. There are not only basic information about a qualified person - balneo-technician and his qualification prerequisites for obtaining the mandate of the Ministry of Health for the performance of balneotechnology activities, but also an application form for issuing a mandate for the performance of balneotechnics. Since balneotechnicians are obliged to complete and extend their professional knowledge through lifelong learning through training provided by the Ministry of Health of the Slovak Republic, since 2016, the Spa and Health Inspectorate publishes a schedule of vocational training for balneo-technicians at the Ministry of Health website, indicating the name of the educational event.

3. As part of its personnel capacities, the Spa and Spa Inspectorate participates in raising public awareness of natural healing waters and natural mineral waters, as well as lectures and presentations at professional seminars and conferences in the area of water and the environment, or as their main organizer or co-organizer.

4. Fulfilling of tasks of this target helps to preserve healthy environments for people and ecosystems, as well as to provide education and public awareness on the importance of natural mineral sources and their affect to public health.

5. Slovakia has set 3 targets in this area

#### **National target No. 11: Raising of public awareness concerning protection of water and aquatic ecosystems and further educational activities**

1. Deadline is year 2020. Target is set at the national level. For target fulfilment are responsible following institutions: Slovak Environmental Agency, Public Health Authority of the Slovak Republic, Ministry of Environment of the Slovak Republic, Water Research Institute, Office of the Governmental Plenipotentiary for Romany Communities, Inspectorate of Spas and Springs, National Reference Centre for Drinking water. This target was set to increase public awareness and educational activities in the area related with water protection and water ecosystems.

2. Overview of some activities which are carried out by mentioned institutions:

##### **Public Health Authorities:**

Information systems “Drinking Water Information System” and “Bathing Water Information System” significantly contribute to the dissemination of information by public Health Authority of the Slovak Republic and Regional Public Health Authorities and allow data sharing between public health authorities as well as provision of some selected information to the public. Outputs from the system are used for processing requests of other departments, eventually in preparing expert opinions for other ministries, the public and media, but also in preparing national annual reports and reports to the European Commission.

#### Drinking water:

- Evaluation reports (there are regularly published information on the website, such as: Summary report on the drinking water quality, results of analyzes of the water samples examined on the occasion of World Water Day, Evaluation of all activities on the occasion of World Water Day within Slovak Republic),
- Information materials (In order to raise public awareness about of drinking water, information materials have been developed and distributed such as: “*The importance of trace elements in drinking water for human health*” and “*healthy drinking water from your own well*”),
- media activities (few performing in a radio programs, publications in magazines),
- Conferences, workshops and various events for the experts
- World Water Day (yearly examinations of water from individual sources in nitrate and nitrite indicators including providing advice on the health safety of drinking water from public supplies and individual wells, location and protection of own water resources, treatments of water from individual wells used for drinking purposes and their issues related to water and its importance to human health).

#### Bathing water:

- Evaluation reports (regularly published information on the website of the Public Health Authority such as: Preparedness of natural water areas and artificial swimming pools to bathing season, Update the status of natural and artificial swimming pools during bathing season...)
- Information materials (let's be considerate, let's be bathe healthier)
- media activities (performing in a radio health counseling, publication in Enviromagazine),
- Conferences, workshops and various events for the experts

#### **Slovak Environment Agency:**

Slovak Environmental Agency regularly makes available to the public reports on the issue of waters submitted by the Slovak Republic to the European Commission via the website: <http://old.sazp.sk/public/index/go.php?id=1167&lang=sk>

Every year, the Report on the State of the Environment in the Slovak Republic, valid for the previous year, is published. The report is also available to the public via the Enviroportal: <http://www.enviroportal.sk/spravy/kat21>

Six key indicators for water issues (Use of water, Waste water, Quality of surface water, Quality of natural swimming pool's water, Quality of groundwater Drinking water) are yearly updated and provided to the public via the Enviroportal:

<http://www.enviroportal.sk/indicator/103?langversion=sk>

In 2017, new database **EnvDat** (<http://www.enviroportal.sk/indicator/data-view-home>) was developed with aim to provide additional tool for submitting timely, targeted and relevant environmental information in order to ensure cross-cutting environmental assessment at national level, by making available specific database data used for reporting and indicators creating.

Within the environmental education, several activities were carried out, such as: Interactive exhibition “*Water is Life*”, various educational programs, various national competitions, various learning support activities, Environmental education activities, film festival “*Ecotopfilm – Envirofilm*” with its long term tradition (<http://www.envirofilm.sk/>). During 2015 – 2017, 18 Enviromagazines were published (<http://www.enviromagazin.sk/archiv>).

#### **Water Management Research Institute:**

- activities for the public (exhibition “*Water is Life*”, excursions for pupils and students, competition for secondary art schools to World Water Day...),
- activities for experts (water sampling courses, various consulting days, seminars, and workshops)

3. Raising of public and national experts awareness.

4. Fulfilling of tasks of this target helps to provide education and raise public awareness on the quality and importance of water.

5. Slovakia has set 3 targets in this area

**National target 12: Strengthening of water resources protection**

1. National target is strengthening of protection of water resources; deadline is set up: year 2020. Branch of the Ministry of Environment of the Slovak Republic is responsible body for this target.

Reason for selection of this target: focusing on water resources protection, special in selected protected areas. Some activities are restricted at these locations, special in mountain's areas where are sources of water.

2. Ministry of Environment of the Slovak Republic prepared in 2018 Law on Protected Water Management Areas, which protects not only area Žitný ostrov, but also all 10 most valuable areas with the biggest water resources of ground waters in Slovakia. Law came into force by 1 January 2019.

Strategy of the Environmental Policy of the Slovak Republic has been approved in February 2019 and is focused on protection and sustainable management of natural sources.

Protection of nature and landscape and wetlands significantly contributes to protection of water resources.

Slovakia is Party of The Ramsar Convention on Wetlands and on its territory are 14 wetlands on list. Government approved in 2019 Action Plan for Wetlands for years 2019-2021 which contains 65 concrete tasks to protect wetlands and disseminate knowledge about their role.

The updated National Strategy for Protection of Biodiversity (December 2013) is assessed as part of strengthening of water resources protection.

Reinforcement of protection of protected nature areas contributes to water resources protection as well. List of laws and regulations for branch nature and landscape protection is available on web page of the Ministry of Environment of the Slovak Republic:

[https://www.minzp.sk/files/oblasti/ochrana-prirody-a-krajiny/pravne-predpisy/ro-5311-27087-2016\\_ok\\_web\\_priloha-pp.pdf](https://www.minzp.sk/files/oblasti/ochrana-prirody-a-krajiny/pravne-predpisy/ro-5311-27087-2016_ok_web_priloha-pp.pdf)

3. There is difficult to assess progress with regard to title of this objective and short time with regard to law as described in previous point.

4. Improvement of water quality/status and quantity, including reduction of climate change impact.

5. Slovakia has set 3 targets in this area



## Part three

### Common indicators<sup>1</sup>

#### I. Quality of the drinking water supplied

##### 1. Context of the data

1. What is the population coverage (in millions or per cent of total national population) of the water supplies reported under sections 2 and 3 below?

*The rationale of this question is to understand the population coverage of the water quality data reported under sections 2 and 3 below.*

*Please describe the type of water supplies for which data is included in the following tables, and the population share covered by these supplies.*

*Please also clarify the source of the water quality data provided (e.g., data from regulatory authorities).*

In 2018, Slovak Republic had 5.482 mil. inhabitants. Public water supply systems supply 89,37% (4.882 mil. inhabitants). In 2018, the number of municipalities with public water supply system was 2 413, which represents 83,49% of municipalities. Provided data are official data from Statistical Authority and Water research Institute.

2. Please specify from where the water quality samples reported in sections 2 and 3 below are primarily taken (e.g., treatment plant outlet, distribution system or point of consumption).

*The rationale of this question is to understand where the samples were primarily taken from for the water quality data reported in sections 2 and 3 below.*

Data reported in sections 2 and 3 below were taken from water tap (point of consumption) by Regional Public Health Authorities.

Summary data for the whole Slovakia (Regional Public Health Authorities + water operators data) are not available actually for year 2017 or 2018. In a national report about drinking water quality in 2014-2016 which was prepared for the European Commission evaluation there was provide both type of data individual for large and small water supply zones.

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 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.

3. In sections 2 and 3 below, the standards for compliance assessment signify the national standards. If national standards for reported parameters deviate from the World

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<sup>1</sup> 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.

Health Organization (WHO) guideline values, please provide information on the standard values.

*The rationale of this question is to understand any possible differences between the national standards for microbiological and chemical water quality parameters and the respective WHO guideline values.<sup>2</sup>*

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 (2015/1787 amending DWD 98/83/EC).

Implementation of the new requirements of Directive 2015/1787 (modifying Annexes II and III of Directive 98/83/EC), which aims to improve the monitoring of water intended for human consumption to increase its health security, required an amendment to Act no. 355/2007 Coll. and the preparation of the new Ministry of Health Decree no. 247/2017 Replacing Government Regulation no. 354/2006 Coll. Ministry of Health Decree no. 247/2017 contains more than 20 additional drinking water quality parameters. In addition to the requirement for drinking water sampling accreditation, new scientific and technical expertise in the field of drinking water has been incorporated into the new legislation, resulting in a revision and adjustment of quality standards. Two new indicators have been introduced into the scope of quality control to verify the development of disinfection by-products (chlorates and haloacetic acid). On the basis of the epidemiological situation and local conditions, it is also possible to include other indicators beyond the set criteria for the monitoring of the quality of PV, for which the Public health Authority of the Slovak Republic can set limit values. For each drinking water supplier, an obligation to create and update a Monitoring Program was entered into force.

## 2. Bacteriological quality

4. Please indicate the percentage of samples that fail to meet the national standard for *Escherichia coli* (*E. coli*). Parties may also report on up to three other priority microbial indicators and/or pathogens that are subject to routine water quality monitoring.

*If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by “non-centralized versus centralized” water supplies or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the column “area/category” in the table below accordingly.*

*If data can be reported neither for urban and rural areas nor for alternative categories, please report total (national) values only.*

*Please comment on the trends or provide any other important information supporting interpretation of the data.*

All national data regarding drinking water quality are based on evidences that don't select urban and rural population. Reported data content urban and rural population together. Areas of drinking water supply are divided into:

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

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<sup>2</sup> The latest edition of the WHO *Guidelines for Drinking-water Quality* is available at: [http://www.who.int/water\\_sanitation\\_health/publications/dwq-guidelines-4/en/](http://www.who.int/water_sanitation_health/publications/dwq-guidelines-4/en/).

<i>Parameter</i>	<i>Area/category</i>	<i>Baseline value (2005)</i>	<i>Value reported in the previous reporting cycle (2015)</i>	<i>Current value (2018)</i>
<i>E. coli</i> (limit value = 0 CFU/100ml)	<b>Total</b>	2,62 %	1,78 %	1,96
	Urban			
	Rural			
Additional parameter 1: Enterococci (limit value = 0 CFU/100ml)	<b>Total</b>	3,52 %	1,46 %	2,13
	Urban			
	Rural			
Additional parameter 2: Coliform bacteria (limit value = 0 CFU/100ml)	<b>Total</b>	No data	Not reported 5,23 %	5,36
	Urban			
	Rural			
Additional parameter 3: <i>Clostridium perfringens</i> including spores (limit value = 0 CFU/100ml)	<b>Total</b>	No data	Not reported 0,73 %	1,38
	Urban			
	Rural			

### 3. Chemical quality

5. Please report on the percentage of samples that fail to meet the national standard for chemical water quality with regard to the following parameters:

- (a) Arsenic;
- (b) Fluoride;
- (c) Lead
- (d) Nitrate.

6. Please also identify up to three additional chemical parameters that are of priority in the national or local context.

*If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by “non-centralized versus centralized” sanitation systems or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the column “area/category” in the table below accordingly.*

*If data can be reported neither for urban and rural areas nor for alternative categories, please report total (national) values only.*

*Please comment on the trends or provide any other important information supporting interpretation of the data.*

All national data regarding drinking water quality are based on evidences that don't select urban and rural population. Reported data content urban and rural population together. Areas of drinking water supply are divided into:

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

<i>Parameter</i>	<i>Area/category</i>	<i>Baseline value (2005)</i>	<i>Value reported in the previous reporting cycle (2015)</i>	<i>Current value (2018)</i>
Arsenic <i>(limit value = 10 µg/l)</i>	<b>Total</b>	3,2 %	0,66 %	1,16 %
	Urban			
	Rural			
Fluoride <i>(limit value = 1,5mg/l)</i>	<b>Total</b>	0,14 %	0 %	0 %
	Urban			
	Rural			
Lead <i>(limit value = 10 µg/l)</i>	<b>Total</b>	0,35 %	0,54 %	0,33 %
	Urban			
	Rural			
Nitrate <i>(limit value = 50mg/l)</i>	<b>Total</b>	1,2 %	0,19 %	0,19 %
	Urban			
	Rural			
Additional parameter 1: Iron <i>(limit value = 0,2 mg/l)</i>	<b>Total</b>	No data	Not reported 4,28 %	2,86 %
	Urban			
	Rural			
Additional parameter 2: Manganese <i>(limit value = 50 µg/l)</i>	<b>Total</b>	No data	Not reported 1,42 %	1,54 %
	Urban			
	Rural			

<i>Parameter</i>	<i>Area/category</i>	<i>Baseline value (2005)</i>	<i>Value reported in the previous reporting cycle (2015)</i>	<i>Current value (2018)</i>
Additional parameter 3:	<b>Total</b>	No data	Not reported 0,10 %	0,06 %
Nitrite	Urban			
(limit value = 0,5mg/l)	Rural			

## II. Outbreaks and incidence of infectious diseases related to water

*In filling out the below table, please consider the following points:*

*(a) For reporting outbreaks, please report confirmed water-related outbreaks only (i.e., for which there is epidemiological or microbiological evidence for water to have facilitated infection);*

*(b) For reporting incidents, please report the numbers related to all exposure routes. In your response:*

*(i) Please report cases per 100,000 population;*

*(ii) Please differentiate between zero incidents (0) and no data available (-).*

*Please extend the list of water-related diseases, to the extent possible, to cover other relevant pathogens (e.g., enteric viruses, Giardia intestinalis, Vibrio cholerae).*

*Please indicate how the information is collected (e.g., event-based or incidence-based surveillance).*

*Please comment on the trends or provide any other important information supporting interpretation of the data.*

<i>Disease</i>	<i>Incidence rate per 100,000 population (all exposure routes)</i>			<i>Number of outbreaks (confirmed water-borne outbreaks)</i>		
	<i>Baseline (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value (specify year)</i>	<i>Baseline (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value (specify year)</i>

Shigellosis

Enterohaemorrhagic

*E. coli* infection

Typhoid fever

Viral hepatitis A

Legionellosis

Cryptosporidiosis

Additional disease 1:

Additional disease 2:

Additional disease 3:

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### III. Access to drinking water

*If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by “non-centralized versus centralized” water supply systems or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the table below accordingly.*

*If data can be reported neither for urban and rural areas nor for alternative categories, please report total (national) values only.*

*Please comment on the trends or provide any other important information supporting interpretation of the data with regard to access to drinking water.*

<i>Percentage of population with access to drinking water from public supply</i>	<i>Baseline value (2005)</i>	<i>Value reported in the previous reporting cycle (2014)</i>	<i>Current value (2017)</i>
<i>Total</i>	85.3 % <i>(4.594 mi. Inbahitants)</i>	87.7 % <i>(4.753 mi. Inbahitants)</i>	88.9 % <i>(4.836 mi. Inbahitants)</i>
<i>Urban</i>	<i>Evidence doesn't select urban and rural population extra.</i>		
<i>Rural</i>			

- Estimates provided by the WHO/United Nations Children’s Fund (UNICEF) Joint Monitoring Programme (JMP) for Water Supply and Sanitation. *JMP definitions are available at <http://www.wssinfo.org/definitions-methods/watsan-categories>.*
- National estimates. *Please specify how “access” is defined and what types of drinking-water supplies are considered in the estimates in your country.*

*In particular, please specify if the above percentage on “access to drinking water” refers to access to (tick all applicable):*

  - Improved drinking water sources (as per JMP definition)
  - Supplies located on premises
  - Supplies available when needed
  - Supplies that provide drinking water free from faecal contamination

National data are long period collected in database and published in annual report "Report and on the state of the environment in 2017". For individual municipalities, the data are given in the Plan for Development of Public Water Supply and Sewerage Systems, which is updated every 6 years.

Definition of drinking water public supply in the Slovak Republic: minimum 50 inhabitants or 10 m<sup>3</sup> water/day.

**In the sense of WHO/UNICEF definition all inhabitants of the Slovak Republic have access to safe drinking water resources. Rest of inhabitants are used their own wells for supply drinking water.**

#### **IV. Access to sanitation**

*If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by “non-centralized versus centralized” sanitation systems or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the table below accordingly.*

*If data can be reported neither for urban and rural areas nor for alternative categories, please report total (national) values only.*

*Please comment on the trends or provide any other important information supporting interpretation of the data with regard to access to sanitation.*

<i>Percentage of population with access to sanitation</i>	<i>Baseline value (2005)</i>	<i>Value reported in the previous reporting cycle (2014)</i>	<i>Current value (2017)</i>
<b>Total</b>	57.09% (3.0755 mil. inhabitants)	64.67% (3.5061 mil. inhabitants)	67.72% (3.6822 mil. inhabitants)
Urban			
Rural	Evidence doesn't select urban and rural population extra.		

- Estimates provided by JMP. *JMP definitions are available at <http://www.wssinfo.org/definitions-methods/watsan-categories>.*
- National estimates. *Please specify how “access” is defined and what types of sanitation facilities are considered in the estimates in your country.*

*In particular, please specify if the above percentage on “access to sanitation” refers to access to (tick all applicable):*

- Improved sanitation facilities (as per JMP definition)
- Facilities not shared with other households
- Facilities from which excreta is safely disposed in situ or treated off site

National data are long period collected in database and published in annual report „Report on the state of environment of the Slovak Republic“.

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

### 1. Water quality

1. On the basis of national systems of water classification, please indicate the percentage of water bodies or the percentage of the volume (preferably) of water<sup>3</sup> falling under each defined class (e.g., for European Union countries and other countries following the European Union Water Framework Directive<sup>4</sup> classification, the percentage of surface waters of high, good, moderate, poor and bad ecological status, and the percentage of groundwaters/surface waters of good or poor chemical status; for other countries, in classes I, II, III, etc.).

#### (a) For European Union countries and other countries following the European Union Water Framework Directive classification

##### (i) Ecological status of surface water bodies

<i>Percentage of surface water classified as:</i>	<i>Baseline value (2007/2008)</i>	<i>Value reported in the previous reporting cycle (2010)</i>	<i>Value in cycle (2009-2012)</i>	<i>Current value (2013-2017<sup>*</sup>)</i>
High status	27.7	0.30	3.64	4.0
Good status	36.0	70.21	52.65	56.35
Moderate status	32.9	25.31	34.77	32.37
Poor status	3.0	3.71	8.28	7.02
Bad status	0.4	0.43	0.66	0.26
<b>Total number/volume of water bodies classified</b>	1510			1510
<b>Total number/volume of water bodies in the country</b>	1510			1510

\* Preliminary assessment 3rd third planning preparation cycle of the Water Plan of Slovakia

NOTE: Changes in assessment of water bodies (1st and 2nd RBMPs):

##### (ii) Chemical status of surface water bodies

<i>Percentage of surface water bodies classified as</i>	<i>Baseline value (2007/2008)</i>	<i>Value reported in the previous reporting cycle (2010)</i>	<i>Value in cycle (2009-2012)</i>	<i>Current value (2013-2017<sup>*</sup>)</i>
Good status	95.0	90.0	97.55	92.38
Poor status	5.0	10.0	2.45	7.62
<b>Total number/volume of water bodies classified</b>	1510			1510
<b>Total number/volume of water bodies in the country</b>	1510			

<sup>3</sup> Please specify.

<sup>4</sup> Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.



(iii) *Status of groundwaters*

<i>Percentage of groundwaters classified as</i>	<i>Baseline value (2007/2008)</i>	<i>Value reported in the previous reporting cycle (2010<sup>*</sup>)</i>	<i>Value reported in the previous reporting cycle (2009-2012)</i>
Good quantitative status	93.3	-	94.7
Good chemical status	82.7	-	85.3
Poor quantitative status			
Poor chemical status	17.3	-	14.7
<b>Total number/volume of groundwater bodies classified</b>	<b>75</b>		<b>75</b>
<b>Total number/volume of groundwater bodies in the country</b>			

Information in detail available in 1st Slovak Water Management Plan and 2nd Slovak Water Management Plan

**(b) For other countries**

(i) *Status of surface waters*

<i>Percentage of surface water falling under class<sup>a</sup></i>	<i>Baseline value (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value (specify year)</i>
I			
II			
III			
IV			
V			
<b>Total number/volume of water bodies classified</b>			
<b>Total number/volume of water bodies in the country</b>			

<sup>a</sup> Rename and modify the number of rows to reflect the national classification system.

(ii) *Status of groundwaters*

<i>Percentage of groundwaters falling under class<sup>a</sup></i>	<i>Baseline value (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value (specify year)</i>
I			
II			
III			
IV			
V			
<b>Total number/volume of groundwater bodies classified</b>			
<b>Total number/volume of groundwater bodies in the country</b>			

<sup>a</sup> Rename and modify the number of rows to reflect the national classification system.

2. Please provide any other information that will help put into context and aid understanding of the information provided above (e.g., coverage of information provided if not related to all water resources, how the quality of waters affects human health).

**2. Water use**

3. 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>Value reported in the previous reporting cycle (2011)</i>	<i>Value reported in the previous reporting cycle (2014)</i>	<i>Current value (2017)</i>
Agriculture	2.1%	4.3%	0.4%	7.2%
Industry <sup>a</sup>	87.8%	77%	80.5%	73.4%
Domestic use <sup>b</sup>	10.1%	18.8%	19.1%	19.4%

<sup>a</sup> Please specify whether the figure includes both water abstraction for manufacturing industry and for energy cooling.

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

## **Part four**

### **Water-related disease surveillance and response systems**

1. In accordance with the provisions of article 8 of the Protocol:

Has your country established comprehensive water-related disease surveillance and early warning systems according to paragraph 1 (a)?

YES  NO  IN PROGRESS

Within the the surveillance of communicable diseases, the Slovak Republic also monitors the incidence of diseases where water is a factor in transmission. In the Slovak Republic, the incidence of communicable diseases is reported in the Epidemiological Information System of Communicable Diseases (EPIS), which also contains part of the Rapid Alert System (SRV).

Has your country prepared comprehensive national or local contingency plans for responses to outbreaks and incidents of water-related disease according to paragraph 1 (b)?

YES  NO  IN PROGRESS

In the case of communicable diseases in the Slovak Republic, the regional public health authorities (epidemiology departments in cooperation with the environmental departments) ensure and direct appropriate anti-epidemic measures in the outbreaks of infection.

Do relevant public authorities have the necessary capacity to respond to such outbreaks, incidents or risks in accordance with the relevant contingency plan according to paragraph 1 (c)?

YES  NO  IN PROGRESS

2. If yes or in progress, please provide summary information about key elements of the water-related disease surveillance and outbreak response systems (e.g., identification of water-related disease outbreaks and incidents, notification, communication to the public, data management and reporting). Please also provide reference to existing national legislation and/or regulations addressing water-related disease surveillance and outbreak response.

We act in accordance with the Act. No.355/2007 Coll. on the protection, promotion and development of public health and amending and supplementing certain acts pursuant to Section 12 (measures to prevent diseases). These are measures to prevent the emergence and spread of communicable diseases, measures to prevent the introduction of communicable diseases, report communicable diseases and suspected serious or rapidly spreading diseases, take samples of biological material from humans and samples of drinking water and bathing water, including sampling food, isolation in the home or in a health care facility, increased health surveillance, medical supervision, quarantine measures, prohibition of the use of water as drinking water, which does not meet the limits of drinking water.

3. Please describe what actions have been taken in your country in the past three years to improve and/or sustain water-related disease surveillance, early warning systems and contingency plans, as well as to strengthen the capacity of public authorities to respond to water-related disease outbreaks and incidents, in accordance with the provisions of article 8 of the Protocol.

Monitoring surveillance of communicable diseases is ongoing throughout their surveillance.

## **Part five**

### **Progress achieved in implementing other articles of the Protocol**

Please provide a short description of the status of implementation of articles 9 to 14 of the Protocol, as relevant.

*Suggested length: up to two pages*

Article 9:

Government departments of of the Ministry of Health of the Slovak Republic (MoH SR) and Ministry of Environment of the Slovak Republic (MoE SR) are cooperating in harmony with requirements of the Article 9 of the Protocol.

Article 10:

Documents, brochures and information elaborated in both government departments (MoH SR, MoE SR) are public available on their web pages and web pages of their branch institutions e.g in branch of the MoE SR there are web pagegs of the Water Research Institute, Slovak Hydrometeorological Institute, Slovak Water Management Enterprise, Slovak Environmental Agency and in branch of MoH SR on web page of the Public health Authority and Regional Public Health Authorities. In addition, many publications are distributed in printed form.

Citizens who are interested to obtain some another information, outputs etc. contact relevant departments of ministries by e-mail, letters etc.

Article 11:

Ministry Ministry of Environment of the Slovak Republic is involved in long-term international co-operation as follows:

- a) bilateral co-operation on transboundary waters with neighbouring countries under the umbrella of the commissions for co-operation on transboundary waters. Activities cover all relevant aspects of transboundary co-operation, including quality/status and quantity of water;
- b) co-operation in the International Commission for the Protection of the Danube River;
- c) EU Strategy for Danube region;
- d) in the structures of the European Union, special in the Common implementation Strategy for the Water Framework Directive (2000/60/EC) and the Floods Directive (2007/60/EC), in work programmes approved for 3 years.

All these activities are focused on protection and improvement of water quality/status and quantity and water management, mostly implement requirements of the EU directives. Fulfilment of their objectives supports also targets of the Protocol.

Since 2017 branch of the Ministry of Environment of the Slovak Republic (Slovak Hydrometeoerological Institute) has started support and co-operarioon with International Water Assessment Centre (IWAC) in Kazakhstan.

Article 12:

Ministry of Environment of the Slovak Republic co-ordinates activities with another Parties in harmony with Article 12 of the Protocol. Such key long-term activities are mentioned in text relateted to Article 11, points a),b),c),d) of this Part Five.

Article 13:

Ministry of Environment of the Slovak Republic has incorporated these requirements into bilateral agreements with neighbouring countries concerning co-operaion on transboundary waters (part of water protection and management). There exists exchange of information about water management (water quality/status, quantity, measures taken,maitenance of river bed and baks...), warning and forecast systems, planning of structures, projects, co-ordination of some others activities, etc.

Article 14:

Ministry of Environment of the Slovak Republic and Ministry of health of the Slovak Republic are involved into all activities related to its responsibility, as published in article 14 of the Protocol.

## Part six

### Thematic part linked to priority areas of work under the Protocol

#### 1. Water, sanitation and hygiene in institutional settings

1. In the table below, please provide information on the proportion of schools (primary and secondary) and health-care facilities that provide basic water, sanitation and hygiene (WASH) services.

*Basic services refer to the following:*

(a) *Basic sanitation service: Improved facilities (according to JMP definition), which are sex-separated and usable at the school or health-care facility;*

(b) *Basic drinking water service: Water from an improved source (according to JMP definition) is available at the school or health-care facility;*

(c) *Basic hygiene service: Handwashing facility with water and soap available to students (schools) or patients and health-care providers (health-care facilities).*

*If the above definitions/categories do not apply in your country, please report for alternative categories for which data are available. In this case, please indicate the reported categories by renaming the rows in the table below accordingly.*

*Please indicate the source of data. If data is not available, please put (-).*

<i>Institutional setting</i>	<i>Current value (specify year)</i>
<i>Schools</i>	
Basic sanitation service	
Basic drinking-water service	
Basic hygiene service	
<i>Health-care facilities</i>	
Basic sanitation service	
Basic drinking-water service	
Basic hygiene service	

2. Has the situation of WASH in schools been assessed in your country?

YES  NO  IN PROGRESS

3. Has the situation of WASH in health-care facilities been assessed in your country?

YES  NO  IN PROGRESS

4. Do approved policies or programmes include actions (please tick all that apply):

To improve WASH in schools

To improve WASH in health-care facilities

5. If yes, please provide reference to main relevant national policy(ies) or programme(s).

**2. Safe management of drinking-water supply**

6. Is there a national policy or regulation in your country, which requires implementation of risk-based management, such as WHO water safety plans (WSPs), in drinking water supply?

YES  NO  IN PROGRESS

7. If yes, please provide reference to relevant national policy(ies) or regulatory documentation.

Future implementation of the new drinking Water Directive proposal.

8. In the table below, please provide information on the percentage of the population serviced with drinking-water under a WSP.

*Please indicate the source of data. If data is not available, please put (-).*

<i>Percentage of population</i>	<i>Current value (specify year)</i>
<b>Total</b>	

**3. Equitable access to water and sanitation**

9. Has the equity of access to safe drinking-water and sanitation been assessed?

YES  NO  IN PROGRESS

10. Do national policies or programmes include actions to improve equitable access to water and sanitation (please tick all that apply):

- To reduce geographical disparities
- To ensure access for vulnerable and marginalized groups
- To keep water and sanitation affordable for all

11. If yes, please provide reference to main relevant national policy(ies) and programme(s).

In Slovak Republic, it is an obligation for every oprator to ensure equitable access to water and sanitation, otherwise the state authorities would not allow to operate such a facilities. There are no further data available to comply theses requirements during operation so far.

## **Part seven**

### **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.

#### **Health sector**

Name of officer responsible for submitting the national report: Daša Gubková  
E-mail: [dasa.gubkova@uvzsr.sk](mailto:dasa.gubkova@uvzsr.sk)  
Telephone number: +421 2 49 284 383  
Name and address of national authority: Public Health Authority of the Slovak Republic  
Trnavská cesta 52  
826 45 Bratislava  
Slovak Republic

Signature:

Date: 2.5.2019

#### **Environmental sector**

Name of officer responsible for submitting the national report: Lenka Letavajová  
E-mail: [lenka.letavajova@enviro.gov.sk](mailto:lenka.letavajova@enviro.gov.sk)  
Telephone number: +421 2 59 806 231  
Name and address of national authority: Ministry of Environment of the Slovak Republic  
Námestie Ľudovíta Štúra 35/1  
812 35 Bratislava

Signature:

Date:

### **Submission**

1. Parties are required to submit their summary reports to the joint secretariat, using the present template and in accordance with the adopted guidelines on reporting, 210 days before the next session of the Meeting of the Parties. Submission of the reports ahead of this deadline is encouraged, as this will facilitate the preparation of analyses and syntheses to be made available to the Meeting of the Parties.

2. Parties are requested to submit, to the two addresses below, an original signed copy by post and an electronic copy by e-mail. Electronic copies should be available in word-processing software.

### **Joint Secretariat to the Protocol on Water and Health**

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