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

The Republic of Serbia took over the chairmanship of the Bureau of the Protocol on water and health at the 4th session of the Meeting of the Parties to the Protocol on water and health, held in Geneva in 2016. During its chairing of the Protocol, Serbia worked on the implementation of the national targets set under the Article 6 of the Protocol, as well as on the promotion of the Protocol at international and national level.
Undertaking activities for implementing national target, Serbia has made the substantial progress in the field of small-scale water supply systems, WASH in schools and health care facilities, water safety planning and drinking water quality and equitable access to water and sanitation. The achievements are related to:

- Closing the WASH knowledge gaps through the conduct of several systematic analyses,
- Improving the national surveillance system on WASH in schools and health care facilities
- Strengthening the legal framework for introducing the safe management of sanitation and drinking water.

Conducting of systematic analysis

Identified knowledge gaps in the baseline analysis related to the small water supply systems in rural areas and the WASH in schools and HCF in rural areas led to their prioritization in the national targets set in 2015 and implementation of the following systematic analysis in Serbia (one national and two district-level studies):

- National study on the rapid assessment of drinking-water quality and sanitary conditions in rural small scale water supply systems (2016-2017), according to WHO methodology for rapid assessment and financially and technically supported by the UNECE and WHO and the network of the institutes of public health in Serbia;
- District-level systematic analysis of water, sanitation and hygiene (WASH) in rural schools in Sumadija nad Pomoravlje region (2016-2017), applying the JMP service ladders for the level of water, sanitation and hygiene services in schools (supported by the Italian Government and the Ministry of environmental protection);
- Self assessment of the equitable access to water and sanitation in Sumadija and Pomoravlje region using the UNECE score-card assessment tool and supported by the UNECE.

Improving the national surveillance system for monitoring WASH in schools and health care facilities

District-level systematic analysis of water, sanitation and hygiene (WASH) in rural schools in Sumadija nad Pomoravlje region employed the JMP core and expanded questions for assessing the level of WASH services provided to rural schools. This study also assessed the pupils' perception of WASH in schools they attended, as well as investment needs for each investigated school for achieving the advanced level of WASH services. The study methodology, including the checklists for assessing the WASH situation developed and tested in this survey proved their applicability and usefulness for wider utilization such as in the national surveillance programme for monitoring WASH in schools. Based on that, the JMP core questions were incorporated in the

national surveillance methodology and have been applying since 2017 at national level with the first reporting of the results in 2018. Given that this national surveillance program for monitoring WASH aspects covers both the schools and HCF, the uptake of JMP core questions for tracking the progress in achieving SDGs 3.8, 4a, 6.1 and 6.2 into the national surveillance system has been done for both settings.

Strengthening the legal framework for introducing the safe management of sanitation and drinking water

Under the Protocol framework, Serbia has set a national target towards developing legislation for WSP implementation. The new provision on mandatory implementation of WSP in water supply systems that produce more than 10 m3 of water has found its place in a draft new Law on water intended for human consumption. The process of adoption of Law is still ongoing; however the need for strengthening our national capacities towards long-term scaling-up of WSP has been recognized by Serbian Ministry of Health.
The WHO Regional Office for Europe and the WHO Country Office supported the initial activity under the biannual country agreement and the Workshop on developing a national roadmap towards scaling-up WSP in Serbia was held in August, 2019 in Belgrade.
The overall objective of this workshop was to support implementation of the WSP-related Serbian target set under the Protocol on water and Health and the forthcoming legal requirement on WSPs in national regulations. The workshop aimed at initiating the process of drawing a national roadmap of actions towards long-term uptake of WSPs in Serbia. Now, the process of finalizing the national road map is ongoing and planned to be finished in coming months.
The outcomes of the self-assessment of equitable access to water and sanitation initiated extension of the activity to drafting and approving the three year Action plan on equitable access to water and sanitation (2018-2020). Drafted Acton plan was adopted and approved by the multisectoral Joint body for the implementation of the Protocol on water and health.
Regarding sanitation aspect and activities for improving the legal framework for safe management of sanitation, Serbia started transposing the Council Directive 91/271/EEC concerning urban waste water treatment into Serbian legislation. Steps completed so far are as follows:

- Legal basis for designation of eutrophic sensitive areas, as well as basis for their introduction into register of protected areas pursuant to the Water Framework Directive
- Proposal on definition of 'agglomeration' is developed and under consideration in the Government
- Identification of agglomerations and determination of the state of existing wastewater collection infrastructure in the agglomerations is conducted and under consideration in the Government
- Sludge is introduced coupled with a ban of disposal of sludge in surface waters from wastewater treatment plants
- Proposal on application of provisions of Article 5(8), i.e. more stringent treatment for the entire territory and agglomerations larger than 10.000 PE is under consideration in the Government.

Success factors:

- Established good and efficient WASH-intersectoral collaboration
- Dedicated work of the Joint body for the implementation of the Protocol on water and health
- Linking activities taken for Protocol's target implementation with related global and regional processes and priorities such as the 3030 Agenda, Ostrava Declaratiion, JMP and GLAAS.
- Using the existing legal and institutional set up, as well as human, technical and financial resources for improving the national surveillance system for monitoring WASH aspects in schools and HCF
- Supportive role of the UNECE/WHO Protocol joint secretariat
- Supportive environment for the Protocol implementation among national and certain local authorities
- Promotional activities at national and local level

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 X☐ 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.

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.

The national targets and target dates are available online. They were posted on the web sites of the Ministry of Health and the Ministry of Agriculture and Environmental Protection. The Baseline analysis was electronically published and disseminated to relevant stakeholders. (Electronic monograph "The implementation of the protocol on water and health in the Republic of Serbia - analysis", prepared by the representatives of the Ministry of Health, Ministry of Agriculture and Environmental Protection and Agency for Environmental Protection, was published and the links were placed on the web site of The Agency for Environmental Protection, available at:

(http://www.sepa.gov.rs/download/Protokol_o_vodi_i_zdravlju_Analiza_stanja.pdf)
,
and of MoH

(http://www.zdravlje.gov.rs/downloads/2014/Decembar/Decembar2014ProtokolovodizdravljuAnalizastanja.pdf)

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

The Republic of Serbia has become a Party to the Protocol in April 2013. According to the Law on Ratification of the Protocol on water and health, ministries responsible for health, water management and environmental protection ensure its implementation.
The "Agreement on the Establishment of the National Working Group in Order to Undertake Joint Measures and Activities Important for the Implementation of the Protocol on Water and Health to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes" was signed between Ministry of Health, Ministry of Energy, Development and Environmental Protection, and the Ministry of Agriculture, Forestry and Water Management. The ministerial agreement resulted with the establishment of the National Working Group (NWG), charged with the main tasks:

- To monitor and analyze implementation of the Protocol both in Serbia and cross-border in order to prevent, control and reduce water related diseases;

- To coordinate and undertake related activities under the Protocol (including without limitation exchange of data and information and providing direct assistance;
- And, to report on progress to relevant national and international institutions.

Chaired by the representative of the Ministry of Health the NWG has been undertaking measures for the implementation of the Protocol. It comprises of representatives of the ministries responsible for health, environment, education, water management, infrastructure, as well as from other institutions such as the Institute of Public Health of Serbia, Serbian Environmental Protection Agency, Human rights office and NGOs (Regional Agency for Economic Development, Associations of local-self government-The Standing Conference of Towns and Municipalities and Association of engineers and sanitary technicians.

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.

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 National workshop on the Protocol on Water and Health for Serbia was held on 9th December 2014 in Belgrade, under the financial, expert and organizational support of the UNECE and WHO/Europe. This workshop was attended by over 40 participants from various institutions engaged in target setting process such as ministries responsible for health, environmental protection, water management, construction, education, local-self government, Serbian Environmental Protection Agency and Institute of Public Health of Serbia. Among participants were also those that were not involved in the preparation of the draft targets as well as local stakeholders and NGOs. The national workshop reviewed the progress achieved in implementing the Protocol in Serbia since becoming a Party. The draft targets set by an interministerial body as well as baseline analysis were presented by the representatives of NWG and reviewed by a broad range of stakeholders. Participants provided comments to the draft targets and agreed on the next steps in the target setting process.

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.

This report has been prepared by the core NWG consists of representatives of the ministries responsible for health, environment, education, water management, infrastructure, as well as from other institutions such as the Institute of Public Health of Serbia, Serbian Environmental Protection Agency, Human rights office and NGOs (Regional Agency for Economic Development, Associations of local-self government-The Standing Conference of Towns and Municipalities and Association of engineers and sanitary technicians. The leading role has the Ministry of Health and the National Focal Point.

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.

There are not particular circumstances.

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.

Target 1 To adopt Rulebook on health safety of drinking water (drinking water quality), drafted and harmonized with EU Directive (98/83/EC).

1. Target date: 2016; revised date 2019

Background and justification: Currently, the Rulebook on hygienic correctness of drinking water quality is in place from 1998 and is not in concordance with EU Directive (98/83/EC). In order to harmonize national regulation with EU Directive (98/83/EC), as required in EU pre-accession process for Serbia, it is recognized as priority and set as target.

2. The National working group have drafted a new Law on drinking water intended for human consumption and the Rulebook on health safety of drinking water (drinking water quality), which is harmonized with EU Directive (98/83/EC). Two Public hearings, in two cities (Belgrade and Nis) were carried out and put in the procedure of adoption. The adoption is expected to be in 2019 according to national plans and programmes.

3. The target1 has not been met yet, however it is in the national plans to be adopted this year. Therefore, there was a need for revising the target date and postpone it to 2019.

4. Implementation of this target contribute to SDG 6.1 in achieving access to safely managed water supply systems for all, by introducing a new provision of mandatory introducing and implementing water safety planning approach in all water supply systems that produce more than 10 m3 of drinking water.

5. Not applicable

Target 2 To improve collection of drinking water quality monitoring data through development of an electronic information system.

Target 3 To improve collection of drinking water quality monitoring data in emergency situation through development of an electronic information system.

1. Target date for target 2 and 3: 2015

Background and justification: Information system on drinking and bathing water quality in regular and emergency situation in Serbia is characterized by the coexistence of a traditional system already in place and a multitude of new information flows which emerged to meet the specific needs of the Public health reform implementation. This system collects an oversized volume of data, while being rather unresponsive to modern Public Health information needs.
The traditional system of data collection on water quality in Serbia is based on out-of-date legislation, methodology and tools. The data collection (mostly paper based and time delayed), is operated by personnel working in an outdated organizational set up. At the peripheral level, a great amount of data is collected and processed regularly, but the utilization, analysis and presentation of this data is lacking in present day methodology. At the central level data often exists, but with questionable validity. The lack of communication among partners and the insufficient feedback mechanism from the central level to the periphery is often demotivating for the staff to collect the data. At the end of the process decision makers at all levels often lacks appropriate and timely information to fulfill its functions.

2. The software application for electronic collection of data, reporting and monitoring on drinking and bathing water quality in emergency and accidental situation in the health system of the Republic of Serbia was developed and is being tested in 23 regional institutes of public health. This activity was conducted through the project implementation supported by WHO/Europe/Country Office.

3. The target 2 has been met.

4. Implementation of this target contribute to SDG 6.1 and 13 (Climate action)

5. /

Target 4 To conduct baseline analysis of drinking water supply systems in rural areas with respect to drinking water quality and sanitary surveillance

1. Target date: 2016

Background and justification: Based on following data gaps and challenges identified in baseline analysis, GLAAS process and at the National consultation on small-scale water supply and sanitation systems in rural areas (held on 8th December 2014, in Belgrade and jointly organized by UNECE and WHO/Europe with the support of the MoH, Institute of Public Health of Serbia and the WHO country office): weak enforcement of regular drinking water monitoring in rural areas; unavailable data on number of the people served by small scale systems and the accurate number of such supplies; high level of microbiological and physico-chemical contamination; lack of necessary technical approvals, sanitary protection zones, poor construction and maintenance, unsatisfactory sanitary condition, irregular disinfection; unregulated ownership issue and lack of responsibility for maintenance and monitoring of facilities, as well as for testing the quality of drinking water; absence of a legal entity in managing these water supply systems prevents operation of the sanitary inspection; maintenance is not supported by the necessary attention, double connections in some households and various illegal connections increase the risk of water contamination;

National working group prioritized improvement of the SSWS evidence base and set this specific target.

2. In order to acquire a nationally representative picture of the situation of small systems in rural areas the Ministry of Health of Serbia has officially requested WHO/EURO in March 2015 to support implementation of its national targets set under the Protocol, specifically undertaking a rapid assessment of the situation of small-scale water supplies in the country. This rapid assessment is supported by WHO/Europe within the framework of the UNDA-project and through in-kind contribution by national institutions and is being conducted in 2016 specifically undertaking a rapid assessment of the situation of small-scale water supplies in the rural areas. The survey is being undertaken on the basis of the WHO rapid assessment methodology as described in the 2012 guide "Rapid assessment of drinking-water quality: a handbook for implementation".

3. The target 3 is fulfilled by conducting this national survey. A national-level systematic survey was conducted in rural areas of Serbia in 2016 based on a rapid assessment methodology developed by WHO. Two types of water supply technologies were investigated: (i) small piped systems serving up to 10 000 people; and (ii) individual supplies which, according to national standards, comprise systems serving less than five households or 20 inhabitants. In total, 1318 small-scale water supply systems were inspected (1136 piped systems and 182 individual supplies) and 1350 drinking-water samples were taken and analyzed for one microbiological parameter (i.e. *Escherichia coli – E.coli*) and 10 physico-chemical parameters (i.e. ammonia, arsenic, chlorine residual, colour, electrical conductivity, hydrogen ions – pH, manganese, nitrate, odour and turbidity). Only 67% of water samples from piped systems and 68% from individual supplies complied with the national standard for microbiological characteristics (Fig. 1). For comparison: in 2016, urban water supply systems showed a compliance of 96% for microbiological parameters. Only 56% of water samples from piped systems and 29% from individual supplies complied with national standards for physico-chemical characteristics (Fig. 1). For comparison: in 2016, urban water supply systems showed a compliance of 90% for physico-chemical parameters. Overall compliance (microbiological plus physico-chemical) was only 37% for piped systems and 17% for individual supplies. the dominant sanitary risks in the inspected systems were: 73% were not subject to regular water chlorination; 73% were unfenced, allowing animals to access the source; 66% were managed by unqualified personnel; 64% were exposed to possible contamination from latrines, sewers, animal breeding, cultivation, roads, industry, rubbish and other sources of pollution placed nearby. Only 28% of piped systems and 23% of individual supplies do not require improvement action. About 42% of piped systems and 36% of individual supplies were found to be in need of some improvements. About 29% of piped systems and 41% of individual supplies show higher or urgent priority for improvement actions in order to prevent water contamination and thus protect public health. Two key interventions towards improving small-scale water supplies have already been taken. Firstly, a new provision in the draft revised law on water intended for human consumption stipulates the introduction and implementation of mandatory WSP to ensure safe drinking-water supply management. Secondly, regulation on the foundation and ownership of water supply systems (regardless of their size) is being increasingly enforced. Management of piped small-scale water supplies by authorized legal entities (e.g. public utilities) is essential to establish regular drinking-water quality monitoring and sanitary surveillance; implementation of the national legislation in the water domain; sustainable financing; and investment in the improvement of small-scale systems.

4. Implementation of this target contribute to SDG 6.1 in achieving access to safely managed water supply systems for all by undertaking measures for decreasing geographical disparities related to baseline data for rural water supply.

5. /

Target 5 To develop plan for the improvement of microbiological and chemical quality of drinking water in rural areas.

1. Target date: 2017; revised date 2020

Background and justification: Conducted RADWQ survey has induced policy actions and measures for the improvement of rural water supplies. These are directed at amendment and enforcement of existing legislation and programmes, as well as development of new regulations. The problems identified in drinking-water quality and sanitary conditions in small-scale water supplies clearly indicate the necessity to introduce and implement risk-based management, the principles of which are contained in the water safety planning (WSP) approach, a core pillar of the WHO Guidelines for drinking-water quality.

2. and 3. The induced actions with respect to introducing and implementing WSPs in legal framework was rationale for revision of this target into:

To build capacities of responsible institutions for introducing the basic concept of WSP and its auditing

An action towards implementation of this revised targets has already been taken by caring out the Workshop on developing a national roadmap towards scaling-up WSP in Serbia was held in August, 2019 in Belgrade with the support of The WHO Regional Office for Europe and the WHO Country Office under the biannual country agreement.
The overall objective of this workshop was to support implementation of the WSP-related Serbian target set under the Protocol on water and Health and the forthcoming legal requirement on WSPs in national regulations. The workshop aimed at initiating the process of drawing a national roadmap of actions towards long-term uptake of WSPs in Serbia.

Twenty-six participants and representatives from different and relevant institutions and organizations attended this workshop such as the ministries responsible for health, environmental protection and infrastructure, sanitary inspection, national and regional institutes of public health, drinking water suppliers and NGOs.
The main outcomes and conclusion sre:

- Increased awareness of multiple stakeholders of: the policy relevance of WSPs in global, regional and national contexts and of actions towards long-term uptake of WSPs in Serbia.
- The key building blocks for developing a national roadmap to support long-term scale up of WSPs in Serbia were recognized and identified at the workshop, encompassing expanding the knowledge base, leadership and coordination and institutional capacity strengthening.
- At this workshop, the national process towards drawing a national WSP roadmap was lunched and the key steps towards its formulation and implementation were agreed, such as:
- Establishing of multi-stakeholder working group or steering committee at national level with the Ministry of Health as the lead Ministry, in order to draw a national strategic plan for WSP introduction and implementation in Serbia;

- Continuing the process of drafting and adopting the new Law on drinking water intended for human consumption, which stipulates mandatory implementation of WSPs in managing drinking water supply systems.
- Establishing of mechanisms for ongoing support of WSPs, capacitating all relevant stakeholders through WSP trainings and developing guidance support material tailored to national and local circumstances.

Following these conclusions a national roadmap on WSP is drafted by the existing WG on the Protocol implementation and will be discussed with broader audience in coming months. It remains to find modality for its official approval by the Ministry of Health, since the roadmap as a form that is not recognized by the Law on planning documents. Currently it is drafted in the form of Action plan, but still to be discussed.

4. Implementation of this target contribute to SDG 6.1 in achieving access to safely managed water supply systems for all by undertaking measures for risk-based management approach in managing drinking water quality.

5. /

Target 6 Public presentation of the results of the baseline analysis of drinking water supply systems in rural areas.

1. Target date: 2016

Background and justification: One of the aim of baseline analysis of drinking water supply systems in rural areas is to perform Public presentation of the results of the baseline analysis in order to involve as many relevant stakeholders at national and local level for the improvement of the situation.

2. The results and the outcome of this study was presented to the public in October 2016 at the occasion of Batut's Day of The Institute of Public Health of Serbia

3. This target is implemented.

4. Implementation of this target contribute to SDG 6.1 in achieving access to safely managed water supply systems for all by undertaking measures for risk-based management approach in managing drinking water quality.

5. /

Target 7 Public presentation of the plan for the improvement of microbiological and chemical quality of drinking water in rural areas.

1. Target date: 2016; revised date 2020

Background and justification: According to what has been said under c Target 5, this target has been revised into:

Public presentation of the National WSP road map

2 and 3. Please, see above under c) Target 5

4. Implementation of this target contribute to SDG 6.1 in achieving access to safely managed water supply systems for all by undertaking measures for risk-based management approach in managing drinking water quality.

5. /

Target 8 To raise awareness of the population in rural areas on importance of regular drinking water quality testing.

1. Target date: On an ongoing basis

Background and justification: The 2002 national programme on health protection of the population from infectious diseases covers activities for awareness raising, mostly focusing on personal and collective hygiene, usage of safe drinking water, adequate waste disposal and less on importance of regular drinking water quality testing in rural areas.

2. The Ministries responsible for health and environment in working towards establishing a sustainable framework for inter-sectorial and multi-stakeholder cooperation were organized three regional workshops in Central and East Serbia in November 2015. The achievements under the Protocol were presented with special focus on Serbian Protocol specific targets related to small scale water supplies and importance of regular drinking water quality testing. The workshops were supported by WHO/Euro/Country Office.

4. Implementation of this target contribute to SDG 6.1 in achieving access to safely managed water supply systems for all by undertaking measures for risk-based management approach in managing drinking water quality.

5. /

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.

Target 9 To increase sanitary surveillance of drinking water supply systems in rural areas.

1. Target date: On an ongoing basis

Background and justification: The baseline analysis has identified weak enforcement of sanitary surveillance of drinking water supply systems in rural areas.

2. The Sector for sanitary inspection of MoH is responsible for the sanitary surveillance of drinking water supply systems. Analysis of the established indicator (the number of conducted surveillance, % of increment) reported in 2016 has shown that the total number of inspected drinking water supply systems in rural areas was 101 or 27% of the total number of inspected water supply systems and water facilities (which is 3.4% of total number of registered SSWS), while in 2017 and 2018 the proportion of inspected small systems in rural areas were 55% and 34% (or 7% and 6% of total no of SSWS), respectively. In general, the sanitary surveillance of drinking

water supply systems in rural areas is still weakly enforced. The main obstacles are the lack of human and financial resources.

3. An action has been taken to increase human capacities of sanitary inspection under the Ministry of Health. The process of closing human capacity gap is ongoing and is according to national plan. The achieved progress is not significant.

4. Implementation of this target contribute to SDG 6.1 in achieving access to safely managed water supply systems for all by undertaking measures for risk-based management approach in managing drinking water quality.

5. /

Target 10 To improve methodology for epidemiological investigation and assessment of waterborne outbreaks

1. Target date: 2016

Background and justification: Existing surveillance systems is passive, as well as outbreak alert and response mechanisms.

2. The Republic of Serbia adopted new Law on the protection of the population against communicable diseases ("Official Gazette RS", no 15/16) in February 2016, as well as Regulation on the protection of the population against communicable diseases with Programme on the protection of the population against communicable diseases ("Official Gazette RS", no 22/16). These are the legal basis for the development of by-laws and action plan. Action plan for implementation of the communicable diseases surveillance system and preparedness and response on serious public health treats system in the Republic of Serbia in line with EU ACQUIS/EC and ECDC recommendations, 2016-2020 is being drafted. This Action Plan envisions measures and actions to be taken related to, *inter alia*, establishment of an integrated case based surveillance system at regional and national level and classification system in line with EU case definitions, development of the electronic information system for surveillance on communicable diseases (clinical and laboratory data reporting), development of Guidelines for outbreak investigations and standards for response to outbreaks, integration of clinical, epidemiological and lab data and establishment of functional links with other relevant systems (veterinary and environmental surveillance) and strengthening the roles and responsibilities of the network of institutes of public health (IPHs) for leadership in the field of surveillance on Communicable diseases. This Action plan will be implemented within the Programe on the protection of the population against communicable diseases.

3. The fulfillment of the target has not been met yet, however the legal basis has been set.

4. Implementation of this target contribute to SDG 6.1 and 3.3

5. /

Target 11 To increase awareness of the population supplied from individual wells in rural areas on the prevention and control of water borne outbreaks

1. Target date: On an ongoing basis

Background and justification: The awareness and the knowledge of the population in rural areas about the importance of regular control of drinking water quality from individual wells and water-related diseases are unsatisfactory.

2. The new Regulation on the protection of the population against communicable diseases with Programme on the protection of the population against communicable

diseases ("Official Gazette RS", no 22/16) prescribes specific aims and measures in the areas of drinking water quality, waste disposal and hygiene, especially in facilities of great hygienic and epidemiological importance such as preschools, schools and facilities where children reside, public feeding facilities, healthcare facilities and collective centers for migrants. Prescribed measures, among others, include education and raising awareness of the population on the importance of health safety of drinking water and its regular monitoring.

3. The activities are being conducted on regular basis within the Programme on the protection of the population against communicable diseases.

4. Implementation of this target contribute to SDG 6.1 and 3.3

5. /

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.

a. Target 12 To increase connections to centralized water supply systems in rural areas:
A) Expending existing regional water supply systems
B) Water infrastructure completion according to national plans
1. Target dates:
A)
(1) 2015-2020: establishing and intensive enforcement;
(2) 2021-2025: establishing and intensive enforcement;
(3) 2026-2035: moderate intensity enforcement.
B)
(1) 2015-2020: establishing and intensive enforcement;
(2) 2021-2025: establishing and intensive enforcement;
(3) 2026-2035: moderate intensity enforcement.

Background and justification:

2. According to Water Law („Official Gazette of the Republic of Serbia“ number 30/2010 and 93/2012) and Regulation on implementation of Water management program by Government for each calendar year, construction, reconstruction and development of technical documentation for water facilities for drinking water supply and sanitation-hygiene needs, drinking water preparation plants, major pipelines and tanks with relevant devices are funded by Ministry of Agriculture and Environmental Protection - Republic Water Directorate.

Also, with aim to establish functional and efficient selection and infrustructure projects prioritisation system, the ministry responsible for water management proposed projects from the field of arrangement and use of waters, which realisation is planed until 2027, to the "Single project pipeline", representing strategic document based on which international developmental aid (IPA, Western Balkan Investment Framework (WBIF), loans provided by international financial institutions - EIB, EBRD, kfW, WB, CeB), but also other developmental partners being active in the domain of infrastructure development will be programmed.

3. The implementation of this target is ongoing according to national plans. The main obstacles are the lack of finances and human resources.

4. The construction of regional water supply systems will contribute to achieving SDG 6.1

5./

b. Target 13 To estimate investment required for the improvement of water supply in schools and preschools facilities, supplied from individual wells or connected to rural water supply system (SSWS).

1. Target date: 2016

Background and justification: Weak enforcement of WASH in schools surveillance in rural areas and out-dated surveillance methodology were curial factors for setting this target.

3. An district level systematic analysis of WASH in rural schools were carried out in 2016-2017 with the aims to:

-Conduct situation analysis (GAP analysis) of access to safe drinking water and sanitation for children in primary schools, as well as sanitary control facilities in rural areas of Šumadija and Pomoravlje territory, with a preliminary assessment of the investment;

-Develop and pilot methodology for assessing water, sanitation and hygiene in schools adapted to local conditions and circumstances, with the possibility of applying even in other Serbian regions, which would ensure the Project sustainability.

-Define the measures and recommendations for the improvement of WASH situations (Water, Sanitation and Hygiene) in Šumadija and Pomoravlje rural schools.

The situation analysis of access to safe drinking water and sanitation for children in primary schools of the rural regions in the territories of Šumadija and Pomoravlje is a unique WASH Project in Serbia (water, sanitation and hygiene). It was implemented in 12 municipalities of Šumadija and Pomoravlje territory, from June to November 2016, in all 238 school facilities in rural environments attended by approximately 11 thousand children between ages 6 and 15. The Study shows that drinking water supply, adequate sanitation, hand-washing facilities, waste disposal and general hygiene conditions are provided in almost all examined schools. Certain technical issues were detected, for which relatively simple solutions can be found and at a reasonable cost. The schools in Serbia have been categorised for the first time according to the so called service ladders (developed by the WHO/Joint Monitoring Programme), showing the WASH level that the schools have to provide to pupils. 93% of inspected school facilities met criteria for the basic level of water supply (access to

improved sources and available at school premises), 85% of schools met the sanitation criteria (access to improved sex separated and functional toilets), while 92% of school facilities met the criteria of the basic hygiene level (access to hand-washing facilities with available water and soup). However, “advanced” WASH standards should be achieved by providing safe drinking water, investment in toilet hygiene, education of children on personal hygiene, particularly menstrual hygiene management, as well as the construction of suitable drinking water, toilet and hand-washing facilities according to standards that enable access to children with disabilities or health condition. Also, this research included interviews of school pupils on their perspective and satisfactory with WASH facilities in school. It has been established that younger pupils have better personal hygiene habits than the older pupils; thus, it is necessary to work in higher grades of primary schools on pupils' permanent education and on correcting their habits regarding the personal hygiene issues.

Key success factors and lessons learned:

Close and good cross-sector cooperation between all relevant institutions at the local and national levels has been achieved. Developed methodology could be repeated and applied for the assessment of the WASH situation in other parts of Serbia as well. Schools in Serbia have been classified for the first time according to the SDG indicators and service ladders, which point to the level of standard of WASH that schools have to provide to their pupils. The awareness and knowledge of the employees and pupils in schools on the importance of water quality for life and health, as well as skills of managing access to safe drinking water and adequate sanitary and hygienic conditions at school was improved.

3.The target is fully implemented.

4. The implementation of this target contributes to achieving SDG 4a and 6 by closing existing data gaps, setting baseline data and integrating SDG core indicators for WASH in schools into national surveillance system for tracking the progress, as well as providing information and data for decision makers to undertake measures for improvement.

5./

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.

Target 14 To estimate investment required to improve access to sanitary equipment, proper waste water disposal and regular empting of septic tanks in schools and preschools facilities.

1. Target date: 2016

Please see, under the target 13, which includes sanitation and hygiene aspect, as well.

Target 15 To develop a plan for the improvement of sanitation in schools and preschools facilities

Target 16 To improve sanitation in schools and preschools facilities.

1. Target date: 2017

2. Targets 15 and 16 are not met, however they are revised and formulated: to conduct follow up study on undertaken activities for the improvement of WASH in rural schools in Sumadija and Pomoravlje region

3. No progress achieved.

4. /

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Target 17 To increase % of connections to centralized sewerage systems in rural areas.

1. Target dates:

1) 2015-2020: establishing and intensive enforcement;
2) 2021-2025: establishing and intensive enforcement;
3) 2026-2035: moderate intensity enforcement.

The data for assessing the progress is not available.

Target 18 To raise awareness of teachers, school stuffs and pupils on hygiene of the sanitation facilities in schools:
A) Review of curricula and textbooks related to the content related to water and sanitation
B) Education planning for educators, teachers and school administration
C) Education planning for children, students and parents –

D) Realisation of educational plans related to school staff

E) Realisation of educational plans related to children and students. Target dates:

1. A,B,C March 2016; D,E 2016-2017

2. Amendments to the Law on the Foundations of the Education and Training System have been adopted:
• It defines interpersonal competencies that pupils need to acquire at the end of elementary education. Among other things, they are accountable for their attitude towards health and responsible attitude towards the environment.
• Students' obligations have been identified, among which is to care for the environment and behave in accordance with the rules of ecological ethics.
• The establishment of the Parents' Municipal Councils is planned, whose obligation is to cooperate with organizations that work in the field of education, protection of health, social protection, culture, protection and promotion of the rights of the child and human rights.

Changes in curricula and teaching and learning curricula in the first, second, fifth and fifth grades of the primary school were made
The curriculum of physical education was supplemented with the contents of health education.
Implementation of topics related to water and promotion of hygiene is realized:
• In the younger classes within the subject of the World around us and Nature and Society:
Healthy way of life: body hygiene;
The role of man in conservation of nature;
Surface water in the settlement and the surrounding area.
• Physical and health education
Personal hygiene
The importance of water for the body and exercise.
In older classes within the subject Biology, e.g. Pathways of transmitting infectious diseases
Chemistry and Physical and Health Education

The Ministry of education published the Catalogue of accredited training programs for the school year 2016/17, 2017/18 and 2018/19
http://zuov-katalog.rs/index.php?action=page/catalog/all&oblast=101

- Programs:
- 1. "Ecologize"
- 2. Natural science teaching - Education through simple practical examples and tours
- 4. The teaching of natural sciences - Contribution to the improvement of scientific literacy
- List of programs of special importance from the Minister
- http://www.mpn.gov.rs/strucno-usavrsavanje/
- 1. Access to safe and safe drinking water and sanitary and hygienic conditions
- Responsible institutions:
- The Institute for the Advancement of Education (ZUOV) accredits the vocational training program for employees in educational institutions.
- The Minister of Education, Science and Technological Development issues a list of programs of professional development that are of special, public significance.

3. Significant progress has been achieved

4. SDG 4a and 6

5./

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.

Target 19 Water supply in accordance to drinking water quality standards, the water quantity, affordability and accessibility.

1. Target dates: On an ongoing basis

Background and justification: Baseline analysis and especially GLAAS has revealed weaknesses and lack of performance indicators particularly for affordability, functionality of systems, cost recovery and expenditure related to both water and sanitation.

2. According to Article 5 of the Law on Communal Utility Activities, communal activity of supply of a drinking water could be performed by a public enterprise or a company in which the majority ownership of at least 51% is held by the Republic of Serbia or local government, which is a monopoly of public sector. Communal activity of treatment and drainage disposal of rainwater and wastewater can be performed by any business entity (public enterprise, company, entrepreneur or other business entity), based on a special decision of the local government and the process of entrusting the performance of communal activities.

The ministry responsible for communal activities has a competency to monitor the quality and scope of the performing of communal activities, efficiency of executors, price trends, the number of employees and the level of investment in the maintenance and construction of communal infrastructure. The Government and the public should be informed about it at least once a year. In order to perform this competency, Article 8 of the Law on Communal Activities, provides the obligation for local governments and all executors of communal activities, to submit a report on the performance of public utilities in the previous year to the competent ministry, by the end of February of the current year. Also, they have to submit other data and information regarding communal activities, according to the request of the ministry.Law on Communal Utility Activities („Official gazette of Republic of Serbia“ no. 22/11), provides a legal basis for adoption of Regulation on the criteria for the provision of communal activities (drinking water supply and treatment and drainage of rainwater and wastewater) which will contain the minimum scope of area and population which will be provided with certain communal activity, frequency and content of communal activity, as well as indicators of the quality and efficiency of service delivery. This competency should enable an increase of scope of communal activities, particularly in settlements outside cities and seats of local government units, as well as to unify the provision of communal activities throughout the territory of Republic of Serbia. Drafting of this Regulation is underway.

3. We had established the legal basis for the reporting on the performance of public utilities including drinking water and sanitation delivery services, however there is still the need to identify data sets and indicators that should be reported by public utilities at local level. Some progress has been made, however there is still work to be done related to established performance indicators and efficient mechanisms for monitoring the progress.

4. The implementation of this target contributes to achieving SDG 4a and 6

5. /

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.

Please, see explanation for target 19, which include sanitation, too.

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.

a. Target 20 To adopt the decree which shall stipulated for which water sources, considering their capacity, such sanitary protection zones shall be designated, as well as the manner by which sanitary protection zones shall be designated, maintained, and used.

1. Target date: 2020

2. Rule book on water sources for which sanitary protection zones are being determined and on method for sanitary protection zones determination, maintenance and use will be prepared in accordance to new Water Law which should be adopted by the end of 2019.

3. The target has not been met, yet.

4. Improved regulation related to drinking water source protection will contribute to improving drinking water safety, hence in achieving SDG 6.1

5./

Target 21 To develop legislation for the implementation of Water Safety Plan in all water supply systems

1. Target date: 2016, revised date 2019
Background and justification:
Article 47 of the Law on Food Safety prescribes following: „Food business operators shall establish system for ensuring food safety in all stages of food production, processing and circulation, other than on the primary production level, in all facilities under their control, in accordance with the principles of good production and hygienic practice and hazard analysis and critical control points (HACCP). The Minister and/or the minister responsible

for public health shall prescribe the requirements for assessment of the self-control procedures referred to in paragraph 1 of this Article. “
According to mentioned above, and having in mind that drinking water is regarded as food, the obligation of the MoH was to develop legislation that is fully in link with Water Safety Plan.
There was a period of a kind of hesitation, and the mentioned obligation has been postponed.
The legal basis regarding food safety and also WHO recommendations regarding WSP were strong push to NWG to set this target.
2. the new Law on drinking water intended for human consumption has been drafted. The new provision on mandatory implementation of WSP in water supply systems that produce more than 10 m3 of water has found its place in a draft new Law on water intended for human consumption. The process of adoption of this Law is still ongoing and is planned to be adopted by the end of 2019.
3. The target has not been met, yet. However, the new provision for WSP implementation is introduced and integrated in relevant draft regulation.
4. Implementation of WSP approach in managing drinking water supply systems will contribute to improving and ensuring drinking water safety, hence in achieving SDG 3.3 and 6.1.
5./

Target 22 To establish sanitary protection zones of existing water sources.
1. Target dates:
- 2015-2019: establishing and intensive enforcement;
- 2020-2025: establishing and intensive enforcement;
- 2026-2034: moderate intensity enforcement.
Background and justification: Baseline analysis has shown that in the period from 2000-2014 total number of established sanitary protection zones according to the national regulation was 156, which is on average 11 per year. The NWG has prioritized this issue and set the target.
The Rulebook on water sources for which sanitary protection zones are being determined and on method for sanitary protection zones determination, maintenance and use has been drafted. Adoption of the Regulation is expected after relevant institution opinions being obtained and harmonized.
The Sector for sanitary inspection of MoH is about to establish WG whose task is to prepare a document in order to prescribe health safety of drinking water, natural mineral, natural spring and table water issues, that will be undertaken in waterworks organization in Serbia.
The Sector for sanitary inspection of MoH is responsible for the approval of sanitary protection zones. As of today, ssanitary protection zones are established for 30% of sources.

2. Measures taken:
- to intensify activities on determination of sanitary protection zones and implementation of relevant protecting measures at the existing water sources;
- to organize monitoring of relevant parameters determined by regulation defining surface and groundwaters status parameters at the existing and potential water sources;
- protection of water sources in order to prevent deterioration of status of surface and groundwaters water bodies to be provided through the administrative and technical measures, according to relevant regulative;
- to provide good quantitative underground waters status by equilibrium between abstraction and recharge of groundwaters;
- to perform investigatory works at the potential water sources of surface and groundwaters in order to evaluate water quality and quantity.

•

3. The target has not been met yet, however action towards fulfillment has been taken.

4. Establishing sanitary protection zones of drinking water sources in each water supply system will contribute to improving drinking water safety, hence in achieving SDG 6.1

5./

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.

Target 23 To improve WASH survey in schools introducing new methodology.

1. Target date: 2016

2. Water, sanitation and hygiene in schools in Serbia are monitored within the framework of the National programme for protection of the population against communicable diseases, which is led by the Ministry of Health together with the network of public health institutes. Improving sanitary and hygienic conditions in schools in order to prevent, control and reduce the risks in school environment is one of the main objectives of this programme. This is a good prerequisite to integrate WASH related aspects in the national monitoring programme. In 2017, the existing surveillance programme was reviewed and harmonized with JMP core indicators and service ladders to allow monitoring progress towards SDG targets 4 a, 6.1 and 6.2. Serbia defined indicators for "advanced" services, including drinking water safety, accessibility of water, sanitation and hand-washing facilities for children with disabilities, MHM management and education.
The improved national monitoring for WASH in schools enables tracking progress in achieving SDGs 4a and 6. The first results showed that the most of investigated schools meet “basic” level of WASH services; however the gap for achieving “advanced level” according to mentioned criteria is still huge. Such analysis allowed the identification of immediate improvement measures and informed priority setting for revising and implementing national targets under the Protocol.

3. The target was fulfilled in 2017

4. This contributes to SDG 4a and 6.1 and 6.2

5./

Target 24 To raise awareness on adequate water supply and sanitation in schools, especially in those with individual wells.

1. Target dates: On an ongoing basis

Background and justification: The awareness and the knowledge of the school stuff and pupils, especially in rural areas about the adequate water supply and sanitation are unsatisfactory.

2. The ministries responsible for health and education work together in raising awareness on importance of having an adequate access to WASH services in schools.

3. The fulfillment of the target is ongoing. The numerous workshops have been conducted on regional levels.

4. This contributes to SDG 4a and 6.1 and 6.2

5./

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.

Target 25
A) Revitalisation and completion of the wastewater treatment plant (WWTP)
B) Construction of new WWTP by priority
C) The construction of storm sewers

1. Target dates:
A) 2015-2020: establishing and intensive enforcement;
B) 2015-2044: establishing and intensive enforcement;
C) 2015-2034: moderate intensity enforcement.

2. According to Water Law („Official Gazette of the Republic of Serbia“ number 30/2012, 93/2012, 101/2016 and 95/2018) and Regulation on implementation of Water management program by Government for each calendar year, construction, reconstruction and development of technical documentation for water facilities for collection, drainage and treatment of waste waters and water protection, particularly major pipelines, wastewater treatment plants and purified water collectors are funded by Ministry of Agriculture, Forestry and Water Management- Republic Water Directorate.
Also, with aim to establish functional and efficient selection and infrustructure projects prioritisation system, the ministry responsible for water management proposed projects from the field of protection of water against pollution, which realisation is planed until 2027, in

accordance to the Multiannual Investement and Financial Plan and “Single project pipeline”, representing strategic document based on which international developmental aid (IPA, Western Balkan Investment Framework (WBIF), loans provided by international financial institutions - EIB, EBRD, kfW, WB, CeB), but also other developmental partners being active in the domain of infrastructure development will be programmed.

Priorities from 2015 to 2020
To continue with started projects realisation covering extension of sewerage network to the required level and construction of the main water supply and waste water treatment plants (commonly known as WWTP).

- WWTP Brus - Blace
- WWTP Kula - Vrbas - Crvenka
- WWTP Vranje
- WWTP Krusevac
- WWTP Nis
- WWTP Uzice
- WWTP Leskovac
- WWTP Šabac
- WWTP Raška

Priorities from 2021 to 2027
To prepare project documentation and starting or finishing realisation for agglomerations: Kraljevo, Pancevo, Loznica, Cacak, Jagodina, Smederevo, Pozarevac, Sokobanja, Kragujevac, Beograd, Batajnica, Novi Sad, Sombor, Lazarevac, regional system Uzice, Pozega, Arilje, Kosjeric and Ivanjica, Sremska Mitrovica, Valjevo, Borca, Obrenovac, Zrenjanin, Stara Pazova-Indjija, Novi Pazar, Zajecar, Vrsac, Kikinda, Pirot, Mladenovac, Paracin and Cuprija, Ruma, Vrnjacka banja, Arandjelovac, Bor and Prokuplje.

3. Since these are the long terms targets the real progress assessment is to be done according to presented plan and target dates

4. SDG 6
5./

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.

Please, see above explanation of target 25

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.

Target 26

1) Legal entities, entrepreneurs and individuals that have waste water treatment plant and / or their wastewater discharged into the recipient or public sewers are obliged to comply with emission limit values for pollutants in water prescribed by the Regulation on emission limit values of pollutants in water and target dates for their achievement (Official Gazette of RS, no. 67/11, 48/12), Article 19th
2) Waste water treatment plant from agglomerations of more than 2000 population equivalent (PE), which discharged municipal waste waters into the recipient to be in compliance with emission limit values of pollutants prescribed by this Regulation and in accordance with the Water Management Plan. 3) Legal entities, entrepreneurs or individuals who have waste water treatment plants that discharge waste water into the recipient or public sewers are obliged to adopt action plans for achieving the emission limit values and set target dates for reaching emission limit values of pollutants progressively, in accordance with plan for the protection of water from pollution, issued pursuant to the law on water, within six months of adoption of this Plan.
1. Target dates:
1) 31 December 2030
2) 31 December 2041
3) 6 months after adoption of the action plans for achieving the emission limit values

Background and justification: National target 26 is set in accordance with one of the most important target in national strategic and planning documents regarding environmental protection: enhance the water quality in watercourses by reduction of discharge of untreated communal and industrial wastewaters.
Around 50 wastewater treatment installations in settlements larger than 2000 inhabitants were built in the last several decades in Serbia, although most of them do not meet required capacity or efficiency, so it is assessed that only 5% of population have adequate and satisfying level of wastewater treatment. Only 26 of the installations built are functioning and only 8 of them work by the project criteria. The efficiency of the rest is far below the projected.
Low number of industrial facilities has installations for pretreatment or treatment of wastewaters before discharged into recipient or city collectors, or they are inefficient. In the past we had better situation but due to adverse economic situation, performed privatizations and restructuring, a lot of industrial facilities stopped working or

changed type of activity so that the wastewater treatment installations are derelict or not adequate.

2. In December 2015, Regulation on Amendments on Regulation on emission limit values of pollutants in water and target dates for their achievement (Official Gazette of RS, no. 1/2016) was adopted. It prescribes some additional subchapters of ELVs for industrial wastewaters and gives changed deadlines for compliance with ELVs harmonizing them with assessments related to UWWT directive. All facilities that were existing and functional before 21.09.2011 have transitional period to comply with ELVs latest by the end of 2025 for industrial waste waters and 2040 for urban waste waters. The precise deadlines for each facility will be defined in action plans developed by corresponding operators. Facilities that started operation after the mentioned date have to comply with ELVs immediately after commissioning. In the light of these new changes in legislation, target dates for 6.2.h.1) and 6.2.h.2) also need to be changed accordingly.
Currently, reliable data on quantities of discharged untreated as well as treated wastewaters are lacking. The actions to enhance relevant data monitoring are being taken. The Rulebook on manner and conditions of measurement of quantity and quality testing of waste water and the content of the report on the conducted measurements is adopted in 2016. Its implementation insured the obtaining of adequate data and implementation of reporting obligation.
Regarding target 26.3), according to new amendments on the Regulation on emission limit values of pollutants in water and target dates for their achievement (Official Gazette of RS, no. 1/2016) and the amendments on Law on Environmental Protection (Official Gazette of RS, no. 14/2016), polluters are obliged to adopt Action plans for achieving the emission limit values with target dates set for reaching emission limit values of pollutants progressively, by the 14th of July, 2016, and IPPC installations will fulfil that through the IPPC permitting procedure. So the target date for this target also need to be changed. It's complete achievement is still a subject of inspection controls.

3. Progress has been achieved towards establishing proper legal basis and a good working area for reaching the targets. Target dates seem to be too far away, but targets 1) and 2) are very financially demanding and so far we did not expect much of a progress in this short period. More significant progress is done for target 26. 3) regarding raising awareness of legal entities and entrepreneurs on the time and finances necessary for solving the issue of waste waters, by preparing for the process through development of Action plans.

4. As explained in point 2, target dates for all three targets will need to be changed in accordance with legislative changes and progress achieved.

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.

Target 27 Harmonization of the national legislation with EU Water Framework Directive.

1. Target date: revised 2020

Background and justification: The question of sewage sludge in Serbia is intersectoral issue, mostly correlated with the implementation of WFD. This target has been set as an obligatory action to be fulfilled in the accession of Serbia to the EU

2. and 3. The umbrella law regulating the issues connected with water management is Water Law. Directives related to waters are partly transposed into Serbian legislation and full harmonization is planed to be finished until the end of 2020 by adopting new Water Law in 2019 and then bylaws until the end of 2020. Currently, National Sludge Management Strategy for Serbia is being developed, which will propose the most effective way of harmonisation of the national legislation with EU acquis regarding sludge issue.

4. SDG 6

5./

XIII. Quality of wastewater used for irrigation purposes (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.

Please, see above explanation for target 27

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.

Please, see above explanation for target 27

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.

a. Target 28 To adopt Rulebook of bathing water quality harmonized with EU Directive 2066/7/EC.

1. Target date: 2016; revised 2020

Background and justification: In order to harmonize national regulation with EU Directive (2006/7/EC) it is recognized as priority and set as target.

2. The Rulebook on bathing water quality harmonized with EU Directive 2066/7/EC has been drafted, but still in the process of adoption.

3. The target 28 has not been met, yet. The target date is revised.

4. SDG 3.3

5./

Target 29 To improve collection of bathing water quality monitoring data through development of an electronic information system.

1. Target date: 2015

2. Please, see the actions taken for the fulfillments of target 2

3. The target has been met

4. SDG 6

5./

Target 30 To improve collection of bathing water quality monitoring data in emergency situation through development of an electronic information system.

1. Target date: 2015

2. Please, see the actions taken for the fulfillments of target 3

3. The target has been met

4. SDG 6

5./

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.

The Republic of Serbia has not established regular monitoring of quality of waters used for aquaculture yet and related to the quality of waters used for production or harvesting of shellfish, is not relevant for Serbia.

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.

Target 31 To develop Best practice guide in accordance with the Rulebook of bathing water quality.

1. Target date: 2017

Background and justification: After the harmonization of the Rulebook on bathing water quality harmonized with EU Directive 066/7/EC there will be a need to develop guide document in order to implement new provisions.

2. The action will be undertaken after the adoption of the Rulebook of bathing water quality

3. It is not relevant in this stage of target implementation to assess the progress

4. SDG 3.3

5./

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.

Target 32 To identify and establish Registry of contaminated sites which adversely affect waters within the scope of this Protocol

1. Target date: 2017; revised 2020

2. According to provisions of Water Law („Official Gazette of the Republic of Serbia“ number 30/2010) Public Water Management Company conduct Water registers, as the part of Water Information System, as well as Cadastre of pollutants.
With development of informatical support to administrative and organizational activities, jobs related to analysis and decision in relation to the prescribing of fees, the release of water conditions, approvals and permits, as well as in operational activities in cases of accidental pollution, during 2008 PWMC “Srbijavode” gets unique Oracle data base called Concentrated Pollutant Sources to utilizing and maintaining.

In the process of strengthening of informatical support to administrative and organizational activities in water management it is designed and started with use of Water management Information System of Republic of Serbia (WIS), that should improve water management activities and to help to realize sustainable water management. Structure of WIS includes monitoring and assessment of natural constructed resources, planning, strategic management and designing of water management systems and facilities and administrative managing of water management.
Within WIS there is functioning Oracle data base called Concentrated Pollutant Sources (CPS), representing water pollutants register. Concentrated Pollutant Sources include industrial and municipal sewage systems and leachate from the landfill waste. The scope and content of CPS base is completely in accordance with valid legislation from the field of water management, public utilities, and specially water protection. During the process of cadastre making into account were taken recommendations of developed Europe countries, defined by Water Framework Directive (2000/60/EEC) and other Directives. The content of cadastre is conceived to response to all listed requirements from Directives related to the monitoring of polluting emissions.
A special quality of this cadastre is a possibility to assess quantity and quality of waste water in case there is no enough data.
Summaries or reports as the outlet from the cadastre represent its most useful part and justify previous multiple data entry. Reports can be taken separately for different categories - settlements, industry and measurements.
Data base Concentrated Pollution Sources has an invaluable importance for the organization and execution of future administrative and organizational activities in the water management
Data from this cadastre can be obtained by total emissions from certain industries in certain time intervals.
Also, measured or estimated emission from settlement can be outlet from cadastre. Except data related to pollutants, cadastre can give informations about pollution at recipient waters, at the whole course as well as at parts of the course or at the water bodies.
CPS is of crucial importance for assessment of pressures and impacts during integral basin management and it was firstly used for that purpose (Pilot project - Kolubara river basin management plan).

3. The target has been partially met. There is the need for further effort to feed the database.

4. SDG 6

5./

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.

Target 33 To develop Water management Plan The Danube river basin Management Plan and Plan for protection water resources from pollution

1. Target date: Water Management Plan: 2021 and Plan for the protection water resources from pollution
Background and justification: The NWG has identified the development of plans in area of water management as priority.
2. River basin management plan for the territory of Republic of Serbia for the period of 2021-2027 is in preparation phase. The plan will fully integrate requirements of Water framework directive (2000/60/EEC) and will be done in accordance with Water management strategy for the territory of the Republic of Serbia by 2034 which was adopted in 2017.
Draft Plan of protection of waters against pollution has been made. Strategic impact assessment for Plan of protection of waters against pollution on the environment in 2016 has to be done and to obtain Report on strategic impact assessment for Plan of protection of waters against pollution on the environment, as well as relevant institutions opinions and their harmonization.
3. The progress has been made by drafting above mentioned plans, however the adoption of the plans is under procedure. The target date should be revised and set at 2021.
4. SDG 6
5./

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.

Target 34 To create web portals on the websites of all relevant governmental bodies, institutions and local governments with respect to water and sanitation (information about the quality of delivered drinking water and other water bodies that are relevant to the objectives).
1. Target date: 2017; revised on going basis
Background and justification: The NWG recognized the gap in data posting of the implementation activities under the Protocol, as well as to meet the requirements of the Protocol regarding public information.

2. All relevant institutions involved in process regularly update their web portals with relevant information about the implementation of the Protocol.

http://www.ekologija.gov.rs/za-dostupnost-ciste-pijace-vode-i-sanitacije/

https://www.udruzenjevodovoda.org/%D1%81%D0%B2%D0%B5%D1%82%D1%81%D0%BA%D0%B8-%D0%B4%D0%B0%D0%BD-%D0%B2%D0%BE%D0%B4%D0%B0-2019/

http://www.sepa.gov.rs/

3. It is an ongoing process

4. /

5./

Part three
Common indicators[1]

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.

The population coverage of the water supplies reported under this indicator is 84.1%

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

The reported data refers water supply systems in urban areas. The population coverage of the water supplies reported under this indicator is 84.1%

For rural water supply presented data are from national study Rapid assessment of drinking water quality conducted in 2016/2017.

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

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).

According to the Rulebook on the hygienic correctness of drinking water the samples are taken at drinking, treatment plant outlet, reservoirs, distribution system and 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.

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

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

World 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.[2]

The national standards for reported parameters do not deviate from the WHO guideline values and EU Directive. The national standard for nitrite is even stricter and set on 0.03 mg/L.

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.

Parameter	*Area/category*	*Baseline value (2005)*	*Value reported in the previous reporting cycle (2014)*	*Current value (2017)*
E. coli	**Total**	**NA**	**NA**	**NA**
	Urban	0.14	0.11	0.13
	Rural	**NA**	**NA**	33.10
Additional parameter 1: Enterococci	**Total**	**NA**	**NA**	**NA**
	Urban	0.04	0.01	0.02
	Rural	NA	NA	NA
Additional parameter 2:	**Total**			
	Urban			
	Rural			
Additional parameter 3:	**Total**			
	Urban			

[2] 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/.

Parameter	*Area/category*	*Baseline value (2005)*	*Value reported in the previous reporting cycle (2014)*	*Current value (2017)*
	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.

Parameter	*Area/category*	*Baseline value (2005)*	*Value reported in the previous reporting cycle (2014)*	*Current value (2017)*
Arsenic	**Total**	**NA**	**NA**	**NA**
	Urban	0.10	0.08	0.11
	Rural	**NA**	**NA**	7.40
Fluoride	**Total**	**NA**	**NA**	**NA**
	Urban	**0.00**	0.001	0.00
	Rural	**NA**	**NA**	**NA**
Lead	**Total**	**NA**	**NA**	**NA**
	Urban	**0.00**	0.00	0.00
	Rural	**NA**	**NA**	**NA**
Nitrate	**Total**	**NA**	**NA**	**NA**
	Urban	1.10	0.21	**0.02**

Parameter	*Area/category*	*Baseline value (2005)*	*Value reported in the previous reporting cycle (2014)*	*Current value (2017)*
	Rural	**NA**	**NA**	6.40
Additional parameter 1: .Nitrite ..	**Total**	**NA**	**NA**	**NA**
	Urban	1.49	1.13	0.8
	Rural	**NA**	**NA**	**NA**
Additional parameter 2: ...	**Total**			
	Urban			
	Rural			

Parameter	*Area/category*	*Baseline value (2005)*	*Value reported in the previous reporting cycle (2014)*	*Current value (2017)*
Additional parameter 3: ...	**Total**			
	Urban			
	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.

	Incidence rate per 100,000 population (all exposure routes)			*Number of outbreaks (confirmed water-borne outbreaks)*		
Disease	*Baseline (2013)*	*Value reported in the previous reporting cycle (2012)*	*Current value (2017)*	*Baseline (2013)*	*Value reported in the previous reporting cycle (2012)*	*Current value (2017)*
Shigellosis	0.50	0.29	0.39	0	0	0
Entero-haemorrhagic *E. coli* infection	/	/	/	/	/	/
Typhoid fever	0	0	0.01	0	0	0
Viral hepatitis A	3.37	1.59	1.42	0	0	0
Legionellosis	/	/	/	/	/	/
Cryptosporiosis	/	/	/	/	/	/
Additional disease 1:						
Additional disease 2:						

Additional disease 3:

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.

Percentage of population with access to drinking water	*Baseline value (2006)*	*Value reported in the previous reporting cycle (2014)*	*Current value (2017)*
Total	93.8	99	99
Urban	97.5	100	100
Rural	88.4	99	99

x ☐ 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):

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

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.

Percentage of population with access to sanitation	*Baseline value (2006)*	*Value reported in the previous reporting cycle (2014)*	*Current value (2017)*
Total	85.2	95	95
Urban	92.9	99	99
Rural	74.2	95	95

x☐ Estimates provided by JMP. *JMP definitions are available at http://www.wssinfo.org/definitions-methods/watsan-categories.*

x☐ 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):

x☐ 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

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[3] falling under each defined class (e.g., for European Union countries and other countries following the European Union Water Framework Directive[4] 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.).

[3] Please specify.

[4] 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.

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

(i) Ecological status of surface water bodies

Percentage of surface water classified as:	*Baseline value (specify year)*	*Value reported in the previous reporting cycle (specify year)*	*Current value (specify year)*
High status	0	-	0
Good status	4	5	5
Moderate status	74	43	46
Poor status	37	31	19
Bad status	15	5	4
Total number/volume of water bodies classified	183* (Total number 2012-2016)		
Total number/volume of water bodies in the country	498		

(ii) Chemical status of surface water bodies

Percentage of surface water bodies classified as	*Baseline value (specify year)*	*Value reported in the previous reporting cycle (specify year)*	*Current value (specify year)*
Good status	95	53	59
Poor status	33	32	14
Total number/volume of water bodies classified	177 * (Total number 2012-2016)		
Total number/volume of water bodies in the country	498		

(iii) Status of groundwaters

Percentage of groundwaters classified as	*Baseline value (specify year)*	*Value reported in the previous reporting cycle (specify year)*	*Current value (specify year)*
Good quantitative status	13	18	12
Good chemical status	-	-	-
Poor quantitative status	6	0	6
Poor chemical status	-	-	-
Total number/volume of groundwater bodies classified	19		
Total number/volume of groundwater bodies in the country	153		

(b) For other countries

(i) Status of surface waters

Percentage of surface water falling under class[a]	*Baseline value (specify year)*	*Value reported in the previous reporting cycle (specify year)*	*Current value (specify year)*
I			

Percentage of surface water falling under class[a]	*Baseline value (specify year)*	*Value reported in the previous reporting cycle (specify year)*	*Current value (specify year)*
II			
III			
IV			
V			
Total number/volume of water bodies classified			
Total number/volume of water bodies in the country			

[a] Rename and modify the number of rows to reflect the national classification system.

(ii) Status of groundwaters

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

[a] 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.

Water exploitation index	*Baseline value (2005)*	*Value reported in the previous reporting cycle (2012)*	*Current value (2017)*
Agriculture	0.38	0.44	0.44
Industry[a]	1.59	2.17	2.63
Domestic use[b]	0.37	0.48	0.44

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

[b] Please specify whether the figure only refers to public water supply systems or also 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 x ☐ NO ☐ IN PROGRESS ☐

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 x ☐ NO ☐ IN PROGRESS ☐

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 x ☐

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.

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.

The Joint External Evaluation (JEE) assessment and evaluation of International Health Regulation core capacities was performed in October 2018 on the request of the Ministry of Health. This JEE was triggered by the Health Minister's request to WHO to conduct the peer-to-peer evaluation of Serbia's capacities in 19 technical areas to fulfil its obligations under IHR (2005), as well as to address its gaps and inform decision makers for improvements. During the assessment Serbia provided a number of examples where it is working at developed and even demonstrated capacity. For example, Serbia's emergency response for natural disasters is exceptional. Of particular note is the response to the extensive floods that occurred in 2014; response to that disaster, led by the Sector for Emergency Situations within the Ministry of Internal Affairs, was well-coordinated, swift and saved lives – as assessed by a WHO evaluation. In addition, simultaneously with the JEE, Serbia hosted a NATO disaster simulation including a chemical event. This showcased many capabilities in such technical areas as preparedness, linking security forces and chemical events.
However, a number of thematic gaps also emerged. Despite the robust existent legislation in the country, there are a number of technical areas in which the relevant minister or Parliament has not formally approved national plans or enacted legislation (e.g. the National Health Emergency and Preparedness plan) underpinning technical areas (e.g. Preparedness and Response). The lack of such approval has negatively affected the scores in some areas; fortunately, once such plans are officially endorsed the scores will quickly rise.
Food- and water-borne diarrhoeal diseases are leading causes of illness and death, particularly in less developed countries. The identification of the source of an outbreak and its containment is critical for control. Risk management capacity with regard to control throughout the food chain continuum must be developed. If epidemiological analysis identifies food as the source of an event, based on a risk assessment, suitable risk management options that ensure the prevention of human cases (or further cases) need to be put in place.

Target

A functional system is in place for surveillance and response capacity of States Parties for foodborne and water-borne *diseases and food contamination risks or events with effective communication and collaboration among the sectors responsible for food safety*.

Indicators and scores

Surveillance systems in place for the detection and monitoring of foodborne and water-borne diseases and food contamination – Score 3

Strengths and best practices:

- The competent authorities have defined food safety responsibilities, which are established in legal and institutional frameworks.
- There is an established system of surveillance and monitoring of priority foodborne and water- borne diseases and hazards.
- Laboratories are capable of performing the necessary tests during epidemics or contamination.

There is an efficient mechanism (formal and informal) for rapid information exchange in the event of suspicion of outbreaks or research of events between all stakeholders/relevant sectors.

Areas that need strengthening and challenges:

- Testing of food is not covered in the annual monitoring for zoonoses (the NMP); this is covered by the EU Twinning Project under the title "Improving the system of the Republic of Serbia in the field of zoonoses, foodborne diseases and AMR".
- SOPs and instructions for formalized multisectoral cooperation and communication have not been developed.

Mechanisms are established and functioning for the response and management of food safety emergencies – Score 2

Strengths and best practices:

- The National Food Safety Emergency Plan will be part of the National Emergency Response Plan of the health system and is in the process of adoption.
- A National Strategy for Emergency Response and Rescue exists.
- Contact points related to food safety (i.e. the national IHR focal point, INFOSAN emergency contact point and RASFF national contact point) and SOPs exist in the country.
- A council for risk assessment in the field of food safety has been established.

Areas that need strengthening and challenges:

- All procedures are defined by laws and division of jurisdiction, but there is no clear formalized division of tasks and procedure of information exchange for multisectoral cooperation

SOPs and instructions for formalized multisectoral cooperation and communication have not been developed.

- The National Food Safety Emergency Plan in the field of food safety has not been adopted.
- No simulation exercises for emergencies in the field of food safety have been conducted.

Recommendations for priority actions

- Implement the surveillance of food for presence of microbiological and chemical hazards at the retail level.

- Develop SOPs for foodborne and water-borne disease outbreaks with special emphasis on the roles, tasks and communication lines of the multisectoral players
- Adopt the National Food Safety Emergency Plan.

Based on these recommendations Serbia will undertake measures for further improvements of water-related disease surveillance and outbreak response systems under the IHR implementation.

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: Public awareness, education, training, research and development and information ;

The members of the Joint body for the implementation of the Protocol on water and health were active in publishing Protocol-related topics in domestic journals and participating at national and international conferences and events:

Katarina Spasovic, **Dragana Jovanovic**, *Improvement of the surveillance of water supply, sanitation and hygiene in health institutions, TECHNOLOGY - QUALITY IMS, STANDARDIZATION AND METROLOGY*, No. 3, 2018, p. 444-448.

Katarina R. Spasovic, **Dragana D. Jovanovic**, *Results of the surveillance of water supply, sanitation and hygiene in health institutions for 2017 according to the improved methodology, TECHNOLOGY - QUALITY IMS, STANDARDIZATION AND METROLOGY*, No. 5, 2018, str. 717-723.

39th International expert-scientific meeting "WATER AND CONNECTION" 18, Valjevo 09-12. October 2018:

Zoran Pendic, Sanja Polak, Bojana Jakovljević, Vladimir Milovanović, Časlav Lačnjevac, **Ljiljana Jovanović**, Marina Strižak, Olivera Ćosović, *ON THE DRAFT LAW ON WATER FOR HUMAN CONSUMPTION, Proceedings, p. 307-318.*

This conference included roundtable disscusion organized with the following topics: "Draft Law on Water for Human Consumption", "Rural water supply - status quo" and "Protection from floods". The participants of the Round Table were the following members of the Joint Body: Nebojša Veljković, Ljiljana Jovanović, Zoran Pendić.

10th Scientific Conference with International Participation "Planning, Interests, Protection of Spatial and Environment", Belgrade, 14th December 2018

Zoran Pendić, Sanja Polak, Bojana Jakovljević, Ljiljana Vujotić, Vladimir Milovanović, Svetlana Urošević, Predrag Stojanović, Časlav Lačnjevac, Ljiljana Jovanović, Aleksandar Žjak, Marina Strižak, Olivera Ćosović, Energy Poverty - Impact on the Environment, Proceedings, p. 126-136.

Marina Strižak, **Zoran Pendić**, Zoran Janjušević, Risk prevention and water savings through sustainable managment water prosuction.p. 262-263.

15th INTERNATIONAL CONVENTION ON QUALITY, JUSK ICQ 2018, Belgrade, 05-07. June 2018

Thematic area: Safety and quality of drinking water, adequate sanitation and clean air - basic human rights. Lectures were held by the following members of the Joint Body: Dragana Jovanovic, Nebojsa Veljkovic, Ljiljana Jovanovic, Zoran Pendic.

Joint celebration of World water day on 22 March 2019 of three line ministries responsible for WASH areas (the Ministry of Health, the Ministry of Environmental Protection and the Ministry of Agriculture, Forestry and Water Management) where the achievement of the Protocol implementation were presented.

In addition to this, the Joint body for the implementation of the Protocol on water and health uses current legal and institutional set up for promoting Protocol's activities at local level.

The present system of local government in Serbia, with its 174 units is regulated by the Law on Local Self Government. In accordance to this Law each municipality has got a certain level of decision-making. Creating enabling environment for ensuring and providing equitable access to safe drinking water and adequate sanitation is one of the key objective of municipal policy and its agenda. However, the extent of their inclusion and implementation is very heterogeneous between municipalities. Unequal municipalities' capacities (financial, technical, human resources) for coordination and development of enabling environment for ensuring and providing equitable access to safe drinking water and adequate sanitation on the municipality level are crucial challenges. In order to support the activities at the local level, the Network of 24 regional institutes of public health, led by the Institute of Public Health of Serbia, develops public health guidance, participate in drafting local strategies, programs and activities. Additional support is provided by the Local Health Councils, increasing a political sensibility for prioritizing issues for achieving SDG6. The coherent framework of mandates, local strategies and action plans for improving the public health have been established through widespread cooperation between the institutes of public health, health councils, and other stakeholders (e.g. nongovernmental organizations and governmental bodies such as the ministries responsible for education, environmental protection, youth and sport). In spite of that, their implementation is restricted by low awareness of importance of equitable access to water and sanitation. In that sense, training and education on equity issues are crucial to raise the awareness, increase health literacy and enable satisfactory and quality implementation of defined strategies, programs and activities at the municipality level.

article 10: Public information;

The Law on access to information of public importance prescribes the obligations that all information important for public must be available. All activates undertaken under the Protocol are published on the web sites of relevant institutions.

article 11: International cooperation;

The longest bilateral cooperation in water field the Republic of Serbia has with Hungary and Romania based on the Agreement on water management and water development issues signed in 1955. The monitoring is performed by Serbian Environmental Protection Agency. Serbian-Hungarian cooperation defines joint sampling, field analysis, and hydrometric measurements at the following border profiles: Danube Bezdan, Tisa - Martonoš, Plazović - Bački Breg and the Baja-Bezdan Channel - Bački Breg, with monthly dynamics (12 times a year). Serbian-Romanian cooperation includes six (6) series of joint sampling, field analysis, and hydrometric measurements in the following waterflows on the Serbian territory: Zlatica - Vrbica, Stari Begej - Hetin, Brzava - Markovićevo, Moravica - Vatin, and on the Romanian

territory: Plovni Begej - Otelek, Tamiš - Graničeri, Karaš -Vrani and Nera - Najdaš and Sokol; and on the Danube: Banatska Palanka on the Serbian territory, Gruja on the Romanian territory, monthly (12 times a year). Obligation of each party is to participate in the sub-commissions' work on the harmonization of the results of the analysis, preparing and sharing documents with the results of the performed tests. Serbian Environmental Protection Agency, starting from its founding in 2003, regularly submits annually data on water quality to the European Environment Agency (EEA) through EIONET (EuropeanEnvironment Information and Observation Network), as a representative of the Republic of Serbia as a cooperating country.

article 12: Joint and coordinated international action;

article 13: Cooperation in relation to transboundary waters;
International cooperation in the field of waters is very significant for the Republic of Serbia especially in the filed of water use, protection from waters and water quality protection. Characteristic fact for Serbia is that even 92 % of available waters are transit water entering the country through the Danube, Sava, Tisa and other watercourses. Unsatisfactory water quality is also a consequence of transboundary pollution of water entering Serbia.
International cooperation is conducting through bilateral cooperation, in the biggest scope with neighbour countries and through multilateral cooperation, dominantly through the implementation of United Nations Convention on protection and use of transboundary watercourses and international lakes, Convention on protection and sustainable use of Danube river (International Commission for the Protection of Danube River - ICPDR) and Framework Agreement on the Sava River Basin (International Sava River Basin Commision
Republic of Serbia has valid active bilateral agreements with Hungary and Romania. Those Agreements are from 1955 nad are completely outdated. Changes that happened in a meanwhile in the field of water management require establishment of a new form of bilateral cooperation with Hungary and Romania.
Also, by formation of internationally recognized countries in the surroundings of Republic of Serbia, originating from the breakdown of SFR of Yugoslavia, interstate watercourses and groundwaters had got interstate status that requires establishment of interstate and international cooperation in the field of waters. Without concluded bilateral agreements there is no legal basis for the regulation of the issues of interest for one or both countries.
article 14: International support for national action.
Conducted project:

- "Rapid assessment of drinking water quality in rural areas in Serbia", supported by the UNDA project UNECE/WHO/Europe

- "Situation analysis of access to healthy drinking water and sanitation for children in primary schools in rural areas in the Sumadija and Pomoravlje Districts" - supported by donation of the Ministry of Environment, Land and Sea, remained financial means after funding project" Serbian-Italian Fund for the Environment (ESIF)

- "Promotion of the Environmental health process, including Protocol on water and health", supported by WHO/BCA

- Development of a regional equitable access action plan in Serbia, supported by the UNECE

Ongoing project:

- "Survey on water, sanitation and hygiene (WASH) in health care facilities in Serbia" - supported under the 2018-2019 Biannual country agreement (BCA), jointly implemented by the Water and Climate Programme at the WHO European Centre for Environment and Health, the WHO Country Office in Serbia and the Institute of Public Health of Serbia "Dr Milan Jovanovic Batut"

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 (-).

Data source:

1. Annual report on the protection of the population against communicable

Available in Serbian at: http://www.batut.org.rs/index.php?content=1415

2. Annual report on the risks factors in school environment

Available in Serbian at: http://www.batut.org.rs/doIzveštaj o faktorima rizika po zdravlje dece u školskoj sredini za 2017wnload/izvestaji/Izvestaj%20skole%202017.pdf

National indicators for WASH in schools and HCF are aligned with the JMP core indicators

Institutional setting	*Current value (specify year)*
Schools	2017
Basic sanitation service	70.8
Basic drinking-water service	52.2
Basic hygiene service	61.9

Institutional setting	*Current value (specify year)*
Health-care facilities	2017
Basic sanitation service	73.2
Basic drinking-water service	96.0
Basic hygiene service	96.8

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

YES x NO ☐ IN PROGRESS ☐

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

YES x NO ☐ IN PROGRESS ☐

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

x ☐ To improve WASH in schools

x ☐ To improve WASH in health-care facilities

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

Regulation on the protection of population against communicable diseases with Programme on the protection of population from communicable diseases from 2016 to 2025("Official Gazette of the Republic of Serbia", No. 22 of 4 March 2016.);

http://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/reg/viewAct/08724f04-64cf-4b7d-a200-a68bc1f90059

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 x

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

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 (-).

Percentage of population	*Current value (specify year)*
Total	NA

3. Equitable access to water and sanitation

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

YES X☐ 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).

The right to water and sanitation has been introduced in the country's legal order by the positive legal framework of the Republic of Serbia.Means of verification used:
Constitution of the Republic of Serbia (RS Official Gazette, No. 98/06)
Law on confirmation of Protocol on water and health to the Convention on the protection and use of transboundary watercourses and international lakes and Amendment to the Art. 25 and 26 of the Convention on the protection and use of transboundary watercourses and international lakes (RS Official Gazette – International contracts, No. 1/13)
Water Law (RS Official Gazette, No. 30/10, 93/12, 101/16 and 95/18)
Law on Communal Activities (RS Official Gazette, No. 88/11, 104/16 and 95/18)

Part seven
Information on the person submitting the report

The following report is submitted on behalf of The Republic of Serbia [name of the Party, Signatory or other State] in accordance with article 7 of the Protocol on Water and Health.

Name of officer responsible for submitting the national report:

Ljiljana Jovanovic, MD, Epidemiologist, National focal point for environment and health

Dragana Jovanovic, MD, PhD, Hygiene specialist, National focal point for water and sanitation and GLAAS

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Telephone number:

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Name and address of national authority:

Ministry of Health, Nemanjina 22-26, 11000 Belgrade, Serbia

Institute of Public Health of Serbia, Dr Subotica 5, 11000 Belgrade, Serbia

Signature:

Date: 13/05/2019

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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World Health Organization Regional Office for Europe
WHO European Centre for Environment and Health
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