

SUMMARY REPORT
in compliance with the article 7 of the
Protocol on Water and Health

THE REPUBLIC OF BELARUS

Summary

Provide general assessment of the progress, achieved in your country under the Protocol during the reported period. Please provide a brief description of the taken measures and highlight important achievements, key problems, success factors and examples of the good practices. Suggested length – up to 2 pages.

Since 21 July 2009, The Republic of Belarus has been a legitimate Party of the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, adopted in London on 17 June 1999. The Ministry of Health and the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus are designed responsible for compliance with obligations. To coordinate the activity of authoritative bodies and agencies, facilitating the compliance with obligations, an interagency council was established. The council composition has been actualized by the Resolution of the Ministry of Health of the Republic of Belarus № 71 dated 15.10.2018 due to the entry of a representative of non-governmental organization to the council.

According to p. 3 of article 6 of the Protocol, the list of measures to ensure compliance with the Protocol was established, as well as targets to achieve these measures were defined in 2013. Taking into account that the list of targets and measures to achieve them were defined for the period up to 2015, they must be actualized. It should be noted that part of values preserved their relevance on the day of the date hereof, another part requires being actualized due to the changes to the legislation in the current sphere or due to assuming other international obligations resulting from regional or global initiatives. Reassessment of the targets in the Republic of Belarus was initiated with the support of Secretariat to the Protocol under the scope of EU Water Initiative + project. The seminar on actualization of the targets under the Protocol took part on 6 December 2018 in Minsk.

The government pays particular attention to providing the population with safe and high-quality water, while promoting rational usage of water resources. In respect thereof despite the fact that there is a list of targets to be actualized, the provisions of the Protocol are successfully implemented under the scope of the legislation in force, Strategies, Concepts, government-run and national programs and plans while attracting the capital of republic and local budget, including under the scope of the Program of social and economic development of the Republic of Belarus for the period of up to 2025, State program “Comfortable housing and friendly environment” for the period of 2016-2020 (subprogram 5 “Clean water”), Government-run programs for sustainable rural development, Water strategy of the Republic of Belarus for the period of up to 2020, Strategies in the sphere of environment protection for the period of up to 2025, Concepts for improvement and development of housing and public utility sector for the period of up to 2025 (approved by the resolution of the Council of Ministers of the Republic of Belarus № 1037 dated 29.12.2017), Systems of state social standards for service the population of the Republic, approved by the Resolution of the Council of Ministers of the Republic of Belarus RB № 724 dated 30.05.2003, Government standardization plan for the years of 2016, 2017, 2018, 2019).

Legislative and regulatory framework in the field of drinking water supply (access to high-quality and safe water, control over quality and safety of drinking water) is constantly improved, including improvement of approaches to the monitoring on the basis of implementing risk assessment methodology, introduction of more improved methods of research (more details in chapters). For the period of 3 years a number of regulatory legal acts, technological regulations and guidance documents have been developed. Namely, the law of the Republic of

Belarus N 166-Z dated 09.01.2019 “About introduction of amendments and additions into some laws of the Republic of Belarus on drinking water supply issues”, and Specific sanitary-epidemiological requirements to operation and maintenance of sources and systems of drinking water supply (approved by the Resolution of the Council of Ministers of the Republic of Belarus № 914 dated 19.12.2018) have also been developed.

The project of chapter 3 “Requirements to drinking water safety” of the sanitary-hygienic standard “The values of safety and harmlessness of the products and the factors of human environment”, is supposed to be approved by the Council of Ministers in 2019 and it is to actualize hygiene standards for drinking water taking into account updated data about their toxicity and danger. The list of the controlled values with due regard to the results of the multiannual monitoring has been specified, microbiological values (standardization of virologic values, investigation for the presence of Pittsburgh pneumonia agent taking into account the results of R&D works) have been actualized. To enhance the efficiency of water supply systems management, targeted improvement on the basis of introduction of risk assessment methodology is conducted. Application instruction № 027-1215 “Risk assessment method in the system of water supply management» (approved by the Ministry of Health of the Republic of Belarus dated 21.03.2016), and № 019-1118 “Method of hygienic assessment of drinking water” (approved by the Ministry of Health of the Republic of Belarus dated 23.04.2019), specifying the method of risk assessment in the systems of drinking water supply, considering the conditions of water consumption in the Republic of Belarus and the approaches to the plans of water safety have been elaborated.

To enhance the requirements to design of the objects, influencing the environment, and water resources as well, the Law of the Republic of Belarus № 399-Z dated 18.07.2016 “About state environmental appraisal, strategic environmental appraisal and assessment of environmental impact” (in force since 2017), regulating relations in the sphere of conducting state environmental appraisal, strategic environmental appraisal and assessment of environmental impact has been adopted. It is aimed at preventing harmful environmental impact.

The improvement of regulative framework for basin management is being conducted. A number of technological regulations and guidance documents, governing the development of River basin management plan including technical code of common practice 17.06-14-2017 (33140) “Environmental protection and management of natural resources. Requirements to the development, planning and execution of the projects of plans for river basin management” were developed within the period of 2015-2017.

In 2015 a new Water code of the Republic of Belarus came into force. The main principles thereof are rational (sustainable) usage of water resources; using groundwaters for drinking needs prior to any other needs; basin management of water resources; improvement of ecological state (status) of surface water objects.

In addition, a key factor of the state policy in the sphere of water relations is an active international cooperation on the issues of water consumption and protection. A number of projects have been prepared and are being implemented to monitor at transboundary level and use water resources of the basin of the rivers Dnepr (with Ukraine and the Russian Federation), Western Bug (with the Republic of Poland) and Western Dvina (with the Republic of Latvia and the Russian Federation) in compliance with the projected and concluded bipartite and plurilateral intergovernmental agreement of the Republic of Belarus with these states. Within the frameworks of the agreements, the cooperation on the basin principle is under development.

To inform the community about the main provisions of the Protocol and the activities conducted in the Republic, the web page about the Protocol with current information has been created on the site of the Republican unitary enterprise “Scientific and Practical Centre for Hygiene”. A number of thematic initiatives on the Protocol including under the guidance of the Secretariat have been conducted. The Republic of Belarus participated in the evaluation of GLAAS dated 2016/2017; 2018/2019.

On the whole, the Review of the progress in compliance with the Protocol allows for a conclusion that the Republic fulfils the basic provisions, and succeeds in the implementation of the specified high-priority targets. The most important results of the work conducted on this issue are the following:

no outbreaks of the water related diseases in the Republic of Belarus have been recorded since 2003;

considerable reduction of the incidence of infectious disease which can be potentially water related (viral hepatitis A, bacillary dysentery);

improvement of the quality of the drinking water supplied to the population (reduction in the percentage of non-standard water tests);

increased coverage of the population with centralized water supply and sewage systems, with access to the high-quality and safe drinking water;

practical implication of the validated methods of the drinking water examination;

adoption of the Water strategy for the Republic of Belarus for the period of up to 2020, consolidating the basic principles of the state policy in the field of the water resources consumption and protection, and defining the main measures for protection and consumption of the water resources in the Republic of Belarus, protecting the water objects and groundwaters from contamination, guaranteeing provision of the population with high-quality drinking water, protection of the population and the territory from adverse impact of water, and basin management principle;

National values in the sphere of sustainable development, including the main aspects of water and health, have been specified (as part of Targets 3 and 6).

In spite of achieving success in implementation of the provisions of the Protocol, additional attention should be paid to the following issues:

updating the list of the targets, defining the measures aimed at achieving the specified targets and adapting the mechanisms of control over implementation and efficiency of the current measures;

enhancing cross-sectoral interaction and coordination of the actions among different authorities in the sphere of water resources management, water supply and sewerage systems, sanitation and health care;

defining the priorities of the measures at the national and local levels;

attracting the community to the Protocol implementation.

Key priority measures for the Republic of Belarus under the Protocol for the coming period are:

- synergism with Sustainable Development Goals;
- prevention of water related disease (infectious and non-infectious),
- providing the population with equal access to the safe and high-quality drinking water, improved sanitation (with due regard to geographic inequity, pricing policy, the most vulnerable groups of the population);
 - implementation of the best practices on quality management and safety of the drinking water with the emphasis on the risk assessment practice,
 - reduction of risks and improvement of sustainability of small-scale systems of water supply and sewerage;
 - protection of water resources from contamination, introduction of basin management principle,
 - safety of recreational water use,
 - management development in the sphere of water supply and sewerage services;
 - legislation update with due regard to the best world practices.

Part one

General aspects

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

YES NO IN PROGRESS

In 2018, reassessment of the targets was initiated with the support of Secretariat under the scope of EU Water Initiative + project. At the same time, the set of action is successfully implemented in respect thereof under the scope of the legislation in force, government-run and industrial programs, Strategies, Concepts (see point 4) in the Republic. Therefore, the current report contains:

- the values from the specified list that are still relevant;
- activities in different areas, implemented in accordance with the law.

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

The list of measures, aimed at performing the obligations under the Protocol, is specified by the resolution of the Ministry of Health of the Republic of Belarus № 116 dated 04.12.2013. To achieve the measures, targets, target dates and responsible authorities were assigned. The list was brought to the attention of the concerned and posted on the website of the Ministry of Health of the Republic of Belarus and republican unitary enterprise “Scientific and Practical Centre for Hygiene” (www.rspch.by), sent to the Secretariat (in Russian).

3. Has your country established national or local arrangements for coordination between competent authorities for setting targets?

Decree of the President of the Republic of Belarus № 159 dated 31.03.2009 “About entry of the Republic of Belarus into the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes” designated the Ministry of Health and the Ministry of Natural Resources and Environmental Protection responsible for fulfilment of the obligations of the Republic of Belarus under the Protocol. To coordinate the activities of the authorities and agencies responsible for the obligations under the Protocol, the Council on the implementation of the Protocol was established by the Resolution of the Ministry of Health of the Republic of Belarus № 52 dated 27.05.2010. The council includes the representatives of the ministries and agencies, scientists of the Ministry of Health, the Ministry of Natural Resources and Environmental Protection, the Ministry of Housing and Communal Services, the Ministry of Emergency Situations and the National Academy of Sciences of the Republic of Belarus. The main duty of the Council is to develop a system of measure, aimed at performing the obligations of the Republic of Belarus under the Protocol. The Council’s organizational and technical work is supported by the Ministry of Health of the republic of Belarus.

The composition of the Council is updated by the Resolution № 71 dated 15 October 2018, by the entry of the representatives of the Scientific production association.

4. Have a program of measures and an action plan been developed to perform the targets? If yes, please provide a brief description of this program and the plan, including to what extent financial implications were taken into account.

When setting targets, cost-benefit analysis wasn’t conducted, whereas availability of resources for implementation of the targets was taken into account.

Targets were achieved under the scope of a number of government-run and industrial programs, including under the scope of subprogram 5 “Clean water” of the State program «Comfortable housing and favorable environment» for the period of 2016-2020. State program was

developed on the basis of the analysis of the water systems condition in settlements and the results achieved while performing the tasks under the State program on water supply and sewerage “Clean water” for the period of 2011 – 2015, the State program of sustainable village development for the period of 2011-2015. The key aim is to provide the population of the Republic with good quality drinking water. The implementation of the program will facilitate further development of the drinking water supply system, improvement of the quality of the drinking water supplied to the consumers, achievement of the specified targets and, finally, the solution of the most important social task - to provide the population with high-quality drinking water and creation of favorable living conditions. To achieve the key target of the State program, approximately 500 Iron removal water treatment stations are planned to be constructed.

The key estimated target of providing the population with high-quality drinking water in the whole republic has been specified

The data on the State program fulfilment is analyzed annually, taking into account the success achieved in the process of the State program implementation.

The state customer and coordinator of the State program is the Ministry of Housing and Communal Services of the Republic of Belarus, the state customers are Oblast governments, city government of Minsk.

The state program activities are finance through the republican and local budgets, credit resources, as well as own funds of the organizations.

When setting the targets, the following national and international strategies and acts of the legislature were taken into account:

Parma Declaration on Environment and Health;

WHO experts report “Review analysis: Environment and Health condition” in the Republic of Belarus» (2009);

National strategy of the sustainable development for the period of 2020;

National program for demographic safety for the period of 2011-2015;

Water strategy for the Republic of Belarus for the period of 2020;

Strategy in the sphere of environmental protection for the period of up to 2025;

Law of the Republic of Belarus "On Sanitary and Epidemic Well-Being of the Population" from January, 7th 2012,

Law of the Republic of Belarus “On Drinking Water Supply” from June, 24th, 1999

Water code of the Republic of Belarus;

Law "On Environmental Safety" from November, 26th 1992;

Presidential Decree "About the statement of the priority directions of scientific and technical activity in the Republic of Belarus for 2016-2020",

as well as other regulatory legal acts in the field of water supply and sanitation, health care, and protection and use of water resources.

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 draft list of targets for implementation of the Protocol on Water and Health was posted on the website of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus (<http://minpriroda.by/>) to inform general public. The finalized list of measures and targets to achieve thereof is set by the Decree of the Ministry of Health of the Republic of Belarus No. 116 dated 04.12.2013.

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

The representatives of the Ministry of Health and the subordinate organizations (republican unitary enterprise “Scientific and Practical Centre for Hygiene”, State institution “Republican Centre of Hygiene, Epidemiology and Public Health”), the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus and the subordinate organizations (republican unitary enterprise “Central Research and Development Institute of Multi-purpose utilization of water resources”, State Enterprise “Scientific and Practical Centre for geology”, Belgidromet), the Ministry of Housing and Communal Services of the Republic of Belarus, the Ministry of Agriculture and Food of the Republic of Belarus, Scientific production association “Ecoproject Partnership” were involved in the preparation of this report. Coordinating functions were performed by the Ministry of Health of the Republic of Belarus.

The data of the State Report "On the Sanitary and Epidemic Situation in the Republic of Belarus" for 2018, the data regarding implementation of the State Program on Water Supply and Sanitation "Clean Water", the data from the State Water Cadastre of Belarus for 2017, surface water and groundwater monitoring data obtained under the National Environmental Monitoring System of the Republic of Belarus for 2107 were used to prepare this report.

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

Law of the Republic of Belarus № 271-Z from June, 24th, 1999 “About drinking water supply” (hereinafter – the Law) stipulates legal guarantees of satisfying the needs of individuals and legal entities in drinking water on the state level in compliance with the drinking water quality standards, as well as state guarantees of safety of the drinking water supply.

According to the Law, the basic principles of the drinking water supply (hereinafter - DW) include:

- state guarantees to prioritize drinking water supply to individuals in order to satisfy their necessities of life and health protection;

- state regulation, control and supervision in the sphere of DW;

- accountability of the DW enterprises to the local executive and regulatory agencies, to State administrative bodies of housing and public utility sector, to the bodies and institutions, performing state sanitary supervision, to the bodies of state supervision over the compliance with technical regulations and standards requirements, to the bodies of state metrological supervision, to the Department for control and supervision over the construction of the State committee for Standardization of the Republic of Belarus, inspections of this Department for regions and Minsk city, as well as specialized inspections of the Department, within the scope of their jurisdiction, as well as to the State administrative body in the sphere of emergency prevention and recover and civil defense within the scope of its jurisdiction;

- provision of safety, reliability and controllability of DW systems taking into account their technological peculiarities and choice of DW sources on the basis of unified binding technical requirements and standards in force on the territory of the Republic;

- high-priority groundwaters use;

- Drinking water resources assessment and availability;

- State support of drinking water systems development, production and delivery of the equipment and related materials, chemical substances for cleaning and disinfection.

- Drinking water consumers are eligible to:

- receive drinking water from centralized and decentralized systems of drinking water supply in accordance with the drinking water quality standards and drinking water consumption standards;

- demand conducting control over the quality of the drinking water from centralized and non-centralized systems of drinking water supply;

- receive complete, trustworthy and timely information about drinking water quality and possible water supply interruptions in due order;

initiate conducting public environment impact assessment, inform the corresponding state authorities about its result in due order.

State administration in the sphere of DW is performed by the Council of Ministers, local Deputy councils, executive and regulatory agencies, the Ministry of housing and public utility sector and its territorial bodies, other specially authorized government agencies in compliance with the legislation of the Republic of Belarus.

DW systems can be a part of state (republican and communal) property, it can also be owned by legal entity or individuals.

Proprietary rights transfer or change of ownership of centralized and non-centralized systems of drinking water supply are acceptable on condition that these changes do not violate operation mode of these systems.

Accounting of drinking water sources is performed by the Ministry of natural resources and environmental protection. Control over drinking water quality is performed by the state sanitation supervision agencies. Metering of the drinking water consumed from centralized systems of drinking water supply is performed by the Ministry of housing and public utility sector, the Ministry of natural resources and environmental protection and their territorial bodies.

Surveillance over the compliance of the drinking water quality with the requirements, established by the legislation of the Republic of Belarus for sanitary and epidemiological welfare of the population, observance of the established regimes of anthropogenic and other activities in the areas of sanitary protection of the drinking water sources and systems are performed by the state sanitation surveillance agencies of the Ministry of Health.

Surveillance over the compliance of the drinking water quality with binding requirements of technological regulation acts in the field of technical rate setting and standardization constitutes a part of binding requirements for technological regulation acts in the field of technical rate setting and standardization and is performed by the agencies of state surveillance over the compliance with the requirements of technical regulations and standards.

Metrological supervision over DW is performed by the state metrological supervision agencies.

Government construction oversight authority performs control over drinking water objects construction, which is a part of observance over compliance with the requirements of technological regulations during construction, approved project documentation during construction and installation works, as well as over the compliance of the materials, manufactured goods and structured used in construction with design decisions with the binding requirements of technological regulation acts in the sphere of technical rate setting and standardization to provide operational reliability and safety.

The acts of legislature of the Republic of Belarus establishes the procedure of oversight and control.

For the recent years, a number of normative legal documents, regulating the activity in the field of water supply and sewerage systems (discussed in corresponding sections) have been developed in the Republic of Belarus. Normative legal documents and technological regulation acts and guidance documents are developed according to the plans: long term, mid-term and short term. Lately, the tendency has been to implement international approaches.

Part Two

Targets and target dates set and assessment of progress

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

1. Current target(s) and its target date(s).

Target 1: improve drinking water quality for microbiological indicators: reduction of the proportion of non-standard samples in the sources of centralized water supply systems compared to the level of 2015, maintaining the achieved level of quality in the centralized systems of drinking water supply;

Target 2: reduce the proportion of the samples failing to comply with the standards for high-priority sanitary and chemical indicators (muddiness, hardness, content of iron, manganese, nitrate) compared to the level of 2015.

Target 3: improve regulatory and methodological basis to ensure drinking water safety.

2. Measures taken to achieve the target(s).

Targets 1 and 2: achievements due to the measures within the scope of:

- Legislation for sanitary and epidemiological welfare of the population;
- Concept of improvement and development of housing and public utility sector up to 2025 (approved by the resolution of Council of Ministers of the Republic of Belarus № 1037 dated 29.12.2017);

- subprogram 5 “Clean water” of the State program “Comfortable housing and friendly environment” for the period of 2016-2020” (approved by the resolution of Council of Ministers of the Republic of Belarus № 326 dated 21.04.2016), providing for the implementation of the investment measures aimed at:

1. improved provision of centralized drinking water supply systems in settlements with water treatment installations: construction, reconstruction and repair of water supply systems and wastewater treatment facilities, Iron removal water treatment stations;

2. improvement of the condition (wear reduction) of utility systems and water development facilities in the settlements: construction, reconstruction and repair of water supply systems and water conducts, creation of special-purpose maintenance engineering brigades to service rural water supply systems;

3. improved provision of the population with centralized water supply systems;

4. measures to protect the drinking water supply sources construction, reconstruction and repair of artesian wells, sewage treatment facilities, sewerage pumping stations).

Target 3: to achieve industrial scientific and technical program “Health and environment”, annual plans to improve regulatory basis, through the measures within the scope of implementation of the Decree of the President of the Republic of Belarus № 7 dated 23.11.2017 “On development of entrepreneurship”.

3. Progress achieved towards the target, and encountered problems.

Targets 1 and 2. Current analysis of the water supply sources quality and safety is conducted within the scope of the current state sanitation surveillance constantly and annually on the basis of the data, submitted in compliance with statistical reporting on sanitary and epidemiological welfare.

Target 1. Sustainable improvement of the drinking water quality for microbiological indicators of safety is observed: the proportion of non-standard samples in the sources of the centralized water supply systems and communal drinking water supply systems does not exceed 1 %, the sources of decentralized water supply systems remain at the achieved level.

Targets are being achieved. It is not necessary to review the targets and target dates.

Target 2.:

The analysis of the target achievement confirms significant improvement in the drinking water quality by high priority sanitarian and chemical indicators: from 2015 to 2018, the

proportion of the drinking water samples failing to comply with the requirements for iron content reduced by 3,6 % (from 27,20 % till 23,60 %) for departmental water supply systems.

Within the scope of subprogram 5 «Clean water» of the State program for the period of 2016-2018, 60 Iron removal water treatment stations were built and 25 are at the final stage of the construction. Fourteen settlements have been connected to the supply systems with the water of standard quality. As a result, approximately 60 000 people living in cities and towns, and approximately 110 000 people, living in villages were supplied with high-quality drinking water. To fulfil the specified task of the State program in 2019, approximately 258 iron removal water treatment stations are planned to be built using the funds of the republican and local budgets, loans and own funds of the enterprises of water and sewage utilities.

Progress report on the measures implementation within the scope of state and industry programs and plans is issued annually. While considering the progress of the target achievement, no necessity to review the targets and the target dates was identified on this stage. The target is being achieved. Correction might be needed on the following stages taking into account the tendency.

Target 3. Legislative and regulatory framework in the sphere of drinking water supply (access to high-quality and safe water, control over quality and safety of drinking water) is constantly improved, including enhancement of approaches to the monitoring on the basis of implementation of risk assessment methodology, introduction of more improved methods of research. For the period of 3 years a number of regulatory legal acts, technological regulations and guidance documents have been developed, including:

Law of the Republic of Belarus N 166-Z dated 09.01.2019 “About the Introduction of Amendments and Additions to some laws of the Republic of Belarus on drinking water supply issues”;

Specific sanitary-epidemiological requirements to operation and maintenance of sources and systems of drinking water supply, approved by the Resolution of the Council of Ministers of the Republic of Belarus № 914 dated 19.12.2018;

Technical regulations EAEU 044/2017 “About safety of bottled drinking water, including natural mineral water”, approved by the resolution of the Council of UNECE № 45;

Sanitary Rules and Regulations "Requirements to protective sanitary zones creation for the sources and centralized systems of drinking water supply", approved by the decree of the Ministry of Health of the Republic of Belarus № 142 dated 30.12.2016;

Application instructions № 015-1118 “Methods for hygienic assessment of safety of water purification means” (approved by the Ministry of Health of the Republic of Belarus dated 19.12.2018);

Application instructions № 011-1118 “Methods for hygienic assessment of materials, reagents, equipment and the technologies, applied for water purification and treatment” (approved by the Ministry of Health of the Republic of Belarus dated 19.12.2018);

Application instructions № 019-1118 “Methods for hygienic assessment of the drinking water safety” (approved by the Ministry of Health of the Republic of Belarus dated 23.04.2019).

The project of chapter 3 “Requirements to drinking water safety” of the sanitary-hygienic standard «The values of safety and harmlessness of the products and the factors of human environment», is supposed to be approved by the Council of Ministers in 2019 (the standard values for 39 substances have been actualized taking into account the updated data about their toxicity and danger (with emphasis on definite impact effects) by harmonization with the international standards and progressive standards of the developed countries. The classes of danger and limiting values as well as the list of the controlled values with due regard to the results of the multiannual monitoring microbiological values (standardization of virologic values, investigation for the presence of Pittsburgh pneumonia agent taking into account the results of R&D works) have been specified;

4. Compliance of the target with the fulfilment of global and regional obligations: complies with the basic provisions:

Sustainable Development Goal 3.3 “By 2030 facilitate measures against hepatitis, waterborne diseases and other infectious diseases”;

Sustainable Development Goals № 3.9 “By 2030 substantially decrease the number of deaths and diseases resulting from dangerous chemicals influence and pollution and air, water and soil poisoning”;

Sustainable Development Goals 6.1.1 “Percentage of the population, using water supply systems, organized in compliance with the safety requirements”.

II. Reduction of the number of outbreaks and cases of water related diseases (art. 6, para. 2 (b))

1. Current targets and their target dates:

- 1) Maintaining a zero level of the incidence of cholera and typhoid.
- 2) Maintaining the incidence of acute hepatitis A at the achieved level (in 2010 – 1,78 cases per 100 000 people).

The targets were set at the national level.

2. Measures taken to achieve the targets.

A number of measures is carried out under the Law of the Republic of Belarus "On the Sanitary-Epidemic Well-Being of the Population" from January, 7th, 2012, to achieve the targets specified. The sanitary-epidemic well-being is ensured by preventing the spread of the diseases taking into account sanitary-epidemic situation and its forecasted change. This section may include the measures performed under the state and national programs, specified in all the sections of the current report, preventive works with the population - promoting public awareness about infectious diseases prevention in mass media (radio, TV, newspaper articles) and in the Internet.

3. Progress achieved towards the target, the encountered problems.

The analysis of the epidemic situation is carried out annually on the basis of the data submitted in accordance with the statistical reporting concerning sanitary and epidemic well-being.

The targets have been achieved. No water-related disease outbreaks have been registered in the Republic of Belarus since 2003.

Target 1: zero level of the incidence of cholera and typhoid fever.

Target 2: the incidence of acute hepatitis A: 2010 - 1,78 cases per 100 000 people, 2015 - 1,71 cases per 100 000 people, 2018 – 0,88 cases per 100 000 people.

In order to prevent the incidence of acute intestinal infections, related to drinking water, in educational institutions, the technical regulatory legal acts stipulate providing the children in such institutions with bottled or boiled drinking water. In a number of such institutions water is additionally treated.

4. Compliance of the target with the fulfilment of global and regional obligations: complies with the basic provisions:

Sustainable Development Goal 3.3 “By 2030 facilitate measures against hepatitis, waterborne diseases and other infectious diseases”.

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

1. Current target(s) and their target date(s):

Target 1: to provide 100 % of the population in settlements with more than 100000 citizens with high quality drinking water by 2020.

Target 2: to provide 100 % of the consumers with high quality drinking water by 2025.

The targets are set to be achieved wholly at the national level and gradually at the regional level. Regional sets of measures, which reflect the targets and stages as well as reasoned decisions on how to provide the population with high quality drinking water have been approved.

2. Measures taken to achieve the target(s).

Target 1: achievement of the target within the scope of subprogram 5 «Clean water» of the State program for the period of 2016-2018 (approved by the resolution of Council of Ministers of the Republic of Belarus № 326 dated 21.04.2016) by means of the development of the centralized water supply systems both in urban and rural settlements.

Target 2: Concept of improvement and development of housing and public utility sector up to 2025 (approved by the resolution of Council of Ministers of the Republic of Belarus № 1037 dated 29.12.2017), subprogram 5 «Clean water» of the State program for the period of 2016-2018 (approved by the resolution of Council of Ministers of the Republic of Belarus № 326 dated 21.04.2016), are planned to be continued during the following stages of the specified program over the period of 2021-2025.

3. Progress achieved towards the target, the encountered problems.

The progress achieved towards the target is observed both in regions and in the whole republic (Table 1).

Table 1 – The proportion of the population, having access to the drinking water of higher quality

Territory	The proportion of the population, having access to the drinking water of higher quality (%)		
	Baseline value (2016)	Current value (2018)	Target value (2025)
The republic of Belarus	85,5	90,5	100
Brest region	87,5	92,8	100
Vitebsk region	84,1	90,5	100
Gomel region	84,1	89,0	100
Grodno region	87,3	92,7	100
Minsk region	80,4	91,8	100
Mogilev region	89,6	85,9	100

4. Compliance of the target with the fulfilment of global and regional obligations: complies with the basic provisions:

Sustainable Development Goal 3.3 “By 2030 facilitate measures against hepatitis, waterborne diseases and other infectious diseases”;

Sustainable Development Goals № 3.9 “By 2030 substantially decrease the number of deaths and diseases resulting from dangerous chemicals influence and pollution and air, water and soil poisoning”;

Sustainable Development Goals 6.1.1 “Percentage of the population, using water supply systems, organized in compliance with the safety requirements”.

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

1. Current target(s) and their target date(s):

Target 1: to provide gradual transition from natural biological treatment systems (filtration fields) to treatment plants with full cycle of biological treatment by 2025.

Target 2: to provide 100 % availability of the centralized water supply and sewage systems in urban settlements, agrocities by 2025.

Target 3: to provide constant availability of public toilets in cities and towns, not less than one toilet per 1 000 people.

The targets are set to be achieved wholly at the national level and gradually at the regional level.

2. Measures taken to achieve the target(s).

Targets 1 and 2: Concept of improvement and development of housing and public utility sector up to 2025 (approved by the resolution of Council of Ministers of the Republic of Belarus № 1037 dated 29.12.2017. The measures are supposed to be implemented in 2021-2025 within the scope of the following state program “Comfortable housing and friendly environment”. To provide implementation, the funds of the International Bank for Reconstruction and Development, European Bank of Reconstruction and Development and European Investment Bank are attracted.

Target 3: The system of state social standards for the Republic population service, approved by the Council of Ministers of the Republic of Belarus № 724 dated 30.05.2003 (as amended on 09.11.2018 № 802).

3. Progress achieved towards the target, and encountered problems.

Targets 1 and 2: According to the departmental reporting “Data about water supply and sewage systems operation” for 2017, sewage waters are treated at 1476 public owned treatment plants with the total capacity of 3,4 million m³ per 24 hours, 1200 of which are filtration fields. Single unit length of the sewage treatment systems constitutes about 18,6 thousand km. 89,8% of urban population, 44,3% of agrocities and about 29,7% of rural population have access to the centralized water disposal systems. Local sewage systems and on-site latrines are characteristic of private house buildings, which constitute the main part of the available housing in a village.

The necessity to build 114 treatment plants instead of filtration fields was determined in the regions taking into account economic efficiency. At present, 39 treatment plants in cities and large settlements require complex reconstruction and modernization. These measures are supposed to be implemented in the next five years of the State program “Comfortable housing and friendly environment” for the period of 2016-2020. To provide a systematic work, it is necessary to attract the funds of International Bank for Reconstruction and Development, European Bank of Reconstruction and Development and European Investment Bank.

Target 3: is being implemented under the scope of the legislation in force.

4. Compliance of the target with the fulfilment of global and regional obligations: complies with the basic provisions:

Sustainable Development Goals 6.2.1 “The proportion of the population, using the sanitation services organized in compliance with the safety requirements”.

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

1. Current target(s) and their target date(s):

The targets were not set here. Whereas the targets set forth in the area I (point 2a article 6), III (point 2c article 6) are applicable here, moreover, under the scope of the legislation in force, the following targets can be considered here:

Target 1: the ratio of water supply for the citizens living in the apartment buildings, equipped with centralized water supply and sewage systems is up to 140 l a day per person, including not less than 70 liters a day per person – for hot water supply. Period of time: constantly;

Target 2: for the citizens living in agrocities – availability of centralized drinking water supply systems: service ratio – not less than 50 % of the population living in argocities. Time period: according to the plans of spatial development;

Target 3: hot water supply schedule – daily;

Target 4: temperature of the hot water from the centralized water supply system not less than 50°C.

2. Measures taken to achieve the target(s).

The system of state social standards for the Republic population service, approved by the Council of Ministers of the Republic of Belarus № 724 dated 30.05.2003 “About the measures aimed at implementation of standards for the Republic population service” (as amended on 09.11.2018 № 802).

3. Progress achieved towards the target, and encountered problems.

The measures are conducted within the scope of the legislation in force in the sphere of the sanitary and sanitary and epidemiological welfare of the population and other areas. Requirements to the drinking water quality control (including the places of water sampling, the types of the indicators to be monitored, the periodicity of water quality research) are stipulated by SanPiN 10-124 RB 99 “Drinking water. Hygienic requirements to the quality of water in centralized systems of water supply. Quality control” and Specific sanitary-epidemiological requirements to operation and maintenance of sources and systems of drinking water supply. The quality control is carried out by the laboratories accredited to perform the relevant studies in accordance with the established order. The certified metrological techniques are allowed to be used for laboratory research of the drinking water quality. Water samples for the analysis are taken in accordance with the requirements of the state standards.

The production control, the state sanitary supervision as well as the departmental supervision are carried out to monitor drinking-water quality in accordance with the Law of the Republic of Belarus “On Sanitary and Epidemic Well-Being of Population” from January, 7th, 2012 and the Law of the Republic of Belarus “On Drinking Water Supply” from June, 24th, 1999. The state sanitary supervision over drinking water quality is carried out by the territorial hygienic and epidemic centres of the Ministry of Health. The departmental supervision is performed by the authorised institutions, organisations and subdivisions. The state sanitary surveillance and departmental supervision is carried out routinely according to the current legislation and by the sanitary-epidemic indicators.

Production control is provided by water supply organization in accordance with the operating program.

4. Compliance of the target with the fulfilment of global and regional obligations: complies with the basic provisions:

Sustainable Development Goals 6.1.1 “Percentage of the population, using water supply systems, organized in compliance with the safety requirements”.

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

Targets were not set here. Whereas the targets set forth in the area IV (para. 2d art 6), as well as VIII (art. 6, para. 2 f)).

Within the scope of the measures aimed at the improvement of sewerage system management, constant improvement of legislative and regulatory basis, including in the sphere of environmental protection, architecture and construction and sanitary and epidemiological welfare is conducted.

Efficiency of sanitary measures (operation of water discharge and sewage water treatment systems) is determined by compliance of the quality of sewage water treatment with the requirements, specified by natural resources and environment authorities for the definite system of sewage water treatment before discharge into water bodies. Agencies of the Ministry of natural resources and environment of the Republic of Belarus specify indicators for pollutants discharge with treated sewage waters into water bodies when issuing permits for special water use. Improvement of the legislation in the sphere of water use and safety is set forth.

To improve ecologic condition of water reservoirs, new edition of Water code stipulates for prohibition to discharge all kinds of sewage waters into lakes and stagnant water bodies.

According to the departmental reporting “Data about water supply and sewage systems operation” for 2017, discharge of insufficiently treated sewage waters by utility water disposal systems was reduced from 4,1 mln. m³ (0,6 % of total discharge into water bodies) in 2012 to 2,8 mln. m³ (0,5 %) in 2017.

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

Targets were not set for this area. The measures are performed in accordance with the legislation in force.

According to the legislation, the centralized (communal and public use) systems of water supply are state-owned at the appropriate territorial level. The local executive and administrative bodies are responsible for management of such systems and their development. The development of these systems is performed on a basis of the appropriate medium-and long-term perspective documents (master plans, schemes of development, etc.). The development (design, construction and operation) of such systems is performed in accordance with the requirements of regulatory legal acts and technical regulatory acts of the Republic of Belarus for architecture and construction fields, health care, environment protection, communal services, etc.

The rules for technical operation of water supply and sewage systems in settlements and Policy and procedure of preventive maintenance of the centralized water supply and sewage systems are developed and approved by the Ministry of housing and communal services.

In compliance with the legislation, the following measures for protection of water supply sources from contamination are established:

to protect the sources of centralized drinking water supply, sanitary protection zones are established in compliance with the law of the Republic of Belarus “About drinking water supply” [1], Specific sanitary-epidemiological requirements to operation and maintenance of sources and systems of drinking water supply [2], Sanitary rules and regulations “Requirements to the sanitary protection zones arrangement and the systems of the centralized drinking water supply” (approved by the decree of MH of RB № 142 dated 30.12.2016) [3]. Calculation methodology for the borders of sanitary protection zones of domestic water supply sources, taking

into account peculiarities of Belarus and modern tendencies in math modelling, was approved by Technical code of common practice 17.06-15-2015 (33140) “Rules of application of hydrogeologic methods for calculation of the borders of sanitary protection zones of groundwater sources used for domestic water supply”;

for the sources of decentralized water supply, the measures were contacted in accordance with [2].

The requirements to the content and operation of the systems of centralized domestic water supply and non-centralized sources are established [2].

The legislation provides for the necessity to control drinking water safety within the scope of the state and departmental supervision conducted by authorized institutions and production control by water supply organization (more details in section V (art. 6, para. 2 e)).

To increase the efficiency of water supply systems management, targeted improvement on the basis of risk assessment methodology implementation is conducted. On the basis of the scientific research, Application instruction № 027-1215 “Risk analysis methodology in the drinking water supply systems” (approved by MH RB dated 21.03.2016) and № 019-1118 “Method for hygienic assessment of drinking water safety” (approved by MH RB dated 23.04.2019) were developed to define the method for risk assessment in the drinking water supply systems, taking into account the conditions of water usage in RB, approaches to water safety plans. Implementation thereof allows optimizing the approaches to drinking water supply monitoring on the basis of risk assessment, justifying prevention measures aimed to improve the safety of drinking water supply and their priority, ranging the water supply systems depending on the health risks, planning supervision over the systems.

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

Targets were not set for this area. The measures are performed in accordance with the legislation in force.

The centralized (communal, or public use) water disposal systems are state-owned at the appropriate territorial level. The local executive and administrative bodies are responsible for management of such systems and their development.

The development of these systems is performed on a basis of the appropriate medium- and long-term perspective documents (master plans, schemes of development, etc.). The development (design, construction and operation) of such systems is performed in accordance with the requirements of regulatory legal acts and technical regulatory acts of the Republic of Belarus for architecture and construction fields, health care, environment protection, communal services, etc.

The activities are carried out in accordance with the Rules of technical operation of the systems of water supply and sanitation in the settlements and the Instruction on the order of planned preventive repair of the centralized systems of water supply and water disposal. Moreover, Sanitary rules and regulations “Requirements to the water disposal systems in settlements”, approved by the degree of the Ministry of Health of the Republic of Belarus № 48 from May, 15th, 2012.

Efficiency of sanitation measures (the systems of wastewater disposal and treatment operation) is determined by compliance of wastewater treatment with the quality requirements established by the authorities of natural resources and environmental protection for any particular system of wastewater treatment before being discharged into water bodies. The agencies of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus establish a specific set of indicators for discharge of contaminants with purified wastewaters into water bodies while issuing permits for special water use.

According to the departmental reporting “Data about water supply and sewage systems operation” for 2017, discharge of insufficiently treated sewage waters by utility water disposal systems was reduced from 4,1 mln. m³ (0,6 % of total discharge into water bodies) in 2012 to 2,8 mln. m³ (0,5 %) in 2017.

Within the scope of the measures aimed at the improvement of sewerage system management, constant improvement of legislative and regulatory basis, including in the field of environmental protection, architecture and construction and sanitary and epidemiological welfare is conducted.

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

1. Current target(s) and their target date(s):

The targets in this area are still relevant and are implemented on a permanent basis within the scope of the legislation in force in the following version:

Target 1: to reduce untreated water discharge into surface water bodies by 2015;

Target 2: to maintain a zero level of untreated water discharge into water bodies. At the same time, the targets on the frequency and the quality of wastewater discharge set forth in the section X (art. 6, para 2g) and XI (art.6, para. 2h) are applicable here.

2. Measures taken to achieve the target(s).

The targets are to be implemented by means of:

improvement of the laws and regulations of water legislation, including wastewater discharge rate setting;

implementation of progressive water-efficient technologies, as well as the best technological methods for wastewater treatment;

development and introduction of computer-aided technologies of control and monitoring of quality and quantity of wastewaters, discharged by consumers into surface water bodies.

The regulation and methodology basis are improved within the scope of the corresponding plans of environmental protection legislation, implementation of basic provisions of Water strategy of the Republic of Belarus for the period up to 2020, international obligations, as well as the results of the State research and development programs.

Targets for reducing the amounts of the insufficiently treated wastewater, discharged into water bodies, specified in the Water strategy of the Republic of Belarus for the period of up to 2020 (as revised by the decree of the collegium of the Ministry of natural resources and environment of the Republic of Belarus № 70-P dated 21.10.2016).

Targets for reducing the amounts of contaminants discharged with wastewater are specified in the Strategy in the field of environmental protection of the Republic of Belarus for the period by 2025 (approved by the decree of the collegium of the Ministry of natural resources and environment of the Republic of Belarus № 8-P dated 28.01.2011).

The activities are performed within the scope of the legislation on water resources protection.

Water code of the Republic of Belarus dated April 30, 2014 (came in force in 2015) prohibited wastewater discharge into all kinds of lakes and stagnant water bodies.

In compliance with article 47 of Water code:

discharge of wastewater into surface water bodies is acceptable if the content of contaminants in them does not exceed the amounts specified by the permits for specific water use, calendar and planning calculations and rate of allowable discharge of chemical and other substances in the content of wastewater;

if it is impossible to maintain allowable concentration of contaminants in the content of industrial wastewater, discharged into surface water bodies through the sewerage system in settlements, these substances concentration is subjected to reduction by arrangement of local treatment facilities;

for constructed and reconstructed objects, wastewater discharge is not allowed into all kinds of lakes and stagnant water bodies and water courses, which flow into the lakes and stagnant water bodies situated at the distance of 1 km from such water bodies;

discharge of all types of waste water using land topography (ravines, quarries, cloughs), as well as exceedingly moisturized territories (swamp) is not allowed.

Thus, water consumers must keep a record of the wastewater discharged into the environment and fill out statistical reporting according to the form 1-water (the Ministry of natural resources), approved by the decree of the National statistics committee of the Republic of Belarus №169 dated 11.11.2016 with amendments, which will specify the amount of waste water discharge at each case of discharge, divided into the following categories:

without pretreatment (there, where the quality of waste water allows discharging it into surface water bodies without pretreatment);

insufficiently treated (waste water discharge with violation of the legislation in force, including discharges as a result of accidental pollution, or the content of contaminants in the waste water exceeds allowable discharge rate of chemicals or other substances in waste water, specified in the permits for specific water use, integrated permits);

water discharge treated to standard quality (discharge of waste water, content of contaminants in which does not exceed allowable discharge rate of chemicals or other substances in waste water, specified in the permits for specific water use, integrated permits).

Rating of waste water abstraction into environment is specified in the following regulatory legal acts and technological regulations:

- Regulation on the procedure for issuing permit for special water use, approved by the decree of the Council of Ministers № 152 dated 02.03.2015 “Some measures for Water code of the Republic of Belarus implementation”;

- Regulation on the procedure for issuing integrated permits, approved by the decree of the Council of Ministers № 1677 dated 12.12.2011 “About measures for implementation of the decree of the president of the Republic of Belarus № 528 dated 17.11.2011”;

- Consolidated list of administrative procedures, performed by state agencies and other organizations in regard to legal entities and entrepreneurs, approved by the decree of the Council of Ministers № 156 dated 17.02.2012, amended and revised;

- resolution of the Ministry of natural resources and environment of the Republic of Belarus № 20 dated 04.05.2015 “On some questions of gaining permit for special water use” amended and revised;

- resolution of the Ministry of natural resources and environment of the Republic of Belarus № 53 dated 20.12.2011 “On some questions of issuing integrated permit”;

- resolution of the Ministry of natural resources and environment of the Republic of Belarus № 16 dated 26.05.2017 “On some questions of discharge rate of chemicals or other substances in waste waters”;

Regulation on the procedure of performing analytical (laboratory) control in the field of environmental protection, approved by the decree of the Council of Ministers № 504 dated 20.06.2013 (as revised on 02.03.2015);

Standards of the Republic of Belarus 17.06.02-03-2015 “Environmental protection and use of natural resources. Hydrosphere. Classification of waste water treatment plants”, approved by the decree of the State committee on standardization of the Republic of Belarus № 29 dated 25.05.2015.

3. Progress achieved towards the target, and encountered problems.

To increase requirements to designing objects, which have impact on the environment, as well as water resources, the law of the Republic of Belarus № 399-Z dated 18.07.2016 “About state ecological expertise, strategic ecological assessment and environment impact assessment” (in force since 2017) was adopted. It regulates relationships in the field of conducting state ecological expertise (SEE), strategic environmental assessment (SEA) and environment impact assessment (EIA). It is aimed at providing ecological safety of the projected anthropogenic or other activities, as

well as preventing adverse impact on the environment. The law specifies the objects for state ecological expertise, objects for SEA and EIA; the procedure and terms thereof, rights and obligations of the clients and project organizations when performing SEE, SEA and EIA.

Two decrees of the Council of Ministers of the Republic of Belarus participated in the law development:

1) “About some measures on implementation of the law of the Republic of Belarus dated 18.07.2016 “About state ecological expertise, strategic environmental assessment and environment impact assessment” № 47 dated 19.01.2017, which approved 3 documents:

- Regulation on the procedure of performing state ecological expertise, including demands to the content of the documents, submitted for the state ecological expertise, conclusions of the state ecological expertise, approval or decline procedure, special conditions of projects implementation, as well as requirements to specialists, performing SEE;

- Regulation on the procedure of performing environment impact assessment, including demands to the content of the report about environment impact assessment, requirements to specialists, performing EIA;

- Regulation on the procedure of performing strategic environmental assessment (SEA), requirements to the content of the ecological report about strategic environmental assessment, requirements to specialists, performing strategic environmental assessment.

2) “About approval of the regulation on the procedure of arrangement and conducting public discussions of the projects of ecologically significant decisions, ecological reports on strategic environmental assessment, reports on environment impact assessment, recording of taken ecologically significant decisions” № 458 dated 14.06.2016.

According to the data of State Water Cadaster a tendency for reduction of insufficiently treated wastewater discharge into the surface waterbodies is observed. The amount of insufficiently treated wastewater discharge in the Republic of Belarus on the whole accounts for not less than 1% of total amount of waste water, discharged into surface water bodies (table 2).

Table 2 – Dynamics of waste water discharge into water bodies of the Republic of Belarus for the period of 2015-2017.

	Indicator	Unit	2015	2016 *	2017.
1	Waste water discharge into surface water bodies	mln. m ³ /per year	869,6	1 048,4	1 054,0
1.1	without pretreatment	mln. m ³ /per year	245,73	339,13	353,99
1.2	effluent treated to standard quality	mln. m ³ /per year	618,17	702,96	695,71
1.3	insufficiently treated	mln. m ³ /per year	5,71	6,36	4,31
<i>Note: since 2016 the data have been provided taking into account surface waste water discharge (rainy and melt waters)</i>					

Discharge of insufficiently treated waste water into surface water bodies reduced by 33 % from 6,3 mln. m³ to 4,3 mln. m³, including surface waste water – by 49 % from 1,13 mln. m³ to 0,57 mln. m³.

In 2017, a small reduction of insufficiently treated waste water discharge was observed at the enterprises of Gomel, Vitebsk and Minsk regions. However, the increase in insufficiently treated waste water discharge was observed at a number of enterprises.

4. Compliance of the target with the fulfilment of global and regional obligations:

Sustainable Development Goals 6.3.1 “The proportion of safely treated waste waters”.

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

1. Current target(s) and their target date(s):

Targets in this field were not set previously, however, the measures for the purpose thereof are being implemented on the constant basis within the scope of the legislation in force, state programs and strategies.

Within the scope of the Strategy in the field of the environment of the Republic of Belarus for the period up to 2025, the target is specified as revised:

Target 1: to provide rainy and melted waters treatment in the settlements with the population of more than 50000 people, as well as in resort and industrial areas.

Water strategy of the Republic of Belarus for the period of up to 2020 considers reduction of anthropogenic impact on water bodies, connected with contaminants getting into water bodies with surface waste waters, which are formed on urban territories, as a problem which should be solved otherwise it will be difficult to restore the quality of surface water bodies.

2. Measures taken to achieve the target(s).

The targets are achieved through the measures aimed at arranging disposal and treatment of surface waste water (arrangement of rain water systems), planned by state programs on territories and regions development.

Issues of surface waste waters treatment are specified in a number of regulatory legal acts:

- Water code of the Republic of Belarus;
- resolution of the Ministry of natural resources and environment of the Republic of Belarus № 16 dated 26.05.2017 “On some questions of discharge rate of chemicals or other substances in waste waters”;
- EcoNiP 17.01.06-001-2017 “Ecological standards and rules. Environment protection and use of natural resources. Environmental safety requirements”, approved by the decree of the Ministry of natural resources and environmental protection of the Republic of Belarus № 5-T dated July, 18th 2017;
- Instruction on calculation of the amounts of surface waste waters, getting into communal rain water systems and installations for treatment thereof, with built-up territories of the settlements of the Republic of Belarus, approved by the decree of interdistrict housing and public utility sector № 1 dated 25.02.2002;
- Technical code of common practice 45-4.01-53-2012 (02250) “Sewage systems of the settlements. Main provisions and general requirements. Construction standards of project planning», approved by the order of the Ministry of construction and architecture № 208 dated 04.07.2012.

3. Progress achieved towards the target, and encountered problems.

According to the data of the State Water Cadastre, the amount of surface waste water discharge on the whole in the Republic of Belarus accounts for 15% of total amount of waste waters discharged in the surface water bodies. The amount of surface waste water discharge is within the limits of 150 mln. m³ per year, which is mainly due to the usage of calculation methods to reflect the data by the water consumers in the form of statistical reporting (table 3).

Table 3 – Dynamics of surface waste water discharge into water bodies of the Republic of Belarus for the period of 2015-2017

	Indicator	Unit	2015	2016 *	2017
1	Waste water discharge into surface water bodies	mln. m ³ /per year	151.73	155.94	149.9

1.1	without pretreatment	mln. m ³ /per year	-	71.504	78.23
1.2	effluent treated to standard quality	mln. m ³ /per year	-	83.2	71.1
1.3	insufficiently treated	mln. m ³ /per year	-	1.13	0.573

4. Compliance of the target with the fulfilment of global and regional obligations:

Sustainable Development Goals 6.3.1 “The proportion of safely treated waste waters”.

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

1. Current target(s) and their target date(s):

The targets in this area are still relevant and are implemented on a permanent basis within the scope of the legislation in force, the state programs and strategies.

Within the scope of the Strategy in the field of the environment of the Republic of Belarus for the period up to 2025, the target is specified as revised (on the national level):

Target 1: to reduce the number of contaminants discharged into water by 2025 (% by 2010): heavy metals – 95 %; nitrogen – 50 %, phosphorus – 50 %, persistent organic pollutants – 25 %.

The measures from the field VI can also be attributed to this target.

2. Measures taken to achieve the target(s).

These targets are achieved through implementation of environmental protection activities within the scope of the legislation in force (for example, the Ministries of Natural Resources and Environmental Protection of the Republic of Belarus establish standards for allowable concentrations of chemicals and other substances in wastewaters discharged into surface water bodies while issuing the permits for the special water use, integrated environmental permits).

Reduction of the amount of the contaminants discharged into water bodies is supposed to be through providing surface waste water treatment; arrangement of local treatment of industry waste water, discharged into centralized sewage systems; construction of treatment facilities of full biological treatment.

To improve ecological status of the water bodies under Water code of the Republic of Belarus of April, 30th 2014, discharge of waste water of all kinds into lakes and stagnant water bodies is prohibited.

3. Progress achieved towards the target, and encountered problems

According to the data of the State Water Cadastre, the amount of the contaminants in the content of wastewater on the whole in the Republic of Belarus tends to reduce for heavy metals and to increase for compounds of nitrogen and phosphorus (Table 4):

- the amount of heavy metals in in wastewaters discharged into water bodies in 2017 was 308.65 tons (500.63 tons in 2010). The decrease has been by 61.6% since 2010, the progress in the target fulfilment has been achieved;

The amount of nitrogen in wastewaters discharged into water bodies was 9.04 thousand tons in 2017 (9,09 thousand tons in 2010). The decrease has been by 0.6% since 2010, the progress in the target fulfilment has been achieved;

the amount of phosphorus in wastewaters discharged into water bodies was 9.04 thousand tones in 2017 (0,83 thousand tons in 2010). As for this target, the increase in the amounts is observed compared to the previous years, the main reason for it is an increased load on treatment facilities, increase in household usage of phosphates, and absence of blocks for phosphates reactant purification in many urban treatment facilities.

Persistent organic pollutants presence in water bodies is monitored on 35 transborder gates of surface waters by National system of environment monitoring in the Republic of Belarus. According to the results of the monitoring, concentration of persistent organic pollutants was below the level of detection threshold.

Table 4 – Mass of main contaminants discharge with waste water into water bodies in the Republic of Belarus for 2015-2017.

Indicator	Unit	Indicator value			
		Initial (2010)	Previous (2015)	Current (2017)	Targeted (2025)
Heavy metals (cooper, lead, Total Ferrum, total chrome, nickel, zink)	<u>tons</u> % by 2010.	500,63	<u>313.96</u> 62,7 %	<u>308.65</u> 61,6%	95 %
persistent organic pollutants	<u>tons</u> % by 2010	н.д.	н.д.	н.д.	25 %
nitrogen (sum of ammonium ion, nitrate ions)	<u>tons</u> % by 2010	9,09	<u>8.69</u> 95,5 %	<u>9.04</u> 99,4 %	50 %
Total phosphorus	<u>tons</u> % by 2010.	0.8**	<u>1.3</u> 163 %	<u>1.63</u> 203 %	50 %
Note: ** - estimated value according to the data of 2010					

4. Compliance of the target with the fulfilment of global and regional obligations:

Sustainable Development Goals 6.3.1 “The proportion of safely treated waste waters”.

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

Targets for this section were not set in the Republic of Belarus. At the same time, the set of action is successfully implemented on a permanent basis under the scope of the legislation in force, government-run and industrial programs and Strategies.

Methods for treatment (stabilisation, dewatering and disposal) of sewage sludge are determined for the design process of wastewater treatment facilities in compliance with the construction standards in force and depend on the local climatic, hydrogeological, urban, agricultural, and other conditions.

Reuse of sewage sludge as fertilizer and so on is not carried out due to the presence of salts of heavy metals and other hazardous compounds in it. Currently, mostly sludge from wastewaters of the centralised systems of water supply remains after the treatment and it is stored at the special facilities (sludge drying beds) of the complex structures of the wastewater treatment facilities; it results in the accumulation of large enough amounts of sewage sludge in the Republic of Belarus.

In recent years, recycling and reuse of sewage sludge procedures have been started to be implemented to produce alternate sources of energy (biogas complexes and installations) in the Republic. Biogas complexes for reuse of the sewage sludge and production of heat and electricity have already been built in a number of enterprises. The implementation of such activities was performed under the State Program of Innovation Development of Belarus for 2016-2020 (approved by the order of the President of the Republic of Belarus No.31 from 31.01.2017).

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

Targets for this section were not set in the Republic of Belarus.

Rationale. The Republic of Belarus is at the level of Central European countries as for water resources availability. According to the data of State Water cadaster, in 2012, 5,9 mln. m³ of water resources were used for irrigation purposes, that is 1 % of total amount of the water used in the Republic of Belarus. Taking into account climatic conditions, the total area of the irrigated lands in Belarus is a bit more than 30 thousand ha. Correspondingly, there are no economic rationale for using waste water for irrigation. Due to the insignificance of these amounts, it is unreasonable to introduce the given target.

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

Targets for this section were not set in the Republic of Belarus.

However, measures are implemented in this respect on a permanent basis in the Republic in compliance with the legislation in force in the field of sanitary and epidemiological welfare, water resources protection from contamination, as well as state programs, including the State Program “Comfortable housing and favorable environment» for the period of 2016-2020 and subprogram 5, which is “Clean water” program.

The main activities here are aimed at protecting drinking water sources (centralised and non-centralised). Mainly for protection of the sources of centralized drinking water supply, protective sanitary zone are arranged according to the Law of the Republic of Belarus “About drinking water supply” [1], Specific sanitary-epidemiological requirements to operation and maintenance of sources and systems of drinking water supply [2], Sanitary Rules and Regulations "Requirements to protective sanitary zones creation for the sources and centralized systems of drinking water supply" (approved by the decree of the Ministry of Health of the Republic of Belarus № 142 dated 30.12.2016), Calculation methodology for the borders of sanitary protection zones of domestic water supply sources, taking into account peculiarities of Belarus

and modern tendencies in math modelling, was approved by Technical code of common practice 17.06-15-2015 (33140) “Rules of application of hydrogeologic methods for calculation of the borders of sanitary protection zones of groundwater sources used for domestic water supply”. To protect the sources of non-centralized water supply, the following measures are contemplated according to [1 and 2].

The necessity to control water safety in the sources of drinking water supply is specified by the legislation within the scope of state and departmental supervision conducted by the authorized institutions, as well as production control by water supply organizations (detailed information in the section V (art. 6, para. 2 e)).

For the purpose of increasing the efficiency of water supply systems management, targeted improvement on the basis of risk assessment methodology introduction is conducted. On the basis of the scientific research Application instruction № 027-1215 “Risk assessment method in the system of water supply management” (approved by the Ministry of Health of the Republic of Belarus dated 21.03.2016), and № 019-1118 “Method for hygienic assessment of drinking water” (approved by the Ministry of Health of the Republic of Belarus dated 23.04.2019), specifying the method of risk assessment in the systems of drinking water supply, considering the conditions of water consumption in the Republic of Belarus and the approaches to the plans of water safety have been elaborated.

Implementation thereof allows optimizing the approaches to the drinking water supply monitoring on the basis of risk assessment, justifying the preventive measures aimed to enhance the safety of the drinking water supply, their priority, ranging water supply systems depending on health risks, planning supervision activity over the systems.

The choice of water supply source is performed in compliance with the state standard of the Republic of Belarus 1756-2007 “Sources of centralized domestic and drinking water supply. Hygienic, technical requirements and rules of choice”.

Besides, the following measures can be attributed to this group:

1. improvement of the status (reduced depreciation) of the utility networks and water supply facilities of the settlements (see section III of the report) - construction, reconstruction and repair of water abstraction facilities.
2. increase of the provision of the population with centralised and local sanitation systems (section IV);
3. provision with standard quality of wastewater treatment within centralised systems of sanitation in the settlements (sections VI, XI);
4. provision with the local treatment for industrial wastewaters (sections IX, X, XI);
5. provision with the systems of collection and removal of surface wastewaters in the settlements (section X);
6. liquidation of wells that are not a subject to further maintenance in order to prevent contamination of the groundwaters; it is performed on a permanent basis in accordance with the legislation in force;
7. implementation of the activities stipulated by the designed projects of protective sanitary zones approved in the established order; it is performed on a permanent basis in accordance with the legislation in force;
8. implementation of the quality and safety monitoring over the water supply sources (within the scope of the state supervision by the authorities that carry out the state sanitary surveillance, the production control of the water supply systems by their owners);
9. improvement of legislative and regulatory legal framework in the field of the drinking water supply (access to water, quality and safety control over drinking water).

The situation is analyzed according to the quality and safety of the water supply sources on a permanent and annual basis based on the data, submitted in compliance with the statistic reporting. A report on the progress of the implementation of the measures is prepared annually.

Technological regulations and guidance documents, regulating the activity in this field, have been developed in the Republic in recent years (see sections I and VI).

The progress has been observed in this field (table 3.I.5 Part 3 of this Report).

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

1. Current target(s) and their target date(s):

Water bodies represent the most promising part of recreational potential of the Republic. Health-improving recovery is a predominant type of recreational activities around water bodies. A significant number of water bodies in the Republic create a background for further development of recreation in the country including recreational zones of international level. Development of the tourism potential is one of the long-term goals for the Republic (Water Strategy of the Republic of Belarus for the period up to 2020). The targets in this field are still relevant and implemented on a permanent basis within the scope of the legislation in force reviewed as:

Target: to improve the quality of waters, used for bathing, in compliance with the standards on microbiological indicators in recreational zones, including the waters in 100 % of republican recreational zones.

The target was set at the national level. The targets set forth in the fields VI, IX - XI can also be partly attributed to this field.

2. Measures taken to achieve the target(s).

The target achievement is planned through the measures, which are aimed at protecting surface water bodies from anthropogenic impact and conducted within the scope of the legislation in force concerning sanitary and epidemiological welfare of the population and natural resources protection:

- disinfection of hazardous waste water, which can start epidemy and so on;
- implementation of the measures, envisioned by the projects of protective water zones for water bodies;
- provision of standard quality treatment of waste water by the centralized systems of water disposal in the settlements;
- provision of local treatment of industrial waste water;
- provision of settlements with systems of collection, disposal and treatment of surface waste water;
- performance of measures, aimed at equipping water disposal systems in the settlements with water treatment facilities, reconstructing and repairing water treatment facilities of water disposal systems, sewage pumping stations, providing the enterprises with the facilities of waste water local treatment;
- improvement of legislation and regulatory basis in the field of water resources protection and recreational use of water.

3. Progress achieved towards the target, and encountered problems.

Territorial institutions of the state sanitary surveillance supervise over the water quality in the water bodies, including for sanitary and microbiological safety indicators, located at the sites officially used by population for the cultural and recreational purposes. The data on the water quality in the water bodies are presented annually in the statistical Form 31 "About the sanitary conditions of the territory"; a summary of the results is published annually in the edition of the State Report "On sanitary and epidemic situation in the Republic of Belarus". In addition, the production control is carried out by the relevant organisations.

According to the data for 2018, positive dynamics in the targets was observed: the proportion of non-standard samples according to microbiological indicators of safety reduced within the period from 2009 to 2018 by 4,92 % (from 10,05 % to 5,13 %). Thus, positive tendency in achieving the targets is observed.

Technological regulations and guidance documents, regulating the activity in this field, have been developed in the Republic in recent years:

“Sanitary Rules and Regulations “Requirements to the maintenance of surface water bodies used for recreational purposes”, Sanitary-hygienic standard “Allowable values of parameters for water safety in surface water bodies used for recreation”, approved by the decree of the Ministry of Health in the Republic of Belarus № 122 dated December, 5th 2016”.

Application instruction № 028-1215 “Technology of microbiological risks analysis at recreational use of water”, approved by Chief medical sanitation officer of the Republic of Belarus dated 21.03.2016.

Application instruction № 029-1215 “Methods for sanitary and microbiological analysis of surface water bodies, used for recreational purposes, approved by Chief medical sanitation officer of the Republic of Belarus dated 21.03.2016.

Moreover, development and implementation of quizzes (check lists) in the field of state sanitary surveillance over compliance of the subjects under examination with sanitary and epidemiologic legislation for water bodies, which will facilitate increasing surveillance efficiency.

The targets are being performed.

4. Compliance of the target with the fulfilment of global and regional obligations: complies with the basic provisions:

Sustainable Development Goal 3.3 “By 2030 to facilitate measures against hepatitis, waterborne diseases and other infectious diseases”;

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

Targets were not set in this area. The measures are implemented in this respect on a permanent basis in compliance with the legislation in force.

In compliance with Water code of the Republic of Belarus, in order to provide favorable conditions for the reproduction of aquatic biological resources and safety of aquatic products, the water quality standards for the surface water bodies are set:

- 1) water quality indicators for the surface water bodies used for reproduction, feeding, wintering, migration of salmonids and sturgeon fish species, as well as for other surface water bodies;
- 2) maximum permissible concentrations of chemicals and other substances in the surface water bodies.

Conformity of water quality in the surface water bodies to the established standards is assessed within the framework of the surface water monitoring, conducted under the National Environmental Monitoring System in the Republic of Belarus, the results of which are presented on the official website of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus (<http://www.nsmos.by/content/174.html>).

Conformity of water quality in the fish ponds to the established standards is assessed by fish farms. Conformity of water quality to the established standards in rivers and lakes is assessed by the inspections of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus.

Indicators and requirements are applied to the quality of water used for aquaculture at the stage of designing objects.

Requirements to the quality of water in fish ponds are set on the basis of State standard of the Republic of Belarus 1943-2009 “Water in fish ponds. Requirements” (hereinafter - standard) taking into account permissible limits of the quality parameters variations in order to maintain optimal environmental conditions for fish rearing.

This standard is applicable for the waters of fish-rearing organizations, which rear and breed

carp and mono and polycultures with phytophagous and predatory fish and trout.

We suppose that implementation of the requirements to the water quality stipulated by these documents completely facilitate achieving the targets under the Protocol on Water and Health in the Republic of Belarus.

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

Targets were not set in this area. Measures are implemented in this respect on a permanent basis in the Republic in compliance with the legislation in force in the field of sanitary and epidemiological welfare.

Sanitary-hygienic and anti-epidemic requirements to design, equipment and operation of the indoor and outdoor swimming pools used for health and training exercises and mass sport activities are contained in the Sanitary standards, regulations as well as hygienic standards “Hygienic requirements to design, equipment and operation of swimming pools” approved by Resolution of the Ministry of Health of the Republic of Belarus No. 105 dated September, 22th 2009, as well as in General sanitary and epidemic requirements to maintenance and operation of permanent structures (buildings and constructions), isolated premises and other objects, owned by economic entities, approved by Decree № 7 “About entrepreneurial development”. The requirements of the technological regulations in force are obligatory to be observed by the owner of the enclosed waters.

The quality of water supplied to the pool should meet the hygienic requirements to water quality in the centralised systems of drinking water supply. Indicators of water quality in pools (physico-chemical, microbiological and parasitological) should not exceed the hygienic standards according to the Annex 1 of the Sanitary standards. The owner of the pool is obliged to provide production control with specified frequency.

The state sanitary and epidemic supervision over these objects is performed in the established order with a certain frequency. Statistical reporting does not stipulate collecting information in this field.

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

Targets were not set in this field. The measures are implemented in this respect in compliance with the environmental legislation in force.

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

SURFACE WATER BODIES

1. Current target(s) and their target date(s):

The targets, specified by the decree of the Ministry of the Republic of Belarus № 116 dated 04.12.2013, provided for the necessity to develop and approve the scheme of integrated usage and protection of basin water resources of 3 rivers (Dnepr, Neman and Western Dvina). Since the moment of Water code entry into force in 2015, basin management started developing on the legislative level in the Republic of Belarus. Pursuant thereto, development of plans of basin water resources management is specified instead of schemes of integrated water resources use in the Republic of Belarus. Thus, due to the changes to the national legislation, correction of this target is required.

Target: development of management plans for five large river basins of the country: The Dnepr, The Western Dvina, The Western Bug, The Neman and The Pripyat (the necessity is defined by the legislature at present).

2. Measures taken to achieve the target(s).

The target is planned to be achieved through the measures within the scope of the legislature in force in the field of water resources protection:

3. Progress achieved towards the target, and encountered problems.

1) to improve a regulatory basis for the basin management for the period of 2015-2017, a number of technological regulations, regulating the development of the management plan of the Republic of Belarus, were developed and approved:

Technical code of common practice 17.06-14-2017 (33140) “Environmental protection and management of natural resources. Requirements to the development, planning and execution of the projects of plans for river basin management”.

Technical code of common practice 17.13-08-2013 (02120) “Environmental protection and water resources management. Analytical control and monitoring. Rules for defining chemical (hydrochemical) status of river ecosystems”.

Technical code of common practice 17.13-09-2013 (02120) “Environmental protection and water resources management. Analytical control and monitoring. Rules for defining chemical (hydrochemical) status of lake ecosystems”.

Technical code of common practice 17.13-10-2013 (02120) “Environmental protection and water resources management. Analytical control and monitoring. Rules for defining ecological (hydrobiological) status of river ecosystems”.

Technical code of common practice 17.13-11-2013 (02120) “Environmental protection and water resources management. Analytical control and monitoring. Rules for defining ecological (hydrobiological) status of lake ecosystems”.

Standards of the Republic of Belarus 17.13-11-2015 “Environmental protection and water resources management. Analytical control and monitoring. Guidance for defining the degree of variation of hydromorphological indicators of river conditions”.

Technical code of common practice 17.13-21-2015 (02120) “Environmental protection and water resources management. Analytical control and monitoring. The procedure of classification of surface water bodies (their parts) according to ecological condition (status).

2) actual development and improvement of the management plan:

- in 2018 the project of The Dniepr river basin management plan was completed in compliance with Technical code of common practice 17.06-14-2017. Completed Management plan was considered and approved at the meeting of The Dniepr basin council in October 2018;

- The Western Bug river basin management plan was developed;

- The Pripyat river basin management plan is being improved.

Due to the amendments to the national legislation, the given target will be corrected.

4. Compliance of the target with the fulfilment of global and regional obligations: complies with the basic provisions:

Sustainable Development Goal 6.5 “To provide complex management of water resources at all levels, including, where applicable, on the basis of trans-boundary cooperation 2030”;

UNDERGROUND BODIES OF WATER

Measures are implemented in this respect on a permanent basis in the Republic in compliance with the legislation in force in the field of water resources protection.

In the Republic of Belarus centralized water supply of cities, urban and rural settlements and industrial enterprises is based on fresh ground water usage, attributed to water-

bearing stratum and complexes of quaternary and pre-quaternary deposits of the active water exchange, laying at the depth from several meters to 300 m and performed by means of using grouped water extraction facilities with proved exploitable volume.

Predicted exploitable resources of fresh groundwater on the whole in the Republic are estimated to be 49 596 thousand m³/per day, groundwater for potentially available use – 43 560 thousand m³/per day.

Groundwater reserves used for drinking and household purposes are approved by the protocols of regional commission on reserves about State expertise of geological data on evaluation and revaluation of exploitable fresh groundwater resources and orders of the Ministry of natural resources and environmental protection of the Republic of Belarus.

In 2017, State Water Cadaster registered exploitable resources of fresh groundwater used for drinking and household purposes on 380 sites of fresh groundwater deposits (in 2015 – on 346 sites), of which groundwater from 4 sites can be used for technical purposes in the amount of 6775,08 thousand m³/per day (in 2015 - 6996,98 thousand m³/per day).

Fresh groundwater was used for centralized water supply from 272 water extraction facilities in 2017 (in 2015 – from 242 water extraction facilities). Total abstraction of fresh groundwater at water extraction facilities with proved reserves amounted at **1307,66** thousand m³/per day in **2017** (in 2015 – **1365,2** thousand m³/per day). The degree of usage of the discovered exploitable resources on the whole in the Republic of Belarus was estimated at **19,3%** (in 2015 – **19,5%**).

Thus, there is a tendency to reduction of fresh groundwater abstraction for centralized water supply at water extraction facilities due to rational exploitation of such facilities.

Within the limits of all water extraction facilities, quality and level of water in production and observational wells are controlled, the regime of economic operation, specified for protective sanitary zone of sanitary protection of domestic water supply sources is observed. Hydrogeological monitoring observations show that actual decrease in the level of the groundwater of the exploitable water-bearing stratum and the complexes for the water extraction facilities under control does not exceed estimated values of permissible decrease used for the evaluation of groundwater exploitable resources. It proves that drawdown of ground water exploitable reserves is absent but there are water abstraction possibilities within the area of approved groundwater reserves.

XX. Additional national or local specific targets

1. Current target(s) and their target date(s):

Still relevant targets for the section “Frequency of publication of information on the quality of drinking water supplied and on other waters relevant to the Protocol on Water and Health” (article 6, paragraph 2, n) have been established additionally.

Target 1: to publish a state report on the sanitary and epidemic situation in the Republic of Belarus annually.

Target 2: to publish the data of the State Water Cadaster annually.

Target 3: to publish a national report in compliance with the requirements of the Protocol – once in three years (in compliance with the reporting to the Secretariat, specified in article 17 of the Protocol).

2. Measures taken to achieve the target(s).

The target is planned to be achieved through the measures within the scope of the legislature in force:

A state report on the sanitary and epidemic situation in the Republic of Belarus (section “Hygienic assessment of water bodies, water supply and population health”) is published annually by the Ministry of Health of the Republic of Belarus. State institution “Republican

Centre of Hygiene, Epidemiology and Public Health” publishes a state report annually and posts it on the website: www.rcheph.by.

State Water Cadaster is published annually by the Ministry of natural resources and environmental protection of the Republic of Belarus. Republican unitary enterprise “Central Research and Development Institute of Multipurpose utilization of water resources” annually publishes State Water Cadaster and posts it in free access on its official site - www.cricuwr.by/gvkinfo/.

National report is prepared in compliance with the requirements of the Protocol once in 3 years (in compliance with the reporting to the Secretariat) by the Council for implementation of the Protocol on Water and Health. The report is posted with free access on the official site of UNECE www.unece.org/env/water/pwh_targets_set.html and on the official site of the republican unitary enterprise “The scientific practical center of hygiene” www.rspch.by.

3. Progress achieved towards the target, and encountered problems.

The targets are being achieved.

Compliance of the target with the fulfilment of global and regional obligations: complies with the basic provisions:

Sustainable Development Goal 6.6.b “Support the participation of local communities in water management and sanitation. Public awareness”.

PART THREE

COMMON INDICATORS

I. QUALITY OF THE DRINKING WATER SUPPLIED

A. CONTEXT OF THE DATA

1. *What is the population coverage of the water supplies reported in the sections 2 and 3 below?*

Drinking water is provided to the population in the Republic of Belarus using centralised and non-centralised systems of drinking water supply. The statistical reporting on quality control and safety of drinking water in the country is carried out with regard to provision of the population with centralised and non-centralised systems of water supply, including differentiation for both rural and urban population.

In sections 2 and 3 of the Report, the information about drinking water quality is divided into:

- sources of centralised water supply,
 - water of centralised systems of water supply - public water supply and institutionalized water supply systems;
 - sources of non-centralised water supply.

For reference:

According to the Law of the Republic of Belarus No. 271-Z of 24 June 1999 "On Drinking Water Supply"(<http://pravo.by>):

potable water (water of drinking quality) is water corresponding to the sanitary standards and regulations for organoleptic characteristics as well as for microbiological and chemical composition, and is safe for human life and health;

centralised system of the drinking water supply is a complex of facilities and installations to provide drinking water to the community of customers;

non-centralised system of the drinking water supply is a complex of facilities and installations (dug well, well, standpipe, water treatment facility, etc.) to provide drinking water to certain groups or single users.

Table 3.I.1 – Coverage of the population of the Republic of Belarus with the centralized water supply*

Population category	Coverage of the population the centralized water supply (%)			
	Baseline value	Previous reporting cycle value		Current value
	2010 год	2012 год	2015 год	2018 год**
Total	86,1	-	87,5	92,8
Urban population***	96,5	97,1	98,5	98,7
Rural population	57,0	-	-	62,5
Population of agro-towns	78,5	79,8	80,12	83,4

Note:

** - Sources of information: departmental reports based on the 1-housing and communal services form, quarterly reports under the program "Clean water", the state statistical annual reports based on the "Report on housing" of the 1-housing and communal services form;*

** - State statistic reporting does not suggest gathering data on the given categories since 2016, for the period of 2018 the data submitted as of 01.01.2019 based on the information, submitted upon the request of housing and communal services;
 *** - for the population of the cities and villages.

Таблица 3.1.2 – Size of the population of the Republic of Belarus for the periods analyzed**

Population category	Population size, thousand people			
	Baseline value	Previous reporting cycle value		Current value
	2009 год	2012 год	2015 год	2018 год
Total	9671,9	9465,0	9 498,7	9 491,8
Urban population	7148,5	7174,5	7 370,4	7 412,1
Rural population	2523,4	2290,5	2 128,3	2 079,7

**Source of information: official statistic data of the National Statistics Committee of the Republic of Belarus www.belstat.gov.by.

For reference:

According to the Law of the Republic of Belarus "On Administrative-Territorial Structure of the Republic of Belarus" No. 154-Z dated 05.05.1998, (registered in the National Register of Legal Acts of the Republic of Belarus No. 2/686 dated 20.03.2001)) (*source - <http://pravo.by>*), all settlements belong to certain categories, depending on the size of the population, the level of development and specialisation of production and social infrastructure as well as the public services provided on the respective territory.

The category of urban settlements includes:

- Minsk city (the capital)
- cities of regional (oblast) subordination (the population size over 50,000 people; they are administrative, major economic and cultural centres with the developed industrial and social infrastructure)
- cities of district subordination (the population size over 6,000 people; with existing industrial enterprises and organizational network for social and cultural as well as household purposes).

The category of urban settlements includes:

- urban settlements (population size $\geq 2,000$ people; with industrial, communal, socio-cultural organizations, as well as trading, public catering and domestic servicing organizations),
- health resort settlements (population size $\geq 2,000$ people; with sanatorium-resort and recreational organisations, as well as trade, catering, public services, cultural and educational organisations),
- industrial settlements (population size ≥ 500 people; located close to the industrial enterprises, power plants, construction sites, railway stations and other facilities).

The category of rural settlements includes:

- *communities, villages* – settlements with production and social infrastructure that do not belong to the agro-towns;
- *hamlets* – settlements that do not belong to agro-towns, villages or communities
- *agro-towns* - a well-maintained settlement with a developed industrial and social infrastructure to provide its population and citizens from the adjacent areas with state minimal social standards:
 - central and local water supply (hot and cold);
 - central gas supply (or development of the system of liquefied gas supply for public use);
 - streets with a solid road surface;
 - a network of roads linking the settlements in the service area;
 - passenger transport links with the district and regional centres;

-
- objects of telephone communications on the basis of stationary and mobile communication systems;
 - trade-purchasing objects of consumer cooperation;
 - regional branches of public utility services;
 - service structures for private subsistence farms of the population;
 - pre-school institutions and schools;
 - ambulant clinics of a general practitioner;
 - sport facilities and structures, eco-tourism organisations;
 - fire and rescue depot and posts;
 - objects of roadside services (public catering, car services, filling stations, hotels);
 - cultural institutions (houses of culture, clubs, libraries, etc.);
 - legal services to the population, including notary services.

More than 1500 agro-towns evenly allocated about the country were created in the Republic by 2016. More than 50 % of rural population live in them.

2. Specify where the samples for water quality control are taken, under the following sections 2 and 3.

Sections 2 and 3 of the report contain the data on water quality and safety in the centralized and non-centralized drinking water supply sources, as well as faucet water for communal and departmental water supply systems (taking water samples from water treatment outlets before water gets into distribution system, as well as from test points of distribution systems and from points of consumption).

The source of the water quality data is a State report “On the Sanitary and Epidemic Situation in the Republic of Belarus” for 2018. This data is obtained as a result of the state sanitary supervision performed by the institutions of the Ministry of Health of the Republic of Belarus, which perform state sanitarian supervision.

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 WHO guideline values, provide information on the values (standards) used for calculation.

According to the Law of the Republic of Belarus "On Sanitary and Epidemic Well-Being of the Population" dated January, 7th 2012, the hygienic standards for quality and safety of drinking water and water for recreational purposes as well as the sanitary and epidemic requirements to water bodies, drinking water supply, use of water for households and other purposes of the population and to the places of water use are approved by the Minister of Health of the Republic of Belarus.

The requirements to the quality and safety of drinking water in the Republic are provided in the Sanitary Standards and Regulations:

SanPin 10-124 RB 99 “Drinking Water. Hygienic requirements to the quality of water in the centralised systems of drinking water supply. Quality Control” and approved by Resolution of the Chief State Sanitary Doctor of RB No. 46 dated October, 19th 1999;

The requirements to the non-centralised systems of water supply are provided by the sanitary standards and regulations and hygienic standards “Hygienic requirements to sources of non-centralised drinking water supply” approved by Resolution of the Ministry of Health of the Republic of Belarus No. 105 dated August, 2th 2010.

Nowadays, the specified regulatory legal acts are being revised to prepare unified Hygienic standard “Indicators of safety and harmlessness of the production and factors of the environment”, which will comprise the indicators for drinking water quality, both in centralized and non-centralized drinking water systems. Under such revision, the indicators for drink-

ing water quality are updated concerning its harmonization with the international acts (including, with the requirements of the EC directive 98/83/EC) taking into account current state of knowledge about toxicity and danger of chemicals, regional specific features of water-bearing stratum in the Republic, on the basis of the results of the conducted scientific research.

Resolution of the Council of Ministers of the Republic of Belarus No. 914 dated December, 19th 2018 “About approving Specific sanitary and epidemiologic requirements to the maintenance and operation of the sources and systems of drinking water supply” was adopted. It regulates the issues of maintenance and operation of the sources and systems of drinking water supply both centralized and non-centralized to guarantee quality and safety of the drinking water, supplied to the population.

Table 3.I.3 – National requirements to the safety of drinking water regarding epidemic issues (SanPiN 10-124 RB 99)

Indicators	Units	Standards
1	2	3
Thermotolerant coliform bacteria (TCB)	Number of bacteria in 100 cm ³	Absence in 300 ml
General coliforms (GC)	Number of bacteria in 100 cm ³	Absence in 300 ml
Total bacterial count (TBC)	Number of bacteria forming colonies in 1 cm ³	Below 50
Coliphages *	Number of plaque-forming units (PFU) in 100 cm ³	Absence
The spores of sulphite-reducing clostridia **	Number of spores in 20 cm ³	Absence
Giardia cysts *	Number of cysts in 50 dm ³	Absence
<p><i>Notes:</i> * - samples are taken only from water systems, supplied from surface water sources, before water gets into the distribution system; ** -testing is carried out for assessment of effectiveness of the water treatment technology. Each sample is tested for the presence of TCB, GC, TBC. The procedure of testing for other standard microbiological parameters is determined at the stage of development of the working programme for production control.</p>		

Table 3.I.4 – National requirements to the safety of drinking water regarding chemical indicators (SanPiN 10-124 RB 99)

№	Indicator	Units	Standards (maximum permissible concentration – MPC), below
I.	<i>Obligatory chemical parameters:</i>		
1.	Fluoride	mg/dm ³	1,5
2.	Nitrate (NO ₃ ⁻) and nitrite (по NO ₂ ⁻)	mg/dm ³	45,0 3,0
3.	Arsenic	mg/dm ³	0,05
4.	Lead	mg/dm ³	0,03
5.	Iron	mg/dm ³	0,3
II.	<i>Additional physico-chemical parameters:</i>		

1.	Ammonia	mg/dm ³	2,0
2.	Sulphates	mg/dm ³	500
3.	Chlorides	mg/dm ³	350
4.	Petroleum products (total)	mg/dm ³	0,1
5.	Pesticides: γ-HCH (lindane) ДДТ 2,4-Д	mg/dm ³	0,002 0,002 0,03
6.	Hardness	mmol /dm ³	7,0 (10)
7	Manganese	mg/dm ³	0,1 (0,5)

2. Bacteriological quality

4. **Specify what proportion of the samples fails to meet the national standard for Enterococci. Parties can also report on up to three other high-priority microbiological indicators and/or pathogens, which are monitored for water quality on a permanent basis.**

If possible, please provide the data on rural and urban regions separately. If is impossible, please consider the possibility to submit data on alternative categories, which can be applied in your country, for example, on “non-centralized and centralized” water supply or on the categories, based on the population size. In this case, please specify the categories presented in the report, having renamed the column in the table below correspondingly “area/category”.

If it is impossible to provide data on neither urban not rural regions, nor alternative categories, please report on only aggregate (national) values.

Please comment on the tendencies or provide any other important information, facilitating the data interpretation.

Table 3.1.5 – Drinking water quality for microbiologic indicators

Parameter	Area/category	The proportion of water samples failing to comply with standard requirements (%)		
		Baseline value 2009	Previous reporting cycle values 2015	Current value 2018
<i>E. coli</i> (TCB)	Sources of centralized water supply	0,76	0,61	0,66
	Sources of non-centralized water supply	14,51	13,20	15,70
	Centralized water supply systems (public water supply)	0,84	0,66	0,95
	Non-centralized water supply systems (departmental water supply)	1,41	1,14	1,29

3. Chemical quality

5. **Please specify what percentage of samples fail to meet the national standard for chemical water quality with regard to the following parameters:**

- a) Arsenic;
- b) fluorine;
- c) lead;
- d) nitrate.

6. **Identify up to three additional chemical parameters, which are of high priority nationally or locally.**

If possible, please provide the data on rural and urban regions separately. If is impossible, please consider the possibility to submit data on alternative categories, which can be applied in your country, for example, on “non-centralized and centralized” water supply or on the categories, based on the population size. In this case, please specify the categories presented in the report, having renamed the column in the table below correspondingly “area/category”.

If it is impossible to provide data on neither urban not rural regions, nor alternative categories, please report on only aggregate (national) values.

Please comment on the tendencies or provide any other important information, facilitating the data interpretation.

Table 3.I.6 – Water quality for chemical indicators

Parameter	Area/category	The proportion of water samples failing to comply with standard requirements (%)		
		Baseline value 2009	Previous reporting cycle values 2015	Current value 2018
<i>Arsenic</i>	Centralized water supply systems (public water supply)	0,00	0,00	0,00
	Non-centralized water supply systems (departmental water supply)	0,00	0,00	0,00
	Sources of non-centralized water supply	0,00	0,00	0,00
<i>Fluoride</i>	Centralized water supply systems (public water supply)	0,00	0,02	0,43
	Non-centralized water supply systems (departmental water supply)	0,54	0,25	0,43
	Sources of non-centralized water supply	0,64	0,00	0,00
<i>Lead</i>	Centralized water supply systems (public water supply)	0,00	0,00	0,00
	Non-centralized water supply systems (departmental water supply)	0,00	0,00	0,00
	Sources of non-centralized water supply	0,00	0,00	0,00
<i>Nitrate and Nitrite</i>	Centralized water supply systems (public water supply)	0,26	0,31	0,50
	Non-centralized water supply systems (departmental water supply)	0,88	0,39	0,57
	Sources of non-centralized water supply	28,59	24,49	25,79
Additional parameter 1: <i>Iron</i>	Centralized water supply systems (public water supply)	22,01	17,47	20,96
	Non-centralized water supply systems (departmental water supply)	36,28	27,20	23,60
	Sources of non-centralized water supply	3,68	6,71	8,23
Additional parameter 2: <i>Manganese</i>	Centralized water supply systems (public water supply)		0,96	2,38

	Non-centralized water supply systems (departmental water supply)		1,68	2,46
	Sources of non-centralized water supply		1,38	1,16
Additional parameter 3: <i>hardness</i>	Centralized water supply systems (public water supply)		0,83	0,51
	Non-centralized water supply systems (departmental water supply)		1,01	0,75
	Sources of non-centralized water supply		3,91	2,92

II. Outbreaks and incidence of infectious diseases potentially related to water (art. 6, para. 2 b)

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

- (a) Report on only proved outbreaks of water related disease;*
- (b) Report on the number of the diseases, related to all ways of infection transfer.*
- (i) Please report cases per 10,000 persons;*
- (ii) Please differentiate between zero incidents (0) and no data available (-).*

Please consider extending the list of water-related diseases 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).

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

Table 3.II.1 – Water related infectious disease

<i>Disease</i>	<i>Disease incidence per 100 thousand people (all ways of infection transfer)</i>			<i>The number of outbreaks (proved outbreaks of the water related disease)</i>		
	<i>Baseline value (2009)</i>	<i>Previous reporting cycle values (2015)</i>	<i>Current value (2018)</i>	<i>Baseline value (2009)</i>	<i>Previous reporting cycle values (2015)</i>	<i>Current value (2018)</i>
Shigellosis	1,7	0,2	0,3	0	0	0
Enterohemorrhagic Escherichia coli	0	0	0	0	0	0
Typhoid fever	0	1	0	0	0	0
Viral hepatitis A	0,9	1,7	0,9	0	0	0
Legionellosis	-	-	-	-	-	-
Cryptosporidiosis	-	-	-	-	-	-

No outbreaks of water related disease were recorded for the reporting period.

III. Drinking water access

If possible, please provide the data on rural and urban regions separately. If is impossible, please consider the possibility to submit data on alternative categories, which can be applied in your country, for example, on “non-centralized and centralized” water supply or on the categories, based on the population size. In this case, please specify the categories presented in the report, having renamed the column in the table below correspondingly “area/category”.

If it is impossible to provide data on neither urban not rural regions, nor alternative categories, please report on only aggregate (national) values.

Please comment on the tendencies or provide any other important information, facilitating the data on drinking water access interpretation.

Table 3.III.1 – Percentage of the population with access to drinking water supply

<i>Population category</i>	Percentage of the population with access to drinking water supply (%)		
	<i>Baseline value (2009)</i>	<i>Previous reporting cycle values (2015)</i>	<i>Current value (2018)</i>
Total	86,1	87,53	92,8
Urban population	95,5	98,50	98,7
Rural population	51,6	73,05	62,5
Agro-towns population	78,0	80,12	83,4

National assessments.

The table presents the data on the percentage of the population (%) with access to the drinking water from centralized water supply system in compliance with the statistics reporting. Statistics reporting is kept, taking into account provision of the population with centralized and non-centralized water supply, including differentiation into rural and urban population.

Sources of information: departmental reports based on the 1-housing and communal services form, quarterly reports under the program "Clean water", the state statistical annual reports based on the "Report on housing" of the 1-housing and communal services form. State statistic reporting does not suggest gathering data on the given categories since 2016, for the period of 2018 the data submitted as of 01.01.2019 based on the information, submitted upon the re-quest of housing and communal services.

IV. Access to sanitation

If possible, please provide the data on rural and urban regions separately. If is impossible, please consider the possibility to submit data on alternative categories, which can be applied in your country, for example, on “non-centralized and centralized” water supply or on the categories, based on the population size.

If it is impossible to provide data on neither urban not rural regions, nor alternative categories, please report on only aggregate (national) values.

Please comment on the tendencies or provide any other important information, facilitating the data on sanitation access interpretation.

Table 3.IV.1 – Percentage of the population with access to sanitation

<i>Population category</i>	Percentage of the population with access to sanitation (%)		
	<i>Baseline value (2009)</i>	<i>Previous reporting cycle values (2015)</i>	<i>Current value (2018)</i>
TOTAL	72,9		79,1
Urban population	87,7	92,78	89,8
Rural population	26,7	40,85	41,5

National assessments.

The table presents the data on the percentage of the population (%) with access to the improved sanitation (centralized water disposal systems) in compliance with the statistics reporting. Statistics reporting is kept, taking into account provision of the population with centralized water disposal system, including differentiation into rural and urban population.

Sources of information: departmental reports based on the 1-housing and communal services form, quarterly reports under the program "Clean water", the state statistical annual reports based on the "Report on housing" of the 1-housing and communal services form. State statistic reporting does not suggest gathering data on the given categories since 2016, for the period of 2018 the data submitted as of 01.01.2019 based on the information, submitted upon the re-quest of housing and communal services.

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

1. Water quality

On the basis of national systems of water classification, the percentage of the number of water bodies or the percentage of the volume (preferably) of water¹ falling under each defined class e.g. for EU countries and other countries, using the classification of EU Water Framework Directive (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), 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 in classes I, II, III,

i) Status of surface water

For the purpose of performing the obligations under the Convention on the protection and rational use of transboundary watercourse and international lakes, and implementation of the basic provisions of Water Framework Directive, as well as considering harmonization of the national legislature with the legislature of European Union in the Republic of Belarus, the notion "ecological state (status) of water bodies" was introduced into the Water Code in force on April, 30th in 2014.

In compliance with article 6 of Water Code, ecological state (status) of surface water bodies (their parts) is defined on the basis of hydrobiological indicators while applying hydrochemical and hydromorphological indicators as well. Moreover, hydrobiological, hadrochemical and hydromorphological indicators are determined while providing monitoring of surface water as a part of the National environmental monitoring system in the Republic of Belarus (NEMS). As a result of status determination, ecosystem is assigned to one of the five classes: I – high status; II – good status; III – moderate status; IV – poor status; V – bad ecological status.

River ecosystem status is defined for separate parts of the river at the observation points of NEMS, ecological status of a lake ecosystem is defined for the whole lake.

In order to introduce a new approach to the assessment of surface water bodies (their parts) condition by means of defining their ecological status, the monitoring system over surface waters condition as a part of NEMS is improved on a permanent basis in the Republic of Belarus, such system has been in force since 1993.

Nowadays, under the scope of NEMS, hydrobiological and hadrochemical status of water bodies parts, covered by stationary net of surface water condition monitoring, is defined.

Rivers condition assessment by hydromorphological indicators is not reflected in NEMS, because assessment criteria include a number of characteristics, not covered by stationary monitoring under NEMS (geological structure of water-shed area, impact from hydraulic engineering work, water transfer and so on). Research on assessment of water bodies

¹ Please specify.

condition and typing thereof to perform hydromorphological assessment is conducted at present only within the scope of River basin management plan.

Data on water bodies condition in the country and on the defined ecological status of surface water bodies (their parts) are compiled in the Chief data and analytics center of NEMS (CDAC NEMS), which operates in Belgidromet. The specified information can be found on the official cite of NEMS – <http://www.nsmos.by/>. The information about the assigned ecological condition (status) of surface water bodies (their parts) is contained in State Water Cadaster. The applied approach is similar to EU practice and meets the requirements of Water Framework Directive.

ii) Status of groundwaters

National system of groundwater classification in accordance with the status (according to the European classification, bad or good status) is not provided in Belarus.

In 2018 the results of monitoring observation over level regime and temperature of groundwaters on the territory of the Republic of Belarus in natural and slightly disturbed conditions at 96 hydrogeological stations (with 325 observational boreholes) were obtained.

To obtain information about the level regime and temperature of the groundwaters, 99 automatic level gauges operate on the territory of the Republic of Belarus as of 01.01.2019. The water samples are taken from 2 boreholes in The Western Dvina river basin, 30 boreholes in The Neman river basin, 14 boreholes in The Pripyat river basin, 47 boreholes in The Dniepr river basins and 6 boreholes in The Western Bug river basin.

The groundwaters quality was analyzed on the basis of the results of physico-chemical analysis of 40 water samples, taken at hydrogeological stations. The observation in the regime boreholes includes gauging groundwaters occurrence depth level and temperature 3 times a month and taking water samples to detect physical-chemical constituents is conducted once a year.

Hydrochemical data analysis as of 2014 specifies that:

- underground waters in natural conditions are mainly hydrocarbonate, calcium and magnesium and hydrocarbonate calcium due to the chemical content, with low to moderate hardness, with average value of dry residual 186 mg/dm³. Value of pH index changed within the range of 4,7 to 9,2 (while the average value is pH=7,38).

- subsoil and deep-well waters quality according to the content of the main macro elements is mainly in compliance with the requirements specified in SanPiN 10-124 RB 99. The only exception is local sites, where maximum permissible concentration of nitrogen compounds, oxide of silicon, chemical oxygen demand with permanganate as the oxidant and organoleptic properties was increased. Besides, practically everywhere the content of iron is increased. Such values, failing to comply with the specified standards, result from both anthropogenic (agricultural, public utility pollution), and natural impacts (high penetration coefficient of covering deposits, presence of fulvic and humic substances in soil, lithological composition of water-bearing material, abundant atmospheric precipitation) as well as hydrogeological factor.

During taking water samples, groundwaters temperature regime changed within the limits of 7 to 9,1 °C (with the average value – 8,3 °C).

As it follows from the mentioned above, for the period of 2018 groundwaters quality changed basically due to the increased (above maximum permissible concentration) values of nitrates, nitrites, ammoniacal nitrogen and chemical oxygen demand with permanganate as the oxidant, total iron, and organoleptic properties. On the whole, compared to 2017, it can be said that no regular groundwaters

quality impairment in natural conditions was observed.

Groundwaters hydrodynamic regime in 2018 was investigated within the limits of five river basins, which allowed describing hydrodynamic regime on the whole territory of the Republic Belarus and defining its formation peculiarities:

- underground hydrosphere constantly changes and depends on the combination of regime conditions and factors: such as physico-geographical, geomorphic, geologic, hydrogeological factors, moreover, change of groundwaters hydrodynamic regime in natural and slightly disturbed conditions is mainly due to meteorologic factors (amount of atmospheric precipitation and air temperature);

- fluctuation of deep-well waters levels is practically similar to fluctuations of groundwaters levels, which proves good hydraulic interconnection between water-bearing stratum and waters of surface river run-offs and water reservoirs;

- the territory of the republic is situated in the area of seasonal spring and autumn aquifer recharge, so annual increases, followed by decreases in the groundwaters and deep-well waters levels are detected in accordance with these seasons;

- on the basis of the analysis of groundwater level seasonal changes it was found out that in 2018 the levels of both ground and deep-well waters decreased;

- on average the groundwaters level within the limits of river basins decreased: The Dniepr - by 0,48 m for groundwaters and 0,4 m for deep-well water; The Neman river - by 0,65 m for groundwaters and 0,31 m for deep-well water; The Pripjat – by 0,5 m for groundwaters and 0,89 m for deep-well water; The Western Dvina – by 0,64 m for groundwaters and 0,71 m for deep-well water; The Western Bug - by 0,73 m for groundwaters and 0,51 m for deep-well water.

2. Water use

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

Surface and groundwaters in the Republic of Belarus are used for agricultural, industry, domestic purposes, as well as for hydropower, navigation and recreation.

The characteristics of water abstraction are based on the data of state annual statistics 1-Water (the Ministry of Environment), which is used by water consuming enterprises to report annually about volumes of water abstraction and usage. On the basis of water usage data and statistics from the State Water Cadaster about river runoff and proved exploitable volume of groundwater, tables reporting degree of economy sector impact on quantitative indicators of water resources of the Republic of Belarus were developed.

Table 3.V.1 – Water exploitation index in the Republic of Belarus (%)

Sector	Water exploitation index in the Republic of Belarus (%)			
	Baseline value 2010	<i>Previous reporting cycle values</i>		<i>Current value 2018</i>
		2014	2015	
The Republic of Belarus				
Agriculture	0,30	0,50	0,55	0,61
Industry*	0,32	0,52	0,53	0,36
Household use**	0,94	1,65	0,64	0,67
The Western Dvina River basin on the territory of Belarus				
Agriculture	0,10	0,17	0,17	0,16
Industry*	0,06	0,13	0,52	0,38
Household use**	0,59	0,76	0,26	0,24
The Western Bug River Basin on the territory of Belarus				
Agriculture	0,69	1,23	0,51	0,67
Industry*	0,47	0,82	0,34	0,22
Household use**	1,75	3,39	0,79	0,79
The Neman River Basin on the territory of Belarus				
Agriculture	0,42	0,52	0,50	0,56
Industry*	0,50	0,68	0,62	0,34

Sector	Water exploitation index in the Republic of Belarus (%)			
	Baseline value 2010	<i>Previous reporting cycle values</i>		<i>Current value</i> 2018
		2014	2015	
The Republic of Belarus				
Household use**	1,86	3,10	0,94	0,61
The Pripyat River Basin on the territory of Belarus				
Agriculture	0,50	0,74	1,36	1,56
Industry*	0,30	0,48	0,34	0,28
Household use**	0,33	0,51	0,32	0,40
The Dnieper River Basin on the territory of Belarus				
Agriculture	0,24	0,56	0,31	0,34
Industry*	0,46	0,59	0,62	0,41
Household use**	1,22	1,44	0,91	0,61

Note:

* *the figure includes both water abstraction for manufacturing industry and for energy cooling;*

** *the figure only refers to public water supply systems and does not refer to non-centralized systems; includes water usage for drinking and domestic purposes.*

The Republic of Belarus has sufficiently high potential of water resources and the impact of water abstractions for population needs and economy purposes is generally insignificant. On the whole in the country, the values for each main sector of water use remain within 2 % of the available water resources. Although, a maximum load from domestic sector is placed on the river basins of The Western Bug and The Neman, it does not exceed 3,5 % of the available water resources.

The volumes of water use are stable, and major changes in water resources exploitation are related to the fluctuations in river runoff. These values increase in 2014, compared to the baseline values in 2012, is accounted for water shortage in the most significant rivers – The Dniepr and The Western Dvina in 2014.

Due to the change of form in 2016, values for 2017 are presented compared to the values for industrial economics sector – (total of industry and power energy needs).

Part Four

Systems of supervision over water related diseases and response to them

1. *Compliance with the provisions of article 8 of the Protocol:*

Have integrated systems of supervision over water related disease and their early prevention been created in your country in compliance with article 1 a)?

YES X NO IN PROGRESS

Has your country developed integrated national and local action plans in emergency situations to react to outbreaks and cases of water related diseases in compliance with article 1 b)?

YES X NO IN PROGRESS

Do the authorized state bodies have necessary opportunities to react to such outbreaks, incidents or risks according to the corresponding emergency plan in compliance with article 1 c)?

YES X NO IN PROGRESS

2. *Provide brief information about key elements of the supervision system over water related disease and response to such disease outbreaks. Please provide references to the national legislature and/or rules in force, concerning supervision over water related disease and response to such disease outbreaks.*

State sanitary supervision over infectious diseases, including water related diseases, is performed in compliance with the Law of the Republic of Belarus “On Sanitary and Epidemic Well-Being of the Population” from January, 7th 2012. The following technological regulations are applied:

Sanitary regulations 17-69 RB-98 "General requirements to prevention of infectious and parasitic diseases", approved by the decree N 18 of the Chief medical sanitation officer of the Republic of Belarus dated 29.04.1998.

Sanitary regulations 3.4.17-13-2003 “Cholera prevention. General requirements to epidemiological surveillance over cholera”, approved by the decree N 78 of the Chief medical sanitation officer of the Republic of Belarus dated 25.07.2003;

Sanitary standards and regulations “Requirements to arrangement and implementation of sanitary and antiepidemic measures, aimed at preventing transfer, contraction and spread of typhoid fever and paratyphoid”, approved by the Resolution of the Ministry of Health of RB № 53 dated 31.05.2012;

Sanitary standards and regulations “Requirements to arrangement and implementation of sanitary and antiepidemic measures, aimed at preventing contraction and spread of viral hepatitis”, approved by the Resolution of the Ministry of Health of RB № 11 dated 6.02.2013.

Sanitary standards and regulations “Requirements to arrangement and implementation of sanitary and antiepidemic measures, aimed at preventing transfer, contraction and spread of acute enteric infection”, approved by the Resolution of the Ministry of Health of RB № 31 dated 29.03.2012.

Decree of the Ministry of Health of the Republic of Belarus № 149 dated 14.02.2011 “On approval of the Instruction about the procedure of providing extraordinary and concluding information about aggravation of sanitary and antiepidemic situation”.

Key elements of the supervision system over water related disease and response to such disease outbreaks are detection thereof, public notification, data and reporting management. In compliance with statistical reporting forms, annual analysis of disease incidence is conducted. Source of data: www.minzdrav.by, www.rcheph.by.

For reference:

According to the order of the Ministry of Health of RB № 149 dated 14.02.2011, extraordinary and concluding information about aggravation of sanitary and antiepidemic situation is provided in compliance with the list of infectious and parasitic diseases, other aggravation of sanitary and antiepidemic situation, according to the appendix 1 to the Instruction (for instance, bacterial, viral (including serosal viral meningitis) and other specified intestinal infections, diarrhea and gastroenteritis of supposedly infectious origin, viral hepatitis A with 10 and more cases among the population, 2 and more cases in health care institutions and 5 and more cases in institutions).

The head of the health care organizations (hereafter – HO) provide extraordinary information on aggravation of sanitary and antiepidemic situation by phone, fax or other available means of communication, which allows for reliable detection of the source of the information, according to the list and in compliance with appendix 1, not later than 2 hours after the detection of cases of infectious and parasitic diseases, other aggravation of sanitary and antiepidemic situation to the territorial health care organization and to territorial institutions, performing state sanitary supervision (Hygienic and Epidemiological Centre).

The head of the territorial health care organization is responsible for providing extraordinary information (data on patients health and provision of needed medical assistance) to the corresponding public health department of the Oblast Executive Committee and Health care Committee of Minsk city administration by phone, fax and other means of communication not later than 6 hours after getting extraordinary information from a Health care organization.

The head of the public health department of the Oblast Executive Committee, the chairman of Health care Committee of Minsk Oblast Executive Committee provides extraordinary information to the administration of health care provision of the Ministry of Health of the Republic of Belarus (by means of communication) not later than 6 hours after getting extraordinary information from a territorial Health care organization. During off-work time, on public holidays and at weekends, extraordinary information should be provided to the state institution “Republican center for emergency medical care”.

The head of the public health department of the Oblast Executive Committee immediately provides extraordinary information to the regional Centre for Hygiene, Epidemiology and Public Health, the head of the committee on health care of Minsk city administration provides information to Minsk city Centre for Hygiene, Epidemiology and Public Health.

The chief doctor of the territorial Hygienic and Epidemiological Centre provides extraordinary information to the regional Centre for Hygiene, Epidemiology and Public Health or Minsk city Hygienic and Epidemiological Centre immediately by phone, not later than 6 hours after getting extraordinary information from a Health care organization, by means of communication. Extraordinary information must be provided two times a day further on. Extraordinary information must include the data, specified in Appendix 2 to the Instruction.

Concluding information about aggravation of sanitary and antiepidemic situation should be provided in written form within 2 weeks after elimination of aggravation of sanitary and antiepidemic situation and obtaining final results of laboratory and instrumental research. Concluding information should include the data, specified in Appendix 3 to the Instruction.

Chief Doctors of regional Centres for Hygiene, Epidemiology and Public Health, Minsk city Hygienic and Epidemiological Centre provide extraordinary information to state institution “Republican Centre for Hygiene, Epidemiology and Public Health” immediately by phone, not later than 6 hours after getting extraordinary information from a Health care organization, by means of communication. Extraordinary information must be provided two times a day at 9.30 further on, (by means of communication).

Chief Doctors of regional Centres for Hygiene, Epidemiology and Public Health immediately provide extraordinary information to the public health department of the Oblast Executive Committee, the chief doctor of Minsk city Hygienic and Epidemiological Centre – Health care committee of Minsk state executive committee. During off-work time (from 18.00 to 9.00), on public holidays and at weekends, extraordinary information should be provided to the state institution “Republican center for

emergency medical care”.

Concluding information should be provided in written form within 2 weeks after elimination of aggravation of sanitary and antiepidemic situation and obtaining final results of laboratory and instrumental research. Concluding information should include the data, specified in Appendix 3 to the Instruction.

The chief doctor of the state institution of regional Centres for Hygiene, Epidemiology and Public Health provides extraordinary information to the Chief State Sanitary Doctor of the Republic of Belarus by phone and in written form further on to immediately inform the Minister of Health of the Republic of Belarus.

The chief doctor of the state institution “Republican center for emergency medical care” immediately provides extraordinary information to the management of the Ministry of Health of the Republic of Belarus during work-off hours (from 18.00 till 9.00), on public holidays and at weekends after getting extraordinary information from the public health department of regional executive committees, Health care Committee of Minsk city executive committee, regional Centres for Hygiene, Epidemiology and Public Health, Minsk city Centre for Hygiene and Epidemiology of the state institution “Republican center for emergency medical care”.

3. Please indicate what actions were taken in your country within the last three years to improve and/or maintain supervision over the water related disease, their early prevention and action plans in emergency situations, as well as to strengthen the potential of government authorities to react to the outbreaks of the water related diseases in compliance with the provisions of article 8 of the Protocol.

On the basis of the results of R&D, regulatory requirements to legionellosis monitoring were prepared. Approaches to enterovirus infection monitoring and methods for laboratory control were improved. On the basis of the republican unitary enterprise “Scientific and Practical Centre for epidemiology and microbiology”, regional reference laboratory on viral pathogen detection operates in the republic.

Part five

Overall evaluation of the progress achieved in implementing the Protocol

Please provide brief description of the situation with article 9-14 of the Protocol implementation, if appropriate. Suggested length – up to 2 pages

Article 9 Public awareness, training, preparation, scientific research and development works and information.

Article 10 Public awareness

Article 11 International cooperation

Article 12 Joint and coordinated international actions

Article 13 Cooperation in relation to transboundary waters

Article 14 International support for national action

To provide public awareness about basic provisions of the Protocol and the activity, conducted in the Republic, there is a page on the website of the republican unitary enterprise “Scientific and Practical Centre for Hygiene”, (hereafter – Center), devoted to the Protocol, where update information on the Protocol is published. Moreover, within the limits of the actions conducted in the field of “environment and health”, the given information is brought to the notice of the participants.

Under Secretariat support, a number of measures under the Protocol were taken:

- On 13-14 February 2017, on the basis of the Center, under the Program of work for the period of 2017-2019, under the Protocol and with co-presidency of the Republic of Belarus in the sphere of “Prevention and reduction of water related diseases”, first Experts’ working meeting on risk-oriented supervision over drinking water quality was organized;
- On 15-17 March 2017, on the basis of the Center in cooperation with Euro-WHO within the scope of the Program of work under the Protocol for the period of 2017-2019, a sub regional Seminar on the issues of small-scale water supply and water discharge systems was conducted.

New version of the Law of the Republic of Belarus “On drinking water supply” provides for public awareness by posting information on drinking water quality in the Internet. Besides, lately, the information on drinking water quality in recreational zones has been posted on the website of territorial and republican centers for hygiene and epidemiology.

The Council on the Protocol composition has been updated and the representatives of non-governmental organizations have been added.

In 2016-2018, the development of high priority scientific and technological activities in the field of population health protection, sustainable use of natural resources and environmental protection in the Republic was implemented by means of conducting a wide range of scientific research, included in the content of the state research and technology program “Ecological safety”, industrial research and technology program “Health and environmental conditions”, a list of state research and technology programs to solve the most significant national-economic, ecological and social problems (financed through republican budget), scientific research results, financed from the nature protection funds. The results of the scientific activity are technical regulatory acts, methodology and guidance documents, regulating this sphere, set forth in the corresponding sections of part two of the current report.

The Republic of Belarus participated in GLAAS process of 2018/2019.

The Republic of Belarus interacts with major international organizations on a permanent basis in the field of health care and environmental protection: World Health Organization (WHO), United Nations Environment Program, United Nations Economic Commission for Europe, United Nations Development Programme, Organization for Economic Cooperation and Development. Much attention is paid to the implementation of international conventions and protocols thereof by the Republic of Belarus, namely, 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, adopted in London on 17

June 1999 (The decree of the Republic of Belarus № 161 dated April, 21th 2003); Convention on transboundary interaction of industrial accidents (the Law of the Republic of Belarus dated 30.04.2003); Stockholm Convention on Persistent Organic Pollutants (The decree of the Republic of Belarus № 594 dated 26.12.2003); Cartagena Protocol on Biosafety to the Convention on Biological Diversity (the Law of the Republic of Belarus dated 6.05.2002).

Agreement relations on bipartite and plurilateral basis were developed. A number of projects on transboundary monitoring and water resources use in the river basins of The Dniepr (with Ukraine and The Russian Federation), The Western Bug (with the Republic of Poland) and The Western Dvina (with the Republic of Latvia and The Russian Federation) have been prepared and is being implemented in compliance with the projected and concluded bipartite and plurilateral intergovernmental agreements between the Republic of Belarus and these states.

National indicators in the field of sustainable development, including basic aspects of water and health were specified within the scope of nationalization of sustainable development goals (within the scope of Goals 3 and 6).

Part six**Thematic part, connected with the high priority parts of the Protocol****1. Water, sanitation and hygiene in institutions**

1. Please provide in the table below the information about the percentage of schools (primary and secondary) and medical institutions which provide baseline services, related to water, sanitation and hygiene (WSH).

Baseline services mean:

a) *Baseline sanitation service* means providing improved sanitation facilities (according to the definition of sanitary, hygiene and antiepidemic measures), which are divided according to the gender category and can be used at school or in any medical institution;

b) *baseline drinking water supply* service means providing access to water from the improved water source (according to the definition of sanitary, hygiene and antiepidemic measures) at school or in any medical institution;

c) *baseline hygiene service* means providing facilities for washing hands, using water and soap for pupils (at school) or patients and medical staff (medical institution).

If the stated above definitions and categories are not applicable in your country, please, provide information on the available data of alternative categories. In this case, please identify the categories reflected in the report, having renamed the columns in the table below correspondingly.

Please provide the source of the data. If data is absent, please put sign (-).

Institutions	Current value (2018)
<i>Schools</i>	
Baseline sanitation value	100 %
Baseline drinking water supply service	100%
Baseline hygiene service	100 %
<i>Medical institutions</i>	
Baseline sanitation value	100 %
Baseline drinking water supply service	100%
Baseline hygiene service	100 %

2. Has the situation with WSH at schools in your country been assessed?

YES NO IN PROCESS

3. Has the situation with WSH in medical institutions in your country been assessed?

YES NO IN PROCESS

4. Do the approved policy or the programs provide for the performance of activities (please mark all the applicable options):

to improve WSH at schools

to improve WSH in medical institutions

5. If yes, please provide a reference to the main document(s) with the description of the related national policies and program(s).

www.minzdrav.by, www.rcheph.by

WSH at schools:

There are territorial plans (programs) aimed at enhancing material and technical base of educational institutions. They include improving sanitary condition of WC up to the standard, repairing water supply and sewage systems.

Sanitary Rules and Regulations “Requirements to educational institutions, delivering an educational program of special education at the level of general secondary education, an educational program of special education at the level of general secondary education for pupils with intellectual incapacity”, approved by the decree of the Ministry of Health of the Republic of Belarus № 197 dated 12.12.2012, as amended and supplemented by the decree № 63 dated July, 29th 2014.

Sanitary Rules and Regulations “Requirements to general secondary educational institutions”, approved by the decree of the Ministry of Health of the Republic of Belarus № 206 dated December, 27th 2012, as amended, supplemented and approved by the decree № 63 of the Ministry of Health dated July, 29th 2014, № 35 dated May, 17th 2017, № 39 dated May, 3d 2018.

WSH in health care institutions:

Sanitary Rules and Regulations “Sanitary-epidemiological requirements to organizations providing medical aid, including arrangement and implementation of Sanitary-epidemiological measures to prevent infectious diseases in these organizations”, approved by the decree № 73 of the Ministry of Health dated July, 5th 2017.

2. Safe management of drinking water supply

6. Does your country have a national policy or national regulations, requiring management, based on risk assessment, for instance, implementation of WHO plans aimed at water safety provision (PCSW), in the sphere of drinking water supply??

YES NO IN PROCESS

7. If yes, please provide references for the document(s) with the description of the corresponding national policy and regulatory documents.

Targeted improvement on the basis of risk assessment methodology introduction is conducted to increase efficiency of water supply systems management. Risk assessment elements are set out in the legislation in force:

Law of the Republic of Belarus “On Sanitary and Epidemic Well-Being of the Population”;

Specific sanitary-epidemiological requirements to operation and maintenance of sources and systems of drinking water supply;

SanPiN 10-124 RB 99 “Drinking water. Hygienic requirements to the quality of water in centralized systems of water supply. Quality control”.

Application instruction № 027-1215 “Risk assessment method in the system of water supply management» (approved by the Ministry of Health of the Republic of Belarus dated 21.03.2016),

Application instructions № 019-1118 “Methods for hygienic assessment of the drinking water safety” (approved by the Ministry of Health of the Republic of Belarus dated 23.04.2019).

www.minzdrav.by, www.rspch.by.

8. Please provide the information about the percentage of the population who receive drinking water supply service in the table below according to water safety provision plan.

Please provide the source of the data. If data is absent, please put sign (-).

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

3. Equal access to water and sanitation

9. Has the equality of access to drinking water and sanitation been assessed?

YES NO IN PROCESS

10. Do the national policy or programs provide for performing activities aimed at more equal access to water and sanitation? (please mark all the applicable options):

- a) to reduce geographical differences
 b) to provide access to the vulnerable and marginalized groups of people
 c) to keep price affordability of water and sanitation access for everybody

11. If yes, please provide references for the document(s) with the description of the corresponding national policy and regulatory documents.

a) Concept of improvement and development of housing and public utility sector up to 2025 (approved by the resolution of Council of Ministers of the Republic of Belarus № 1037 dated 29.12.2017, aimed to provide increased access to high quality drinking water, with regard to urban and rural population.

Subprogram 5 “Clean water” of the State program “Comfortable housing and friendly environment”, approved by the resolution of Council of Ministers of the Republic of Belarus № 326 dated 21.04.2016, aimed to provide the population with increased access to centralized water supply systems with regard to urban and rural population.

System of state social standards for the Republic population service, approved by the Council of Ministers of the Republic of Belarus № 724 dated 30.05.2003 (as amended on 09.11.2018 № 802), aimed to provide the population with adequate access to drinking water.

b) Subprogram 4 “Barrier-free environment for disabled and physically handicapped people” of state program about social protection and employment promotion for the period of 2016-2020, approved by the decree № 73 of the Ministry of Health dated January, 30th 2016 (National Register of Legal Acts of the Republic of Belarus, 2016, N 5/41675, <http://www.pravo.by/main.aspx?guid=3961&p0=C21600073>), aimed to create barrier-free environment with due regard to the requirements of technical regulatory legal acts by means of arrangement entrance(s) to buildings, way(s) of movement inside the building and ablution facilities. Measures to achieve such goals and sources of financing have been defined.

c) According to the law of RB №239-3 dated 14.06.2007 (as revised in 2017) “About state social benefits, rights and guarantees for certain categories of citizens” (<http://www.pravo.by/document/?guid=3961&p0=H10700239>), certain categories of citizens (including disabled people) are charged reduced tariffs for public utilities (including for water supply and water discharge systems).

System of state social standards for the Republic population service, approved by the Council of Ministers of the Republic of Belarus № 724 dated 30.05.2003 (as revised on 09.11.2018 № 802),

Concept of improvement and development of housing and public utility sector up to 2025, approved by the Council of Ministers of the Republic of Belarus № 1037 dated 29.12.2017.

PART SEVEN

INFORMATION ON THE PERSON SUBMITTING THE REPORT

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

Name of officer responsible for submitting the national report:

Drozdova Elena Valentinovna

Deputy Director for Science of the Republican unitary enterprise “Scientific and Practical Centre for Hygiene”, of the Ministry of Health of the Republic of Belarus

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Name and address of national authority:

Ministry of Health of the Republic of Belarus
39, Myasnikova str., Minsk, 220048

Signature:

Date:

23.04.2019

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 beginning of 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 third session of 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 two e-mails provided below. Electronic copies should be available in word-processing software.

Joint Secretariat to the Protocol on Water and Health

United Nations Economic Commission for Europe Palais des Nations 1211 Geneva 10
Switzerland

(Email: protocol.water_health@unece.org)

World Health Organization Regional Office for Europe WHO European Centre for
Environment and Health Platz der Vereinten Nationen 1 53113 Bonn Germany

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