

## SUMMARY REPORT UNDER THE PROTOCOL ON WATER AND HEALTH THE REPUBLIC OF BELARUS

### 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

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

The list of measures aimed to meet the obligations undertaken by the Republic of Belarus under the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (London in 1999) was approved by Resolution of the Ministry of Health of the Republic of Belarus No. 116 of 4 December 2013. Targets, target dates and authorities responsible for its realization were determined in order to achieve the established measures.

The list of targets was communicated to the stakeholders, posted on the website of the Ministry of Health of the Republic of Belarus and the Republican Unitary Enterprise "Scientific and Practical Centre of Hygiene", and sent to the Secretariat (in Russian).

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

The Ministry of Health of the Republic of Belarus and the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus were indicated by the Presidential Decree No. 159 of 31 March 2009 as the authorities responsible for

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\* The UNECE does not guarantee the accuracy of the translation.

implementation of the commitments undertaken by the Republic of Belarus under the Protocol.

The establishment of Council on implementation of the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (hereinafter, the Council) was approved by Resolution of the Ministry of Health of the Republic of Belarus No. 52 of 27 May 2010 in order to coordinate the activities of relevant authorities and agencies ensuring the fulfilment of obligations under the Protocol. The Council includes representatives of the following ministries and agencies as well as scientists:

Ministry of Health of the Republic of Belarus

Ministry of Natural Resources and Environmental Protection of the Republic of Belarus

Ministry of Housing and Communal Services of the Republic of Belarus

Ministry of Emergency Situations of the Republic of Belarus

National Academy of Sciences

The main task of the Council is to develop a system of measures ensuring the fulfilment of obligations of the Republic of Belarus under the Protocol. The Ministry of Health of the Republic of Belarus is carrying out organisational and technical support to the Council.

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

While developing the targets, the following national and international strategies and legal acts were taken into account:

Objectives of the Millennium Development Goals;

Parma Declaration on Environment and Health;

WHO/Europe Environment and Health Performance Review in Belarus (2009);

National Strategy of Sustainable Development for the period until 2020;

National Programme on Demographic Safety of the Republic of Belarus for 2011-2015;

Water Strategy of the Republic of Belarus for the period until 2020;

Strategy of Environmental Protection of the Republic of Belarus for the period until 2025;

Law "On Sanitary and Epidemic Well-Being of Population" of 7 January 2012;

Law "On Drinking Water" of 24 June 1999;

Water Code of the Republic of Belarus;

Law "On Environmental Safety" of 26 November 1992;

Presidential Decree "About the Statement of the Priority Directions of Scientific and Technical Activity in the Republic of Belarus for 2011 - 2015" No. 378 of 22 July 2010,

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

Partially. It was carried out in the framework of planning of the State Programme on Water Supply and Sanitation "Clean Water" for 2011 – 2015 and the State Programme of Sustainable Village Development for 2011-2015.

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

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 and receive comments and suggestions. The finalized list of measures and targets to achieve them is set by the Decree of the Ministry of Health of the Republic of Belarus No. 116 of 04 December 2013.

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

Representatives of the Ministry of Health, Ministry of Natural Resources and Environmental Protection of the Republic of Belarus and the Ministry of Housing and Communal Services of the Republic of Belarus were involved in the preparation of this report. Coordinating functions was performed by the Ministry of Health of the Republic of Belarus.

The data for the relevant years from the State Report "On the Sanitary and Epidemic Situation in the Republic of Belarus", the data regarding implementation of the State Programme on Water Supply and Sanitation "Clean Water", the data from the State Water Cadastre of Belarus as well as surface water and groundwater monitoring data designed under the National Environmental Monitoring System of the Republic of Belarus were used to prepare this report.

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

The state management in the field of drinking water supply is carried out by the Council of Ministers of the Republic of Belarus, the local councils, the executive and administrative bodies, the state authority in housing and communal services and its regional units, as well as other state bodies authorised in accordance with legislation of the Republic of Belarus. Control and monitoring procedures are determined by legislative acts of by the Republic of Belarus.

The Ministry of Health of the Republic of Belarus, in accordance with the Law "On Sanitary and Epidemic Well-Being of the Population" of 7 January 2012 (National Register of Legal Acts of the Republic of Belarus, 2012, No. 8, 2/1892) regarding the sanitary and epidemic well-being of population, is providing the sanitary and epidemic well-being of population as well as carrying out the state sanitary and epidemic standardisation and state sanitary surveillance. The state sanitary surveillance includes supervision over compliance of the drinking water quality with the standard requirements and performance of the established conditions for economic and other activities in the sanitary protection zones of sources and systems of the drinking water supplies.

The hygienic standards of quality and safety of drinking water and waters for recreational purposes; the sanitary and epidemic requirements to water bodies, drinking water supply, use of water for household and other purposes of population, to the places of water use are developed by the research institutes of the Ministry of Health and approved by the Minister of Health of the Republic of Belarus.

Drinking water quality surveillance, obligatory upon compliance with technical regulatory acts requirements in the sphere of technical rate setting and standardization, is a part of the surveillance over compliance with mandatory technical regulatory requirements in the sphere of technical rate setting and standardization, and is performed by the State supervisory bodies, which control technical regulations and standards requirements.

Metrological supervision in the sphere of drinking water supply is a part of the state metrological supervision and is performed by the State metrological supervision bodies.

The State supervisory bodies control drinking water supply facilities construction, being a part of surveillance over the compliance with the technical regulatory acts requirements in the process of construction, and approved design documentation in the process of construction and assembly works. It also provides for the compatibility of the construction materials used, items and structures with the project designs and requirements of the binding technical regulatory requirements in the sphere of technical rate setting and standardization to guarantee functional reliability and safety.

The Council of Ministers of the Republic of Belarus adapted the State Programme "Clean Water" for 2011-2015, which states the basic forecast indicators for development of the systems of drinking water supply and sanitation.

The State Programme of Sustainable Village Development for 2011-2015 was approved by the Presidential Decree of the Republic of Belarus No. 342 of 01 August 2011 and under which the forecasted indicator for centralised drinking water supply in agro-towns was set up.

Over the past years a number of regulatory legal documents regulating the activities in the field of water supply and sanitation (indicated in the relevant sections) has been developed in the Republic of Belarus.

## Part Two

### Common indicators

#### I. QUALITY OF THE DRINKING WATER SUPPLIED

##### A. General information related to the context of the data provided under sections B and C

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

Drinking water is provided to population in Belarus using centralised and non-centralised systems of the 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 population with centralised and non-centralised systems of water supply, including differentiation for both rural and urban population.

Information on the quality of drinking water in sections B and C of the report is subdivided to:

- 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.

Table 1 – Population coverage with centralised systems of water supply in the Republic of Belarus \*

Year	Coverage with centralised systems of water supply (%), including			
	Total population	Urban population	Rural population	Population of agro-towns
2008	82,0	94,4	51,6	-
2010	86,1	96,5	57,0	78,5
2012	-	97,1	-	79,8
2015	87,5	98,5	73,05	80,12

\* 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.

Table 2 – Population of the Republic of Belarus for the periods analysed \*\*

Population	Population, thousand people		
	Baseline	Value reported in the pre-	Current

	<b>2008</b>	value <b>2009</b>	vious reporting cycle <b>2012</b>	value <b>2015</b>
		2009	2012	2015
Total	9689,8	9671,9	9465,0	9 498,7
Urban population	7108,1	7148,5	7174,5	7 370,4
Rural population	2581,7	2523,4	2290,5	2 128,3

*\*\* Source of information: official statistic data of the National Statistics Committee of the Republic of Belarus [www.belstat.gov.by](http://www.belstat.gov.by).*

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***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 it 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.*

According to the Law of the Republic of Belarus "On Administrative-Territorial Structure of the Republic of Belarus" No. 154-W of 5 May 1998, in a version of the Law of the Republic of Belarus No. 346-W of 07 January 2012 and No. 229-W of 31 December 2014 (registered in the National Register of Legal Acts of the Republic of Belarus on 20 March 2001, No. 2/686), all settlements belong to certain categories, depending on the number of population, the level of development and specialisation of production and social infrastructure as well as the public services provided at the respective territory.

*To the category of cities belong:*

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

*A category of urban-type settlements includes:*

- townships (population above 2,000 people, with industrial, communal services, social and cultural organisations as well as trade, public catering, consumer services),
- health resort settlements (number of population above 2,000 people, with sanatorium-resort and recreational organisations, as well as trade, catering, public services, cultural and educational organisations located on their territory),

- industrial settlements (number of population above 500 people, located close to the industrial enterprises, power plants, construction sites, railway stations and other facilities).

*A category of rural-type settlements includes:*

- agro-towns;
- communities, villages – the settlements with production and social infrastructure that not belong to the agro-towns;
- hamlets – the settlements that not belong to agro-towns, villages or communities.

Definition "agro-towns" has appeared in the Republic of Belarus with the adoption of the "State Programme of Village Revival and Development for 2005-2010". Agro-town is defined as a new type of rural settlement. 1500 agro-towns were created and evenly distributed across the country by 2016, they were inhabited by 50% of the rural population.

*Agro-town is a well-maintained settlement with developed industrial and social infrastructure meeting the social standards of its population and residents from the surrounding areas, which has:*

- central gas supply (or development of the system of liquefied gas supply for public use);
- central and local water supply (hot and cold);
- 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 general practitioner;
- sport facilities and structures, eco-tourism organisations;
- fire and rescue depot and posts;
- objects of roadside services (catering, car services, filling stations, hotels);
- cultural institutions (houses of culture, clubs, libraries, etc.);
- legal services to the population, including notary services.

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

The water systems referred to this report provide supply to both urban and rural population. See par. 1.

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

The report is representing data on the quality and safety of water in centralised and non-centralised systems of drinking water supply, as well as on the quality and safety of water for public and institutionalized water supply systems (samples are taken at the outlet of water treatment plant before supply to distribution system, and also at the control points of distribution network and in the points of consumption).

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

#### **Information about national standards (indicators) on the drinking water safety used in this report**

According to the Law of the Republic of Belarus "On Sanitary and Epidemic Well-Being of the Population" of 7 January 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 population and to the places of water use are approved by the Minister of Health of the Republic of Belarus.

The requirements to quality and safety of drinking water of centralised systems of water supply in the republic are provided by the Sanitary Standards and Regulations:

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

The requirements for 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 of 02 August 2010.

#### **Bacteriological quality**

Data on WatSan\_S2 (proportion of samples, %, that fail to meet the national standards of bacteriological water quality) for E. coli are presented in the report. Data for enterococcus are not given because it is not included in the list of monitored indicators in Belarus.

Table 3 – National requirements for microbiological and parasitological indicators to monitor the safety of drinking water regarding epidemic issues

Indicators	Units	Standards
1	2	3
Thermotolerant coliform bacteria	Number of bacteria in 100	Absence in

(TCB)	cm <sup>3</sup>	300 ml
General coliforms (GC)	Number of bacteria in 100 cm <sup>3</sup>	Absence in 300 ml
Total bacterial count (TBC)	Number of bacteria forming colonies in 1 cm <sup>3</sup>	Below 50
Coliphages *	Number of plaque-forming units (PFU) in 100 cm <sup>3</sup>	Absence
The spores of sulphite-reducing clostridia **	Number of spores in 20 cm <sup>3</sup>	Absence
Giardia cysts *	Number of cysts in 50 dm <sup>3</sup>	Absence
Notes:		
* - testing is carried out only in the systems of water supply from surface waters before water entering to distribution system;		
** - testing is carried out for assessment of effectiveness of the water treatment technology.		
TCB, GC, TBC are identified in each sample. The procedure of testing for other standard microbiological parameters is determined at the stage of development of the working programme on production control.		

### ***Chemical quality***

The report presents data in accordance with the WatSan\_S3 indicator (percentage of samples that fail to meet the national standard for chemical water quality) regarding:

- 5 obligatory substances and
- 7 additional substances (ammonia, sulphates, chlorides, petroleum products, pesticides, manganese and hardness)

Table 4 – National standards for drinking water safety for chemical parameters

No	Substances	Standards (maximum permissible concentration – MPC), below
<i>I.</i>	<i>Obligatory chemical parameters:</i>	
1.	Fluoride	1,5 mg/dm <sup>3</sup>
2.	Nitrate (NO <sub>3</sub> <sup>-</sup> ) and Nitrite (NO <sub>2</sub> <sup>-</sup> )	45,0 mg/dm <sup>3</sup> 3,0 mg/dm <sup>3</sup>
3.	Arsenic	0,05 mg/dm <sup>3</sup>
4.	Lead	0,03 mg/dm <sup>3</sup>
5.	Iron	0,3 mg/dm <sup>3</sup>
<i>II.</i>	<i>Additional physico-chemical parameters:</i>	
1.	Ammonia	2,0 mg/dm <sup>3</sup>
2.	Sulphates	500 mg/dm <sup>3</sup>
3.	Chlorides	350 mg/dm <sup>3</sup>
4.	Petroleum products (total)	0,1 mg/dm <sup>3</sup>

5.	Pesticides: $\gamma$ -HCH (lindane) DDT 2,4-D	0,002 mg/dm <sup>3</sup> 0,002 mg/dm <sup>3</sup> 0,03 mg/dm <sup>3</sup>
6.	Hardness	7,0 (10) mmol /dm <sup>3</sup>
7	Manganese	0,1 (0,5) mg/dm <sup>3</sup>

## B. Bacteriological quality

*Indicator to be used: WatSan\_S2: The percentage of samples that fail to meet the national standard for E. coli and the percentage of samples that fail to meet the national standard for Enterococci.*

Table 5 – Water quality for microbiological indicators

	<b>WatSan_S2</b> for E. coli (% of samples that fail to meet the national standard)		
	Baseline value <b>2009</b>	Value reported in the pre- vious reporting cycle <b>2012</b>	Current value <b>2015</b>
Total		1,8	2,2
Sources of centralised water supply	0,76	0,54	
Water supply system (centralised water supply):			
- public water supply;	0,84	0,52	
- institutionalized water supply	1,41	1,05	
Sources of non-centralised water supply	14,51	10,43	

## C. Chemical quality

*Indicator to be used: WatSan\_S3. All countries shall monitor and report on the percentage of samples that fail to meet the national standard for chemical water quality with regard to fluoride, nitrate and nitrite<sup>1</sup>, arsenic, lead, iron.*

*Parties shall also identify up to five additional physico-chemical parameters that are of special concern in their national or local situation (e.g., pesticides).*

Table 6 – Drinking water quality for physico-chemical indicators

No	Substance	<b>WatSan_S3</b> Baseline value <b>2009</b>	<b>WatSan_S3</b> Value reported in the pre- vious reporting cycle <b>2012</b>	<b>WatSan_S3</b> Current value <b>2015</b>
1	2	3	4	
<b>1. Water from sources of centralised water supply systems</b>				
<i>I.</i>	<i>Obligatory chemical parameters:</i>			
1.	Fluoride	0,30	0,19	0,12
2.	Nitrate and Nitrite	0,62	0,99	0,88
3.	Arsenic	0,12	0,00	0,00

<sup>1</sup> As defined in the WHO Guidelines for drinking-water quality.

1	2	3	4	
4.	Lead	0,03	0,00	0,00
5.	Iron	44,78	43,11	40,92
<i>II. Additional physico-chemical parameter:</i>				
1.	Ammonia	1,37	1,11	0,9
2.	Sulphates	0,01	0,00	0,00
3.	Chlorides	0,54	0,06	0,11
4.	Petroleum products	0,21	0,08	0,05
5.	Pesticides	0,00	0,00	0,00
	Hardness		3,10	2,49
	Manganese		5,46	5,98
<b>2. Water from centralised water supply systems – public water system</b>				
<i>I. Obligatory chemical parameters:</i>				
1.	Fluoride	0,00	0,00	0,02
2.	Nitrate and Nitrite	0,26	0,10	0,31
3.	Arsenic	0,00	0,00	0,00
4.	Lead	0,00	0,00	0,00
5.	Iron	22,01	16,35	17,47
<i>II. Additional physico-chemical parameter:</i>				
1.	Ammonia	1,10	0,68	0,22
2.	Sulphates	0,01	0,00	0,00
3.	Chlorides	0,03	0,00	0,07
4.	Petroleum products	0,11	0,00	0,43
5.	Pesticides	0,00	0,00	0,00
	Hardness		1,99	0,83
	Manganese		1,24	0,96
<b>3. Water from centralised water supply systems – institutionalized water system</b>				
<i>I. Obligatory chemical parameters:</i>				
1.	Fluoride	0,54	0,34	0,25
2.	Nitrate and nitrite	0,88	0,65	0,39
3.	Arsenic	0,00	0,00	0,00
4.	Lead	0,00	0,00	0,00
5.	Iron	36,28	25,17	27,20
<i>II. Additional physico-chemical parameter:</i>				
1.	Ammonia	0,65	0,52	0,35
2.	Sulphates	0,00	0,00	0,00
3.	Chlorides	0,05	0,07	0,12
4.	Petroleum products	0,29	0,11	0,00
5.	Pesticides	0,00	0,00	0,00
	Hardness		1,55	1,01
	Manganese		1,20	1,68
<b>4. Sources of non-centralised water supply</b>				
<i>I. Obligatory chemical parameters:</i>				

1	2	3	4	
1.	Fluoride	0,64	0,28	0,00
2.	Nitrate and Nitrite	28,59	23,62	24,49
3.	Arsenic	0,00	0,00	0,00
4.	Lead	0,00	0,00	0,00
5.	Iron	3,68	4,27	6,71
<i>II.</i>	<i>Additional physico-chemical parameter:</i>			
1.	Ammonia	0,57	0,32	0,19
2.	Sulphates	0,00	0,01	0,00
3.	Chlorides	0,53	0,26	0,36
4.	Petroleum products	0,00	0,00	0,00
5.	Pesticides	0,00	0,00	0,00
	Hardness		3,86	3,91
	Manganese		0,84	1,38

## II. REDUCTION OF THE SCALE OF OUTBREAKS AND INCIDENCE OF INFECTIOUS DISEASES POTENTIALLY RELATED TO WATER

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

- a) For reporting outbreaks, please indicate if the numbers reported are related to all exposure routes or only related to water (i.e., for which there is epidemiological or microbiological evidence for water to have facilitated infection);
- b) For reporting incidents:
  - i) Please report cases per 10,000 persons;
  - ii) Please differentiate between zero incidents (0) and no data available (-);
  - iii) If possible, please distinguish between autochthonous and imported cases.

*Please consider extending the list of water-related diseases to cover other relevant pathogens (e.g., enteric viruses, Cryptosporidium, Giardia, Legionella).*

*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 7

	Incidence <sup>*</sup>			Number of outbreaks <sup>*</sup>		
	Baseline	Value reported in the previous reporting cycle	Current value	Current value	Value reported in the previous reporting cycle	Current value
	2009	2012	2015	2009	2012	2015
Cholera	0	0	0	0	0	0
Bacillary dysentery (shigellosis)	0	0	0	0	0	0
Enterohaemorrhagic E. coli.	0	0	0	0	0	0
Viral hepatitis A	0	0	0	0	0	0
Typhoid fever	0	0	0	0	0	0
Note: <sup>*</sup> shows the total number of incidences and the number of outbreaks of potentially water-related infectious diseases per year.						

### III. ACCESS TO DRINKING WATER

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

Table 8

Population	Percentage of population with access to drinking water supply with centralised systems (%)		
	Baseline value <b>2009</b>	Value reported in the previous reporting cycle <b>2012</b>	Current value <b>2015</b>
TOTAL:	86,1		87,53
Urban	95,5	97,1	98,50
Population of agro-towns	78,0	79,8	80,12
Rural	51,6	-	73,05

The table provides an information on the percentage of population with access to drinking water supply with centralised systems. The information is provided under the statistical reporting. The statistical reporting on the control of quality and safety of drinking water in the country is carried out with regard to provision of population with centralised and non-centralised water supply, including differentiation by 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*.

### IV. ACCESS TO SANITATION

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

Table 9

Population	Percentage of population with access to improved sanitation (%)		
	Baseline value <b>2009</b>	Value reported in the previous reporting cycle <b>2012</b>	Current value <b>2015</b>
TOTAL:	72,9	77,5	
Urban	87,7	92,1	92,78
Rural	26,7	32,0	40,85

The table provides an information on percentage of population with access to improved sanitation (centralised sanitation systems). Information on access to improved sanitation is presented in accordance with the statistical reporting. Statistical reporting is differentiated by rural and urban population. Sources of information: departmental reports based on the *1-housing and communal services form*, quarterly re-

ports under the program "Clean water", the state statistical annual reports based on the *Report on housing*"of the *1-housing and communal services form*.

## V. EFFECTIVENESS OF MANAGEMENT, PROTECTION AND USE OF FRESHWATER RESOURCES

### 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 water falling under each defined class (e.g., in classes I, II, III, etc. for non-EU countries; for EU countries, 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).

Table 10 – Status of surface waters (watercourse)

<i>Percentage of surface water falling under class<sup>a</sup></i>	<i>Baseline value</i>	<i>Value reported in the previous reporting cycle</i>	<i>Current value</i>
	<b>2012</b>	<b>2012</b>	<b>2015</b>
High hydro-chemical status	15,4	15,4	47,9
Good hydro-chemical status	73,6	73,6	45,5
Moderate hydro-chemical status	11,1	11,1	6,7
Poor hydro-chemical status	-	-	-
Bad hydro-chemical status	-	-	-
<b>Total number/volume of water bodies classified</b>	208	208	187
<b>Total number/volume of water bodies in the country</b>	208	208	204

Table 11 – Status of groundwaters (water bodies)

<i>Percentage of surface water falling under class<sup>a</sup></i>	<i>Baseline value</i>	<i>Value reported in the previous reporting cycle</i>	<i>Current value</i>
	<b>2012</b>	<b>2012</b>	<b>2015</b>
High hydro-chemical status	43,1	43,1	61,9
Good hydro-chemical status	53,4	53,4	33,3
Moderate hydro-chemical status	3,4	3,4	4,8
Poor hydro-chemical status	-	-	-
Bad hydro-chemical status	-	-	-
<b>Total number/volume of groundwater bodies classified</b>	58	58	51
<b>Total number/volume of groundwater bodies classified in the country</b>	58	58	58

National Surface Water Condition Assessment System was introduced in 2015. This system, corresponding to the European Union practice and meeting the requirements of the

Water framework directive, is new for the Republic of Belarus and has been applied since the July of 2014. River and lake eco-systems are assessed separately. It should be mentioned that river eco-systems are assessed only at the observing stations, lake eco-systems are assessed wholly. In the connection thereof, two separate tables are given.

### **Status of groundwaters**

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

97 hydrogeological stations (with 347 observational boreholes) conduct monitoring observations for level regime and quality of the groundwaters on the territory of the Republic of Belarus.

125 automatic level gauge were installed on the territory of the Republic as of 01 January 2015 to increase authenticity of information about level regime and groundwaters temperature. Monitoring devices were installed into 6 observational boreholes out of the 347 mentioned above in the basin of the river Western Dvina, the basin of the river Neman contains 31 observational boreholes, the basin of the river Pripyat contains 15 observational boreholes, the basin of the river Dnieper contains 60 observational boreholes, the basin of the river Western Bug contains 13 observational boreholes.

Observation in the regime boreholes includes gauging groundwaters occurrence depth level and temperature within the period of 3 to 10 types a month and taking water samples to detect physical-chemical constituents once a year.

As a result of hydrochemical data received as of 2014, it is specified that:

– as for subsoil and deep-well waters, underground waters quality by containing basic macro and microelement generally comply with the requirements specified in accord with SanPIN (Sanitary Rules and Regulations) 10-124 PB 99. The only exception is increased amount of iron and manganese and reduced parameters of fluorine (in the Republic on average,

in subsoil as well as in deep-well waters –  $0,2 \text{ mg/dm}^3$ , while maximum permissible concentration is  $1,5 \text{ mg/dm}^3$ );

–in comparison with 2013, the number of samples, containing decreased amounts of ammoniacal nitrogen and chemical oxygen demand with permanganate as the oxidant in groundwaters. In deep-well waters, the number of samples, containing increased amounts of ammoniacal nitrogen and chemical oxygen demand with permanganate as the oxidant reduced but the amounts of nitrites and nitrates increased;

– at the deep-well waters level gauge, in some boreholes, situated near farmlands and livestock-rearing farm, local contamination of groundwaters was observed, moreover, this contamination was slightly expressed in the increased amounts of nitrate-ions concentration in the groundwaters. In 2014 the greatest amount of the samples with the increased concentration of nitrate-ions in the groundwaters was found in the groundwaters of the basin of the rivers Western Bug and Pripyat, as well as in the deep-well waters of the basin of the rivers Western Dvina and Dnieper;

– average concentration of microelements both in subsoil and in deep-well waters is

detected in little amounts and is generally in compliance with the specified requirements, this is with the exception of the increased level of manganese and reduced parameters of fluorine, that is due to natural hydrogeological conditions.

Physical properties of the river basins groundwaters were in compliance with the regulatory standard specified. Hydrogen ion exponent value changed with the range from 4,4 to 9,95 (with the average pH=7,74). Groundwaters temperature regime changed within the limits of 6,5 to 11 °C (with the average value – 8,4 °C).

As it follows from the mentioned above, for the period of 2014 groundwaters quality change occurred basically due to increased parameters of nitrates, nitrites, ammoniacal nitrogen and chemical oxygen demand with permanganate as the oxidant, iron in total, total salt content (higher than maximum permissible concentration). On the whole in comparison with 2013, we can say that no regular groundwaters quality impairment in natural conditions was observed.

***Groundwaters hydrodynamic regime in 2014*** was investigated within the limits of five river basins, which allowed describing hydrodynamic regime on the whole territory of the Republic Belarus and determining its formation peculiarities:

- the territory of the republic is situated in the area of seasonal spring and autumn nutrition, raisings and following fallings of the annual groundwaters and deep-well waters levels are detected in accordance with these seasons;

- fluctuation of deep-well waters levels practically mirror fluctuations of groundwaters levels, which certifies good hydraulic interconnection between water-bearing stratum and waters of surface-stream flows and water reservoirs;

- on the basis of ground waters levels seasonal change analysis for the period of 2014, in comparison with long-term average annual seasonal values, it was detected that ground waters levels decreased on average by 0,2 meters in all the basins of the rivers Pripyat, Dnieper, Neman, Western Bug and Western Dvina.

Detailed characteristics of ground waters hydrodynamic and hydrochemical regimes are given on the example of the most distinctive boreholes of deep-well waters level gauge for each river basin.

## **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 of the Republic of Belarus are used for agricultural, industry, household purposes, as well as for hydropower, navigation and recreation.

Characteristics of water abstraction are based on the data of state annual statistics of the Form 1-Water (Ministry of Environment) used to report about volumes of water abstraction and use within a system of State Water Cadastre by all water-using businesses on a yearly basis. The tables containing data on the degree of impact of economic sectors to the quantitative indicators of water resources of the Republic of Belarus are developed on the basis of

data on water use, data about river runoff from the State Water Cadastre as well as data on proven operational reserves of groundwaters.

The Republic of Belarus has sufficiently high potential of water resources while the impact of water abstractions used for population and economy purposes is generally insignificant. Indicators for each main sector of water use fall within 2% of the available water resources across the country; the maximum load of household water use is observed in the basins of the Western Bug River and the Neman River but it does not exceed 3, 5% of the available water resources. The volumes of water used are stable, and the major changes in water resource exploitation are related to fluctuations in the river runoff. The increase of these indicators in 2014 in comparison with the baseline values in 2012 could be explained by shortage of water occurred 2014 in the basins of the most significant rivers - Dnieper and Western Dvina.

Table 12– Water exploitation index in the Republic of Belarus (%)

Sector	Baseline value <b>2010</b>	Value reported in the previous reporting cycle <b>2012</b>	Current value <b>2014</b>
<b>The Republic of Belarus</b>			
Agriculture	0,30	0,44	0,50
Industry*	0,32	0,35	0,52
Household use**	0,94	1,10	1,65
<b>The Western Dvina River basin on the territory of Belarus</b>			
Agriculture	0,10	0,10	0,17
Industry*	0,06	0,04	0,13
Household use**	0,59	0,29	0,76
<b>Western Bug River Basin on the territory of Belarus</b>			
Agriculture	0,69	1,25	1,23
Industry*	0,47	0,73	0,82
Household use**	1,75	2,74	3,39
<b>The Neman River Basin on the territory of Belarus</b>			
Agriculture	0,42	0,55	0,52
Industry*	0,50	0,67	0,68
Household use**	1,86	2,97	3,10
<b>The Pripyat River Basin on the territory of Belarus</b>			
Agriculture	0,50	1,27	0,74
Industry*	0,30	0,50	0,48
Household use**	0,33	0,56	0,51
<b>The Dnieper River Basin on the territory of Belarus</b>			
Agriculture	0,24	0,25	0,56
Industry*	0,46	0,44	0,59
Household use**	1,22	1,38	1,44

Sector	Baseline value <b>2010</b>	Value reported in the previous reporting cycle <b>2012</b>	Current value <b>2014</b>
<p><i>Note:</i></p> <p><i>* the figure includes both water abstraction for manufacturing industry and for energy cooling;</i></p> <p><i>** the figure only refers to public water supply systems and does not refer to non-centralized systems; includes a water usage for drinking and domestic purposes.</i></p>			

## **Part Three**

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

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

*For countries in the process of setting targets, please provide information on the relevant target areas (e.g., baseline conditions, provisional targets, etc.)*

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

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them..
5. If you have not set a target in this area, please explain why.

## **I. QUALITY OF THE DRINKING WATER SUPPLIED (art. 6, para. 2 (a))**

### ***Targets:***

1) Reduction of the specific number of the drinking water samples that fail to meet the microbiological safety indicators: the specific number of the drinking water samples that fail to meet the microbiological safety indicators should not exceed 10% in rural areas by 2015.

2) Reduction of the specific number of the drinking water samples that fail to meet the standards for sanitary-chemical indicators (turbidity; hardness; content of iron, manganese, nitrate and petroleum products): the specific number of water samples that fail to meet the standards for sanitary-chemical indicators by 2015:

across the country - below 12%

in urban areas - below 10%;

in rural areas - below 25%.

This indicator is set for the entire territory of the country taking into account the coverage of both the urban and rural settlements.

***Achievement of these indicators*** was made through implementation of activities carried out under the existing legislation in the field of sanitary and epidemic well-being of population, as well as through implementation of the activities envisaged within the State Programme on Water and Sanitation "Clean Water" for 2011 – 2015 and the State Program of Sustainable Village Development for 2011-2015, that include a number of investment activities aimed at:

1. increase of provision with water treatment facilities of centralised systems of the drinking water supply of settlements: construction, reconstruction and repair of water treatment facilities and iron removal plants;

2. improvement of the status (reduced depreciation) of networks and water supply facilities of the settlements: construction, reconstruction and repair of water supply systems and water pipelines, creation of specialised operational and technical teams to serve rural water pipes;

3. increased provision with the centralised systems of water supply to population (see section III);

4. measures on protection of the drinking water sources are presented in a section XIV, including construction, reconstruction and repair of artesian wells, sewage treatment plants, sewage pumping stations;

5. improvement of the legislative and regulatory framework in the field of drinking water supply (access to water, quality and safety of drinking water), including the

improvement of approaches to monitoring based of implementation of the risk assessment methodology and introduction of more advanced research methods.

It is carried out within the Programme of Development of the Sanitary and Epidemic Regulation in the Republic of Belarus (2013, 2014, 2015), the Sector Scientific and Technical Programme "Modern Living Conditions and Health Saving" (2013-2015).

### ***Progress achieved towards the target***

The current analysis of situation with the quality and safety of water supply sources is carried out on a permanent basis as a part of the current public sanitary surveillance, as well as on the basis of the annual data submitted in accordance with the statistical reporting in the field of sanitary and epidemic well-being.

#### *1) Target № 1.*

The sustainable positive trend for the drinking water quality for microbiological indicators of safety is mentioned in the progress review of reaching the target.

According to statistics (Table 5 of the report), the specific weight of drinking water samples that fails to meet the requirements for microbiological safety has declined for non-centralised water supply sources and became below 10%; for sources of centralised water supply and public and institutionalized water supply systems it consistently remains at the level of not exceeding 1,05 %.

Progress towards the Target 1 is being made.

#### *2) Target 2.*

The analysis of reaching this target shows improved positive dynamic for quality and safety of the drinking water for priority sanitary and chemical indicators (Table 6 of the report). From 2009 to 2015, the specific weight of drinking water samples that fail to meet the standards for the iron content in the public water supplies has decreased by 4.5% (from 22.0% to 17.5%); it has decreased by 9.1% (from 36.3% to 27.2%) in water pipes; and for the content of nitrates in the non-centralised sources of water supply it has decreased by 4,1% (from 28.59% to 24.49%).

The targets will be set for the forthcoming period, taking into account the mentioned trends.

The Progress Report is developed annually under the national and sector programmes and plans.

The increased availability of centralised water supply, as a result of implementation of the state and territorial programmes on water supply and sanitation "Clean Water" for 2011-2012, is presented in Section 3.

The activities to adapt and validate the internationally recognised methods of laboratory studies are carried out in Belarus. ISO/STB ISO methods for almost the entire list of standardised indicators were mastered and put into practice.

The following technical regulations and guidance documents aimed at improving monitoring and management of drinking water quality and safety have been developed in the country over the last 3 years:

Sanitary standards and regulations "Sanitary-epidemiological requirements to the centralised systems of drinking water supply" approved by Resolution No. 69 of the Ministry of Health of the Republic of Belarus of 16 September 2014;

Sanitary standards and regulations "Sanitary-epidemiological requirements to protection of groundwater from pollution used for drinking water supply" approved by Resolution No. 125 of the Ministry of Health of the Republic of Belarus of 16 December 2015;

Risk analysis technology in the drinking water supply systems (application instruction № 027-1215), taking into account the water consumption conditions, existing in the republic, principles of Hazard Analysis and Critical Control Points, safety water plans. Its introduction will allow for optimization of drinking water monitoring approaches, justification of prevention measures, aimed at increasing drinking water supply safety, their priority, ranging of water supply system depending on the risks for health, planning of water supply systems supervisory activities, on the basis of risks assessment.

Application instruction «Hygienic monitoring of nitrate in the drinking water, used by the population», № 014-1112 is being introduced, it is approved by the Ministry of Health of the Republic of Belarus on 12.12.2012, it specifies basic methodologic approaches to the introduction of monitoring of the level of nitrates in drinking water on the basis of risk assessment methodology use.

The works on harmonization of safety hygienic requirements to drinking water, packaged in bottles, with international legislation is in process in the scope of development of Eurasian Economic Union technical regulations.

## **II. REDUCTION OF THE SCALE OF OUTBREAKS AND INCIDENTS OF WATER-RELATED DISEASE (art. 6, para. 2 (b))**

### ***Targets:***

- 1) Maintaining the incidence of cholera and typhoid at zero level.
- 2) Maintaining the incidence of acute hepatitis A at the level reached in 2010.

Targets were set at the national level.

### ***Achievement of the targets***

A number of activities is carried out under the current legislation to reach the targets in the field of sanitary and epidemic well-being of the population. According to the Law of the Republic of Belarus "On the Sanitary-Epidemic Well-Being of the Population" of 7 January 2012, the sanitary-epidemic well-being is ensured by preventing the spread of diseases in the context of sanitary-epidemic situation and forecast of its changes. Reduction in infectious incidence was one of the main tasks of the National Programme on Demographic Safety of the Republic of Belarus for 2011-2015.

The activities performed within the state and national programmes are referred to all sections, especially to Sections I, III-IX, XI, XIV-Part 3 of the present report, including proactive public awareness on the prevention of infectious diseases through publication of relevant materials in the public media and provision of the TV broadcasts to such purposes.

### ***Progress achieved towards the target***

Analysis of the epidemic situation is carried out yearly on the basis of data submitted in accordance with the statistical reporting in the field of sanitary and epidemic well-being (the state statistical report based on *6-infection (Ministry of health) Report on separate infectious and parasitic diseases and their carriers*"form).

This analysis showed that the water-related disease outbreaks were not registered in the Republic of Belarus since 2003.

Progress towards the target №1 - Maintaining the incidence of cholera and typhoid at zero level – is being made.

Progress towards the target №2 - Maintaining the incidence of acute hepatitis A at the level reached in 2010 – is being made. (1,78 cases per 100 thousand people in 2010; 1,71 cases per 100 thousand people in 2015, and below 1 case per 100 thousand people in 2011 and 2012).

In order to prevent the incidence of acute intestinal infections, related to drinking water, in educational institutions, the technical regulatory legal acts (Sanitary standards and regulations for kindergartens, summer camps, labour and holiday camps, tent camps, etc.) stipulate that bottled or boiled water should be provided to all children in such institutions. In a number of such institutions water is additionally treated.

The targets have been achieved.

### III. ACCESS TO DRINKING WATER (art. 6, para. 2 (c))

**Target:** increased provision with centralised water supply to population; the level of coverage with centralised water supply should reach by 2015 - 98.5% of population in regional (oblast) and district centres as well as in cities of regional subordination and urban settlements, and 83.5% - of population in agro-towns.

Table 13

Population	Coverage with the centralised water supply (%)	
	Baseline situation 2010	Target 2015
Urban population	96,5	98,5
Population of agro-towns	78,5	83,5

This indicator is set at the republican (national) and regional (local) levels under the state and regional programmes on water supply and sanitation "Clean Water" for 2011-2015, the State Programme of Village Revival and Development for 2011-2015, taking into account the coverage of both the urban population and population of agro-towns.

**The progress towards the target was made through** activities carried out under implementation of the state and regional programmes on water supply and sanitation "Clean Water" for 2011-2015 covered the development of systems of centralised water supply in both urban and rural settlements (agro-towns), and also under the State Programme of Village Revival and Development for 2011-2015.

#### ***Progress achieved towards the target***

The Progress Report on the activities carried out under the state programmes and analysis of the results are prepared annually. The increase in coverage with centralised water supply to population in 2011-2012 as a result of implementation of the state and territorial programmes on water supply and sanitation "Clean Water" and the State Programme of Village Revival and Development, is shown in Table 14.

Table 14

Population	Coverage with the public water supply (%)		
	2010	2012	2015
Urban population	96,5	97,1	98,5
Population of agro-towns	78,5	79,8	80,12

Within 5 years of the programme implementation, the coverage with centralised water supply has increased for urban population by 2% (up to 98.5%), for population in agro-towns – by 1.62%. The target regarding the urban population was made.

The obtained results were taken into account, while planning the targets for the forthcoming period

#### IV. ACCESS TO SANITATION (art. 6, para. 2 (d))

**Target:** increased coverage with centralised and local sanitation systems; the level of coverage with centralised and local sanitation systems should be, at least, 92.5% for urban population and 32.5% - for rural population, by 2015.

Table 15

Population	Coverage with centralised and local systems of sanitation (%)	
	Baseline situation 2010 год	<b>Target 2015</b>
Urban population	90,3	<b>92,5</b>
Population of agro-towns	30,3	<b>32,5</b>

This target is set under the state and territorial programmes on water supply and sanitation "Clean Water" for 2011 - 2015 at both the republican (national) and regional (local) levels, taking into account the coverage of both urban and rural population.

**This target is reached** through activities under implementation of the state and regional programmes on water supply and sanitation "Clean Water" for 2011-2015 and the development of centralised and local systems of household sanitation in both urban and rural settlements.

**The Progress Report about the activities** to be carried out under the state programmes and analysis of the results are produced annually.

#### **Progress achieved towards the target**

The increase of coverage with centralised and local systems of household sanitation that had been achieved in 2011-2015 through implementation of the state and territorial programmes on water supply and sanitation "Clean Water", is shown in Table 16.

Table 16

Population	Coverage with centralised and local systems of sanitation (%)		
	2010	2012	2015
Urban population	90,3	<b>92,1</b>	<b>92,78</b>
Rural population	30,3	<b>32,0</b>	<b>40,85</b>

The targets were achieved. Within 5 years of the programme implementation, the coverage with centralised and local systems of sanitation has increased for urban population by 2,48%, for population in agro-towns – by 10,55%.

## **V. LEVELS OF PERFORMANCE OF COLLECTIVE SYSTEMS AND OTHER SYSTEMS FOR WATER SUPPLY (art. 6, para. 2 (e))**

Targets were not set for this area. It corresponds to the data of article 6, 2c.

A system of the state social standards of services for population in the Republic of Belarus approved by Resolution of the Council of Ministers of RB No. 724 of 30 May 2003 “On Measures for Introduction of the Social Standards on Services for Population in the Republic” (according to Resolution No. 47 of 13 January 2012 and Resolution No. 1190 of 22 December 2012) exists in the country. According to paragraph 2 of this system:

- the standard of water coverage with centralised systems of water supply and sewerage to the city dwellers in residential buildings constitutes no less than 140 litres/daily/person, including at least 70 litres/daily/person of hot water-supply;

- the presence of the system of centralised drinking water supply to the population in agro-towns: the standard of service is above 50% of inhabitants in agro-towns;

paragraph 9 - schedule of hot water supply - daily.

The requirements to the drinking water quality monitoring (including to the sites of water samplings, types of indicators, frequency of water quality research) are established by the Sanitary Standards and Regulations SanPiN 10-124 RB 99 “Drinking water. Hygienic requirements to the quality of water in centralised systems of water supply. Quality control”. The quality control is carried out by laboratories accredited to perform the relevant studies in accordance with the established order. It is allowed to use the certified metrological techniques for laboratory studies (tests) of the drinking water quality, approved for using in accordance with the established order in the Republic of Belarus. Water samples for analysis are taken in accordance with the requirements of the state standards.

Production control, state sanitary surveillance as well as departmental supervision are carried out to monitor the drinking-water quality in accordance with the Law of the Republic of Belarus “On Sanitary and Epidemic Well-Being of Population” of 07 January 2012 and the Law of the Republic of Belarus “On Drinking Water Supply” of 24 June 1999.

The state sanitary surveillance over the quality of drinking water including evaluation of the content of residual chlorine in the places of water intake is carried out by the territorial hygienic and epidemic centres of the Ministry of Health. The departmental supervision in the field of sanitary-epidemic safety of population is carried out by institutions, organisations and subdivisions authorised to execute this function. Management of the state sanitary surveillance and departmental supervision is carried out routinely according to the current legislation and by the sanitary-epidemic indications.

Production control of the drinking water quality is provided by organisation that maintains the system of water supply according to the working program coordinated with territorial bodies of the State Sanitary Surveillance.

## **VI. LEVELS OF PERFORMANCE OF COLLECTIVE SYSTEMS AND OTHER SYSTEMS FOR SANITATION (art. 6, para. 2 (e) continued)**

### **Target at the national level:**

reduction of pollutants discharged into water bodies: reduction of pollutants discharged into water bodies for nitrogen – by 10%, for phosphorus – by 10%, for persistent organic pollutants – by 25% until 2015 (% to 2010).

*Achievement of this target* was planned through implementation of environmental activities under the current legislation (for example, the bodies of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus are establishing a specific set of indicators regarding discharge of contaminants with purified wastewaters into water bodies while issuing permits for special water use), as well as through improved legislations in the field of use and protection of water resources.

In order to achieve these targets a number of activities were carried out under the State Programme on Water Supply and Sanitation “Clean Water” for 2011 - 2015.

Activities aimed at:

1. increased coverage with water treatment facilities of sanitation systems in the settlements;
2. improvement of the status (decreased depreciation) of infrastructure networks, reconstruction and repair of treatment facilities for sanitation systems in the settlements and pumping stations for sewerage systems;
3. increased coverage with the local wastewater treatment facilities of the industrial enterprises.

In order to improve the ecological status of water bodies, the new edition of the Water code of the Republic of Belarus of 30 April 2014 introduced a ban on the discharge of wastewater to all kinds lakes and stagnant ponds.

### ***Progress made towards the target***

The data presented in accordance with the statistical reporting to the State Water Cadastre is used to analyse the progress achieved towards the target:

The amount of phosphorus in wastewaters discharged into water bodies was 0,61 thousand tons in 2014 (0,66 thousand tons in 2010). In comparison with 2010 the decrease is equal 7,6% - the target has been achieved.

The amount of nitrogen in wastewaters discharged into water bodies was 8,52 thousand tons in 2014 (9,09 thousand tons in 2010). Progress towards the target achievement was made, the amount of nitrogen discharged into water bodies has decreased by 6,3%

Monitoring of POPs in the water bodies is carried out at 35 transboundary sites of the National environmental system of surface water monitoring of the Republic of Belarus. Ac-

According to results of monitoring, the POPs concentrations were registered below the detection limit.

## **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 activities are carried out in accordance with the Technical operation regulations for the systems of water supply and sanitation in the settlements and the Instruction on the order of planned preventive repair of centralised systems of water supply and sanitation, developed and approved by the Ministry of Housing and Communal Services.

According to legislation of the Republic of Belarus, the centralised (communal or 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. Development of these systems is carried out on a basis of the appropriate medium- and long-term documents - master plans, schemes of development, etc.

Development (design, construction and operation) of such systems is carried out in accordance with the requirements of regulatory legal acts and technical regulatory legal acts of the Republic of Belarus in the field of architecture and construction, health care, environment protection, communal services, etc.

In accordance with the Law, the sanitary protection zones are established to protect the sources of centralised drinking water supply. Protection of the sources of non-centralised water supply (including dug wells and tube wells) is provided in accordance with the requirements of sanitary standards and regulations.

The improvement of legislative and regulatory framework is permanently carried out within management activities regarding the systems of drinking water supply in the Republic, including the sanitary and epidemic legislation under the Programme of Development of the Sanitary-Epidemic Standardisation in the Republic of Belarus, the state and sectoral research programs, including the Sector Scientific and Technical Programme “Health and Environment” (2010-2012) and the Sector Scientific and Technical Programme “Modern Living Conditions and Health Saving» (2013-2015).

In order to increase the effectiveness of management of water systems certain activities are being carried out to improve the water systems based on implementation of the risk management methodology for drinking water supply. On a basis of the researches carried out under the Sector Scientific and Technical Programme «Modern Living Conditions and Health Saving», following documents were developed:

- Risk analysis technology in the drinking water supply systems (application instruction № 027-1215), taking into account the water consumption conditions, existing in the republic, principles of Hazard Analysis and Critical Control Points, safety water plans. Its introduction will allow for optimization of drinking water monitoring approaches, justification of prevention measures, aimed at increasing drinking water supply safety, their priority, ranging of water supply system depending on the

risks for health, planning of water supply systems supervisory activities, on the basis of risks assessment. Its introduction is planned for the period of 2016-2017;

- methodology of determining household water supply sources sanitary protection zones boundaries, taking into account peculiarities of the Republic of Belarus and modern international mathematic modelling tendencies (Technical code of common practice 17.06-15-2015 (33140) «Environmental protection and exploitation of natural resources.

Hydrosphere. Rules of hydrogeological methods application for determining sanitary protection zones boundaries of ground waters sources of household water supply», approved by the Decree of the Ministry of Natural Resources and Environmental protection of the Republic of Belarus as of 29.06.2015 № 4-T);

Sanitary Rules and Regulations «Sanitary-epidemiological requirements to the systems of the centralized household water supply», approved by the Decree of the Ministry of Health of the Republic of Belarus as of 16.09.2014 № 69;

Sanitary Rules and Regulations «Sanitary-epidemiological requirements to the protection of the ground waters, used in household water supply, from contamination», approved by the Decree of the Ministry of Health of the Republic of Belarus as of the 16 of December, 2015, № 125.

The Sanitary Standards and Regulations 10-113 RB 99 «Sanitary protection zones of sources of water supply and water pipes for household and drinking purposes» regarding the requirements to size and arrangement of the SPZ territory of groundwater sources is being revised.

It is also planned to develop and introduce the test questions (checklists) in the field of the state sanitary supervision regarding observance of the sanitary-epidemic legislation by audited entities (water intake facilities and drinking water-pipes), that organisations of the water management complex may use for self-control.

## **VIII. APPLICATION OF RECOGNIZED GOOD PRACTICE TO THE MANAGEMENT OF SANITATION (art. 6, para. 2 (f) continued)**

Targets were not set in this area.

According to legislation of the Republic of Belarus the centralised (communal or 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 the systems is carried out on a basis of appropriate medium - and long-term documents - master plans, schemes of development, etc.

Development (design, construction and maintenance) of such systems is carried out in accordance with the requirements of regulatory legal acts and technical regulatory legal acts of the Republic of Belarus in the field of architecture and construction, 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 centralised systems of water supply and sanitation, developed and approved by the Ministry of Housing and Communal Services.

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

The improvement of legislative and regulatory framework is permanently carried out under activities on improving the management systems of sanitation in the Republic, including in the field of environmental protection, architecture, construction, sanitary-epidemic well-being.

## **IX. OCCURRENCE OF DISCHARGES OF UNTREATED WASTEWATER (art. 6, para. 2 (g) (i))**

The National Strategy of Sustainable Development of the Republic of Belarus for the period up to 2030 and the Program of Socio-Economic Development of the Republic of Belarus for the period of 2016-2020 have defined a strategic goal in the sphere of the country's water potential preservation - that is increasing efficiency in water resources utilization and improving quality of water resources in balance with the society demands and possible impacts of climate change.

In accordance with this goal, the following target was set:

- decrease of insufficiently treated wastewater discharge into surface waterbodies by 50% of the level of 2015 by 2020.

### ***To achieve this target, the following measures are planned:***

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

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

Development and introduction of computer-aided technologies of control and monitoring of quality and quantity of wastewaters, discharged by consumers into surface waterbodies;

Specification of tax rate for surface and ground waters extraction, for wastewater discharge into the environment taking into account foreign experience and water resources economic assessment;

Development of the management plan for the basins of the rivers Pripyat, Dnieper, Neman, Western Bug and Western Dvina;

Creation of favourable conditions for water tourism and recreation development.

### ***Progress achieved towards the target***

According to the data of State Water Cadastre a tendency for reduction of insufficiently treated wastewater discharge into the surface waterbodies by 21,3 million m<sup>3</sup> (86%) is observed at present. The given target was achieved due to realization of the state program on water supply and wastewater disposal «Clean water» by construction and reconstruction of 94 state sewage treatment facilities. The conducted activities provided for reduction of contaminating agents amount, discharged into surface waterbodies, by biogenic substances (biochemical oxygen demand<sub>5</sub> by 21 %, ammonium ions – 23 %, nitrite ions – 22 %), by oil-products (by 53 %), as well as by heavy metals (cuprum by 73 %, zinetum – 51 %, nickel – 70 %, total chromium – 74 %).

Simultaneously, these targets were achieved due to the conducted works, aimed at storm water drainage systems construction in the cities with the population over 100 thousand people, as well as rehabilitation of water conservation zones and coastal margins.

However, for the period since 2013 till 2015, 51 cases of emergency contaminated wastewaters discharge were recorded.

On the basis of the specified situation analysis and taking into account the importance of the given target in terms of effect on waterbodies, the target for the period of 2015 has been reconsidered and the following target has been set forth: reduction of insufficiently treated waste water discharge into surface waterbodies by 50% of the level of 2015 by 2020. The targets by frequency of wastewater discharge comply with the targets by quality of wastewater discharge, specified in the chapters X and XI of part 3.

**X. OCCURRENCE OF DISCHARGES OF UNTREATED STORM WATER OVERFLOWS FROM WASTEWATER COLLECTION SYSTEMS TO WATERS WITHIN THE SCOPE OF THE PROTOCOL (art. 6, para. 2 (g) (ii))**

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

However, the permanent activity is carried out in this direction in the Republic under implementation of the existing legislation and governmental programmes.

This target is included in the annual data of the State Water Cadastre and controlled by it.

The Social and Economic Development Programme of the Republic of Belarus for 2011-2015 approved by Decree of the President of the Republic of Belarus No. 136 of 11 April 2011 stipulated the establishment of the systems for disposal and treatment of surface runoff in urban areas for the cities with population of 100 thousand people and more.

There are 14 the cities in Belarus with population of 100 thousand people and more. However, currently there are not storm water treatment facilities at every outfalls in the mentioned cities. The works are being conducted to solve this problem.

## **XI. QUALITY OF DISCHARGES OF WASTEWATER FROM WASTEWATER TREATMENT INSTALLATIONS TO WATERS WITHIN THE SCOPE OF THE PROTOCOL (art. 6, para. 2 (h))**

In accordance with the requirements of the legislation on the protection and use of waters, a usage of water bodies for discharge of treated wastewaters is carried out only on the basis of permits for the special water use, complex environmental permits, which establish standards for permissible concentrations of chemicals and other substances.

To improve the quality of surface and groundwater in accordance with the Strategy of Environmental Protection of the Republic of Belarus for the period until 2020, it is stipulated to reduce the amount of pollutants discharged into water bodies through provision with treatment of storm water; provision with the local treatment of industrial wastewater discharged into centralised sewage systems; setting the treatment facilities with the systems of biological purification.

The following targets were set at the national level:

### ***Targets:***

- 1) decrease of pollutants discharged into water bodies: nitrogen – by 10%, phosphorus – by 10%, persistent organic pollutants – by 25 % until 2015 (% to 2010).
- 2) reduction of the volume of insufficiently treated wastewaters discharged into surface water bodies by 10% until 2015.

**Achievement of these targets** is planned through implementation of environmental activities in the framework of current legislation (for example, the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus while issuing the permits for the special water use, complex environmental permits establishes standards for permissible concentrations of chemicals and other substances in wastewaters discharged into surface water bodies), it is also provided the improvement of legislative and regulatory legal framework in the sphere of protection of water resources.

In order to achieve these targets, a number of activities were conducted under the State Programme of Water Supply and Sanitation “Clean Water” for 2011 – 2015, aimed at

1. increased provision with the water treatment facilities of sanitation systems in the settlements;
2. improvement of the status (decreased depreciation) of infrastructure networks, reconstruction and repair of sanitation treatment facilities of the settlements and sewerage pumping stations;
3. increased provision with the local wastewater treatment facilities of industrial enterprises.

To improve ecological status of the water bodies under a new version of the Water code of the Republic of Belarus of 30 April 2014 the discharge of waste water of all kinds into lakes and standing water bodies is prohibited.

***Assess the progress achieved towards the target***

The Progress Report on activities performed within the state programmes is produced annually. The data presented in accordance with the statistical reporting to the State Water Cadastre were used to analyse the progress achieved towards the targets set:

the amount of phosphorus in wastewaters discharged into water bodies was 0.61 thousand tonnes in 2014 (0,66 thousand tons in 2010). The decrease was 7.6 percent compared to 2010 - the progress in the implementation of the target has been achieved;

The amount of nitrogen in wastewaters discharged into water bodies was 8,52 thousand tons in 2014 (9,09 thousand tons in 2010). A decrease in the amount of nitrogen discharged into water bodies was 6,3%, the target has been achieved;

954 million m<sup>3</sup> of wastewaters were discharged in total into water bodies in 2014 (990 million m<sup>3</sup> in 2010), including 3,4 million m<sup>3</sup> of insufficiently treated wastewaters (5.3 million m<sup>3</sup> in 2010); provision with t. 1099 million m<sup>3</sup> of wastewaters were discharged in total into water bodies in 2012 according to the State Water Cadastre , including 3.4 million m<sup>3</sup> of insufficiently treated wastewaters. Thus, in 2014 the volume of wastewater discharge into water bodies has reduced by 4% and insufficiently treated wastewaters - by 36% in comparison with 2010. The progress towards the target is being made.

Information about implementation of target 1 in this area is provided in a section VI of the report.

## **XII. DISPOSAL OR REUSE OF SEWAGE SLUDGE FROM COLLECTIVE SYSTEMS OF SANITATION OR OTHER SANITATION INSTALLATIONS (art. 6, para. 2 (i), first part)**

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

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

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

In recent years, the activities introducing recycling and reuse of sewage sludge for production of renewable energy sources are started in the Republic (biogas complexes and installations). The biogas complexes to reuse the sewage sludge and produce heat and electricity have already been built in a number of enterprises. The implementation of such activities was performed under the Programme of Constructing Biogas-Based Generation Facilities for 2010–2015, approved by the Council of Ministers of the Republic of Belarus No. 885 of 09 June 2010, and the State Programme of Innovation Development of Belarus for 2011-2015 (approved by the Council of Ministers of the Republic of Belarus No. 669 of 26 May 2011).

## **XIII. QUALITY OF WASTEWATER USED FOR IRRIGATION PURPOSES (art. 6, para. 2 (i), second part)**

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

The Republic of Belarus has an average European level of provision with water resources. According to the data of the State Water Cadastre, 5.9 million m<sup>3</sup> were used in 2012 for irrigation purposes that constitutes 1% of the total volume of water used in the Republic of Belarus. The total area of irrigated lands in Belarus amounts to approximately 30 thousand hectares due to climatic conditions. Accordingly, there are no economic prerequisites to use wastewaters for irrigation. The wastewaters used for irrigation purposes in the Republic of Belarus amounted to 0.03 million m<sup>3</sup> in 2012. Due to insignificance of such volumes, the introduction of this target is inappropriate.

#### **XIV. QUALITY OF WATERS WHICH ARE USED AS SOURCES FOR DRINKING WATER (art. 6, para. 2 (j), first part)**

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

However, the permanent activities are carried out in this direction in the Republic under the current legislation and state programmes, including the State Programme on Water Supply and Sanitation “Clean Water” for 2011 - 2015.

The main activities in this direction are aimed at the protection of drinking water sources (centralised and non-centralised ones).

1. improvement of the status (reduced depreciation) of pipelines and networks and water supply facilities of the settlements (see section III of the report) - construction, reconstruction and repair of water intakes.

2. increase of provision with centralised and local sanitation to population (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 of the settlements (section X);

6. liquidation of wells that are not a subject to further maintenance in order to prevent contamination of groundwaters; it is carried out on a permanent basis in accordance with the current legislation;

7. implementation of activities stipulated by designed projects of water protection zones approved in the established order; it is carried out on a permanent basis in accordance with the current legislation;

8. implementation of the quality and safety monitoring of the water supply sources (under the state supervision of authorities that carry out the state sanitary surveillance, the production control of the systems of water supply by their owners);

9. improvement of legislative and regulatory legal framework in the field of drinking water supply (access to water, quality and safety control of drinking water) under the Programme of Development of Sanitary-Epidemic Standardisation of the Republic of Belarus, the Sector Scientific and Technical Programme “Health and Environment” (2010-2012), the Sector Scientific and Technical Programme “Modern Living Conditions and Health Saving” (2012-2015).

Analysis of situation regarding quality and safety of water supply is carried out annually using data presented in accordance with the statistical reporting.

The Progress Report on implementation of activities is done annually.

Over the last 5 years, the following technical regulation legal acts and methodological documents regulating activities in this field were developed in the Republic:

- Sanitary standards and regulations "Sanitary-epidemiological requirements to protection of groundwater from pollution used for drinking water supply" approved by Resolution No. 125 of the Ministry of Health of the Republic of Belarus of 16 December 2015

- Sanitary standards and regulations "Hygienic requirements to the sources of centralised drinking water supply to population" approved by Resolution of the Ministry of Health of the Republic of Belarus No. 105 of 02 August 2010;;

- TCP "Installations and equipment of sources for centralised drinking water supply to the settlements. The regulation and procedures of technical operation" approved by Resolution of the Ministry of Housing and Communal Services of the Republic of Belarus No. 27 of 20 December 2010.

- Sanitary standards and regulations "Requirements to sanitation of the settlements", approved by Resolution of the Ministry of Health of the Republic of Belarus No. 48 of 15 May 2012;

- Sanitary standards and regulations "Requirements to physiological value of drinking water" approved by Resolution of the Ministry of Health of the Republic of Belarus No. 166 of 25 October 2012 (under task 01.03 "To develop hygienic criteria for assessment of physiological value of water for consumption of population" SSTP "Health and Environment" for 2010-2012;

- Instruction on using "Hygienic monitoring of nitrates in water used for consumption of population", registration No. 014-1112 approved by the Deputy Minister of Health - Chief State Sanitary Doctor of the Republic of Belarus of 12 December 2012.

## **XV. QUALITY OF WATERS USED FOR BATHING (art. 6, para. 2 (j), second part)**

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 creates a background for further development of recreation in the country including development of recreational zones of international level. Development of the tourist potential is one of the long-term goals for the Republic (State Programme of Tourism Development in the Republic of Belarus for 2011-2015 approved by Resolution of the Council of Ministers of the Republic of Belarus No. 373 of 24 March 2011, Water Strategy of the Republic of Belarus for the period until 2020).

The following target was set in accordance with the goals and tasks of the strategic documents:

- to achieve the quality of waters used for bathing in all recreational zones of the Republic according to the standards for microbiological indicators, by 2015.

The target was set at the national level. The targets set in sections VI, IX - XI could partially belong to this area.

### ***Achievement of the targets***

The main activities in this direction are aimed at the protection of surface water bodies from pollution and the improvement of the legislative and regulatory framework.

The achievement of target was planned to carry out through realisation of the activities regularly performed under the current legislation in the field of water resources protection from anthropogenic impact and envisaged by the projects of water protection zones of water bodies; provision with a standard quality of wastewater treatment by the centralised sanitation systems of the settlements; provision with the local treatment facilities for industrial wastewaters; provision with the systems of collection, disposal and treatment of surface wastewaters for the settlements; disinfection of dangerous epidemic wastewaters; as well as through realisation of activities stipulated by the State Programme on Water Supply and Sanitation “Clean Water” for 2011 – 2015.

### ***Assess the progress achieved towards the target***

Territorial institutions of the state sanitary surveillance are carrying out the state supervision over the water quality of water bodies, including for sanitary and microbiological safety indicators, for the sites officially used by population in the cultural and recreational purposes. Data on the water quality in water bodies is presented annually in the statistical Form 48 “About the sanitary conditions on the territory”; a summary of the results is published annually in the edition of State Report “On sanitary and epi-

demic situation in the Republic of Belarus”. In addition, the production control is carried out by the relevant organisations.

In accordance with the data of State Report “About sanitary and epidemic situation in the Republic of Belarus”, there is a positive dynamics of microbiological safety indicators; restrictions and prohibitions on the use of recreational zones of nationwide significance for non-conformity to hygienic standards have not been determined in 2015.

The target has been achieved. The regulatory legal documents for activities in this field were developed in recent years in the Republic:

- “Sanitary standards and regulations for selection, maintenance and operation of water bodies used in recreational purposes” approved by Resolution of the Chief State Sanitary Doctor of the Republic of Belarus in 2008;

- Instruction on using «Criteria of safety for water bodies in the Republic of Belarus used for recreational purposes”, registration No. 139-1207, approved by the Chief State Sanitary Doctor RB of 21 January 2008.

In addition, under the Sector Scientific and Technical Programme “Modern Living Conditions and Health Saving” (2013-2015), a methodology to assess microbiological risks for surface water bodies used for recreational purposes was developed to increase efficiency of the current system of supervision over the recreational water use. Practical implementation of the developed methodology is planned for 2016-2017.

## **XVI. QUALITY OF WATERS USED FOR AQUACULTURE OR FOR THE PRODUCTION OR HARVESTING OF SHELLFISH (art. 6, para. 2 (j), third part)**

Targets were not set in this area.

In accordance with the requirements of the new edition of the Water code of the Republic of Belarus of 30 April 2014, in order to ensure favourable conditions for the reproduction of aquatic biological resources and safety of aquatic products have the water quality indicators for the surface water bodies, which include:

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) standards of maximum permissible concentrations for chemicals and other substances in the surface water bodies.

The conformity assessment of water quality in the surface water bodies to the established standards is carried out within the framework of the surface water monitoring 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>).

The conformity assessment of water quality in the fish ponds to the established standards is carried out by the fish farms. The conformity assessment of water quality to the established standards in streams and lakes is in the competence of inspections of the Ministry of Natural Resources and Environmental Protection of 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.

Sanitary-hygienic and anti-epidemic requirements to design, equipment and operation of the indoor and outdoor swimming pools for recreational, training and mass sport activities contain 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 of 22 September 2009. The requirements of these sanitary standards are obligatory to the owner of the enclosed waters.

The quality of water upcoming to the pool should meet the hygienic requirements to water quality in centralised systems of water supply. Indicators of water quality in the pool (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 should carry out the production control with specified frequency.

The state sanitary and epidemic supervision over these objects is carried out in the established order with a certain frequency. The statistical reporting does not stipulate collection of information for given direction.

## **XIX. EFFECTIVENESS OF SYSTEMS FOR THE MANAGEMENT, DEVELOPMENT, PROTECTION AND USE OF WATER RESOURCES (art. 6, para. 2 (m))**

### ***The target for this section:***

development of schemes for complex use and protection of water resources in the Neman River and the Western Dvina River basins;

approval of schemes for complex use and protection of water resources in the Neman River and the Western Dvina River basins.

The targets are set by the Resolution of the Ministry of Health of the Republic of Belarus № 116 of 04 December 2013.

### ***Achievement of the targets***

The scheme for complex use and protection of water resources in the Neman River and Western Dvina River Basins was approved and put into effect.

However, due to the entry into force the new edition of the Water code of the Republic of Belarus in 21 may 2015, the schemes for complex use of water resources were replaced by the development of river basins management plans. The works on the development of the Dnieper River Basin Management Plan are being completed.

This target will be amended due to changes in the national legislation.

## **XX. ADDITIONAL NATIONAL OR LOCAL SPECIFIC TARGETS**

The 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.

Publication of the state report on sanitary and epidemic situation in the Republic of Belarus (section “Hygienic assessment of water bodies, water supply and health of population”) is carried out annually; the responsible authority is the Ministry of Health of the Republic of Belarus;

Publication of the State Water Cadastre is carried out annually; the responsible authority is the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus;

Development of the national report in accordance with the requirements of Protocol is carried out once in 3 years (in accordance with the reporting to Secretariat of the Protocol); the executive body is the Council for implementation of the Protocol on Water and Health.

Progress towards the target is being made.

## Part Four

### Overall evaluation of progress achieved in implementing the Protocol

*In this part of the summary report, Parties shall provide an analysis and synthesis of the status of implementation of the Protocol. Such an overall evaluation should not only be based on the issues touched upon in the previous parts, but should also include, as far as possible, a succinct overview of implementation of activities related to, for example:*

- (a) Response systems (article 8);*
- (b) Public awareness, education, training, research and development and information (article 9);*
- (c) Public information (article 10);*
- (d) International cooperation (article 11);*
- (e) Joint and coordinated international action (article 12);*
- (f) Cooperation in relation to transboundary waters (article 13);*
- (g) International support for national action (article 14).*

*This analysis or synthesis should provide a succinct overview of the status of and the trends and threats with regard to waters within the scope of the Protocol sufficient to inform decision makers, rather than an exhaustive assessment of these issues. It should provide an important basis for planning and decision-making as well as for the revision of the targets set, as needed.*

*Suggested length: up to 3 pages*

The Republic of Belarus is a full Party to the Protocol on Water and Health since 21 July 2009. The authorities responsible for implementation of obligations of the Republic of Belarus under the Protocol are the Ministry of Health and the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus. The inter-ministerial Council for implementation of the Protocol was established to coordinate the activities of the competent authorities and the agencies ensuring implementation of obligations under the Protocol.

In 2013 the Republic of Belarus has determined a list of measures aimed at fulfilling the obligations taken by Belarus under the Protocol (para. 3 of article 6) and developed the targets to achieve it by 2015. The provisions of the Protocol are implemented under the state and national programmes as well as plans with involvement of funds of the republican and local budgets.

The priority directions of activities under the Protocol in the Republic of Belarus are the prevention of infectious and non-infectious water-related diseases; the provision of equal access of the population to safe and quality water, improved sanitation; ensuring the safe use of recreational water; the implementation of the best practices on managing the quality and safety of drinking water, the improvement of management in the field of providing services of water supply and sanitation, the protection of water resources from pollution, the improvement of legal framework in the field of water supply and sanitation.

The development of priority directions of scientific and technical activities regarding health of the population, rational nature management and environmental pro-

tection of the Republic was provided in 2009-2015 through a wide range of scientific studies carried out under the State Scientific and Technical Programme “Environmental Safety”, Sector Scientific and Technical Programmes “Health and Environment” (2010-2012), “Modern Living Conditions and Health Saving” (2013-2015) (financed from the republican budget). The scientific activity has resulted in the development of technical regulatory legal acts as well as methodological and guidance documents to regulate this sphere.

In order to harmonize the national legislation with the EU legislation as well as with the legislation of the States with which Belarus has signed the intergovernmental agreements on the rational use and protection of transboundary waters (Russia, Ukraine), the new Water Code of the Republic of Belarus came into force in 2015. The main principles of the new Water Code are:

- rational (sustainable) use of water resources;
- usage of groundwater for drinking purposes before using it for any other purposes;
- basin water resources management
- improvement of ecological state (status) of surface water objects.

A key aspect of the state policy in the field of water relations is an active international cooperation on the use and protection of water resources and human health. The Republic of Belarus cooperates on a permanent basis with major international organisations in the field of environment and health: with the World Health Organization (WHO), the United Nations Environment Programme (UNEP), the UN Economic Commission for Europe (UNECE), the United Nations Development Programme (UNDP), the Organisation for Economic Cooperation and Development (OECD). So far Belarus has signed the following:

Agreement on Joint Use and Protection of Transboundary Waters signed between Ukraine and Belarus (Kyiv, 2001). Four Working groups working under the agreement on the protection of water resources and water quality control, the operation of the Belozersky system of the Dnieper-Bug Canal, hydrometeorological issues.

-Agreement on Cooperation in Protection and Rational Use of Transboundary Waters signed between Belarus and the Russian Federation (Minsk, 2002)

A Joint Russian-Belarusian Commission on the Protection and Rational Use of Transboundary Waters was established under the agreement; the cooperation between the working group on the Dnieper river basin and the working group on the Western Dvina river basin is being enhanced.

The development of the draft Agreement between the Government of the Republic of Belarus and the Government of the Republic of Poland on Cooperation in Protec-

tion and Rational Use of Transboundary Waters is currently being carried out. In 2015 the official meeting between the government of Belarus and the National Water Management of the Republic of Poland took place in Warsaw (Republic of Poland) to discuss on signing of the Intergovernmental Agreement on Cooperation in Protection and Rational Use of Transboundary Waters.

The review of a progress towards the Protocol allows concluding that its main provisions are already performed by the Republic, it was mentioned a progress in implementation of the priority targets identified. The following most important outcomes of the implementation activities in this area should be mentioned:

- absence of outbreaks of water-related diseases in the Republic since 2003;
- reduction in the incidence of infectious diseases potentially water-related;
- positive dynamics of the quality of drinking water supplied (reduction of share of non-standard water samples for microbiological and sanitary-chemical indicators);
- increasing coverage of population with centralised systems of water supply and sanitation;
- reduction of pollutants discharged into water bodies, improving the river basin management (implementation of the river basin management plan);
- improving the methods for research of drinking and mineral waters.

In spite of making a progress in realization of the Protocol provisions, the following issues require an additional attention:

- realization of the targets and the measures to achieve thereof, taking into account new requirements of national legislation, national strategies and international obligations as well as Sustainable Development Goals 2030;
- adaptation mechanisms to monitor implementation and effectiveness of the measures aimed at achieving the established targets;
- determining priorities of different measures carried out on the national and local levels, taking into account risks assessment, cost-benefit analysis of investments;
- personnel training and development;
- strengthening of cross-sectoral interaction and coordination between different authorities in the field of water management, water supply, sanitation and health care;
- public involvement in implementation of the Protocol;
- attraction of international grants funds to fulfil projects of cross-border cooperation, concerning the issues of water and health.

## **Part five**

### **Information on the person submitting the report**

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

#### **Name of officer responsible for submitting the national report:**

##### **Gaevsky Igor**

Deputy Minister of Health of the Republic of Belarus – the Chief State Sanitary Doctor of the Republic of Belarus

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**Email:** +375 17 222 69 97

#### **Name and address of national authority:**

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

#### **Signature:**

**Date:** 15 April 2016

#### **Submission**

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, by **18 April 2016**. 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.

Parties are requested to submit, to the two addresses below, an original signed copy by post and an electronic copy either on a CD-ROM or by e-mail. Electronic copies should be available in word-processing software, and any graphic elements should be provided in separate files.

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