

Summary report in compliance with article 7 of the Protocol on Water and Health

Summary

In spite of the fact that Uzbekistan is not a party of the Protocol, the government of our country conducts extensive work to achieve success in improving the quality of the drinking water supplied to the population and providing protection of the drinking water resources from various contaminants.

For the recent decade, Uzbekistan has made considerable investments into renovation of the water supply and sanitation services (WSS). The accumulated portfolio of the government's loans taken for the projects of the water supply and sanitation services is the greatest in the Central Asia.

In 1993, the law «About water and water consumption» was adopted in the Republic. Several amendments and supplements were made in the law due to the changing conditions of the economic environment and adoption of the international requirements. The purpose of the current law is to regulate water relationships. In compliance with this law, Oliy Majlis and the Cabinet of Ministers of the Republic of Uzbekistan define main directions of the state policy in the sphere of water resources usage and protection. State administration in the sphere of water resources usage is performed by the Cabinet of Ministers of the Republic of Uzbekistan, local government authorities, as well as by the designated authorities of the state administration responsible for water usage regulation directly or through basin (territorial) authorities or by other government authorities. State control over water management and protection is performed by local government authorities, The State Committee for Ecology and Environment Protection of the Republic of Uzbekistan, Ministry of Health of the Republic of Uzbekistan, Ministry of Water Resources of the Republic of Uzbekistan.

Due to the fact that the population naturally increases by 50-60 people, coverage of the rural population, which is prevailing in the general structure of the population ($\approx 51\%$), with municipal water increased from 66,6% in 2005 to 68,3% by the beginning of 2019, as for the urban population, it was 86,3% in 2005, but at the beginning of 2019 it increased to 89,9%. It was achieved as a result of implementation of the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan № 19 «Resolution about the order of organizing construction and reconstruction of water supply and water discharge facilities in residential areas, financed through state capital investments» dated 03.02.2015, the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated 30.10.2015 №306 “About measures for realization of the main directions of development of the organizations of water supply and the sewerage” and a number of others.

National standard for drinking water quality O'zDST 950:2011 “Drinking water. Hygienic requirements and control over drinking water quality”, has been developed and in effect in the Republic of Uzbekistan. It contains microbiological, parasitological, toxicological (nonorganic and organic components), organoleptical qualities of water as well as the ones normalized according to the organoleptic qualities and the indicators of radiological contamination.

The incidence of acute enteric infections, which occur as a result of water contamination, including bacillary dysentery, has been decreasing recently in the Republic of Uzbekistan, namely, in 2015, 3815 cases of bacillary dysentery were registered in the Republic, that is the coefficient for the population of 100000 people was 14.5, whereas in 2018, 967 cases of bacillary dysentery were registered in the Republic, that is the coefficient for the population of 100000 people was now 3,8, so the incidence of the disease was reduced by 21,7%. No outbreaks of the bacillary dysentery incidence were detected both in 2015, and in 2018 in the Republic.

The problem of supplying the population with high quality drinking water is urgent as the water resources on the territory of the Republic of Uzbekistan are allocated highly unevenly, and as a result the population of some regions experiences constant difficulties connected with providing high-quality drinking water.

Major water resources for the region include Amudarja river, which is 1440 km long, and Syrdarja river, which is 2140 km long.

The integral part of the water resources of the Republic is underground water basin, which is used as a reliable resource of water supply for the population, for industrial needs and irrigation of lands.

In certain regions, where there is shortage of high-quality drinking water, industrial desalinisation units are used insufficiently. There are no measures to support production thereof on the territory of the Republic.

There are also a number of natural, climatic and anthropogenic peculiarities, which influence the condition of utility and drinking water supply to the population, sanitation state of the water sources, sanitation conditions of life and disease incidence of the population in our Republic.

Because of the depreciation term and untimely reconstruction and replacement of the water pipe systems in 2018, more than 2100 large scale emergency situations were detected in the systems of the municipal water supply alone. It created highly unfavorable epidemiological situation, as well as resulted in repeated contamination and great losses of drinking water.

The current stage of the Republic economic development poses principally new tasks, one of which is aimed at organizing activities, guaranteeing sanitary and epidemiological safety of the population, prevention of infectious and noninfectious diseases, reduction of risk factors' impacts on the human body.

One of the main peculiarities of the current period of the national economy development in the Republic of Uzbekistan is a continuous increase in water consumption, including public utility and drinking needs of the population.

As for the issue of access of the population to the sanitation, and namely to the systems of centralised sewerage, nowadays, 49,0% of the population, living in cities, and 5,5 % of the population, living in rural areas, have systems of the centralised sewerage.

Nowadays, out of the available 367 cases of discharges of utility and industrial waste water, which are controlled by sanitary and epidemiological service, 76 cases or 20,7% are discharged almost without any treatment, 55 cases or 15,0% need to be reconstructed.

Due to the lack of the local financial resources, the government took Decision about necessity to develop a new scheme of the water supply system enhancement in the Republic for the present-day period. "Scheme of an integrated development and modernization of the water supply and sanitation systems in the Republic of Uzbekistan for the period of 2009-2020" was adopted in November of 2009.

For the purpose of providing timely and credible information needed to take corresponding efficient preventative measures, all territorial Sanitary and Epidemiological Supervision Centers introduced the information system of control over sanitarian condition by chemical and microbiological parameters of the quality of drinking water and water in the basins.

In the nearest five years, Uzbekistan plans to improve the situation significantly in the sphere of providing the population with high quality drinking water. For the purpose thereof, the complex of measures aimed at regulating the control, accounting and rational usage of fresh groundwater storages has been developed for the period of 2017-2021.

The following Resolutions were taken for the water pipe systems and constructions to comply with the requirements: the Resolution of the President of the Republic of Uzbekistan № PP-2313 dated 06.03.2015 "About the program of development and modernization of the utility lines and road and transportation infrastructure for the period of 2015-2019", the Resolution of the President of the Republic of Uzbekistan № PP-2910 dated 20.04.2017 "About the program of integrated development and modernization of the water supply and sewerage systems for the period of 2017 – 2021", the Resolution of the President of the Republic of Uzbekistan №PP-4040 dated 30.11.2018 "On additional measures for developing the drinking water supply and sewage systems in the Republic of Uzbekistan".

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 process

The country is not a party of the Protocol, pursuant thereto corresponding targets haven't been developed yet.

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

4. The Ministry of Health, the Ministry of Water management and the Ministry of housing and communal services of the Republic of Uzbekistan participated in preparing this report.

The materials of the GLAAS research conducted by the country under the guidance WHO in 2018 were used in the process of this report preparation.

Part Two

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.

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

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.

Necessity to solve the problems of monitoring, standardization and defining the criteria of drinking water quality is still actual due to increasing deficiency of water resources, their quality worsening, degradation of water supply sources and tense ecological situation in the Republic.

The main task of the State sanitary and epidemiological surveillance is to protect the water resources and the water supplied to the population from microbiological and chemical

contamination.

The objects being monitored are the sources of water supply at the withdrawal points, water before getting into the water distribution system, within the water distribution system and delivered to a consumer.

The target of the monitoring is to:

- organize regular observation over the water supply sources to assess their state in compliance with the specified standards;
- provide information in order to eliminate adverse processes;
- reduce the incidence of diseases of microbial origin, passed through water;
- provide state sanitary surveillance in the sphere of drinking water protection, supplied to the population through centralized systems of water supply (in compliance with the national standard of drinking water quality O'zDST 950:2011 "Drinking water. Hygienic requirements and control over drinking water quality").

The task of monitoring open waters is to:

- facilitate and conduct observation over the condition of both sources of water and systems of utility and drinking water supply to the population along the entire length;
- analyze the condition of the sources of utility and drinking water supply in state in compliance with the specified standards;
- to develop recommendations on prevention or elimination of adverse effect of the detected possible sources of contamination on health of the population;
- provide state sanitary surveillance with the information about protection of the sources of utility and drinking water supply (in compliance with the national standard of drinking water quality O'zDST 951:2011 «Sources of centralized utility and drinking water supply. Hygienic, technical requirements and selection rules»).

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

For each target set in this area:

1. 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.

As a result of the complex activities conducted in the Republic, certain success has been achieved in the fight against infectious and parasitic diseases. No quarantine infections and highly infectious diseases were permitted to get into and spread on the territory of Uzbekistan. No cases of the following diseases have been registered in the Republic: cholera - since 1993 till present time, poliomyelitis – since 1996, plague – since 1999, diphtheria – since 2001, tetanus - since 2004, local cases of malaria - since 2011, cases of morbilli and fire measles - since 2013.

Considerable reduction in the incidence of many infectious diseases is observed. Since 1991 and up to 2017 and including, the indicators of the following diseases incidence have decreased: typhoid fever - by 393,3 times, salmonellosis - by 15 times, acute enteric infection - by 4,1 times, bacillary dysentery - by 11,5 times, viral hepatitis A - 5,5 times, viral hepatitis B - by 213,8 times,

acute respiratory diseases - by 7,2 times, influenza - by 15,7 times.

In the structure of infectious diseases (not including influenza and acute respiratory disease), viral hepatitis A and acute enteric infections are the most common diseases. Relative density of the diseases is more than 55% on average.

Viral hepatitis poses the greatest medico-social problem to the modern world. Economic damage to the state resulting from the cases of viral hepatitis was from 2 to 4 million US dollars in different years. Implementation of a modern method of laboratory diagnostics of viral hepatitis in 1997 allowed detecting 5 types of viral hepatitis: A, B, C, D, E on the territory of the Republic.

Cyclic increases of the disease incidence every 10 years and periodic increases of the disease incidence every 3-4 years are characteristic of viral hepatitis A. When viral hepatitis A incidence increases, integrated plans of additional organizational, medical and preventive as well as antiepidemic measures aimed at combating viral hepatitis are developed. Such plans are approved by the heads of the local executive branch.

During the periods of increase in viral hepatitis A incidence, up to 3000 hospital beds are additionally changed into infectious beds to admit patients with viral hepatitis to hospitals to the fullest in the Republic. For the purpose of early and active detection of the patients suspected of having viral hepatitis, the number of medical rounds of houses, aimed at examining approximately 5 million people, is increased.

Preventive vaccination proves to be one of the main methods of viral hepatitis A prevention. Nowadays, quite efficient vaccines, protecting from hepatitis A and having high immunological potency, have been developed. Vaccination against hepatitis A according to epidemiological indications (SanPiN № 0239-07) was included into the national preventive vaccination schedule. The President of the Republic of Uzbekistan announced the year of 2014 «Year of the healthy child». As a result, beginning from 2014, more than 110 thousand children aged 2 to 10 years old are vaccinated annually.

For the purpose of controlling the set of measures being conducted and preventing outbreaks of diseases, operational analysis of infectious diseases incidence, including daily monitoring of viral hepatitis incidence during seasonal increases in the incidence of acute enteric infections, influenza and acute respiratory diseases, has been established in the system of sanitary and epidemiological service.

Special attention is given to prevention of typhoid fever and paratyphoid fever in the Republic. More than 300 micro areas unfavorable due to typhoid and paratyphoid diseases were registered as of 01.01.1991. The number thereof had reduced to 43 by 2018, due to regularly conducted sanitary and hygienic, preventive and antiepidemic measures. In order to conduct corresponding treatment timely, more than 3500 points of oral rehydration, where more than 45 thousand patients take treatment, are organized on the basis of outpatient-polyclinic institutions in the Republic annually from May to October up to and including.

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

For each target set in this area:

1. 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.

As it was previously agreed, the limit of water resources for Uzbekistan on the whole is up to 63,02 km³/per year, including but not limited to the usage of the basin of Amurdarja river in the amount of 37,53 km³/per year and the basin of Syrdarja river in the amount of 25,49 km³/per year.

In fact, under current conditions, withdrawal of water from the rivers in Uzbekistan does not exceed 56,0 km³ on average, and in the years of decreased water content withdrawal of water is reduced to 48,0 km³.

Groundwater resources are unequally allocated on the territory of the Republic and more than 30% of the population experience acute shortage in high quality water. Fresh groundwater reserves (mineralization of up to 1 g/l) are concentrated mainly in Tashkentskaya (28,5%), Samarkandskaya (13,7%), Surhandarjinskaya (13,1%), Namanganskaya (12,8%) and Andizhanskaya (12,3%) areas. Buharskaya and Navoiskaya areas are not provided with fresh groundwater (less than 0,3%), and in the Republic of Karakalpakstan and Horezmskaya areas fresh groundwater reserves are completely depleted.

As of 01.01.2017, natural resources of fresh and slightly salted groundwater resources constitute up to 27584 mln.m³. Predicted resources of fresh groundwater (with mineralization of less than 1 g/l) available for usage in the branches of the economy account for only 40,4% out of the total natural resources of groundwater or 9424 mln.m³. The total value of the confirmed exploitable reserves of groundwater is up to 6134 mln.m³, out of which the total annual withdrawal of water comes to 5320 mln.m³.

Regenerated water is an additional source of the water resources, but due to the comparatively high mineralization, it also serves as environmental pollution source. Nowadays, collector and drainage waters account for about 88% and agricultural and industrial wastewaters left after drinking and industrial purposes constitute the rest 22 %.

Regenerated water was formed alongside the development of irrigation; the most intensive growth was observed in the period of 1970-1990. But due to the decrease of water withdrawal, the volume of the regenerated water has begun to decrease since 2000, and only applicable part is used repeatedly in agriculture for irrigation.

The total volume of the regenerated water in the basin of Syrdarja is estimated to be 16,9 km³ a year as for the beginning of 1990. Drainage waters constitute 92% in the total amount of the regenerated water, the rest part is sewage water. The situation is analogous to the basin of Amudarja river, where the total volume of the regenerated water was about 19,5 km³ per year as for the beginning of 1990s, 95% of which were drainage waters.

In 2017, while the total volume of the regenerated water reduced by more than 15% compared to the end of 1990, the share of sewage water in the total volume of regenerated flow increased and came up to 10%.

Regenerated water is discharged into the rivers or natural degradations in the areas of irrigation, as well as repeatedly used for irrigation.

The condition of usage and management of the regenerated water is an urgent issue, which is the responsibility of regional and national organizations. The volume of collector and drainage waters in Uzbekistan, applicable for repeated usage in irrigation, accounts for about 4,2 km³ per year.

Irrigation is the greatest water consuming activity and currently more than 90% of all water resources in Uzbekistan is used for this purpose, although, the volume of water withdrawal for the purposes of irrigation in the country has decreased by more than 10 billion m³ since 1980.

Nowadays, annual volume of the water resources usage by the branches of the economy in Uzbekistan is up to 56 km³ on average, 50,4 km³ (90%) of which are used in agriculture,

1,3 km³ (2,3%) – in power engineering, 2,3 km³ (4,2%) – in public utility sphere, 0,73 km³ (1,3%) – in industry, 0,67 km³ (1,2%) – in fishing industry and 0,6 km³ (1,0%) – in others.

Nevertheless, up-to-date annual demand for water in all the sectors of the economy in Uzbekistan is up to about 64 km³. In the long run, the demand for water for drinking, industrial and agricultural purposes will increase, whereas the demand for irrigation purposes will decrease due to the water conservation techniques and increase of fertility measures. According to the forecast by 2030 the total required volume of water in Uzbekistan shouldn't exceed 58,5 km³.

Laws and regulations governing water relationships

Water relationships in the Republic of Uzbekistan are governed by the Law as of 6 May 1993 №837-XII «**About water and water consumption**» and published in compliance with other acts of water legislation. One of the main tasks of the current Law is to regulate rational usage of water for the needs of the population and the branches of the economy, protection of water from contamination, clogging and depletion, prevention and elimination of the damaging effect of water, improvement of water objects condition, as well as protection of rights and legal interests of the enterprises, institutions, organizations, Dehqan farms, farming enterprises and citizens in the sphere of water relationships.

Resolution of the Cabinet of Ministers of the Republic of Uzbekistan №82 dated 19 March 2013 “About approving the Resolution about the procedure of water management and water consumption in the Republic of Uzbekistan” determines the procedure of water management and water consumption on the territory of the Republic of Uzbekistan.

Resolution of the Cabinet of Ministers of the Republic of Uzbekistan as of 31 March 2018 №255 “About approving some Administrative procedures of public service delivery in the sphere of management of natural resources» approved Administrative procedure of delivering public service of issuing the permission for special water management and water consumption.

System of water resources management

Since 2003, organizational structure of water management in the Republic has been reorganized according to the basin principle instead of administrative-territorial principle of water resources management. Ten Basin Irrigation System Administrations have been established, which incorporated 53 irrigation system administrations, 7 administration offices for main drains and 3 administration offices for trunk systems, 13 regional hydrogeological and meliorative expeditions, 14 authorities of water-pumping stations, power engineering and communication. These water supply organizations employ 41,5 thousand different specialists and employees. These organizations' activity and water utilization management are totally financed through federal budget of the country.

Moreover, to organize utilization of farming irrigation networks and equal distribution of water among the farmers, 1500 associations of water consumers operate, providing water management services to more than 80 thousand water consumers with the total area of irrigation exceeding 4 million hectare.

In compliance with the Decree of the President of the Republic of Uzbekistan № UP–5330 dated 12 February 2018 “On operational measures to radically improve the system of agriculture and water sector governance”, the Ministry of Agriculture and Ministry of Water Management of the Republic of Uzbekistan were established on the basis of Ministry of Agriculture and Water Resources.

The Decree of the President of the Republic of Uzbekistan № UP–5418 dated 12 April 2018 “On measures to radically improve the system of agriculture and water sector governance” determined the following main tasks and scope of work of the Ministry of Water Management of the Republic of Uzbekistan:

Implementation of a unified policy on water resource management, as well as coordination of the state bodies, the water-management agencies and other organizations in the area of rational use and protection of the water resources, prevention and elimination of harmful

impacts on water;

Sustainable and wise water supply to the territories and economic sectors, reclamation of land;

Ensuring reliable operation of the irrigation and land reclamation system, reservoirs, pumping stations, and other water-management and hydraulic facilities; organizing protection of large and important sites of the water sector;

Increasing responsibility of water users and consumers for careful and rational use of water resources, improving culture of water use;

Implementation of scientific and technical achievements, modern water-saving technologies, best water practices, innovative methods of water management and water use and some others;

In order to facilitate efficient activity of the Ministry of Water Management of the Republic of Uzbekistan and by the Decree of the President of the Republic of Uzbekistan as of 17 April 2018 № PP–3672 «On measures to organize the activity of the Ministry of Water Management of the Republic of Uzbekistan», the organizational structure of the Ministry of Water Management of the Republic of Uzbekistan has been approved.

Part Three

Common indicators¹

I. Quality of the drinking water supplied

1. Context of the data

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

The rationale of this question is to understand the population coverage of the water quality data reported under sections B and C below. Please describe the type of water supplies for which data is included in the following tables, and the population share covered by these supplies. Please also clarify the source of the water quality data provided (e.g., data from regulatory authorities).

Please, specify the source of the presented data on water quality (for instance, data from regulating authorities).

The national standard for drinking water quality O'zDST 950:2011 “Drinking water. Hygienic requirements and control over drinking water quality”, has been developed and in effect in the Republic of Uzbekistan. It contains microbiological, parasitological, toxicological (nonorganic and organic components), organoleptical qualities of water as well as the ones normalized according to the organoleptic qualities and the indicators of radiological contamination.

The presented data is based on annual statistic reports from the Sanitary and Epidemiological Supervision Center in compliance with f.25/o.

1. Specify where the samples/measurements are taken in accordance with sections 2 and 3 below (e.g., treatment plant outlet, distribution system or point of consumption).
2. The rationale behind this question is to understand where the samples were primarily taken from for the water quality data reported in sections 2 and 3 below.

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

3. In sections 2 and 3 below, the standards for compliance assessment signify the national standards. If the national standards for the reported parameters deviate from the WHO guideline values, provide information on the values (standards) used for calculation.

The purpose of this question is to detect any possible deviations of the national standards from the corresponding values, specified in the WHO guideline, concerning microbiological and chemical parameters of water quality².

1. Bacteriological quality

Indicator to be used: The percentage of samples that fail to meet the national standard for *E. coli*. The parties can also report up to three other high priority microbiological parameters and/or pathogens, which are always checked in quality control monitoring.

If possible, present the data separately for urban and rural regions, using the table below. If it is not possible, please, consider the possibility to present data according to the alternative categories, which can be applied in your country, for instance, about «noncentralized and centralized» water supply or according to the categories, based on the population size. In this case please provide the categories specified in the report, having renamed the columns below correspondingly «region/category».

If it is not possible to provide data on either urban or rural regions, or alternative categories, please report only aggregate (national) values.

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

Parameters	Region/category	Baseline value (2005)	Value reported in the previous reporting cycle (2009)	Current value (2018)
<i>E. coli</i>	Total	5,7%	2,8%	5,8%
	In urban areas	-	-	4,2%
	In rural areas	-	-	7,1%
	Non-centralised drinking water sources	-	-	0,2
<i>TBC (total bacterial count)</i>	Total	6,1%	6,8%	7,6%
	In urban areas	5,7%	6,6%	7,2%
	In rural areas	6,5%	7,0%	8,1%
	Non-centralised drinking water sources	-	-	12,1%
<i>CGB (coli index)</i>	Total	7,1%	8,0%	9,8%
	In urban areas	6,0%	7,6%	8,8%
	In rural areas	7,3%	8,2%	12,2%
	Non-centralised drinking water sources	-	-	12,9%

Note: According to the data from the State sanitary and epidemiological surveillance, in 2005, in the total number of non-standard samples for coli index values (the number of *Escherichia coli* bacteria in 1000 ml of water) coli index exceeded 3 and reached 35 (whereas the norm is up to 3), in 2009 the value was from 3 up to 20, the analogous situation was in 2018.

2. Chemical quality

Indicator to be used: report on the percentage of samples that fail to meet the national standard for chemical water quality with regard to the following parameters:

- a) arsenic: 2009 г. – 0 %; 2018 – 0% (maximum admissible concentration (MAC) – 0,05 mg/dm³).
- b) fluorine: 2009 г. – 0 %; 2018 – 0% (MAC – 0,7 mg/dm³).
- c) lead: 2009 г. – 0 %; 2018 – 0% (MAC – 0,03 mg/dm³).
- d) nitrate: 2009 г. – 0,25%; 2018 – 0,86% (MAC – 45,0 mg/dm³).

Note: In 2009 out of the total number of the analyzed samples, fluorine was detected in 0,32% cases, in 2018, fluorine was in 0,33% cases, however, all the samples were within maximum admissible concentration.

1. Please, identify up to three additional chemical parameters, which are of high priority in national and local situation.

If possible, present the data separately for urban and rural regions, using the table below. If it is not possible, please, consider the possibility to present data according to the alternative categories, which can be applied in your country, for instance, about «noncentralized and centralized» water supply or according to the categories, based on the population size. In this case please provide the categories specified in the report, having renamed the columns below correspondingly «region/category».

The data are presented in % to the detected deviations from sanitation and hygiene standards compared to the total number of the tested samples

Parameter	Region/category	Baseline value (2005)	Value reported in the previous reporting cycle (2009)	Current value (2018)
Arsenic (MAC – 0,05 mg/dm ³).	Total	0	0	0
	In urban areas	0	0	0
	In rural areas	0	0	0
Fluorine (MAC – 0,7 mg/dm ³).	Total	0	0	0
	In urban areas	0	0	0
	In rural areas	0	0	0
Lead (MAC – 0,03 mg/dm ³)	Total	0	0	0
	In urban areas	0	0	0
	In rural areas	0	0	0
Nitrate (MAC – 45,0 mg/dm ³)	Total	2,0	0,3	0,86
	In urban areas	0,9	0,25	0,78
	In rural areas	3,2	0,33	0,92
Total hardness – (MAC – 7 mg-equiv./dm ³)	Total	-	-	2,7
	In urban areas	-	-	2,6
	In rural areas	-	-	2,7
Mineralization	Total	9,2	9,7	8,6

(MAC – 1000 mg/dm ³):	In urban areas	9,0	9,9	8,3
	In rural areas	9,5	9,6	8,4
Sulphate (MAC – 400 mg/dm ³):	Total	1,1	1,2	1,2
	In urban areas	1,0	1,0	1,1
	In rural areas	1,1	1,3	1,2

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 (-).*

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

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

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

No cases of cholera have been registered in the Republic since 1993 up to present time, no local cases of malaria - since 2011, and no outbreaks of typhoid fever incidence, related to water, have been registered since 2012.

No cases of cholera and enterohemorrhagic Escherichia were registered both in 2017 and in 2018 in the Republic.

In the Republic, the incidence of acute enteric infections, related to water factor, including bacillary dysentery has been reducing lately. Namely, in 2009, 2638 cases of bacillary dysentery, with index per 100 thousand people - 9,5, were registered, whereas in 2018, 967 cases of bacillary dysentery, with index per 100 thousand people - 2,9, were registered, the incidence of the disease has been reduced by 3,3 times. There were no outbreaks of bacillary dysentery incidence both in 2009, and in 2017/2018 in the Republic. In 2009, open waters were the factor of dysentery transmission in 246 cases, that is in 3,8%, and in 152 cases or in 15,7% in 2018.

Periodical declines and increases in the incidence of acute enteric infections (depending on whether it is low-water or high-water year) are observed in the Republic. Namely, in the previous reporting cycle, there was a decline in the incidence of acute enteric infections (in 2005 in the Republic the index per 100 thousand people was 139,7 and in 2009 it was 117,2, that is a decline in the incidence by 16,2% was observed), whereas in 2017 this index was 134,3, and in 2018 – 123,4 per 100 thousand people respectively. No outbreaks of acute enteric infections were registered both in 2009, and in 2017/2018 in the Republic. In 2018 the factors of acute enteric infection transmission were well water in 157 cases, that is 0,5% and open waters in 2637 cases, that is 8,1%.

Diseases	Disease incidence (per 100 thousand people)	The number of outbreaks (per 100 thousand people)
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	Baseline value	Value reported in the previous reporting cycle	Current value	Baseline value	Value reported in the previous reporting cycle	Current value
	2005	2009	2018	2005	2009	2018
Bacillary dysentery (shigellosis)	14,5	9,5	2,9	0	0	0
Enterohemorrhagic Escherichia coli	0	0	0	0	0	0
Typhoid fever	0,4	0,1	0	0	0	0
Viral hepatitis A	8,2	6,5	99,8	0	0	0
Legionellosis	0	0	0	0	0	0
Cryptosporidiosis	-	-	-	-	-	-
Total of acute enteric infections	139,7	117,2	123,4	0	0	0
Rotaviral infections	0,02	-	1,4	0	0	0

III. Access to drinking water

If possible, present the data separately for urban and rural regions, using the table below. If it is not possible, please, consider the possibility to present data according to the alternative categories, which can be applied in your country, for instance, about «noncentralized and centralized» water supply or according to the categories, based on the population size. In this case please provide the categories specified in the report, having renamed the columns below correspondingly «region/category».

If it is not possible to provide data on either urban or rural regions, or alternative categories, please report only aggregate (national) values.

Please comment on the trends or any other important information supporting interpretation of the data about access to drinking water.

		Value reported in the previous reporting cycle	Current value
Percentage of the population having access to centralized water supply systems	Baseline value		

Note: According to the statistics data of the Ministry of housing and communal services of the Republic of Uzbekistan. National assessments. Please, identify how access is defined and what types of drinking water supply are taken into account in your country.

IV. Access to sanitation

If possible, present the data separately for urban and rural regions, using the table below. If it is not possible, please, consider the possibility to present data according to the alternative categories, which can be applied in your country, for instance, about «noncentralized and centralized» water

supply or according to the categories, based on the population size. In this case please provide the categories specified in the report, having renamed the columns below correspondingly «region/category».

If it is not possible to provide data on either urban or rural regions, or alternative categories, please report only aggregate (national) values.

Please comment on the trends or any other important information supporting interpretation of the data about access to sanitation.

	Baseline value (2005)	Value reported in the previous reporting cycle (2009)	Current value (2018)
<i>Percentage of the population having access to centralized sewage systems</i>			
Total	-	-	14,0
In urban areas	49,2	49,2	49,5
In rural areas	5,5	5,4	5,2

Note: According to the statistics data of the Ministry of housing and communal services of the Republic of Uzbekistan.

The data for 2018 is being elaborated now.

National assessments. Please, identify how access is defined and what types of drinking water supply is taken into account in your country.

Point out particularly if the stated above index of “access of sanitation” means access to (mark all the applicable options):

- improved objects of sanitation (according to the definition of sanitary, hygiene and antiepidemic measures)*
- objects, which are not jointly used by other households*
- objects, from which excreta are easily removed on the spot or treated elsewhere*

Note: As for other objects of sanitation, used by the population of the Republic, preparational work is being conducted to research this question within SDG (Sustainable development goals)

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

1. Water quality

a) On the basis of national systems of water classification, please identify the percentage of the number of water bodies or the percentage of the volume (preferably) of water² falling under each defined class (e.g., in classes I, II, III, etc. for non-EU

¹ Please specify.

² EU Directive 2000/60/EU European Parliament and Union as of 23 October 2000,

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).

b) Other countries

Part Four

Supervision systems over water related diseases and response to them

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

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

YES +

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

YES +

2. If you answer “yes” or “in process”, please provide brief information about the key factors of supervision over water related diseases and reaction to the outbreaks of such diseases (for instance, detection of the outbreaks and cases of the water related diseases, notification, announcement to public, data management and reporting). Please provide references to the national legislation in force and/or the rules, concerning supervision over water related diseases and reaction to the outbreaks of such diseases.

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

Governed by the Law of the Republic of Uzbekistan № 393 dated 26.08.2015 “On sanitary and epidemiological welfare of population” (LRU (Law of the Republic of Uzbekistan), and by other laws and regulations of the government of the Republic and the Ministry of Health, sanitary and hygienic service conducts necessary complex of sanitary and hygienic and antiepidemic measures. The authorities and institutions of sanitary and epidemiological service participate in the development and implementation of the State target-oriented programs of providing sanitary and epidemiological welfare to the population, as well as scientific, research and technological programs in this sphere; perform a complex of sanitary and hygienic and antiepidemic measures aimed at promoting the population health, eliminating adverse effect of environmental factors on the human being, prevention of contamination of human environment, drinking water, alimentary raw materials, food and so on; organize a set of measures at the boader posts to the Republic of Uzbekistan to prevent the introduction and spread of highly dangerous diseases and other

setting limits for the Community in the sphere of water policy.

infections, related to the influence on human health, as well as potentially dangerous for the population goods and frights, with participation of the departments of the ministries and authorities concerned, guided by the International health regulations (IHR, 2005); prepare and, in accordance with the established procedure, make proposals concerning compliance with the sanitary and epidemiological legislation, as well as sanitation and disease prevention to the appropriate public authorities.

Namely, on the basis of the order of the Ministry of Health №1755 as of 11.12.1987 “About introduction of sanitary and epidemiological inspection service at sanitary and epidemiological stations of all management levels”, the department of sanitary and epidemiological surveillance service was established to improve prevention of acute enteric infections in the Centers of sanitary and epidemiological surveillance of all levels.

The main task thereof was to organize and introduce the system of sanitary and epidemiological inspection: to keep systematic tracking of sanitation state of the environment and its dynamic change, with sanitary and epidemiological inspection services focusing on revealing massive ways and factors of infection transmission (through food and water) and on organizing measures of elimination thereof.

To improve efficiency of antiepidemic measures and their quality, automatized system of IS EMID (information system for epidemiologic monitoring of infectious disease), and since 2012 the department of Sanitary and Epidemiological Surveillance of the Republican Center of State Sanitary and Epidemiological Surveillance (RepCSSSES) has been the chief organizer of automatized system integration into the operation of all Centers of sanitary and epidemiological surveillance of the Republic.

A number of programs, aimed at prevention of infectious disease have been developed, in particular, the program of measures to prevent viral hepatitis A for the period of 2018-2020, approved by Chief State medical sanitation officer of the Republic of Uzbekistan as of 13.04.2018.

Part five

Overall evaluation of progress achieved in implementing the Protocol

Please provide a brief description of the situation with the implementation of articles 9-14 of the Protocol, if appropriate.

Suggested length: up to two pages

Water, sanitation and hygiene in institutions

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

Baseline services mean:

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

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

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

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

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

Institutions Current value (specify the year)

Schools

Baseline sanitation value

Baseline drinking water supply service

Baseline hygiene service *Medical institutions*

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

YES + **NO** **IN PROCESS**

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

YES + **NO** **IN PROCESS**

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

- to improve WSH at schools +
- to improve WSH in medical institutions +

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

The Decree of the President of the Republic of Uzbekistan PP-3800 dated 22.06.2018. "On additional measures to counter the spread of the disease caused by the human immunodeficiency virus and the prevention of nosocomial infections.", providing for improvement of WSH in medical institutions as well.

Annually, targeted programs for reconstruction of the operational schools and building new ones are established by the decrees of the President of the Republic of Uzbekistan, the projects thereof also consider the issues of repair works, reconstruction and construction of toilets and waterworks at schools. For instance, decree of the President of the Republic of Uzbekistan PP-3507 dated 03.02.2018 "On approval of the lists of investment and infrastructure projects for 2018", Decree of the President of the Republic of Uzbekistan PP-4067 dated 19.12.2018 "On measures to implement the investment program of the Republic of Uzbekistan in 2019".

2. Safe management of drinking water supply

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

supply?

YES NO + IN PROCESS

2. If yes, please provide references for the document(s) with the description of the corresponding national policy and regulatory documents.
3. Please provide the information about the percentage of the population who receive drinking water supply service in the table below according to water safety provision plan.

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

3. Equal access to water and sanitation

1. Has the equality of access to drinking water and sanitation been assessed?
YES NO + IN PROCESS
2. Do the national policy or programs provide for performing activities aimed at more equal access to water and sanitation? (please mark all the applicable options):
 - to reduce geographical differences
 - to provide access to the vulnerable and marginalized groups of people in order to keep price affordability of water and sanitation access for everybody
4. If yes, please provide references for the document(s) with the description of the corresponding national policy and regulatory documents.

The Decree of the President of the Republic of Uzbekistan UP-4947 dated 07.02.2017 “On the strategy of actions for further development of the Republic of Uzbekistan”, “Strategy of actions for five high priority development directions of the Republic of Uzbekistan in 2017 — 2021”:

point 4.3. Implementation of the target programs aimed at construction of affordable housing, development and modernization of road and transportation system, mechanical, electrical and plumbing systems and social infrastructure, improving life conditions of the population:

- increasing the level of affordability of social and welfare services, first of all radically improving the rural population provision with clean drinking water by means of construction of new water lines, consequent introduction of efficient and effective technologies.

The state and society are the main concerned parties of the policy in the sphere of WSH.

A number of other Resolutions and decrees of the President:

№ PP-2910 dated 20.04.2017 “About the program of complex development and modernization of drinking water supply and sewage systems for the years 2017-2021”;

№ PP-4040 dated 30.11.2018 “On additional measures for developing the drinking water supply and sewage systems in the Republic of Uzbekistan”. Moreover, the documents reflect the unified approach to providing the whole population with WSH, irrespective of geographic, gender and other differences.

Part Seven

Information on the person submitting the report

The following report is submitted on behalf of the Ministry of Health of the Republic of Uzbekistan at the support of the ministries and authorities concerned, including the Ministry of Water Management and the Ministry of Housing and Communal Services in accordance with article 7 of the Protocol on Water and Health.

Name of officer responsible for submitting the national report:

The Ministry of Health of the Republic of Uzbekistan,
of the Republican Center of State Sanitary and Epidemiological Surveillance

Contact person on the Protocol on Water and Health, chief specialist on
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Submission

1. Parties are required to submit their summary reports to the joint secretariat, using the present template and in accordance with the adopted guidelines on reporting, 210 days before the beginning of the next session of the Meeting of the Parties. Submission of the reports ahead of this deadline is encouraged, as this will facilitate the preparation of analyses and syntheses to be made available to the third session of the Meeting of the Parties.
2. Parties are requested to submit, to the two addresses below, an original signed copy by post and an electronic copy by two e-mails provided below. Electronic copies should be available in word-processing software.

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