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

Executive Summary

Although Uzbekistan is not a party to 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 sources from various contaminants.

Over 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 WSS projects is one of the greatest in Central Asia.

In 1993, the Law on Water and Water Use was adopted in the Republic. This Law was amended and supplemented several times due to the changing conditions of the economic environment and the adoption of international requirements. The purpose of this Law is to regulate water relations. Pursuant to this Law, the Oliy Majlis and the Cabinet of Ministers of the Republic of Uzbekistan define the main directions of the state policy in the sphere of water resources use and protection. The state administration in the sphere of water use is performed by the Cabinet of Ministers of the Republic of Uzbekistan, local government authorities, as well as by the designated state administration authorities responsible for water use regulation directly or through basin (territorial) administrations and by other government authorities. The state control over water use and protection is exercised by local government authorities, the State Committee of the Republic of Uzbekistan on Ecology and Environmental Protection, the Ministry of Health of the Republic of Uzbekistan, and the Ministry of Water Resources of the Republic of Uzbekistan.

The Water Code is currently under development in the country.

In view of the annual natural population increase of 650 to 700 people, coverage of the population of the Republic (with its rural population accounting for ~ 51% of the overall population) with municipal water increased from 66.6% in 2005 to 69.6% by early 2022, 30.3% of the population (mostly rural one) use water from alternative sources whereas the population living in remote areas or having no alternative water sources (about 0.1%) uses imported water. The increase in the coverage of the population with centralised water supply systems was achieved as a result of the implementation of a number of Government Resolutions, in particular: Resolution No. 19 of the Cabinet of Ministers of the Republic of Uzbekistan "Resolution on the Procedure for Construction and Reconstruction of Water Supply and Sanitation Facilities in Residential Areas That Are Financed by State Capital Investments," dated 03/02/2015, Resolution No. 306 of the Cabinet of Ministers of the Republic of Uzbekistan "On Measures to Implement the Main Directions of Development of the Water Supply and Sanitation Organizations" dated 30/10/2015, Decree No. UP-5883 of the President of the Republic of Uzbekistan "On Measures to Improve the Management of Water Resources of the Republic of Uzbekistan to Increase the Level of Provision of the Population with Drinking Water and Improve Its Quality" dated 26 November 2019, and a number of others:.

National standard for drinking water quality O'zDST 950:2011 "Drinking water. Hygienic requirements and quality control" has been developed and is in effect in the Republic of Uzbekistan. It contains microbiological, parasitological, toxicological (nonorganic and organic components), organoleptic properties of water as well as the ones normalized according to their effect on the organoleptic properties, 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, namely, 3,815 cases of bacillary dysentery were registered in 2015, with the incidence of 14.5 cases per 100,000 population, 967 cases of bacillary dysentery were registered in 2018, with the incidence of 3.8 cases per 100,000 population, so the incidence of the disease has been reduced by 21.7%. No outbreaks of the bacillary dysentery incidence were detected in the Republic in 2015, 2018, and 2021.

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

Major waterways in the region are the Amu Darya River, which is 1,440 km long, and the Syr Darya River, which is 2,140 km long.

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

In certain regions where there is shortage of drinking water, industrial desalination units are still underused.

There are also a number of natural, climatic and anthropogenic factors in our Republic that influence the condition of domestic and drinking water supply to the population, the sanitary condition of water sources, the sanitary conditions of life, and the disease incidence in the population.

Because of the deterioration and untimely reconstruction and replacement of water supply pipes in 2021, about 2,000 large-scale emergencies were registered in centralised water supply systems, which created an extremely unfavourable epidemiological situation and also entailed secondary drinking water pollution and huge drinking water loss.

The current stage of the Republic's economic development sets fundamentally new tasks, one of which is aimed at organising activities to ensure the sanitary and epidemiological well-being of the population, the prevention of infectious and non-infectious diseases, and the reduction of risk factors' impacts on the human body.

The current period of the national economic development in the Republic of Uzbekistan is characterised by a continuous increase in water consumption, including for household and drinking needs of the population. At the same time, a number of serious measures are currently being taken to reduce water consumption in agriculture by introducing modern water-saving technologies into a crop irrigation system.

As for the issue of access of the population to sanitation and, namely, to centralised sewerage systems, nowadays, 17.6 % of the population, including 53.4 % of the population living in cities and towns, have centralised sewerage systems. Rural population mostly uses cesspools.

Nowadays, out of the available official 338 cases of discharges of household and industrial wastewater, which are controlled by the Sanitary and Epidemiological Service, in 82 cases or 24.3% the discharges are made almost without any treatment, and in 55 cases or 16.3% reconstruction is needed.

Due to the lack of local financial resources, the government adopted Resolution No. PP-2910 of the President of the Republic of Uzbekistan "On the Programme for Integrated Development and Modernization of Drinking Water Supply and Sewerage Systems for the Period of 2017-2021" dated 20/04/2017.

In order to provide timely and reliable information to take relevant and effective preventive measures, all territorial sanitary and epidemiological supervision centres introduced an information system for sanitary control of the chemical and microbiological 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 this purpose, a complex of measures has been developed to regulate the control, accounting and rational use of fresh groundwater resources and increase the level of population provision with drinking water of guaranteed quality. A number of government resolutions have been adopted for this purpose, including Resolution No. PP-2910 of the President of the Republic of Uzbekistan "On the Programme for Integrated Development and Modernization of Drinking Water Supply and Sewerage Systems for the Period of 2017-2021,"dated 20/04/2017, Resolution No. PP-4040 of the President of the Republic of Uzbekistan "On Additional Measures for Developing the Drinking Water Supply and Sewerage Systems in the Republic of Uzbekistan," dated 30/11/2018, Decree No. UP-5883 of the President of the Republic of Uzbekistan "On Measures to Improve the Management of Water Resources of the Republic of Uzbekistan to Increase the Level of Provision of the Population with Drinking Water and Improve Its Quality," dated 26 November 2019.

Part one
General aspects

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

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

YES □ NO✓ IN PROGRESS□

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

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

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. -------

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

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

6. The Ministry of Health, the Ministry of Water Resources 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 of the WHO in 2021 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 or revised targets and target dates, please provide information specifically related to the progress towards achieving them. If you have not set targets in a certain area, please explain why.

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

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

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

The problems of monitoring, standardizing and determining the criteria of drinking water quality still remain relevant due to increasing deficiency of water resources, deterioration of their quality, 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 water resources and water supplied to the population from microbiological and chemical contamination.

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

The goals of the monitoring are to:

- organize regular observation over water supply sources to assess their condition in compliance with established standards;
- provide information to eliminate adverse processes;
  - reduce the incidence of water-borne diseases of microbial origin;
  - ensure state sanitary supervision over the protection of drinking water supplied to the population through centralised water supply systems (in compliance with the national standard for drinking water quality O′zDST 950:2011 “Drinking water. Hygienic requirements and quality control”).

The objectives of monitoring open water bodies are to:

- facilitate and conduct observation over the condition of both sources of water and systems of domestic and drinking water supply to the population along their entire length;
- analyse the condition of the sources of domestic and drinking water supply according to the established standards;
- develop guidelines on the prevention or elimination of adverse effects of the identified potential sources of contamination on public health;
- provide state sanitary supervision authorities with information on the protection of the sources of domestic and drinking water supply (in compliance with the national standard for drinking water quality O′zDST 951:2011 “Sources of centralized domestic and drinking water supply. Hygienic, technical requirements and selection rules”, and Sanitary Standards, Rules and Hygienic Requirements No. 0318-15 “Hygienic and anti-epidemic requirements for protection of water in water bodies in the territory of the Republic of Uzbekistan”).

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

As a result of the comprehensive activities carried out 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 in the territory of Uzbekistan. No cases of the following diseases have been registered in the Republic to date: cholera - since 1993, 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.

A considerable reduction in the incidence of many infectious diseases is observed. Since 1991 and up to 2021, the indicators of the following diseases incidence have decreased: typhoid fever - by 393.3 times, salmonellosis - by 15 times, acute enteric infections - by 4.1 times, bacillary dysentery - by 11.5 times, viral hepatitis A - by 5.6 times, viral hepatitis B - by 213.8 times, acute respiratory diseases - by 7.2 times, influenza - by 15.7 times.

Viral hepatitis A and acute enteric infections are the most common diseases in the structure of infectious diseases (not including influenza and acute respiratory diseases). The proportion of these 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. The 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 in the territory of the Republic.

Cyclic increases in the disease incidence every 10 years and periodic increases in the disease incidence every 3-4 years are characteristic of viral hepatitis A. When viral hepatitis A incidence increases, comprehensive plans for additional organisational, medical, preventive and anti-epidemic 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 3,000 hospital beds are additionally changed into infectious beds to admit patients with viral hepatitis to hospitals to the fullest extent 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 No. 0239-07) was included into the national preventive vaccination schedule. The President of the Republic of Uzbekistan declared the year of 2014 to be the “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 taken and preventing outbreaks of diseases, an operational analysis of infectious diseases incidence, including daily analysis of COVID-19 infection and viral hepatitis incidence, during seasonal increases in the incidence of acute enteric infections, influenza and acute respiratory diseases, has been established in the sanitary and epidemiological service system.

Special attention is given to the prevention of typhoid fever and paratyphoid fever in the Republic. More than 300 micro areas unfavourable due to typhoid and paratyphoid diseases were registered as of 01/01/1991. Their number had reduced to 34 by 2021 due to the regular sanitary and hygienic, preventive and anti-epidemic measures. In order to carry out adequate treatment in a timely manner, more than 3,500 oral rehydration sites where more than 45 thousand patients receive treatment are organized on the premises of outpatient polyclinic institutions in the Republic annually from May to October, inclusive.

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

Law and regulations governing water relations

Water relations in the Republic of Uzbekistan are governed by Law No. 837-XII "**On Water and Water Use"** dated 6 May 1993 and other water regulations published in accordance with this Law. One of the main tasks of this Law is to ensure rational use of water for the needs of the population and the economy, protection of water from contamination, clogging and depletion, prevention and elimination of the damaging effect of water, improvement of the condition of water bodies, as well as protection of rights and legitimate interests of enterprises, institutions, organisations, farming enterprises, dehkan farms, and citizens in the sphere of water relations.

Resolution No. 82 of the Cabinet of Ministers of the Republic of Uzbekistan "On Approval of the Regulations on the Procedure for Water Use and Water Consumption in the Republic of Uzbekistan" dated 19 March 2013 determines the procedure for water use and water consumption in the territory of the Republic of Uzbekistan. Resolution No. 255 of the Cabinet of Ministers of the Republic of Uzbekistan "On Approval of Some Administrative Regulations for the Provision of Public Services in the Field of Environmental Management" dated 31 March 2018 approved the Administrative Regulation for the provision of public services of issuing permits for special water use and water consumption. This Regulation determines the procedure for issuing permits for special water use or water consumption.

Decree No. UP-6024 of the President of the Republic of Uzbekistan "On Approval of the Water Sector Development Concept of the Republic of Uzbekistan for 2020-2030" dated 10 July 2020 approved the Water Sector Development Concept of the Republic of Uzbekistan for 2020-2030, which includes priority areas and a set of measures for the development of the water sector of the Republic of Uzbekistan until 2030.

Water resources management system

The Republic of Uzbekistan is located in the Aral Sea basin and its main water sources are the Amu Darya and Syr Darya rivers, as well as inland rivers, mountain streams, and groundwater. The average long-term annual water flow from all sources of the Aral Sea basin is 116.2 billion cubic meters, of which 67.4 percent is formed in the Amu Darya river basin and 32.6 percent - in the Syr Darya river basin. The total groundwater reserve is 31.2 billion m^3, 47.2 percent of which is deposited in the Amu Darya river basin and 52.8 percent — in the Syr Darya river basin.

The area of glaciers in Central Asia has shrunk by around 30 percent as a result of global climate change over the past 50 to 60 years.

According to forecasts, the temperature rising by 2°C will cause the glaciers area to shrink by 50 percent, while temperature increase by 4°C will result in a 78 percent glacier area reduction. According to estimates, by 2050, water resources are expected to decrease up to 5 percent in the Syr Darya basin and up to 15 percent in the Amu Darya basin. While before 2015, a total water deficit in Uzbekistan had been more than 3 billion m^3, it could reach 7 billion m^3 by 2030 and 15 billion m^3 by 2050.

According to some assessments, the climate change will aggravate water scarcity in Uzbekistan and may result in increased duration and frequency of droughts, as it was observed in 2000, 2008, 2011, 2014 and 2018, and would create significant challenges for satisfying economic needs for water. Over the past 15 years, water availability per capita has declined from 3,048 m^3 to 1,589 m^3.

At the same time, the population growth in the Republic is increasing by an average of 650,000-700,000 people annually, and by 2030 the expected growth is 39 million people. Their demand for high-quality water is expected to increase from 2.3 billion m^3 to 2.7-3.0 billion m^3 (by 18-20 percent). This will lead to an annual increase in water demand by the public utility sector.

Both industry and energy sectors have been actively developing in recent years and their water demand is constantly growing.

According to estimates, the total annual water consumption in these industries will increase from 1.9 billion m^3 to 3.5 billion m^3 by 2030 (1.8 times).

According to the schemes of integrated water use and protection in the Amu Darya and Syr Darya basins, the average long-term water withdrawal limit in the Republic of Uzbekistan is 64 billion m^3. At the same time, in the 1980s, the annual water consumption in the Republic has been below the many-year limits, while in recent years, due to the global climate change and transboundary water use issues, the average annual volume of water used has been 51-53 billion m^3, of which 97.2 percent is taken from rivers and mountain streams, 1.9 percent from drainage networks, and 0.9 percent from groundwater sources. The water withdrawal has decreased by 20 percent as compared to the allocated limit.

The total irrigated land area in the Republic is 4.3 million hectares; around 90-91 percent of all water resources is used by agriculture, 4.5 percent by public utility sector, 1.4 percent by industry, 1.2 percent by fish farms, 0.5 percent by thermal power sector, and 1.0 percent by other sectors.

The Republic has specific soil and climatic conditions meaning that, due to insufficient natural drainage and high level of groundwater salinity, some areas are prone to "primary salinization." At the same time, due to the inefficient water use and negative impact of other man-made factors, the "secondary salinization" is recorded in some areas, therefore 45.7 percent of the irrigated land area are saline to a variable degree.

A specific water management system has been developed in the country to ensure reliable water supply to various sectors, including agriculture, and to improve land reclamation status.

The water management system operates a 28.4 km-long irrigation and drainage system, including 54,432 various hydraulic structures, 70 reservoirs and mudflow reservoirs (debris basins) with a total capacity of 19.4 billion m^3.

Due to a disproportionate distribution of water resources in the country and a rugged topography of irrigated lands, around 60 percent of the irrigated lands are irrigated with 1,687 pumping stations, the annual electricity consumption of which is 8 billion kWh.

Besides, water consumer associations, farmers and clusters operate 155.2 thousand km of irrigation networks and more than 10,280 pumping stations.

About 12.4 irrigation wells are operated for irrigation purposes, including 4,153 in water sector.

Part three
Common indicators[1]

I. Quality of the drinking water supplied

1. Context of the data

1. As noted above, coverage of the population of the Republic (with its rural population accounting for about 51% of the overall population) with municipal water increased from 66.6% in 2005 to 69.6% by early 2022; 30.3% of the population (mostly rural one) use water from alternative sources whereas the population living in remote areas or having no alternative water sources (about 0.1%) uses imported water.[2]

2. The main places from where water quality samples being reported are taken are treatment plant outlets, distribution system, consumers, and dead ends.

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

The information is presented according to the annual statistical reports of the State Sanitary and Epidemiological Surveillance Centres in Form 25-24/o.

2. Bacteriological quality

Parameter	*Area/category*	*Baseline value (2005)*	*Value reported in the previous reporting cycle (2009)*	Value reported in the previous reporting cycle (2018)	Current value (2021)
E. coli	**Total**	5.7 %	2.8 %	5.8 %	5.4 %
	Urban	-	-	4.2 %	-
	Rural	-	-	7.1 %	
	decentralised drinking water sources			0.2	
TBC (total bacterial count)	**Total**	6.1 %	6.8 %	7.6 %	10.8 %
	Urban	5.7 %	6.6 %	7.2 %	-
	Rural	6.5 %	7.0 %	8.1 %	
	decentralised drinking water sources			12.1 %	
CBG (coli index)	**Total**	7.1 %	8.0 %	9.8 %	12.0 %
	Urban	6.0 %	7.6 %	8.8 %	9.2 %
	Rural	7.3 %	8.2 %	12.2 %	14.7 %
	decentralised drinking water sources			12.9 %	11.2 %

Note: According to the data of the State Sanitary and Epidemiological Surveillance Centre, 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 (with a norm of up to 3) in 2005, was from 3 up to 20 in 2009, with no changes in 2018, and reached 39 by 2021.

3. Chemical quality

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

a).	arsenic: 2009 – 0 %;	2018 – 0 %	2021 – 0 %	(maximum admissible concentration (MAC) – 0.05 mg/dm^3).
b)	fluoride; 2009 – 0 %;	2018 – 0 %	2021 – 0 %	(MAC – 0.7 mg/dm^3).
c)	lead: 2009 – 0 %;	2018 – 0 %	2021 – 0 %	(MAC – 0.03 mg/dm^3).

[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.

[2] According to the Ministry of Housing and Communal Services of the Republic of Uzbekistan

d) nitrate: 2009 – 0.25 %; 2018 – 0.86 % 2021 – 0 % (MAC – 45.0 mg/dm^3).

Note: out of the total number of the samples analysed, fluoride was detected in 0.32% of cases in 2009, in 0.33% of cases in 2018, and in 16.3% of cases in 2021; however, all the samples were within the maximum admissible concentration.

6. Please also identify up to three additional chemical parameters that are of priority in the national or local context.
If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by "non-centralized versus centralized" sanitation systems or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the column "area/category" in the table below accordingly.

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

Parameter	*Area/category*	*Baseline value (2005)*	*Value reported in the previous reporting cycle (2009)*	*Value reported in the previous reporting cycle (2018)*	*Current value (2021)*
Arsenic (MAC – 0.05 mg/dm^3).	*Total*	*0*	*0*	*0*	*0*
	Urban	*0*	*0*	*0*	*0*
	Rural	*0*	*0*	*0*	*0*
Fluoride (MAC – 0.7 mg/dm^3).	*Total*	*0*	*0*	*0*	*0*
	Urban	*0*	*0*	*0*	*0*
	Rural	*0*	*0*	*0*	*0*
Lead (MAC – 0.03 mg/dm^3)	*Total*	*0*	*0*	*0*	*0*
	Urban	*0*	*0*	*0*	*0*
	Rural	*0*	*0*	*0*	*0*
Nitrate (MAC – 45.0 mg/dm^3)	*Total*	*2.0*	*0.3*	*0.86*	*1.0*
	Urban	*0.9*	*0.25*	*0.78*	*-*
	Rural	*3.2*	*0.33*	*0.92*	*-*
Total hardness – (MAC – 7 mg - equiv./dm^3)	*Total*	*-*	*-*	*2.7*	*12.1*
	Urban	*-*	*-*	*2.6*	*-*
	Rural	*-*	*-*	*2.7*	*-*
Mineralization	*Total*	*9.2*	*9.7*	*8.6*	*11.6*
	Urban	*9.0*	*9.9*	*8.3*	*-*
MAC – 1000 mg/dm^3):	*Rural*	*9.5*	*9.6*	*8.4*	*-*
Sulphate (MAC – 400 mg/dm^3):	*Total*	*1.1*	*1.2*	*1.2*	*1.1*
	Urban	*1.0*	*1.0*	*1.1*	*-*
	Rural	*1.1*	*1.3*	*1.2*	*-*

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

II. Outbreaks and incidence of infectious diseases related to water

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

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

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

i) Please report cases per 100,000 population;

ii) Please differentiate between zero incidents (0) and no data available (-).
Please extend the list of water-related diseases, to the extent possible, to cover other relevant pathogens (e.g., enteric viruses, Giardia intestinalis, Vibrio cholerae).

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

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

	Incidence rate per 100,000 population (all exposure routes)			***Number of outbreaks (confirmed water-borne outbreaks)***		
Disease	***Baseline value (2005)***	***Value reported in the previous reporting cycle (2018)***	***Current value (2021)***	***Baseline value (2005)***	***Value reported in the previous reporting cycle (2018)***	***Current value (2021)***
Shigellosis		2.5	1.1	0	0	0
Entero-haemorrhagic *E. coli* infection		-	-	0	0	0

Typhoid fever	0.0	-	0	0	0
Viral hepatitis A	99.3	21.8	0	0	0
Legionellosis	-	-	0	0	0
Cryptosporidiosis	-	-	0	0	0
Total of acute enteric infections	122.9	104.2	0	0	0
Rotavirus infections	1.4	0.5	0	0	0

No cases of the following diseases have been registered in the Republic to date: cholera – since 1993, local cases of malaria – since 2011, waterborne typhoid fever outbreaks – since 2012.

In 2018, as well as in 2020 and 2021, no cases of cholera and enterohemorrhagic escherichiosis were registered in the Republic.

The incidence of acute enteric infections, which occur as a result of water contamination, including bacillary dysentery, has been decreasing recently in the Republic, namely 2,638 cases of bacillary dysentery were registered in 2009, with the incidence of 9.5 cases per 100,000 population, 967 cases of bacillary dysentery were registered in 2018, with the incidence of 2.9 cases per 100,000 population, so the incidence of the disease has been reduced 3.3 times. No outbreaks of the bacillary dysentery incidence were detected in the Republic in 2009, 2017 and 2018. Dysentery was transmitted through open waters in 246 cases or 3.8% in 2009 and in 152 cases or 15.7% in 2018.

Periodic 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 (this figure per 100,000 population was 139.7 in 2005, ? in 2009, and 106.7 in 2021, i.e., a 13.2% decline in the disease incidence was observed). No outbreaks of acute enteric infections were registered in the Republic in 2009, 2017-2018, and 2020-2021. In 2018, acute enteric infection was transmitted through well water in 137 cases or 0.47% and through open waters in 2,534 cases or 6.1%.

III. Access of drinking water

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

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

Percentage of population with access to centralised water supply systems	Baseline value (2005)	Value reported in the previous reporting cycle (2009)	Value reported in the previous reporting cycle (2018)	Current value (2021)
Total	*76.1*	*76.9*	*80.2*	*69.6*
Urban	*86.7*	*87.6*	*89.3*	-
Rural	*63.9*	*68.5*	*69.4*	-

Note: *According to the statistical data of the Ministry of Housing and Communal Services of the Republic of Uzbekistan. According to the inventory results, taking into account that a part of water supply facilities and networks previously belonging to rural and departmental water supply systems have been included in the balance sheet of the Ministry.*

IV. Access to sanitation

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

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

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

Percentage of population with access to centralised sanitation systems	Baseline value (2005)	Value reported in the previous reporting cycle (2009)	Value reported in the previous reporting cycle (2018)	Current value (2021)
Total	-	-	*14.0*	*17.6*
Urban	*49.2*	*49.2*	*49.5*	*53.4*
Rural	*5.5*	*5.4*	*5.2*	-

Note: According to the statistical data of the Ministry of Housing and Communal Services of the Republic of Uzbekistan.

□ National estimates. *Please specify how "access" is defined and what types of sanitation facilities are considered in the estimates in your country. In particular, please specify if the above percentage on "access to sanitation" refers to access to (tick all applicable):*

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

Note: As for other sanitation facilities used by the population of the Republic, preparational work is being conducted to research this question within SDGs.

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

1. Water quality

According to the State Sanitary and Epidemiological Service, monitoring of the bacteriological indicators of water in open water bodies revealed that an average of 4.9% to 11.0% of the same did not meet sanitary and hygienic requirements annually. In terms of chemical indicators, 16.3% did not meet sanitary and hygienic requirements.

2. Water use

The average annual water consumption is 51-53 billion m^3, including 97.2 percent taken from rivers and mountain streams, 1.9 percent from drainage networks, and 0.9 percent from groundwater.

The total irrigated land area in the Republic is 4.3 million hectares; around 90-91 percent of all water resources is used by agriculture, 4.5 percent by public utility sector, 1.4 percent by industry, 1.2 percent by fish farms, 0.5 percent by thermal power sector, and 1.0 percent by other sectors.
The population growth in the Republic is increasing by an average of 650,000-700,000 people annually, and by 2030 the expected growth is 39 million people. Their demand for high-quality water is expected to increase from 2.3 billion m^3 to 2.7-3.0 billion m^3 (by 18-20 percent). This will lead to an annual increase in water demand by public utility sector.
Both industry and energy sectors have been actively developing in recent years and their water demand is constantly growing.
According to estimates, the total annual water consumption in these industries will increase from 1.9 billion m^3 to 3.5 billion m^3 by 2030 (1.8 times).

Part four
Water-related disease surveillance and response systems

1. In accordance with the provisions of article 8 of the Protocol:
Has your country established comprehensive water-related disease surveillance and early warning systems according to paragraph 1 (a)?

YES✓ NO □ IN PROGRESS □

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

YES✓ NO □ IN PROGRESS □

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

YES✓ NO □ IN PROGRESS □

Governed by the Law of the Republic of Uzbekistan on Sanitary and Epidemiological Well-Being of the Population (LRU-393 dated 26/08/2015), and by other laws and regulations of the Government of the Republic and the Ministry of Health, the Sanitary and Epidemiological Service conducts the necessary complex of sanitary and hygienic and anti-epidemic measures. The authorities and institutions of the Sanitary and Epidemiological Service participate in the development and implementation of the state target-oriented programmes for providing sanitary and epidemiological well-being of the population, as well as scientific, research and technical programmes in this sphere; perform a complex of sanitary and hygienic and anti-epidemic measures aimed at promoting public health, eliminating adverse effects of environmental factors on the human being, prevention of contamination of human environment, drinking water, food raw materials, food, etc.; organise a set of measures at checkpoints across the state border of the Republic of Uzbekistan to prevent the importation and spread of especially dangerous and other infections that affect human health, as well as the goods and freights potentially dangerous for the population, with participation of the competent departments of the ministries and authorities concerned, guided by the International Health Regulations (IHR, 2005); prepare and, in accordance with the established procedure, submit proposals to the competent public authorities concerning compliance with the sanitary and epidemiological legislation and in respect of ensuring the sanitary and epidemiological well-being of the population.

[3] Explanatory Note to Decree No. UP-6024 of the President of the Republic of Uzbekistan "On Approval of the Water Sector Development Concept of the Republic of Uzbekistan for 2020-2030" dated 10 July 2020.

For example, on the basis of Order No. 1755 of the Ministry of Health "On the Introduction of the Sanitary and Epidemiological Surveillance System into the Activities of Sanitary and Epidemiological Stations of All Management Levels" dated 11/12/1987, the Sanitary and Epidemiological Surveillance Department was established to improve the measures to combat acute enteric infections in the State Sanitary and Epidemiological Surveillance Centres of all levels.

The main task of the department was to organise and introduce a sanitary and epidemiological surveillance system: to keep regular tracking of the sanitary condition of the environment and its dynamic change, with the Sanitary and Epidemiological Service focusing on revealing mass routes and factors of infection transmission (through food and water) and on organising measures to neutralize them.

In order to improve the efficiency of anti-epidemic measures and their quality, automated system IS EMID (information system for epidemiological monitoring of infectious diseases) was developed, and since 2012 the Sanitary and Epidemiological Surveillance Department of the Republican Centre for State Sanitary and Epidemiological Surveillance (RepCSSES) has been the main organizer of the automated system integration into the operation of all sanitary and epidemiological surveillance centres in the Republic.

A number of programmes aimed at the prevention of infectious diseases have been developed, in particular, the Programme of Measures to Prevent Viral Hepatitis A for the Period of 2018-2020, as approved by the Chief State Medical Sanitation Officer of the Republic of Uzbekistan on 13/04/2018.

In order to ensure the interaction of various bodies and structures, the Government of the Republic adopted Resolution No. 754 of the Cabinet of Ministers of the Republic of Uzbekistan "On Improving the Procedure for Preparing the Population for Actions in Emergency Situations and in the Field of Civil Protection" dated 9 September 2019.

Part five
Progress achieved in implementing other articles of the Protocol

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

Suggested length: up to two pages

Part six

Thematic part linked to priority areas of work under the Protocol

1. Water, sanitation and hygiene in institutional settings

Decree No. UP-4947 of the President of the Republic of Uzbekistan "On the Strategy of Actions for Further Development of the Republic of Uzbekistan", dated 07/02/2017, the Strategy of Actions on Five Priority Areas of Development of the Republic of Uzbekistan for 2017-2021 specify that (para. 4.3) the implementation of the target programmes aimed at the construction of affordable housing, the development and modernization of the road and transportation system, mechanical, electrical and plumbing systems and social infrastructure shall ensure the improvement of living conditions of the population, namely:

- an increase in the level of affordability of social and welfare services, first of all, massive improvement of the rural population provision with clean drinking water by means of the construction of new water lines, the consistent introduction of modern cost-effective and efficient technologies.

The society and the State are the main stakeholders of the WSH policy.

Moreover, the documents reflect a unified approach to providing the whole population with the WSH, irrespective of geographic, gender and other differences.

Additionally, Resolution No. PP-3800 of the President of the Republic of Uzbekistan "On Additional Measures to Counter the Spread of the Disease Caused by the Human Immunodeficiency Virus and the Prevention of Nosocomial Infections," dated 22/06/2018, provided for the improvement of the WSH in health care facilities. Annually, the President of the Republic of Uzbekistan issues resolutions adopting targeted programmes for reconstruction of existing schools and building new ones; their projects, in particular, include the issues of repair, reconstruction and construction of toilets and waterworks at schools. The examples include Resolution No. PP-3507 of the President of the Republic of Uzbekistan "On Approval of the Lists of Investment and Infrastructure Projects for 2018", dated 03/02/2018, and Resolution No. PP-4067 of the President of the Republic of Uzbekistan "On Approval of the Lists of Investment and Infrastructure Projects for 2019" dated 19/12/2018.

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 with the support of the ministries and authorities concerned, including the Ministry of Water Resources and the Ministry of Housing and Communal Services.

[name of the Party, Signatory or other State] in accordance with article 7 of the Protocol on Water and Health.

Name of officer responsible for submitting the national report: *Olga Mirshina*

E-mail**: olga.mirshina@ssv.uz**

Telephone number: +998-93-5163205

Name and address of national authority:

Service of Sanitary and Epidemiological Well-being and Public Health of the Republic of Uzbekistan.

46 Bunyodkor str. Tashkent 100097

Signature: ***[signature]***

Date:19/04/2021

Submission

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

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

Joint Secretariat to the Protocol on Water and Health

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