

**BRIEF REPORT ON IMPLEMENTATION OF PROTOCOL FOR WATER AND
HEALTH ISSUES**

Chapter 1

General aspects

1. Have the target indicators and the timeline for their achievement been set up in your country according to the Article 6 of the Protocol?

YES NO IS BEING SET UP

Azerbaijan ratified the Convention for protection and use of trans-boundary water courses and international lakes in 2000 and the Protocol for water and health issues in the year of 2002.

It is worth to mention that the country has not determined target indicators on implementation of the Protocol for water and health issues, however as being a Party of the Protocol, a number of National State Programs have been adopted, which aimed achievement of Millennium Development Goals. The process for their set up is planned within the EU funded project for Protection of the environment of international water basins.

National State Programs are aimed to ensure balanced and sustainable development of the country economy, improvement of social welfare of population; and also establishment of qualitatively new development model through achievement of organic correlation and mutual consistency between the current, middle and long term periods of social-economic development, acceleration of progress of the society in all directions hold the central position in the activities in Azerbaijan. Objective of the state water policy is to ensure safe and full habitat at meeting demands. For this objective an important principle is that neither the rights of other countries, nor of future generations for full environment should be offended.

In all programs special attention is paid for water policy issues and related health of population. While adopting National Programs, the experience of international organizations and tasks set by international Conventions have been taken into consideration. Based on the conditions of the country, by-laws have been developed. Before adoption of National Programs projects were submitted for public consultation (also for NGOs). Primary objectives of State Programs are diversification of country economy and its efficient integration into global economic system, further improvement of infrastructure level and communal services, continuous improvement of living standards of population.

For timely and qualitative presentation of brief national report a consultative group was established in December 2012, which included authorised representatives of Ministry of Ecology and Natural Resources, Ministry of Health, Ministry of Emergency Situations, Amelioration and Water Economy JSC, Azersu JSC, Ministry of Agriculture, representatives of relevant NGOs.

In the meeting of consultative group thematic sections of report were distributed in accordance with the specification of the organizations, which they represented.

It should be noted that since target indicators on implementation of the Protocol have not been developed in the country, it being based on the National Programs, in which

achievement of Millennium Development Goals, duration of implementation were envisaged and also funds were allocated.

Ministry of Ecology and Natural Resources and Ministry of Health were identified as coordinating authorities on implementation of the Protocol; and also Azersu JSC, Amelioration and Water Economy JSC and the Ministry of Emergency Situations participate in this process.

From the moment of ratification of the Protocol, a number of specific actions are taken in Azerbaijan, which contributed to the implementation of Millennium Development Goals:

-in 2003 National Program on “sustainable socio-economic development of the country” in an environmental context was adopted by the Government of the Republic of Azerbaijan. One chapter of the Program was fully dedicated to water policy issues, whereby every citizen of the country should have access to safe and high quality drinking water by the year of 2015;

-Decree of the President of the Republic of Azerbaijan on “State Program in the field of demography and development of the population of the Republic of Azerbaijan” (November 11, 2004);

- Decree of the President of the Republic of Azerbaijan on “Tasks arising from ratified international conventions and agreements in the sphere of protection of the environment” and Plan of Actions for their implementation (March 30, 2006);

-Comprehensive Action Plan on improvement of environmental situation in Azerbaijan Republic for years 2006-2010 (September 28, 2006);

-State Program for « Poverty reduction and sustainable development in the Republic of Azerbaijan for years 2008-2015» (September 15, 2008);

-State Program on provision of the population of the Republic of Azerbaijan with food security for the period of 2008-2015 years (April 25, 2008);

- Decree of the President of the Republic of Azerbaijan on “Some measures for improvement of the provision of population with environmentally clean water” (June 20, 2007);

- Decree of the President of the Republic of Azerbaijan on “Additional measures for improvement of the provision of population with environmentally clean water” (November 20, 2008);

-State Program “Socio-economic development of the regions of Azerbaijan Republic for the period of 2009-2013” (April 14, 2009), that is actually a continuation of the State Program for years 2004-2008.

-State Program on “Socio-economic development of Baku City and its settlements for the period of 2011-2013” (May 4, 2011).

Achieving the results referred to in government and sectoral programs, as well as the goals set out in the implementation of international and national projects on issues related to problems in the water sector, contribute to the definition and refinement of both national and local targets.

National target indicators contribute to the development of relevant activities in the implementation of tasks to ensure access to safe drinking water and adequate sanitary-hygienic conditions for the entire population.

The State Program "on poverty reduction and sustainable development in the Republic of Azerbaijan in 2008-2015" set national targets to ensure the population of small towns and villages sustainable safe water supply, provision of sewage treatment plants for the period up to the end of 2015.

It should be noted that all legislative, legal and regulatory acts are printed in periodicals, spread by the mass media.

The documents listed are available on the site <http://www.e-qanun.az/>

The responsible authority for this Convention is the Ministry of Environment and Natural Resources (MENR), organized on May 23, 2001, and it was responsible for the formulation and implementation of environmental policies, as well as the fulfillment of international obligations under the ratified conventions.

MENR is responsible for water policy and conservation of water resources, grants permission for diversion of water from surface water and groundwater, and wastewater discharges in all bodies of water, including the Caspian Sea. MENR conducts quantitative and qualitative monitoring, protection of surface waters, and also takes responsibility for the use and protection of groundwater.

State control over the compliance with mode of use and protection of natural resources, the other economic activities of individuals and legal entities in water protection areas within its powers are performed by the Ministry of Health and Ministry of Environment and Natural Resources.

The Ministry of Health, responsible for the implementation of the Protocol on Water and Health issues conducts state sanitary control over the quality of domestic and drinking water. Strategic line of State Sanitary-Epidemic Inspection is a systematic monitoring of the quality of provision for domestic and drinking water and the incidence of water-related within the Decade for Action - 'Water for Life' proclaimed by the United Nations General Assembly. And also monitoring of sea water in recreational areas of the Caspian Sea, the assessment of vulnerability of water resources and human health, adaptation to climate change is conducted.

The State Agency for Water Resources of the Ministry of Emergency Situations (SAWR) is the executive body, implementing measures to improve the management and control of water resources, carrying out continuous monitoring of the technical condition of water reservoirs, and also conducts monitoring of water bodies, surface water and groundwater, waterworks and water systems, and provides reliable security of state water facilities within the country.

Main functions of SAWR of the MES of the Republic of Azerbaijan are:

- sustainable provision of sectors of the country economy with the water and the implementation of water-use water facilities located on its balance sheet;
- implementing of mudflow and flood protection measures;
- improvement of material and technical base;
- ensuring the development of water infrastructure on the basis of modern science, equipment and advanced technologies.

There are 4 reservoirs of the integrated use, one reservoir to ensure water supply of Baku and Absheron peninsula residents, having strategic importance for the country on the balance of SAWR. SAWR plans and controls the diversion of water from rivers and the management of these reservoirs.

In accordance with the decree of the President of the Republic of Azerbaijan dated 11 June 2004, "On improving the management of water supply in the Republic of Azerbaijan" Absheron Regional Water Joint Stock Company was transformed into a **joint stock company "Azersu"**.

All shares of JSC "Azersu" are under the state property. The main functions of "Azersu" are management of agencies under his command, with the aim to organize the maintenance of water and sanitation within the territory of Republic, to coordinate their activities and control over their work, as well as the development and preparation of proposals on the implementation and realization of appropriate policies in this area.

At present, the water sector of Azerbaijan Republic is governed by laws and secondary normative-legislative acts. The Constitution of the country contains provisions on the functions of State for Water Resources (Articles 11, 14 and 16). Article 39 establishes the right of citizens of the republic to live in a healthy ecological environment, and the right of citizens to receive and collect information about the environment, and the right to compensation for damage done to his/her health and property because of violation of ecological requirements. The government is committed to the conservation of sustainable ecological status.

The Water Code (1997) of the Azerbaijan Republic is a primary document among these acts, which is complemented by the laws and regulations in specific areas of the water sector:

- Law on sanitary and epidemiological welfare (1992),
 - Law on amelioration and irrigation (1996), (some amendments were done into this Law in 2004 based on requirements of international law),
 - Law on protection of public health (1997),
 - Law on subsoil (1998),
 - Law on hydrometeorological activity (1998),
 - Law on water supply and wastewaters (1999),
 - Law on environmental protection (1999),
 - Law on environmental safety (1999),
 - Law on water economy of municipalities (2001),
 - Law on receiving the information about environment (2002),
 - Law on environmental education and public awareness (2002),
 - Law on safety of hydrotechnical facilities (2003),
 - Law on emergency situations (2004),
- and other regulations and statutes approved by the Parliament and the Cabinet of Ministers of the country.

Financing volumes and directions of sources of funding are reviewed in the plans for the implementation of the activities of the state national and sectoral programs. Amounts of funding are prepared by relevant authorities who have made proposals to implement the activities of the State or sectoral programs and getting the consent of the Ministry of Economic Development - the responsible authority for control on the activities; Ministry of Finance and the Cabinet of Ministers of the country. After agreeing on a draft State or sectoral programs, they are submitted for approval to the President of the Republic of Azerbaijan.

After the expiration of the government or sectoral program, the Ministry of Economic Development with the participation of relevant government stakeholders summarizes the results of taken measures, analyzes all aspects of the implementation of program, including financial ones.

Since independence the non-governmental sector, consisting of associations, foundations and other non-governmental organizations that work in different ways was formed in Azerbaijan. Country approved the "Concept of State Support to NGOs of Azerbaijan Republic".

Non-governmental organizations in Azerbaijan carry out projects to educate the public about the problems in the water sector, explain the legislative - legal aspects of the protection of water resources through the publication of newsletters, brochures, speeches in the press and trainings.

The population can receive environmental information electronically from the information center of Aarhus, the Regional Environmental Center, etc. A web page for the Hydrometeorological Service was created, a database of quality and quantity of river water was developed. This website allows the public to have access to information about water resources.

The Ministry of Ecology and Natural Resources launched a website www.eco.gov.az to inform the public about the ecological state of the environment.

In order to inform the public about the health of the environment, according to the quality of household drinking water and recreational water in compliance with hygienic requirements, the Ministry of Health launched a website www.health.gov.az.

For the implementation of Aarhus Convention, Public Information centers were established in the cities of Baku, Ganja and Gazakh.

Also working groups were established for the obligations of the international environmental conventions ratified by the Republic of Azerbaijan and representatives of relevant NGOs were involved into these groups.

All matters relating to the administration, management, security, and protection of water and water facilities are solved by agreement between the relevant public authorities and approved by the Cabinet of Ministers of the country.

Financial constraints are not obstacles to the setting of targets and the implementation of various problems in the water sector.

For the integrated management of water resources it should be taken into account that their volume in wet and dry years may differ by approximately 30% (20 km³). For this reason, the provision of long-term hydrological forecasting of water resources is a very important issue. According to the National Center of Azerbaijan on climate change, over the past 20 years there have been about 10% reduction in the wave of resources and this trend will continue under scenarios of climate change. In the second half of the century decrease in runoff may reach 20-25%.

If progressive methods of adaptation will be held, the expected future water shortages can be prevented.

Possible adaptation measures

Indicators of water balance	Quantity of water, mln. m ³		
	Current	Years of 2021-2050	Years of 2071-2100
Water deficit	- 2600	- 9500	- 10260
Increased use of groundwater	3000	3000	3000
Improvement of water supply system	3000	3500	3500
Treatment and re-use of 40% of discharged water	2000	2500	3780
Provide deficit water as a result of actions	+5400	- 500	+20

As can be seen from the table, as a result of adaptation measures, 90-95% of water supply problems can be solved.

Chapter 2

General indicators¹

I. The quality of the supplied drinking water

A. Data context

Please provide general information on the context of the data referred to in sections B and C below:

1. Water coverage of the population (millions, or a percentage of the total population), which is taken into account by the indicator.

Percentage of population with access to improved drinking water quality	2005	2012
Total	78,3%	80,0%
Urban population	86,2%	92,0%
Rural community	68,7%	74,0%

2. Do the water systems indicated in the report supply the urban population only, or both urban and rural inhabitants?

Water system referred to in the report supply both urban and rural populations.

Proportion of population using an improved drinking water source of some kind, makes up to a 80.0%, with 92.0% in urban and rural - 74.0%. According to the data of "Azersu" JSC, residents of rural areas that are not connected to the water network and do not have access to the springs, use water directly from rivers and canals.

About one-fifth of the water supply is provided by groundwater. Of the 70 towns, groundwater provided for 48 and in 35 cities, they are the only source of water supply.

¹ In order to allow for trend analysis for all Parties within the Protocol, it is requested to use, whenever possible, 2005 - the year of the Protocol's entry into force - as the reference year.

Water supply in rural areas is a serious problem. To ensure the safety of drinking water to the people living along the banks of the Kura and Aras rivers, an Order of the President "On improving the provision of the population with ecologically pure water" is implemented. Water treatment plants have been constructed in 221 villages of 20 districts, which enabled to provide 400,000 people with drinking water meeting WHO standards. Currently, each resident living in rural areas receives up to 20-60 liters of water per day for drinking purposes. It is expected that this program will cover 500 rural villages and 800,000 people.

3. Please specify exactly where fences for sample / measurement are built (for example, the output of water treatment plant, distribution system, or at the point of consumer fence).

A production and laboratory control is conducted by "Azersu" JSC water company over the quality of potable domestic water. MOH health service is doing state sanitary supervision through conducting laboratory monitoring. Fence laboratory tests are carried out from the water supply sources, water treatment plants, distributive networks and from the consumers.

At present, the country has not developed national standards. GOST 2884-82 "Drinking Water. Quality Control " is used for this purpose.

Improvement of regulations and standards of the Republic of Azerbaijan in accordance with the European Union legislation is one of the priority areas.

B. Bacteriological quality

It is necessary to use an indicator such as WatSan_S2 - the percentage of samples that do not meet the national standard for *E. coli*, and the percentage of samples that are not in line with the national standard for *enterococcus*.

WatSan_S2	2005	2012
Colon bacillus (<i>Escherichia coli</i>)	28,44%	39,0%
<i>Enterococcus</i>	-	-

Studies of enterococci have not been made.

C. Chemical quality

It is necessary to use an indicator such as WatSan_S3. All countries need to monitor and report on the percentage of samples that do not meet the national standard for chemical quality of water in respect of substances such as:

- fluoride;
- nitrate and nitrite²;
- arsenic;
- lead;
- iron.

² These substances are defined in the Manual on provision of drinking-water quality, WHO.

The parties should also identify five additional physico-chemical parameters, which are of particular importance at the national or local level (eg, pesticides).

Substance	2005	2012
Fluoride	0%	0%
Nitrate and nitrite	0% and 3%	0% and 1,8%
Arsenic	0%	0%
Lead	0%	0%
Iron	5%	0%
Phenols	0%	0%
Oil products	0%	0%
Surfactants	0%	0%
Pesticides	0%	0%
DDT	0%	0%

II. Reducing the scale of outbreaks and cases of infectious diseases potentially related to water

	Cases of disease		Number of outbreaks	
	2005	2012	2005	2012
Cholera	0	0	0	0
Bacillary dysentery (shigellosis)	283	60	0	0
EHEC				
Viral hepatitis A	1292	224	1	0
Typhoid fever	10	0	0	0

Enterohemorrhagic E. coli (EPEC) is not sown in the country.

III. Access to drinking water

Percentage of population with access to improved drinking water quality	2005	2012
Total	78,3%	80,0%
Urban population	86,2%	92,0%
Rural residents	68,7%	74,0%

Data is presented in accordance with the registered number of consumers.

IV. Access to sanitation

Percentage of population with access to improved sanitation system	2005	2012
Total	35,1%	40,0%
Urban population	62,4%	67,0%
Rural residents	1,7%	2,0%

Data is presented in accordance with the registered number of consumers.

V. Operating efficiency, protection and use of freshwater resources
Water quality

For countries outside from the European Union:

The status of surface waters

<i>Percentage of surface water, which are specified in the following classes ^a</i>	<i>2005</i>	<i>2012</i>
I	7,0	5,0
II	20,0	15,44
III	56,6	65,01
IV	7,27	8,0
V	1,82	3,64
VI	3,64	2,91
VII	3,64	-
The total quantity / volume of classified water basins		
The total quantity / volume of classified water bodies in the country	135/21,4 ^x	x 135/21,4

* 135 water reservoirs/21,4 mlrd. sq. metr

^x- Information on the existing reservoirs is presented by the Amelioration and Water Economy JSC of Azerbaijan Republic.

In the numerator - the number of reservoirs and in the denominator - the volume of water.

There are 8,400 large and small rivers in the Republic of Azerbaijan. Of these, 850 have a length greater than 5 km. Only 24 rivers are longer than 100 km. Kura and Araz - the largest rivers of the Caucasus, are the main sources of drinking water supply, irrigation and hydropower. Area of the Kura River basin is 188,000 square kilometers. Mingachevir, Shamkir and Yenikend reservoirs, dams, hydroelectric power plants are built on it. Lands of the Kura-Araz lowland are irrigated with the waters of Mingachevir reservoir, Upper Karabakh and Upper Shirvan canals.

There are about 450 lakes with fresh water and salt water in the territory of the Republic of Azerbaijan are, which differ in terms of nutrition and formation.

The country's water reserves are 39 billion cubic meters, of which 9 billion cubic meters are groundwaters. Resources of river waters of the Republic are 30.0 billion cubic meters, of which the share of local runoff has 10.0 billion cubic meters.

The main water resources of the country are formed outside the territory of the republic and enter into Azerbaijan in already heavily polluted form. Only 700 million m³ of waste water is discharged into the Kura River in the territory of neighboring countries per year, which leads to a significant environmental stress.

Contamination from neighboring countries of the biggest waterway of the country - the Kura River, which occupies three quarter of the total area of Azerbaijan Republic and located in depressions, pose environmental tensions. At present all trans-boundary rivers of Azerbaijan in upstream are heavily polluted.

Given that the water of Kura River provides up to 80% of the drinking water supply of Azerbaijan, any deterioration in the quality of water is a threat to the health of the population. Kura River basin is located within the territory of five countries, but in none of them, except Azerbaijan, it is the main source of water supply.

Intensive pollution of water sources causes significant damage to the health of the population consuming poor-quality drinking water.

Thus, the main features of the water resources of Azerbaijan are their limitations, the uneven distribution, formation of about 70% of surface water resources outside the country and their strong contamination when entering the country.

From neighboring countries, Armenia and Georgia, the discharge of untreated sewage into the transit rivers has a negative impact on the hydrochemical regime and water quality. As a result, trans-boundary pollution from contaminated water basins disturbed the recovery process and they have become a dangerous source for use. Conducted monitoring detected copper, molybdenum, zinc, phenol and oil products in high enough concentrations in the waters of the rivers as a result of pollution of transboundary waters.

Sarsang reservoir located in the territory of Nagorno-Karabakh, which is occupied by Armenia is also used as a means of pressure.

Capacity of the reservoir is 560 million m³. The water in the winter is reset in the downstream area populated by Azerbaijanis, excluding seasonal needs of the population. As a result, in the summer, when water demand is high, there is a critical shortage of water.

Settlements, agricultural areas and communication lines remain under water in winter. In summer the population feels an acute shortage of water and as the result of desertification land degradation is observed.

In the territories of Azerbaijan currently occupied by Armenia as a result of the lack of environmental control on these lands ruthless exploitation of natural resources and excessive pollution of water resources are continued.

As a result of studies, water pollution index exceeds the standard of performance many times in observation post Shikhli-2 located on the border with Georgia. In years of 2010-2012 identified major pollutants as phenols³ and copper compounds exceeded the annual average of 9 times, and the rate of nitrite in 8 times.

At the observation post Bagramly, located on the Aras River, which borders with Armenia, exceeding the average annual indexes for oil and oil products, phenols and copper compounds 9-10 times were set as a result of the monitoring.

Status of groundwater

<i>The percentage of groundwater, which are specified in the following classes^a</i>	<i>2005</i>	<i>2012</i>
I	5.5	5.0
II	24.5	20.0
III	60.0	64.0
IV	7.0	7.5
V	2.0	2.5
The total quantity / volume of	1.0	1.0

classified ground waters		
The total quantity / volume of classified ground waters in the country	13/9,0*	13/9,0*

*13 groundwater basins/9,0 mlrd cubic metr.

- The national system of classification of groundwater does not exist.

Water management

<i>Water exploitation index</i>	<i>2005</i>	<i>2011</i>
Agriculture	47,4	48,8
Industry ^a	19,6	14,9
Domestic water use ^b	4,3	3,4

Chapter 3

A set of targets and target dates and assessment of progress

I. The quality of the drinking water (paragraph 2 a) of Article 6)

General situation of water supply and sanitation in Azerbaijan is characterized by irregular water supply and not always good quality of water supplied to consumers. This is due to the limited access to water of appropriate quality and in the right quantity.

Most of the population lives in the Kur-Araz lowland and uses water for drinking purposes from the Kura and Araz rivers.

The environmental situation in the Kura River basin, which provides drinking water to most of the settlements of the republic, including Baku, remains difficult. It is known that the formation of more than 70% of the water flow of the Kura River basin and its tributaries in our country is from the neighboring countries (Turkey, Iran, Georgia, and Armenia). Due to the ongoing trans-boundary water pollution, the situation dramatically exacerbated with the uninterrupted supply of fresh water needs of the population and the various sectors of the economy. When entering the territory of Azerbaijan the rivers carry the water, which includes a content of pollutants exceeding the norm.

When considering that 80% of the population uses water for drinking and agricultural purposes from the contaminated river water, one can imagine to what extent the danger arises for human health and the ecological system as a whole.

It should be noted that Azerbaijan's economic development in recent years has allowed transforming the solution of environmental problems and protection of the rights of water consumers into one of the policy priorities. Over the last 7-8 years large-scale government programs aimed at improving the environmental situation, as well as projects that require a very high cost were carried out in the country.

As a result of implementation of a series of measures by the Government aimed at improving the provision of the population with high quality drinking water that meets environmental requirements and recommendations of the WHO, since 2007 installation of modular type wastewater treatment plants in some areas of the Nakhichevan Autonomous

Republic, as well as more than 221 settlements of 20 regions of the Republic has been initiated, which are currently in operation. The amount of pumped water for 1 person is 20-60 liters.

Until the end of 2015 this figure will be increased to 400 settlements, covering 850 thousand people.

The purpose of the programs adopted by the Government to improve water supply, is the rehabilitation and construction of water treatment plants and water supply to certain terms of programs.

The project of the national water supply and sanitation in 12 cities and regional centers for sustainable and safe water supply and sanitation to ensure continued work of the "Azersu" JSC, Amelioration and Water Economy JSC, with financial support from the government of Azerbaijan and the World Bank.

To improve the skills of workers serving the water treatment plants and water supply systems their specialized education are widely practiced in France, Spain and Turkey. To strengthen laboratory capacity of the entities serving the water bodies, six modern mobile laboratories have been acquired and operated.

In order to reduce the risk of secondary contamination of drinking water in the capital of the Republic, works began on the elimination of inter-shallow pools.

The development of the Master Plan of Water Supply and Sanitation of Greater Baku has been completed to achieve the goals set by the government; there will be a presentation of the project in the near future.

II. Reducing the scale of outbreaks and cases of infectious diseases potentially related to water (paragrahp 2 b Article 6)

Law of the Republic of Azerbaijan On sanitary-epidemic welfare of the population identifies the responsibility of public and private entities for epidemic security, as well as reducing the outbreaks and cases of disease related with water.

The responsible government authority for the implementation of Law is the Ministry of Health, with the Sanitary-epidemic control service under its discretion, which carries out all sanitary-hygienic and anti-epidemic measures.

Performance of Sanitary-epidemic control service is based on legislative and normative-legal regulating acts adopted by the relevant profile services and ministries.

Also the Ministry of Emergency Situations is the responsible authority for actions against dangers in case of emergency situations, as well as of sanitary-epidemic character, which performs together with the Ministry of Health especially for this case.

A good example for this kind of situation could be joint actions of two authorities during the flood in Kura River in 2010, which extended over 5 raions of the republic.

The process of integration into European Union is being felt in all government institutions, and also in the Ministry of Health.

One of the priorities is an implementation and use of modern technologies for the taken actions on warning and adequate responsive actions for emergency situations in the sphere of sanitary-epidemic safety of population.

To ensure timely registration and information in the republic, a notification system on detected infectious diseases was organized and fully implemented via electronic system (Integrated Electron System of Monitoring on Diseases - IESMD), which operates in online mode.

IESMD was developed for the system of “Dangerous causative agents of diseases: detection and counteraction (DCADC)” within the program for reaction to biological threat (PRBT).

The current system provides on-time information about all identified infectious illnesses at all levels - from regional up to national scale. Program includes 69 raion and city hygieny and epidemiologic centers, hygieny and epidemiologic centers on water, air transport and railways, 5 regional antiplague departments, Institute for Pulmonary Diseases, Republican Center of Hygieny and Epidemiology, Republican Antiplague Lab and the Ministry of Health. Program allows to transfer required information to different kinds of authorities in a real time mode.

In addition, IESM system has an efficient cooperation with European Regional Bureau of World Health Organization (WHO). According to WHO formats, monthly and annual reporting forms on managed infections has been developed.

One of the key moments on investigations of illness situations, decision making and development of prevention measures is laboratory diagnostics. The main following actions are taken to implement modern diagnostic technology on infectious diseases.

- A new 4 storey building of Republican Antiplague Lab is at the stage of finalisation, where laboratory diagnostics of infectious illnesses, which are stipulated as 3rd level biologic security are planned.

-Bacteriological and virusological laboratories of Republican Center of Hygieny and Epidemiology have been overhauled and equipped;

-4 inter-regional antiplague departments have been finalised; which were furnished with up to date equipment;

-8 laboratories of sanitary-epidemiological offices have been overhauled and equipped with modern installations;

-More than 400 medioprofilactic institutions have been constructed or repaired in recent five years;

-According to the relevant State Program it is planned to construct and overhaul more than 30% of sanitary-epidemiological center facilities while purchasing new modern laboratory equipment by 2015.

The main direction on conducting sanitary protection of territories, epidemiological control over feral herd infectious diseases, implementation of sanitary-antiepidemic measures is a personal training. Following measures have been taken and are being realized in the republic in connection with it:

-A horne work on development of personal capacity building, especially training of specialists from sanitary-epidemiological services and medical set at local and middle level is being realized;

-Trainings have been organized on for managers and specialists of sanitary-epidemiological services with the support of WHO since 2009. In the same year, a national inter-sectional workshop on implementation of was conducted.

- An obligatory certification system of all doctors and medical employees has been introduced since 2011 with the 5 year periodicity. Compulsory courses for improvement of qualification before certification is stipulated;
- Personal training on IESM project is conducted. 210 executives have been trained on preliminary computer skills, 170 on 3rd version of IESM, 8 on analysis module and 3 specialist on IT support. From June 2012, trainings on 4th version of IEMS have been initiated.
- With an assistance of US Center of Disease Control (CDC) Caucasus Regional Program on Applied Epidemiology and Laboratory (CRPAEL) started in the year of 2009.

Caucasus Regional Program on Applied Epidemiology and Laboratory (CRPAEL) is a two years tutorial program on applied epidemiology and management of laboratories. Program contributes to practical application of knowledge received during classroom studies for solution of the problems related to identification, reaction and control of outbreaks of diseases.

Objective of the program is strengthening of capacity of national epidemiologists and laboratory specialists from the Ministry of Health and the Ministry of Agriculture in principles of public health. Caucasus Regional Program on Applied Epidemiology and Laboratory (CRPAEL) is established on the principles of same programs, which are implemented in more than 30 other countries since 1980.

During the tutorial our residents conducted following actions:

- Assesment of epidemic control system on Salmonellosis
- Assesment of epidemic control system on Rotaviruses

Residents and graduates of the courses have participated in various international conferences, symposiums and seminars on repeated occasions.

6 specialists (3 epidemiologist and 3 doctor-laboratory assistant) have been trained through the program for field epidemiology and laboratory issues (South Caucasus Program on Field Epidemiology and Laboratory). The Program is still implemented. It is planned to organize such a program in Azerbaijani language for the personnel of sanitary-epidemiological centers of the republic with the help of already trained staff.

Main indicators of improvement in healthcare system is decrease of child, mother and general death, increase of life time of population and its birth rate.

There is a tendency to reduce the mortality rate in the country due to revenue growth, improved medical technology and the implementation of public health programs, along with the medical-sanitary awareness of the population. This was facilitated by the same measures for cleaning the water, construction of sewer systems.

So, for a 10-year period (2003 to 2012) fertility rate per 1,000 population increased from 13.9 to 19.0; deaths decreased from 6.0 to 5.3, the natural growth rate during this period increased from 7.9 to 13.0.

If an overall infant mortality rate in the Republic was 16.7 in 2003, this figure dropped to 10.8 in 2012, maternal mortality rate in 2003 decreased from 18.5 to 14.9 compared to 2012.

The positive dynamics of long-term reduction of indicators of infectious diseases related to water is also noted. Thus, according to statistics from the past 40 years no incidence of cholera is recorded in the territory of the republic, for more than 10 years there have not been outbreaks of typhoid, the incidence of hepatitis A and salmonella (shigellosis), giardiasis is reduced.

The country successfully completes the program of sentinel surveillance for rotavirus infections, funded by the World Health Organization.

It is noteworthy achievements of the republic in the fight against three-day malaria, so that in 2012 a total of 5 cases were reported, suggesting that the country's commitment to the elimination of malaria are similar.

Given the high levels of morbidity of helminthiasis among primary school children, laboratory tests for invasiveness are carried out in the country since 2005, followed by preventive pharmacological interventions in children.

Some areas are endemic zones for iodine deficiency in the territory of the country. Due to the lack of iodine in drinking water diseases related to this factor have been observed for people in these regions such as goiter, mental retardation, cretinism, etc. In order to prevent the disease for lack of iodine, the Government of the republic adopted a law on "iodization of salt to prevent mass disease" in 2011. This has reduced the incidence of endemic goiter in the population.

Development of supervision and increasing the monitoring of surface and underground sources of drinking water by improving the laboratories of the National Center of Hygiene and Epidemiology, staffing them with modern equipment and facilities, staff training and the creation of a computer database, improving communication and control is being continued.

Due to the urgency of the water factor in the spread of diseases related to water, there is the question of safety criteria and standards for drinking water quality and the level of laboratory research. In this context, it should be noted that the laboratories of the National Center of Hygiene and Epidemiology, pass accreditation every 5 years successfully and receive a certificate of accreditation according to international ISO standards.

Last accreditation certificate was received 30.11.2012, in accordance AZS ISO / IEC 17025:2009 «General Requirements for the competence of tasting and calibration laboratories»

III. Access to drinking water (paragraph 2 c of Article 6)

Access to water supply is regulated through the series of legislative acts:

- Water Code;
- Law on environmental safety;
- Law on water supply and waste waters;
- Law on sanitary-epidemic safety of the population;
- Law on informing the public on environmental issues;
- Law on production and household wastes;
- Law on Amelioration and Irrigation;
- Law on hydrometeorological activity.

It should be noted that reforms in the field of water supply have been carried out for the period of 2010-2012 years in Azerbaijan. Tasks to ensure the quality of the population that meets international standards and local drinking water were performed. Certain tasks were set up in accordance with the National Program for sustainable socio-economic development of the country (2003) in an environmental context. According to the National Program, every citizen of the country will have access to safe and high-quality water by 2015. The purpose of the state water policy of the country is to ensure a safe and wholesome living environment for humans while meeting their needs.

About 60 cities have a water supply system, and the main part of which is intended for the use of artesian, sub artesian and spring water.

The capital of Baku and Absheron peninsula are supplied with domestic potable water from three sources. The main waterway of the capital and the cities along the Kura-Araz lowland is trans-boundary Kura River and its tributary - the Araz River. Both rivers are severely degraded, and water quality is deteriorating due to the discharge of untreated municipal, medical and agricultural water, as well as a high level of sedimentation due to deforestation in upstream. Other sources of household potable water are coming from Khachmaz and Shollar water pipes, and the water from the Jeyranbatan reservoir coming from the Samur River. Sedimentation, chemical treatment and chlorination of water from the source are done before reaching the consumer, except Shollar, whose waters are only disinfected.

The priority target is to increase the volume of produced good quality water supplied to the Absheron Peninsula, where 38.8% of the total population of the country lives. "Oguz-Gabala-Baku" water line was put into operation in 2010 to achieve this figure, which lengths for 263 km; the performance of the water supply is 5m³/sec. The source of this water is artesian and sub-artesian wells drilled in the mountainous region of Oguz. For radiological, physical, chemical and microbiological characteristics of the water source is classified as Class 1 groundwater and does not require additional processes for technological purification.

Much attention was paid to improving the quality of water supplied to Greater Baku. Here, in 2011, the foundation of building complexes for ultra membrane filters at Jeyranbatan reservoir was laid with the capacity of 6 m³/sec. A target to improve the structure of water quality control was set and the plan was launched to strengthen the independence of the laboratories on this basis. "Azersu" JSC purchased six mobile laboratories for a wide range of physic-chemical and microbiological analyzes. For achievement of the target to supply the residents of rural areas with safe water in the regions of the Republic a set of measures in accordance with the National Program "to improve the socio-economic development in the regions of the Republic" (2009-2013 years) is also carried out; in a number of cities (Baku, Sheki, Ganja, etc.) water network and water treatment technology has been completely renovated.

Overall, the projects for improvement of access to drinking water and sanitation were realized in Absheron Peninsula and 24 regions of the country in 2012-2013.

Serious attention was paid to access to drinking water and sanitation for students of secondary schools in the country. Thus, over the period from 2003 to 2012, 2457 new schools (52%) were built in the Republic covering 550,000 students. 708 schools were overhauled with updated infrastructures. Thus, for more than 550,000 students all the measures were taken to improve hygienic practices, access to improved water and sanitation.

Regarding the development of small-scale water supply systems a strategic policy document, a Program on "poverty reduction and sustainable social and economic development for the period of 2008-2015 years" was adopted.

Given that the small water supply systems are vulnerable to pollution; this aspect requires special political attention to ensure the resources. The above named program sets targets for the provision of rural population with access to improved water sources. Since 2012, the Republican Center of Hygiene and Epidemiology conducted laboratory monitoring in small water systems for risk assessment covering all of the water supply chain from catchment to consumer. With this purpose study of 3459 water sources used by people for drinking water in 2180 villages of 39 regions of the country was made. Taken water samples were subjected to sanitary-chemical and

sanitary-bacteriological studies carried out by a mobile laboratory of the National Center of Hygiene and Epidemiology. Taken water samples from a study did not meet current standards as 45.6% for chemical indicators, 38.3% - for microbiological indicators. To improve the quality of water in these localities experts of the Republican Center of Hygiene and Epidemiology prepared proposals for the creation of optimal conditions in order to organize sanitary protection of sources, regulating access of animals to water and so forth, and were sent to the heads of Executive Powers of individual regions.

Adaptation measures on water supply and sanitation were envisaged in the country to prevent large-scale consequences of the vulnerability of water resources in emergency situations, as they represent a potential threat to public health. So, there is a counter-operative plan between the Ministry of Emergency Situations (MES), the Ministry of Health (MoH) and the Red Cross and Red Crescent Society. An adequate supply of tents for emergency deployment were acquired, the Emergencies Ministry for rapid identification of water pollution 2 stationary labs and 4 facilities for water sampling were purchased by the Ministry of Emergency Situations. Mobile water treatment plants were purchased from Israel to clean drinking water in emergencies, some of which will purify sea water to drinking water indicators, others to reduce turbidity; also 11 mobile toilet facilities were purchased. Laboratory control monitoring sets and epidemiological teams were put into readiness at the Hygiene and Epidemiology Center of the Ministry of Health to take relevant measures in emergency situations.

IV. Access to sanitation (paragraph 2 d) of Article 6)

Management of sanitary-preventive actions related to access to sanitation facilities for both collective and individual sanitation systems is done by the relevant existing legislation in the country. These relationships are reflected in the law of Azerbaijan Republic "On the Water and Wastewater."

The tense situation with the collection and recycling of household waste waters in the cities and villages of the country should be noted. However, the activities carried out, aimed at fulfilling the goals of the National Program - Presidential Decree "On the socio-economic development of the regions of the Republic" (2009-2013), "The program on socio-economic development of Baku and its settlements" (2011-2013) have improved the environmental situation in the capital and in regional centers. So, to improve the access of the population on the Absheron Peninsula sewage line with the length of 110.9 km was provided. In accordance with the project on the national water system maintenance and expansion of water supply sewerage since 2010 construction of the sewerage network has started in 9 regional centers (Salyan, Lankaran, Bilasuvar, Saatli Siazan, Cuba, Kusary, Shemkir Gazah). During this period, sewage lines with a total length of 625.4 km and storm water lines with the length of 44 km in areas of the country have been carried out or replaced.

Development of reconstruction of water and wastewater systems in the 5 regional centers (Xachmaz, Kusar, Khyzy, Saatly, Sabirabad) began in 2012, the project for reconstruction of water and wastewater system In Gobustan was presented. Public funding in the amount of 864.7 million manats was allocated for these works. By the decision of the project it was stipulated to construct the sewage lines for nearby rural areas and connect them to the sewage network of above-mentioned regions.

Thus, the problems of existing degraded sewage systems are solved and construction of new systems is being implemented (for a period of 2015-2030 years).

Representatives of local residents are involved into agreement process for design, whose opinion has an influence over the solution of numerous issues.

It should be noted that laboratory studies on wastewater are conducted according to European standards in newly opened laboratories of Azersu JSC.

For the solution of the problems associated with clogged sewer systems Azersu JSC has purchased new equipment of latest technology.

V. The performance levels of collective systems and other water systems (paragraph 2 (e) of Article 6)

Goals have been identified in line with the national programs:

- To reach the around the clock supply of the population in both urban and rural areas in 2020. Thus, within State Program on "Socio-economic development of regions of the Republic" (2009-2013), for high-quality uninterrupted water supply to 5 regional centers (Neftchala, Bilasuvar, Salyan, Shirvan, Hajigabul) with the inclusion of 140 villages the construction of East-Mugan group waterline started. A similar situation is in the cities of Sabirabad and Saatly. A group waterline for supply of water to Ujar, Zardab and Kurdamir cities has been constructed and is in use. According to the data from Azersu JSC, rehabilitation of water pipeline facilities of all 66 regions is planned.

50% of country's existing 400 water pumping stations are poorly maintained, their rehabilitation is carried out in accordance with the developed projects.

In order to achieve the national targets set by the government development of "Master plan for water supply and drainage for Greater Baku" has been completed, which states:

- Uninterrupted water supply system;
- Collection, treatment and discharge of wastewater into the Caspian Sea;
- Management of rainwater.

"The Master Plan for the management of water supply and sanitation" for the whole country is currently under development. To this end, the study of sources, the possibility of sanitary zones of alienation, multistage wastewater treatment and then using it in the countryside for watering the soil is carried out.

By now the construction of laboratory facilities of JSC "Azersu" according to European standards has been completed, documents are prepared for laboratory accreditation according to ISO standards.

In all developed and currently implemented projects the facilities along with the complexes of water and wastewater infrastructure are provided: administration building, laboratories, etc. The laboratories use the progressive control system (BPCS). Water parameters such as temperature, turbidity, chemical composition, etc are automatically identified here.

VI. The level of effectiveness of collective systems and other systems of sanitation

It should be noted that despite the degradation of the wastewater collection system, especially in the villages, the rehabilitation and construction of systems for the collection, treatment and disposal of waste water is implemented in all regions of the country in accordance with the National Program "on the socio-economic development of the regions of the Republic" (2009 - 2013) The effect of sanitation in the capital city was 70% due to the unfinished sewer systems. This shortcoming is planned to be resolved on the Master Plan for the management of water supply for Greater Baku. The project is fully prepared, certain financing funds are allocated and the project will be submitted for presentation in the near future. 11 water treatment plants for waste water treatment will be installed on the coastline of the Caspian Sea in accordance with the Project. Currently sewage pumping stations in 6 regions of the Republic and the Absheron peninsula are being installed.

VII. The application of recognized good practice to the management of water supply (Paragraph 2 f) of Article 6)

VIII. The application of recognized good practice to the management of sanitation (Paragraph 2 f) of Article 6, continued)

The correlation for this aspect is carried out in accordance with:

- The law "On the Water Supply and Wastewater" (1992);
- "Water Code of the Azerbaijan Republic" (1997);
- Law on Supply of municipalities with water (2001);
- The Law on Sanitary and Epidemiological Well-Being (1992);

Also, through the existing regulations:

- SanPin 4630-88 "Wastewater populated areas. Sanitary protection of water bodies. " (Hygiene Requirements for the protection of surface waters).
- Guide to Drinking Water Quality (Geneva 1997), WHO v.2. Hygiene requirements, etc.

Practice in the management of water supply and sanitation is adapted to local conditions to achieve the objectives of national government programs. To ensure proper use and rehabilitation of water supply and sanitation from July 2004 JSC "Azersu" is dealing with these issues in all regions of the country.

One of the goals set by the state programs is to ensure people in all regions, both urban and rural settlements in 2020 with uninterrupted high-quality water supply and sanitation. In order to achieve this indicator, a State Program "on sustainable socio-economic development of the regions of Azerbaijan." In a number of small towns construction of water and sewer facilities is implemented. The master plan is developed to ensure the water supply and sanitation in all regions of Azerbaijan.

Tangible progress has been made in the provision of rural settlements small-scale water supply systems in accordance with the order of the President of the Republic of Azerbaijan dated 20.07.2007, № 2245 "On some measures to improve the provision of ecologically clean water." For example, for the past 5 years in parts of the country for the people living along the bed of the Kura and Aras local water treatment facilities were set in 221 villages, covering more than

400,000 people are installed. Number of created artificial springs is 3102 with a daily output of 20 m³ of water / day - 60 m³ / day.

State sanitary supervision on the status of water supply in small-scale water supply systems, with quarterly sampling (in 45 of 62 regions) and water sampling for laboratory monitoring to control the compliance of their performance with existing standards is realized.

Parity collaboration is organized between Sanitary Service of the Ministry of Health of Azerbaijan and the Ministry of Ecology and Natural Resources on all matters relating to the issues of the Protocol on Water and Health.

Cooperation with Azersu JSC is realized at all stages of state sanitary control, starting from the design stage of water bodies, construction and current sanitary supervision with monitoring the quality of drinking water. This cooperation is carried out both at central and local levels.

It should be noted that in case of emergency, as in the running water and sewage systems representatives of the management company "Azersu" carry out sanitary inspections.

To improve the training of personnel operational center for training functions at JSC "Azersu", site visits of personnel are organized to European countries.

State Water Agency, established in 2011 by the Ministry of Emergency Situations deals with protection of water sources, the implementation of an inventory buffer zones at intakes.

We should note that that materials having contact with drinking water, are used only if the relevant certificates exist.

For a broad awareness about current activities mass media, particularly television is used, websites of various ministries and departments are opened.

In the process of developing master plans both in the capital and in the country as a whole, national targets for the safe uninterrupted water and sanitation supply of the population have been defined.

IX. The occurrence of discharges of untreated wastewater (point 2 g i) of Article 6)

No regular direct discharge of wastewaters into Kura and Aras rivers at the middle stream flow of Kura happens. However, waste waters are discharged into their local and transit inflows (Agstafachay, Tovuzchay, etc.). River in the country regularly discharges wastewater to rivers Kur and Araz happens. In the downstream of the Kura and Aras wastewater directly discharged into these rivers from settlements of Mingachevir, Shirvan, Salyan, Neftchala, etc.

In this regard, various projects have been implemented to protect water resources in recent years. Work on the Protection of the Caspian Sea from pollution continues. The daily capacity of the treatment plant has reached 640 thousand cubic meters. In Buzovna settlement (located in the recreational area of the city) a biological purification plant was built with a capacity of 10 thousand cubic meters; and Mardakan-Shuvalan purification plant with the capacity of 20 thousand cubic meters was reconstructed. The first stage of purification plant with the capacity of 200 thousand cubic meters has been completed in Sumgayit.

In the direction of solving the problems shown in the decree of the President of the Republic of Azerbaijan "On Measures for the Protection of the Caspian Sea from pollution" to manage wastewater unconnected to the central sewerage system of the coastal zone (Bilgah,

Buzovna, Pirshagi, Nardaran Novkhani and Sumgait) 17 stations of modular type were built, with a capacity of 6400 cubic meters. Contaminated wetlands and the ponds are drained and ecological balance is restored on this areas.

**State supervision of the
Ministry of Ecology and Natural Resources in the field of water resources.1)**

	2005	2008	2009	2010	2011
Total numbers of inspected entities	394	154	211	215	117
Number of entities polluting water bodies with the pollutants above norm.	145	49	71	77	29
Total number of inspected entities in percentage	37	32	34	36	25
The number of legal entities and individuals involved in the administrative responsibility for the violation of water legislation	141	48	71	71	26
Amount of penalties, thousand mantas	11,2	295,9	175,4	173,9	95,6
The volume of fines for a claim for violation of water legislation, thousand manats	29,7	2,6	0,4	-	52,6

X. The occurrence of discharges of untreated storm water overflows from the collection systems for waste water into water, falling under the Protocol (2 g) ii) of Article 6)

In Azerbaijan, untreated storm sewage do not have separate diversion of communication and therefore, they are mixed with sewage wastewater coming to the treatment plant or discharged into water bodies without treatment. Azersu JSC plans to solve the problem of accumulation of rain water in the streets of Baku. According to the master plan developed by the named organization to improve the water supply and sewerage services in Baku and Absheron peninsula, construction of 900 rainwater collectors is planned. Also to address the accumulation of water will be constructed 12 rainwater collectors of tunnel type. Master plan to improve the water supply and sewerage services, also provides for the construction of:

- main water line length of 163 km,
- water network length of 5779 km,
- 83 new water tanks with a capacity of 1,345,000 cubic meters of water
- 682 sewage collectors,
- 6395 km of sewers tunnel type,
- 11 units of sewage treatment with the capacity of 1,375,000 cubic meters.

According to initial estimates, the maximum improvement of the water supply system, in particular the-clock water supply and sewerage services throughout the country will require an investment of 8 billion manat.

Relevant activities for the separation of storm water from municipal wastewater will be identified and after determining targets.

XI. The quality of discharges of waste water from the cleaning of waste water into the waters covered by the Protocol (2 h) of Article 6)

The law "On the Water and Wastewater" defines mutual relations in this section. In Azerbaijan, the system drains are divided: household-economical, rainwater and heavy industrial. In small towns - drains are common. Discharges of wastewater are not treated in the cities and in rural areas due to lack of discharge treatment systems. The solutions to these problems in the country are found according the National State Program "On the socio-economic development of the regions of Azerbaijan." During the reporting period, treatment facilities in 6 regional centers were built and put into operation, with the development of allocated funds.

It should be noted that the quality of water flows is determined in accordance with the PDS; water use permit is not issued. The purpose of the above program is to provide all district centers with rural settlements treatment facilities in remote period of 2015-2030. Consistent project documentation has been developed to achieve the goals; and these projects have already been implemented in a number of small town. In addition, the development of the Master Plan for water supply and sanitation in all regions of Azerbaijan has been initiated Certain studies are conducted in this aspect.

XII. Disposal or reuse of sewage sludge from collective systems of sanitation or other sanitation installations (Paragraph 2 i) Article 6 - the first part)

Sanitary-prevention measures for removal and reuse of sewage sludge from collective systems and other sanitation installations are not provided at this stage. These activities will be determined after the setting of targets.

XIII. The quality of wastewater used for irrigation (paragraph 2 i) Article 6 - Part Two)

Azerbaijan has not practiced the use of wastewater for irrigation, but the legislation allows the use of these waters for irrigation of green spaces, subject to agreement with the Ministry of Ecology and Natural Resources and the Ministry of Health. These activities will be determined after the setting of targets.

XIV. The quality of waters used as sources of drinking water (paragraph 2 j) Article 6 - the first part)

The current system of standards, provides that those sources that relate to the 3rd of the first class of this system can be used for drinking water supply. According to the classification system developed in the framework of the EU project on water management in EECCA, shows that the sources that refer to the first and second classes can be used for those purposes without prior purification, and sources related to the third class require a cleanup. Based on the classification of water resources of the country (Table), more than 70% of all water use may howl as a source of drinking water. Quality indicators of this kind of water are high and it requires minor cleaning costs.

XV. The quality of water used for bathing (paragraph 2 j) of Article 6 - Part Two)
Indicators are not defined

XVI. The quality of waters used for aquaculture or for the production or harvesting of shellfish (paragraph 2 j) Article 6 - the third part)

In Azerbaijan, a legal framework for the regulation of water quality for aquaculture breeding exists, but in practice, its application is not made. These activities will be determined after the setting of targets.

XVII. The application of recognized good practice in the management of enclosed waters generally available for bathing (paragraph 2 k) of Article 6)

Coastal recreational waters of the Caspian Sea are used for bathing. In the northern part of the coast of the Caspian Sea, where the focus is one of the main recreational areas of the country Yalama-Khachmaz lowland sea water quality meets health standards and regulations. This is confirmed by the results of water monitoring of the Caspian Sea, conducted by local centers of Hygiene and Epidemiology and the Caspian Environmental Monitoring. During the summer, the website www.health.gov.az of the Ministry of Health provides information about the state of the sea water on the beaches of the Caspian Sea. Each year, before the start of the bathing season (May-September months) assessment of the quality of marine coastal waters of the Caspian Sea is done. Water quality on the beaches of the Caspian Sea has improved according to monitoring by authorities and representatives of the Caspian State sanitary supervision of the Office of Environmental Monitoring. The quality of the sea water was improved due to the fact that the companies engaged used significant investments

for improving the quality of wastewater. For example, to ensure safe water used for recreational purposes in Absheron the reconstruction of Hovsan aeration plant is completed, biological treatment plants have been put into operation. The problem of scattered sources of marine pollution runoff from housing estates, having unauthorized discharges of municipal wastewater has been partially solved by installation of 17 local modular treatment plants on the north coast of Absheron Peninsula for the distance of 86 km.

Taking into account of high level of urbanization in Absheron Peninsula, is expected to suspend the all outputs of untreated sewage into the sea. Works on inventory of pollutants on the Baku Bay has been initiated and strategic directions for its treatment are identified, pollutants and foreign objects have been studied. Remediation of contaminated oil waste in the land area of 25 hectares within Absheron peninsula has been implemented, the area was landscaped with drip irrigation.

Management of small mountain rivers for water use, as the water system, and for recreation and fishing is envisaged.

The reconstruction and construction of large-scale biological treatment plants with capacity 650,000 m³/day and 200,000 m³/day have been completed on the coast of the Caspian Sea. All these measures have a positive effect on the quality of sea water in recreational waters of the Caspian Sea. So, if in the last century in the process of monitoring the quality of sea water allocated NAG-vibrio cholera-I-II group Heiberg and as indicators of anthropogenic pollution - E.coli, Shigella and other micro-organisms, the marine water quality monitoring conducted by the State sanitary supervision together with the specialists of the Ministry of Ecology and Natural Resources in 2010-2012 showed qualitative improvement of recreational waters. It should be noted that no studies have been conducted to determine the correlation of the quality of seawater and various infectious diseases during sea bathing. However, in the summer season, between sea bathing, from mid-June to mid-August, the observed seasonality of intestinal infections, an increase in OCI with conventional and non-agent was mentioned. Also increased uptake of the population to ophthalmologist in connection with bacterial conjunctivitis increases. It is assumed that these eye diseases are related to environmental factors and the sea enhances this factor.

It was noted above that the country is in the process of water management is striving to introduce the latest technologies in water purification. In the process of solving these problems is expected to reduce the risk of impacts of infections on human health, transmitted via water.

XVIII. Identification and remediation of particularly contaminated sites (paragraph 2 I) of Article 6)

In accordance with the State Program on "Social-economic development of Baku city and its settlements" (2011-2013), works on an inventory of lakes located in the Absheron Peninsula has begun, wastewater and groundwater contamination has been suspended, pollution of coastal zones of lakes with solid household and industrial waste is prevented. Oil-polluted lakes with a total area were cleaned and landscaped in 2012. Absorbing wells were used for disposal of groundwater and process water.

In the context of the implementation of the Comprehensive Action Plan on "Improving the ecological situation of the Republic of Azerbaijan" (2006-2010), the construction of solid waste incineration plant (Baku Waste to Energy Plant) started in 2009, the project was completed in December 2012 and the plant started the operation. The annual disposal of solid waste in the

initial stage is 500 thousand tons, as stipulated in the terms of reference. In parallel, Balakhany sorting and recycling plant was put into operation. The annual capacity of this plant is 200,000 tons. Introduction of these facilities contributes to the improvement of the environment, save energy and reduce environmental stress on the Absheron Peninsula. It should be noted that in the context of the Project, implemented by the World Bank in cooperation with the Azerbaijani government on the "integrated solid waste management" 41 illegal dumpsites were closed in the city of Baku and its settlements, with the disposal of 360,000 tons of household waste to Balakhany landfill. Thus, national targets set by state programs are being achieved.

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

The irrational arrangement of water supply and the poor quality of the organization of work on the operation of irrigation systems leads to high water losses, which represent about 30% of the total water intake, resulting in the contamination of groundwater salinization and individual territories, exacerbated by ineffective or inefficient drainage system of irrigated land. Due to the absence in large parts of the country's water treatment plants, about 70% of the available surface water resources are heavily polluted. Approximately 80% of the water used for drinking and irrigation is taken from polluted rivers of Kura and Aras, which is one of the most serious problems in Azerbaijan in now. Azerbaijan has made significant progress in providing the population with water for drinking and sanitary needs, irrigation of agricultural lands and the construction of anti-flood facilities due to massive investment from both international financial institutions, and from the State Oil Fund. State budget to cover the running costs of the institutions involved in the management of water resources has also increased. Some progress has been made in the field of sewage and waste water. Across the country, the scope of application of biological wastewater treatment has been increasing, and monitoring data of the Caspian Sea have shown a reduction of pollutant concentrations. Some improvement has been achieved as a result of the state water company "Azersu" as a national provider of services for water and wastewater treatment, as well as through the establishment of water user associations in land reclamation sector. However, the very low water tariffs do not allow to cover costs or to promote the efficient use of water. Measures to encourage the re-use of water are still poorly implemented in Azerbaijan. The country has continued work on the installation of water meters to users, and the installation process instrumentation in the water on agricultural lands is very slow. Currently, irrigation fee charged is based on the volume of water consumption, not the area of irrigated land as it was before, which is a positive step.

One of the major problems associated with the management of water resources in Azerbaijan, is the lack of special documents on water policy and water strategy. The components of the water-related problems are contained in the national programs and action plans, and these plans and programs totally form a water policy. Given the number of actors involved in water issues, and the limited nature of the communication between the absences of such structural documents on water-related issues is a serious obstacle to the efficient management of water resources.

The main problems include pollution of the Caspian Sea oil and gas industry, water, water pollution by households as a result of contaminated water from the delta of the Kura River, sea level fluctuations and the threats to his bio. In 2006, the government launched more intensive measures for its protection and restoration, which, for example, include the use of new technologies and tools, and cleaning procedures for the exploration of oil and gas, cleaning of oil-contaminated areas of the Absheron Peninsula and the implementation of actions to increase the biological resources of the Caspian Sea and their Protection.

The legal framework for water in Azerbaijan falls short of the existing institutional infrastructure, which is currently being developed. The legal framework for the protection and management of water resources in Azerbaijan has not changed since 2003, and there have been made virtually no amendments. There is a great need to develop a new regulatory system for water, and the implementation of measures for additions and changes to the regulations that are required to comply with applicable national and internationally recognized standards.

XX. More specific targets on national or local level

More specific targets will be taken after the development of the main targets.

Chapter 4 Overall assessment of progress made in the implementation of the Protocol

Increase the level and quality of life - social-priority goal of social development are the major directions of the state's policies. The standard of living - it is the consumption of material and spiritual goods and the degree of satisfaction of the needs of these benefits at the present stage of economic development. People's needs differ. In addition to the material needs, spiritual and social needs also exist. Material resources are not only limited to the level of consumption of goods and services, advocates general characteristic of the socio-economic results of the development of society, and also includes the average life expectancy, morbidity, and health and safety conditions. Therefore, the quality of life characterized by the level of education and health care, nature of work, the state of the environment. The environment can not be improved in conditions of poverty, and poverty can not be eliminated without a stable and healthy environment, which is why sustainable development is so closely linked to human well-being.

The most important principle of development is the priority of environmental requirements in addressing the issues of water and sanitation services. Project proposals are aimed at ensuring favorable conditions of life of present and future generations, to prevent irreversible effects of human impact on the natural environment. The National Development Plan in this respect comes from the need to preserve and develop natural complex that performs environmental, conservation, recreation and health functions, or improved sanitary conditions in both urban and rural settlements.

It should be noted that non-governmental organizations in Azerbaijan carry out projects to educate the public about the problems in the water sector, explains the legislative and legal aspects of the protection of water resources through the publication of newsletters, brochures, speeches in the press and trainings.

The population can receive environmental information electronically the information center of Aarhus, the Regional Environmental Center, etc. Web page created for the Hydro meteorological

Service, a database of quality and quantity of river water has been developed. This website allows the public to have access to information about water resources.

There is a web page of the Ministry of Environment and Natural Resources to inform the public about the ecological state of the environment: www.eco.gov.az.

In order to inform the public about the health of the environment, according to the quality of domestic water standards and in accordance recreational water hygiene requirements, the Ministry of Health launched a web page: www.health.gov.az.

For the implementation of the Aarhus Convention in Azerbaijan, public information centers were established in Baku, Ganja and Gazakh.

Also working groups on international environmental conventions have been set up and these groups included representatives of relevant NGOs.

To improve the skills of workers serving the water treatment plants and water supply systems their specialized education is widely practiced in France, Spain and Turkey. Six modern mobile laboratories have acquired and are operated to strengthen laboratory capacity businesses serving the water bodies.

Ministry of Health conducts purposeful work on the development of human resources, special attention is paid to training of sanitary-epidemiological service and health care services senior and middle level;

- Since 2011, a system of mandatory certification of all doctors and health care professionals with a 5-year interval has been introduced. It is planned to provide training courses before passing the mandatory certification;

- Personal training on IESM project is conducted. 210 executives have been trained on preliminary computer skills, 170 on 3rd version of IESM, 8 on analysis module and 3 specialist on IT support. From June 2012, trainings on 4th version of IEMS have been initiated.

Ministry of Ecology and Natural Resources regularly holds training courses on the management of water resources at the Institute of advanced and participants are given certificates. Some activities are carried out in the framework of the EU regional projects on Water aimed at enhancing the capacity of personnel.

It should be noted that Azerbaijan has achieved significant results in international environmental cooperation. Azerbaijan has completed the process of accession or ratification by 20 major MEAs, the number of international environmental conventions and protocols, as well as bilateral agreements, ratified by Azerbaijan is growing steadily. There has been significant progress in the implementation of international commitments on a number of MEAs.

There are a number of unresolved pressing problems along with the progress made in the implementation of the protocol in the country:

- Integrated water resources management;
- Questions of adaptation of water resources to climate change;
- Prepare a national strategy for adaptation measures to manage floods, droughts in the country in terms of climate change impacts on water resources and the health of the population, as well as extreme weather conditions;
- Development of new standards for drinking water, according to WHO recommendations;
- Training of human resources of all ministries involved in this protocol;
- To achieve re-use of waste water in order to reduce the anthropogenic impact on the mountain rivers and underground water sources;

- Strengthen advocacy work with local communities to increase awareness and knowledge on lean towards water resources;
- Providing structural laboratories with modern equipment and reagents.

Chapter 5

Information about the person submitting the report

This report is submitted on behalf of the Ministry of Health and the Ministry of Ecology and Natural Resources of Azerbaijan Republic in accordance with Article 7 of the Protocol on Water and Health.

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