



**European Union Water Initiative plus
for the Eastern Partnership**



**Rapid assessment report
of the current relevance of the targets and targets dates set in the
context of the Protocol on Water and Health
in Armenia in 2013-2014**

Yerevan, December 2017

The present report was prepared in the frames of the project European Union Water Initiative Plus for the Eastern Partnership Countries which addresses existing challenges in both development and implementation of efficient management of water resources. One of the components of the project is aimed to update and support the implementation of the targets set in the context of the UNECE/WHO-Europe Protocol on Water and Health and the implementation of the roadmap for ratification of the Protocol. The United Nations Economic Commission for Europe (UNECE) is assisting the Republic of Armenia in the implementation of the project.

This technical report was prepared by Emma Anakhasyan (senior water and health expert) as the lead author and provides a preliminary assessment of the current relevance of the targets and targets dates set in the context of the Protocol in 2013-2014. The report was prepared based on the consultations with the relevant Armenian authorities, the technical reports developed in the frames of the UNECE/ FinWaterWei project on Target setting process under the Protocol, the outcomes of the Consultation Meeting on the Protocol and equitable access to water and sanitation in Armenia organized in Yerevan on 5 December 2017 and with feedback and suggestions from:

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List of Acronyms

AWHHE	Armenian Women for Health and Healthy Environment NGO
CJSC	Closed Joint Stock Company
EaP	Eastern Partnership
EMIC	Environmental Monitoring and Information Centre
EU	European Union
EUWI	European Union Water Initiative
IWRM	Integrated Water Resources Management
MEAs	Multilateral Environmental Agreements
MEINR	Ministry of Energy Infrastructures and Natural Resources
MoH	Ministry of Health
MNP	Ministry of Nature Protection
MoTA	Ministry of Territorial Administration
NGO	Non-Governmental Organization
NPD	National Policy Dialogue
OECD	Organisation for Economic Co-operation and Development
RBMP	River Basin Management Plan
SCWE	State Committee on Water Economy
SDGs	Sustainable Development Goals
SNCO	State Non-Commercial Organization
UN	United Nations
UNDA	United Nations Development Account
UNDP	United Nations Development Program
UNECE	United Nations Economic Commission for Europe
WFD	Water Framework Directive
WHO - Europe	World Health Organization-Regional Office for Europe
WRMA	Water Resources Management Agency

1. Introduction

The Republic of Armenia signed the United Nations Economic Commission for Europe (UNECE) / World Health Organization-Regional Office for Europe (WHO - Europe) Protocol on Water and Health to the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) on 17 June 1999 in London. Since then, the process of ratification has been initiated in Armenia.

Though Armenia is not yet a Party to the Protocol but it has successfully implemented several projects. UNECE has initiated an assistance project in close cooperation with the Ministries of Nature Protection and Health of Armenia to facilitate the target setting process, as required by Article 6 of the Protocol, and to foster experience in the implementation of the Protocol in Armenia. The project was implemented in 2013 - 2014.

The main objectives of the project were to provide assistance to Armenia in setting national and/or local targets and target dates and facilitate the ratification of the Protocol on Water and Health, by providing a forum for policy dialogue and decision-making on the issues covered by the Protocol. The national targets and target dates in the context of the Protocol, Action Plan for their implementation and Roadmap for ratification of the Protocol were prepared in the frame of the project with the financial support of the Government of Finland through its FinWaterWei¹ programme. The draft targets were approved at the 12th meeting of the Steering Committee of the European Union Water Initiative (EUWI) National Policy Dialogue (NPD) on the Integrated Water Resources Management (IWRM) in Armenia held on May 6, 2014. The targets were not officially adopted.

UNECE has also assisted Armenia in the work on equitable access to water and sanitation. Within the framework of the United Nations Development Account (UNDA) project, the “Action Plan for 2018-2020 for the Provision of Equitable Access to Water Supply and Sanitation in Armenia” was prepared in 2017. The Action Plan was developed on the basis of the self-assessment results of the UNECE Equitable Access Score-card for Water and Sanitation, implemented in 2015-2016 by the NGO “Armenian Women for Health and Healthy Environment” (AWHHE). The project was supported by the Government of France. The Action Plan was approved on 4 August 2017 by the official Decree No 130-A of the Chairman of the State Committee on Water Economy (SCWE) of the Ministry of Energy Infrastructures and Natural Resources (MEINR).

The mentioned three projects implemented in the framework of the Protocol on Water and Health constitute an important part of work implemented by UNECE within EUWI NPD in Armenia. EUWI NPD in Armenia was initiated in 2006. It facilitates implementation of IWRM principles in the national legislative and institutional frameworks. In 2010, the United Nations Economic Commission for Europe (UNECE) and the Organisation for Economic Co-operation and Development (OECD) established a joint NPD on IWRM with one Steering Committee, which allows more synergies and better coordination of activities.

Currently, the Republic of Armenia is implementing EUWI Plus project for the Eastern Partnership Countries which addresses existing challenges in both development and implementation of efficient management of water resources. The Eastern Partnership (EaP) is a policy initiative launched at the

¹ FinWaterWei is the programme for Finland’s water sector support to the EECCA countries under the Wider Europe Initiative. The FinWaterWEI programme is managed on behalf of the Finnish Ministry for Foreign Affairs by SYKE (<http://www.environment.fi/default.asp?contentid=405313&lan=EN>)

Prague Summit in May 2009. It aims to deepen and strengthen relations between the European Union and its six Eastern neighbours: Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine.

The objective of the EUWI+ project is to support six Eastern Neighbourhood countries, including Armenia, in the water sector reforms at different stages and levels, basin, national and transboundary. One of activities (Activity 1.1.4) of the project is Ad hoc support to national processes related to the adoption of law/regulations and implementation of River Basin Management Plans (RBMPs), national plans on harmonisation of legal and normative acts with the requirements of the EU Water Framework Directive (WFD), IWRM and United Nations Multilateral Environmental Agreements (MEAs). More specifically, it is aimed to update and support the implementation of the targets in the context of the UNECE/WHO-Europe Protocol on Water and Health and implementation of the roadmap for ratification of the Protocol.

This technical report provides a preliminary assessment of the current relevance of the targets and targets dates set in the context of the Protocol on Water and Health in Armenia in 2013-2014. The report is prepared based on the consultations with the relevant Armenian authorities. It includes also outcomes of the Consultation Meeting on the Protocol and equitable access to water and sanitation in Armenia organized in Yerevan on 5 December 2017. One of the objectives of the Consultation meeting was to discuss the modalities of the revision/update of the targets set in the context of the Protocol and the support required for the ratification of the Protocol in Armenia.

The report analyzes the legislative and institutional reforms and changes for the period of the last three years, taking into consideration the technical report on baseline analysis and draft national targets and target dates already developed by the working group of national experts and the international consultant and adopted by the project Steering Committee in May 2014.

2. Legal Framework

Currently, much attention is paid to the development of the water sector in the Republic of Armenia. With the aim of regulating this sector, numerous laws, decisions, etc. have been adopted in recent years by the legislative and executive bodies of Armenia, on the basis of which a number of reforms have been implemented.

The reforms in the water sector of the Republic of Armenia were initiated since 1999-2000 through the World Bank supported "Integrated Water Resources Management" programme. Taking into consideration the recommendations of the programme in 2001 the Government of Armenia initiated a targeted programme for improving the water sector in the country, and revised the legal and institutional framework in this field. All this was incorporated in the Government Decision on "Reformation of management of the water economy system", adopted on 9 February 2001 where the concept of improvements of the water resources - and water economy system management was presented.

Based on the above-mentioned Government Decision the new Water Code of Armenia was adopted on June 4, 2002, which is considered as one of the most important steps in water sector reforms. The Code contains an integrated water resource management in connection with water basin management concept, stimulates the decisions related to supply, rather than demand-driven water distribution, compels giving of water use permits based on the information, offers possibilities for the use of economic levers during the water resources management and cost recovery.

In 2005 the Republic of Armenia Law on "Fundamental Provisions of the National Water Policy" was adopted, which presents a long-term development concept for strategic use and protection of water resources and water systems.

The Law "On National Water Program" (adopted 27 November 2006) is the main document for the long-term development of water resources and water systems through which the objectives of the Water Code are implemented. This law regulates the relations associated with establishment and implementation of the National Water Programme of Armenia, including the assessment of national water resources, the strategic water reserve, usable water resources, and the demand for water supply, and the main issues and prospects of water sector maintenance and development.

The Law "On Provision of Sanitary-Epidemiological Security of the Population of the Republic of Armenia" (adopted on 16 November 1992) defines the legal, economic and organizational aspects of the sanitary-epidemiological security of the population of Armenia, as well as the safeguards envisaged by the State to prevent the impact of environmentally harmful and hazardous factors on the human organism and to ensure favorable conditions for the well-being of the population and of future generations.

The Government of Armenia has adopted a range of laws and by-laws to ensure many of the provisions of the Protocol. In general, the existing Armenian legal framework is already sufficient and no significant changes are required to implement the Protocol.

Changes in the Legal Framework

Since 2014, series of legislative and regulatory changes have been made in the country and some of the legal acts are summarized in the Table 1.

Table 1: Legal acts incorporating provisions of the Protocol on Water and Health, 2014-2017.

Type of legal act	Title	Adopted on year	Comments
Annex to Government Decision	2014 - 2025 Strategic Program of Prospective Development of the Republic of Armenia	2014	The Program plans to continue the reforms of drinking water systems in order to enhance the reliability and effectiveness of the operations of those systems and improve the quality of water supply and sanitation services, at the same time focusing on mitigation of water inequalities in Armenia. Drinking water systems will continue to remain a priority for public investment.
Protocol Session Decision	The Water and Sanitation Sector Strategy and Financing Program approved by Annex to the No.38 Protocol Decision	2015	The strategy sets the following targets: increase water supply, design and implement a reliable and affordable strategy for the purpose of ensuring a sustainable water supply and sanitation in the communities outside the service area, reduce water loss in water supply and sanitation, and use a single tariff in case the services improve.

Type of legal act	Title	Adoption year	Comments
Law N 373-N	Changes and additions in the Water Code of the Republic of Armenia	2015	Amendments included provisions for the improved monitoring of water resources, data management and their joint use through the State Water Cadastre Information System (SWCIS), water use permitting procedures, as well as support for the re-use of water discharged from aquaculture activities (fish farming, crawfish, etc.) for irrigation or industrial purposes.
Government Decision N 338-N	Approval of the Ararat Basin Management Area Plan for 2016-2021 and Priority Measures for Effective Management	2016	The main objective of the Ararat Basin Management Plan is to balance the relationships between water users, including communities, energy, industry agriculture and the environment. It also aims to support to the bodies responsible for water resource management, including the Ararat Water Basin Territorial Administration Division, administrative bodies, policy makers and the public in making decisions in the field of water resources.
Government Decision N 539-N	Approval of the Southern Basin Management Plan for 2016-2021 and Priority Measures for Effective Management	2016	The main objective of the Southern Water Basin Management Plan is to balance the relationships between water users, including communities, energy, industry, agriculture and the environment in the Southern water basin area. It also aims to support water resources management authorities, including the Southern Water Basin Territorial Administration Division, administrative bodies, policymakers and the public in making decisions in the field of water resources.
Government Decision N 240-N	Approval of the Akhuryan Basin Management Plan for 2017-2022 and Priority Measures for Effective Management	2017	The main objective of the Akhuryan Water Basin Management Plan is to balance the relationships between water users, including communities, energy, industry, agriculture and the environment in the Akhuryan water basin area. It also aims to support water resources management authorities, including the Akhuryan Water Basin Territorial Administration Division, administrative bodies, policymakers and the public in making decisions in the field of water resources.
Draft Law	Changes and additions in the Water Code of the Republic of Armenia	2017	Changes and additions in the Water Code are related to the sanitation. A new chapter on sanitation is developed and added in the Water Code. The document is in the National Assembly of the Republic of Armenia for the formal approval.
Government Decision N 68-N	Establishment of the procedure for the feeding of the State Water Resource Cadastre of the Republic of Armenia	2017	The Government Decision regulates the structure and content of the State Water Resources Cadastre, as well as regulates the relations related to data collection and registration in the Cadastre and the provision of information from the Cadastre.

3. Institutional Framework

With the adoption of the Water Code a new institutional system was introduced, in accordance with which the management of the sector is implemented by the following authorities:

1. Ministry of Nature Protection of the Republic of Armenia, and its Water Resources Management Agency, which manages and protects water resources;
2. the Ministry of Energy Infrastructures and Natural Resources of the Republic of Armenia, and its State Committee on Water Economy, which implements the state management of water systems;
3. Public Services Regulatory Commission of the Republic of Armenia, which implements tariff policy in the water sector.

Key stakeholders in terms of the scope of the Protocol on Water and Health in Armenia are:

- a) Ministry of Nature Protection;
- b) Ministry of Health;
- c) Ministry of Energy Infrastructures and Natural Resources.

The *Water Resources Management Agency* (WRMA) of the **Ministry of Nature Protection** is responsible for the protection and management of water resources. The main functions of WRMA are:

- Ensure development of basin management plans and implementation thereof;
- Issue water use permits;
- Exercise transfer of the right of water use permit to other persons;
- As a result of evaluation of the water use application, grant the water user an exemption from the requirement of obtaining a water use permit, as specified under the legislation of the Republic of Armenia;
- Formulate the assignment of conducting water resources monitoring and keep records of monitoring reports;
- Register documents in the State Water Cadaster and provide information;
- Participate in development of normatives of losses in water use, wastewater discharge and water systems;
- Organize public notice on documents developed by WRMA, as specified under the legislation of the Republic of Armenia;
- Ensure development of maps of the protection zones of aquatic ecosystems;
- In the event of failing to comply with the requirements of the water use permit, suspend, modify or cancel the water use permit.

In order to promote more efficient, targeted and decentralized management of water resources, six water basin territorial management divisions (Northern, Akhuryan, Araratian, Sevan, Hrazdan and Southern) have been established under the auspices of WRMA.

Basin Management Organizations are responsible for development of RBMPs, registration of water use permits, protection of water resources, compliance assurance of water use permits, definition of water regime, as well as development of water resources allocation plans for the six water basin management areas.

Another key player in terms of the scope of the Protocol on Water and Health in Armenia is the **Ministry of Health**, which is responsible for safeguarding the sanitary/epidemiological safety of the population. Through its structural sub-divisions the Ministry develops and supervises the implementation of sanitary/epidemiological regulations and standards, including those for the drinking water sector. It also controls through inspections the quality of water sources that are used for drinking purposes. These subdivisions are:

- The *State Health Inspectorate*, among other things: (i) ensures the sanitary safety of the population; (ii) implements state hygiene and anti-epidemiological control; and (iii) organizes sanitary-hygiene and anti-epidemiological measures and preventive actions to control infectious and non-infectious diseases, including water-related ones.
- The “*National Centre for Disease Prevention and Control*” *SNCO* is in charge of the following: (i) implementation of integrated measures for preventing infectious and non-infectious diseases; (ii) disinfection of sources of infectious and parasitic diseases; (iii) ensuring preparedness and response of the population in case of threats to public safety; (iv) observation, analysis and assessment of the sanitary-epidemiological safety of population; and (v) implementation of social-hygiene monitoring of the environmental factors on the health of the population.

The State Committee of Water Economy functions under the **Ministry of Energy Infrastructures and Natural Resources** as a state body of management, which develops and implements the Government's policy in the management and use of state-owned water and non-competitive water supply systems. The functions of SCWE are:

- a) ensuring implementation of redistribution works of useable water resources;
- b) Implementation of management authorization of public institutions operating investment projects in the sector;
- c) providing initial expertise for design documents on construction and reconstruction works of facilities affecting on water systems and presenting proposals;
- d) supervision and regulation of safety for using hydro technic structures approved by the RA Government;
- e) supervision of organising works in the non-competitive water supply systems;
- f) ensuring supervision for the functions on management of organizations, which implement commercial activities in the sector, including supervision on the implementation of requirements defined by the management contracts of the state-owned water and non-competitive water supply systems and permission of using water systems;
- g) participating in the development of norms for losses in the water supply and wastewater, as well as other water systems;
- h) preparation of proposals on regulated tariffs;
- i) establishment of rules and restrictions for using protection zones of water lands and their aquatic ecosystems; and
- j) maintenance and operation of collector drainage network, implementation of functions on groundwater levels and quality.

Other institutes, which have certain roles in different aspects covered by the Water and Health Protocol are:

- *National Water Council*;
- *Ministry of Agriculture*;
- *Ministry of Finance*; and

- *Water Users Companies.*

Changes in the Institutional Framework

Since 2014 structural reorganizations have occurred in the Government of Armenia. Some of these changes are summarized in the Table 2.

Table 2. Structural changes of authorities involved in the water sector management.

Responsible Agency	Type of legal act	Year of adoption	Comments
Ministry of Nature Protection	Government Decision (No 1277-N)	15 December 2016	The Environmental Monitoring and Information Centre (EIMC) is the merger of the former Environmental Impact Monitoring Centre, Hydrological Monitoring Centre, Waste Monitoring Centre and Information-Analytical Centre.
State Committee on Water Economy	Government Decision (No 633-N)	19 May 2005	SCWE functioned under the Ministry of Territorial Administration as a state body of management from 2005 until December 4, 2014.
	Government Decision (1346-N)	4 December 2014	SCWE functioned under the Ministry of Agriculture as a state body of management from 2014 until 2016.
	Government Decision (1038-N)	6 October 2016	SCWE has been functioning under the Ministry of Energy Infrastructures and Natural Resources as a state body of management since 2016.
Ministry of Health	Government Decision (444-N)	27 April 2017	State Health Inspectorate is formed within the Ministry of Health by the Government Decision.

4. An overview of other processes in Armenia and linkages with the Protocol on Water and Health

A **constitutional referendum** was held in Armenia on 6 December 2015. The proposed amendments to the constitution changes the country from having a semi-presidential system to being a parliamentary republic, with the changes planned to take place during the 2017–18 electoral cycle.

The provision of safe drinking water and sanitation has been recognized in Agenda 2030 of the **Sustainable Development Goals** (SDG's). In particular, SDG 6 which states the following: "Ensure availability and sustainable management of water and sanitation for all". In 2015, the Government of Armenia committed to Agenda 2030 for Sustainable Development and the SDGs. Armenia will finalize its national SDG targets in the first half of 2018.

Armenia started negotiations on a new **Comprehensive and Enhanced Partnership Agreement** with the European Union in December 2015. On November 24 2017, Armenia and the European Union officially signed the Comprehensive and Enhanced Partnership Agreement, which among other things, includes obligations for Armenia to approximate its legislation to the following five Directives in the field of water quality and resources management: Water Framework Directive, Floods Directive, Urban Wastewater Directive, Drinking Water Directive and Nitrates Directive.

Currently, Armenia is implementing **EUWI Plus project for Eastern Partnership Countries** with the aim to support Armenia in the water sector reforms. By signing the Agreement on Comprehensive and Enhanced Partnership, Armenia agreed to harmonize the national legislation with the EU legislation. The first step for the harmonization is to analyse national water legislation with regards to five EU Directives. This will be partly supported by UNECE in the frame of the EUWI+ project through the development of a roadmap for harmonization of the national legislation.

One of the main objectives of the Protocol on Water and Health is the provision of safe drinking water and sanitation to everyone, with special consideration to ensure equitable access to these services for all members of the population. On 4 August 2017, the State Committee of Water Economy issued the Order (ref. 130 A) on Approval of the **Action Plan for 2018-2020 on Provision of Equitable Access to Water Supply and Sanitation** in Armenia. This was the result of the UNECE/French Government project entitled "Development of an Equitable Access Action Plan in Armenia", which was based on the UNECE/WHO Draft Guidance Note on the Development of Equitable Access Action Plans. The 2018-2020 Equitable Access Action Plan builds on the findings of the Self-Assessment of Equitable Access to Water and Sanitation in Armenia conducted in 2015-2016.

5. Draft targets and target dates in the context of the Protocol on Water and Health in Armenia

The Protocol Water and Health requires Parties to set targets in areas covering the entire water cycle as well as dates by which they will achieve such targets. Armenia is not yet a Party to the Protocol but with support of UNECE developed the draft target and target dates in 2013 - 2014, as required by Article 6 of the Protocol.

It should be noted that the targets and target dates were developed based on the Technical report summarizing the baseline analysis of legal, institutional and substantive aspects related to all twenty target areas under the Protocol on Water and Health.

Out of twenty target areas of the Protocol, nine target areas were considered by the EUWI National Policy Dialogue Steering Committee (which also served as the project Steering Committee) members as priority for Armenia, and thus the UNECE/FinWaterWei project experts in consultation with national stakeholders and beneficiaries developed respective targets for these priority areas. The following target areas of the Protocol Article 6 (2) were chosen as priority for Armenia:

- I - Quality of the drinking water supplied
- II - Reduction of the scale of outbreaks and incidents of water-related diseases
- III - Access to drinking water
- IV - Access to sanitation
- XI - Quality of discharges of wastewater from wastewater treatment installations to waters within the scope of the Protocol
- XIV - Quality of waters which are used as sources for drinking water
- XVIII - Identification and remediation of particularly contaminated sites
- XIX - Effectiveness of systems for the management, development, protection and use of water resources
- XX - Frequency of publication of information on the quality of drinking water supplied and of other waters relevant to the Protocol

The 26 draft targets and target dates covering most challenging areas related to water resources management, water supply and sanitation were presented at the Steering Committee meeting in May 2014. The draft targets were developed along with their respective target dates, corresponding indicators, supporting measures, and proposed responsible organizations (Annex 1).

6. Relevance of the set targets and target dates to the current situation

One of the **key stakeholders** responsible for the implementation of the Protocol was changed as a result of the structural reorganizations that occurred in the Government of Armenia. While targets and target dates were set, the Ministry of Territorial Administration (MoTA) was one of the key stakeholders and responsible for some of the target areas. Nowadays, the State Committee on Water Economy of the Ministry of Energy Infrastructures and Natural Resources (MEINR) is responsible for the drinking-water and sanitation sectors. This is due the fact that the State Committee on Water Economy is functioning under MEINR as a state body of management since 2016. From the 1st of January 2017, water supply and sanitation services are provided by the "Veolia Jur" CJSC, as a single water service operator.

The **short- and mid-term target dates**, proposed measures to achieve targets and target dates are implemented and/or expired from nine in seven target areas. This information is summarized in the Table 3.

Table 3. Completed/expired short- and mid-term target dates.

Target area	Targets and target dates and indicators (by the end of the years indicated)	Proposed measures to achieve targets and target dates
I	Reduction of non-compliance of drinking water quality with national standards for microbiological parameters to not more than 18% by 2016.	Develop methodology and legal basis for WSPs, taking WHO recommendations into account by 2016.
III	Improve the access of the rural population to safe drinking water by constructing and rehabilitating water supply systems in 15 communities by 2016.	Assess the drinking water supply situation in the 560 communities not served by water companies by 2015.
	Improve the quality of services provided by water supply companies: reduction of losses in water supply systems by 5% by 2016; by 7% by 2017.	
	Improve access to safe drinking water in educational facilities (facilities include kindergarten through senior school and boarding facilities) in 20 facilities by 2016.	
	Enact a law on water supplies by 2016.	
IV	Rehabilitation and expansion of existing centralized sanitation systems in at least 2 cities by 2016.	Reconstruction and upgrading of "Aeratsia" wastewater treatment plant in Yerevan by 2016.
	Construction of wastewater treatment plants and improvement of sanitation networks by 2016 in Dilijan and Jermuk.	
	Development and approval of a national strategy for sanitation and wastewater treatment by 2015.	
	Assess situation in 560 rural communities not covered by water supply companies by 2015.	
XI	Develop and establish standards for the quality of effluents from treatment plants discharged into open water bodies, and related procedures by 2016.	Inclusion of indicators for wastewater treatment in the criteria for evaluation of the operation of water supply companies by 2016.
	Reduction in the discharges of untreated wastewater in Yerevan at least by 50% by 2017.	Implement the system for monitoring the quality of discharged wastewater by 2016.
	Reduction in the discharges of untreated wastewater in 4 other cities:	

	construction of wastewater treatment plants in Dilijan and Jermuk by 2016.	
XVIII	Implement the monitoring system of water resources quality by 2017.	
XIX	Development of river basin management plans for Araratyan, Akhuryan, and Hrazdan water basins by 2017.	Clarify the roles and responsibilities of water sector institutions by 2016. Ensure a unified legal basis and mechanisms for information exchange among the stakeholder institutions in order to strengthen the State Water Cadastre system by 2016. Strengthen the management functions of the River Basin Management Authorities by building their capacities by 2017.
	Develop a strategy for managing the quality of water resources by 2016.	Conduct hydro-geological studies and analyses of groundwater resources and classify these resources by national water reserve and usable water resources for Ararat valley by 2016.
XX	Establish a Clearing House under the Protocol on Water and Health by 2016.	

Although targets and target dates in the context of the Protocol on Water and Health are not officially adopted, there are currently **implemented targets and/or measures to achieve targets**, or they are in the stage of implementation. Few examples of targets that are implemented:

- To improve the access of rural population to safe drinking water by constructing and rehabilitating water supply systems in 15 communities by 2016: Currently 25 communities already have improved the access.
- Reconstruction and upgrading of “Aeratsia” wastewater treatment plant in Yerevan: The II phase (mechanical treatment) of the reconstruction and upgrading is accomplished.
- Construction of wastewater treatment plants and improvement of sanitation networks by 2016 in Dilijan and Jermuk: Currently, these wastewater treatment plants and additionally Martuni, Gavar and Vardenis wastewater plants have been constructed.
- Assess the drinking water supply situations in the 579 communities, which are not served by water companies: Communities are assessed and data are available.
- Development and approval of a national strategy for sanitation and wastewater treatment: A Chapter on Sanitation is developed for the Water Code of the Republic of Armenia and submitted to the National Assembly of the Republic of Armenia for the adoption.

- Development of river basin management plans for Araratyan, Akhuryan, and Hrazdan water basins by 2017; for the Northern, Southern and Sevan water basins by 2020: The RBMPs are developed for Araratyan, Akhuryan, and Southern water basins and have been officially adopted by the Government Decisions. Development of the river basin management plans for Sevan and Hrazdan will start in 2018.
- Ensure a unified legal basis and mechanisms for information exchange among the stakeholder institutions in order to strengthen the State Water Cadastre system by 2015: The Amendments to the State Water Code included new provisions for the data management and sharing through the State Water Cadastre Information System (SWCIS). Also, SWCIS is now being updated.
- Publish a national report in the context of the Protocol on Water and Health every 3 years from 2016: Though Armenia is not Party to the Protocol, the national report on the implementation of the provisions of the Protocol was submitted to the Secretariat of the Protocol in April 2016, in accordance with the Article 7 of the Protocol.

An interdepartmental working group, which was established by RA Prime Minister's Decree N600-A of June 20, 2017 to review the Law "On the National Water Program of the Republic of Armenia" and to develop the program "RA Groundwater Resources investigation, re-qualification and rational management", is developing the National Water Programme Implementation Plan (phased programme).

Currently, the definition of the "community" is changed according to the Law of the Republic of Armenia "On the Amendments to the Law on Administrative Division of the Republic of Armenia" (adopted on 24 November 2015). There are no "urban community" and "rural community" definitions. New communities are formed by community unification or separation. As a result of this changes "community" used as an indicator in the draft targets became **irrelevant indicator** in the mentioned context (Target area - I, III, IV).

7. Conclusion

The Protocol requires the Parties to establish and publish national targets and target dates for the standards and levels of performance that need to be achieved or maintained for protection against water-related diseases. The targets mentioned in Article 6(2) of the Protocol shall serve as the basis for the drafting of these targets. One of the requirements of the Protocol is revision and /or update of the targets and target dates in every three years. Though Armenia is not Party yet to the Protocol, it set targets and target dates with the support of the UNECE in 2014.

It is advised to review the targets and targets dates based on the results of the preliminary rapid assessment regarding the relevance of the set targets and target dates, specifically a) structural changes that occurred in key ministries responsible for the implementation of targets; b) legislation changes, amendments to legal acts, new legal acts and strategies that were developed in the sector; c) changes in drinking-water and sanitation service providers; d) completed/expired short-term target dates; e) some implemented targets or targets in the stage of implementation; and f) currently irrelevant indicators.

Furthermore, prior the establishment of the targets and target dates, it is suggested to establish responsible body for the Protocol on Water and Health and conduct an in-depth situation analysis

and revise targets and target dates, taking into account the following aspects: a) transition from the presidential to parliamentary structure in Armenia; b) signing of the Agreement on Comprehensive and Enhanced Partnership; c) the need to ensure consistency with the national SDGs; d) policy focus on wastewater treatment; and e) the adoption of Equitable Access Action Plan.

The Consultation meeting on the Protocol on Water and Health and equitable access to water supply and sanitation in Armenia was organized by UNECE with logistical support of United Nations Development Program (UNDP) within the EUWI+ project in Yerevan on 5 December 2017. The meeting was Co-chaired by the State Committee on Water Economy (SCWE) and the Water Resources Management Agency (WRMA). One of the aims of the Consultation meeting was to discuss modalities for the revision/update of the targets set in the context of the Protocol. The national target indicators set in the context of the Protocol in 2014 and their relevance to current situation were presented during the consultation meeting.

As a result of the discussions decision was made to revise the national targets and target dates in the context of the Protocol with the support of the UNECE secretariat within the EUWI+ project. New targets and target dates shall be in line with the national SDGs and reflect new obligations, such as approximation of the national legislation with the five EU Directives (Water Framework Directive, Floods Directive, Urban Wastewater Directive, Drinking Water Directive and Nitrates Directive).

The Protocol on Water and Health is an international legal instrument that promotes equitable access. Armenia is committed to promote equitable access, since the Protocol specifies that “equitable access to water, adequate in terms both of quantity and of quality, should be provided for all members of the population, especially those who suffer a disadvantage or social exclusion” (Article 5). The aim of the adopted Action Plan 2018-2020 on the Provision of Equitable Access to Water Supply and Sanitation in the Republic of Armenia is to establish a list of measures/activities directed at ensuring the provision of equitable access to water and sanitation. The revision of the draft targets and target dates will allow incorporation of provisions of the Action Plan into the updated targets.

Annex 1. Draft targets, target dates, and proposed measures to achieve these targets and target dates in Armenia

Target area I			
Art. 6, 2 (a), Quality of the drinking water supplied			
No.	Targets	Target dates and indicators (by the end of the years indicated)	Proposed responsible organizations
1.1	Compliance of drinking water quality with national standards for chemical parameters (F, NO ₂ , NO ₃ , As, Fe, Pb)	at least 99% starting from 2014	Ministry of Territorial Administration Water supply companies
1.2	Reduction of non-compliance of drinking water quality with national standards for microbiological parameters	to not more than 18% by 2016 to not more than 15% by 2020	Ministry of Territorial Administration Water supply companies
1.3	Development and implementation of Water Safety Plans (WSP)	in 5 communities by 2020	Ministry of Territorial Administration Water supply companies
Proposed measures to achieve targets and target dates			
No.	Measures and activities	Time frame	Responsibility
1	Develop methodology and legal basis for WSPs, taking WHO recommendations into account	by 2016	Ministry of Health
Target area II			
Art. 6, 2 (b), Reduction of the scale of outbreaks and incidents of water-related diseases			
No.	Targets	Target dates and indicators (by the end of the years indicated)	Proposed responsible organizations
2.1	Maintain a zero level of outbreaks and incidents of cholera, typhoid fever and hepatitis A related to water	continuous	Ministry of Territorial Administration Water supply companies
2.2	Maintain the vaccination of children against rotavirus	at least 90% annual coverage	Ministry of Health
Proposed measures to achieve targets and target dates			
No.	Measures and activities	Time frame	Responsibility
1	Strengthen systems for surveillance of, and response to, water-related diseases		Ministry of Health

	in accordance with Government Decision 1913-N of 29 December 2011		
Target area III			
Art. 6, 2 (c), Access to drinking water			
No.	Targets	Target dates and indicators (by the end of the years indicated)	Proposed responsible organizations
3.1	Improve the access of the rural population to safe drinking water by constructing and rehabilitating water supply systems	in 15 communities by 2016 in a further 20 by 2020	Ministry of Territorial Administration Water supply companies
3.2	Improve the quality of services provided by water supply companies	- reduction of losses in water supply systems by 5% by 2016; by 7% by 2017; and by 10% by 2020 (compared to 2013) - ensure 24-hour water supply for the urban population: for 90% by 2020; and 95% by 2025	Ministry of Territorial Administration Water supply companies
3.3	Improve access to safe drinking water in educational facilities (facilities include kindergarten through senior school and boarding facilities)	in 20 facilities by 2016 in a further 30 by 2020	Ministry of Education and Science Ministry of Territorial Administration
3.4	Enact a law on water supplies	by 2016	Ministry of Territorial Administration National Assembly of Armenia
Proposed measures to achieve targets and target dates			
No.	Measures and activities	Time frame	Responsibility
1	Assess the drinking water supply situation in the 560 communities not served by water companies	by 2015	Ministry of Territorial Administration Water supply companies
2	Rehabilitation of 5 drinking water treatment plants	by 2018	Ministry of Territorial Administration Water supply companies
3	Construction of 5 plants to treat surface water for drinking purposes	by 2020	Ministry of Territorial Administration Water supply companies

4	Development and implementation of programmes to improve drinking water supplies in educational facilities	by 2020	Ministry of Education and Science Ministry of Territorial Administration
Target area IV			
Art. 6, 2 (d), Access to sanitation			
No.	Targets	Target dates and indicators (by the end of the years indicated)	Proposed responsible organizations
4.1	Improve access to sanitation	- Construction of new sanitation systems, including alternative wastewater disposal and treatment systems: by 2018 in 10 communities; by 2025 in additional 40 communities -Rehabilitation and expansion of existing centralized sanitation systems: in at least 2 cities by 2016; in a further 3 by 2020	Ministry of Territorial Administration Water supply companies
4.2	Improve sanitation in educational facilities	- Construction of new sanitation systems, including Ecosan toilets: 10 by 2018; and a further 25 by 2025	Ministry of Education and Science Ministry of Territorial Administration
Proposed measures to achieve targets and target dates			
No.	Measures and activities	Time frame	Responsibility
1	Reconstruction and upgrading of "Aeratsia" wastewater treatment plant in Yerevan	by 2016	Ministry of Territorial Administration Yerevan Municipality
2	Construction of wastewater treatment plants and improvement of sanitation networks	by 2016 in Dilijan and Jermuk; by 2020 in additional 3 cities	Ministry of Territorial Administration Water supply companies
3	Development and approval of a national strategy for sanitation and wastewater treatment	by 2015	Ministry of Territorial Administration

4	Assess situation in 560 rural communities not covered by water supply companies	by 2015	Ministry of Territorial Administration
5	Development and implementation of programs to improve sanitation in educational facilities	by 2020	Ministry of Education and Science Ministry of Territorial Administration
Target area XI Article 6, 2 (h), Quality of discharges of wastewater from wastewater treatment installations to waters within the scope of the Protocol			
No.	Targets	Target dates and indicators (by the end of the years indicated)	Proposed responsible organizations
11.1	Develop and establish standards for the quality of effluents from treatment plants discharged into open water bodies, and related procedures	by 2016	Ministry of Nature Protection Ministry of Territorial Administration
11.2	Reduction in the discharges of untreated wastewater in Yerevan	- At least: by 50% by 2017; by 75% by 2020 (compared to 2014)	Ministry of Territorial Administration Yerevan Municipality
11.3	Reduction in the discharges of untreated wastewater in 4 other cities	- construction of wastewater treatment plants in Dilijan and Jermuk by 2016 -rehabilitation /construction of wastewater treatment plants in 2 other cities by 2020	Ministry of Territorial Administration Water supply companies
Proposed measures to achieve targets and target dates			
No.	Measures and activities	Time frame	Responsibility
1	Inclusion of indicators for wastewater treatment in the criteria for evaluation of the operation of water supply companies	by 2016	Ministry of Territorial Administration
2	Assess the quality of water in specific basins according to the maximum allowable concentrations for wastewater discharges	by 2018 in 1 pilot basin; by 2020 in 2 other	Ministry of Nature Protection Ministry of Territorial Administration
3	Implement the system for monitoring the quality of discharged wastewater	by 2017	Ministry of Nature Protection Ministry of Territorial Administration

Target area XIV Art. 6, 2 (j), first part, Quality of waters which are used as sources for drinking water			
No.	Targets	Target dates and indicators (by the end of the years indicated)	Proposed responsible organizations
14.1	Enforce the delimitation of the first-level sanitary zones to protect drinking water sources	60% of sources by 2018; at least 95% by 2020	Ministry of Territorial Administration Water supply companies
14.2	Review and upgrade methodologies for the delimitation of the second- and third-level sanitary zones to protect drinking water sources	by 2020	Ministry of Territorial Administration Water supply companies
Proposed measures to achieve targets and target dates			
No.	Measures and activities	Time frame	Responsibility
1	Construction and rehabilitation of treatment facilities of drinking water supplied from drinking water sources		Ministry of Territorial Administration Water supply companies
2	Ensure the quality of waters, which are used as sources of drinking water for communities not served by water supply companies, in compliance with national standards		Ministry of Territorial Administration Water supply companies
Target area XVIII Art. 6, 2 (l), Identification and remediation of particularly contaminated sites			
No.	Targets	Target dates and indicators (by the end of the years indicated)	Proposed responsible organizations
18.1	Assess and map particularly contaminated sites, including around water bodies	in 1 pilot marz by 2018; in a further 3 marzes by 2020	Ministry of Nature Protection
18.2	Implement the monitoring system of water resources quality	by 2017	Ministry of Nature Protection
Proposed measures to achieve targets and target dates			
No.	Measures and activities	Time frame	Responsibility
1	Optimize the network of monitoring points for the quantity and quality of water resources		Ministry of Nature Protection
Target area XIX Art. 6, 2 (m), Effectiveness of systems for the management, development, protection and use of water resources			

No.	Targets	Target dates and indicators (by the end of the years indicated)	Proposed responsible organizations
19.1	Development of river basin management plans	for Araratyan, Akhuryan, and Hrazdan water basins by 2017; for the Northern, Southern and Sevan water basins by 2020	Ministry of Nature Protection
19.2	Development of bio-monitoring guidelines	by 2018	Ministry of Nature Protection
19.3	Classification of water resources by water bodies	by 2018	Ministry of Nature Protection
19.4	Establishment of River Basin Management Councils for the River Basin Management Authorities and ensuring their lawful activities through the creation of a legislative and institutional framework	2 by 2019; the remaining 4 in 2021	Ministry of Nature Protection
19.5	Develop a strategy for managing the quality of water resources	by 2016	Ministry of Nature Protection
Proposed measures to achieve targets and target dates			
No.	Measures and activities	Time frame	Responsibility
1	Clarify the roles and responsibilities of water sector institutions	by 2016	Government
2	Ensure a unified legal basis and mechanisms for information exchange among the stakeholder institutions in order to strengthen the State Water Cadastre system	by 2015	Ministry of Nature Protection
3	Establish the legislative basis for the mandate and operations of the River Basin Management Councils	by 2018	Ministry of Nature Protection
4	Strengthen the management functions of the River Basin Management Authorities by building their capacities	by 2017	Ministry of Nature Protection
5	Conduct hydro-geological studies and analyses of groundwater resources and classify these resources by national water reserve and usable water resources	for Ararat valley by 2016 for the whole country by 2018	Ministry of Nature Protection Ministry of Energy and Natural Resources
6	Develop an action plan to improve aquatic ecosystems	by 2020	Ministry of Nature Protection
7	Establishment of a registry for water management systems	by 2018	Ministry of Territorial Administration

Target area XX
Art. 6, 2 (n), Frequency of publication of information on the quality of drinking water supplied and of other waters relevant to the Protocol

No.	Targets	Target dates and indicators (by the end of the years indicated)	Proposed responsible organizations
20.1	Publish annual report on the quality of drinking water supplied	starting from 2015	Ministry of Territorial Administration Water supply companies Ministry of Health
20.2	Publish a national report under the Protocol on Water and Health	every 3 years from 2016	Ministry of Nature Protection Ministry of Health Ministry of Territorial Administration
20.3	Establish a Clearing House under the Protocol on Water and Health	by 2016	Ministry of Health

Proposed measures to achieve targets and target dates

No.	Measures and activities	Time frame	Responsibility
1	Ensure access of the public to the national reports under the Protocol on Water and Health and publications on drinking water quality		Ministry of Nature Protection Ministry of Territorial Administration Ministry of Health

References

Draft notes of the consultation meeting on the Protocol on Water and Health and equitable access to water supply and sanitation in Armenia, prepared within EUWI+ for Eastern Partnership Countries project, 15 December 2017.

EUWI+ (2017). European Union Water Initiative Plus for Eastern Partnership Countries. Geneva: European Union Water Initiative (<http://www.euneighbours.eu/en/east/eu-in-action/projects/european-union-water-initiative-plus-eastern-partnership-euwi-4-eap>, accessed 1 December 2017).

MNP (2017). Legislation. Ministry of Nature Protection of the Republic of Armenia (<http://mnp.am/am/pages/39>, accessed 4 December 2017).

OSCE/ODIHR (2016). Republic of Armenia constitutional referendum 6 December 2015: Referendum Expert Team Final Report. Warsaw: Organization for Security and Co-operation in Europe Office for Democratic Institutions and Human Rights (<http://www.osce.org/odihr/elections/220656?download=true>, accessed 6 December 2017).

SCWE (2017). Legislation. State Committee of Water Economy of the Ministry of Energy Infrastructure and Natural Resources of the Republic of Armenia (www.scws.am, accessed 1 December 2017).

UN (2015). Resolution adopted by the General Assembly on 25 September 2015. In: United Nations General Assembly. New York: United Nations (http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E, accessed 10 December 2017).

UNECE and SCWE project (2016). Self-Assessment Score-Card: Equitable Access to Water and Sanitation. Armenia Country Report prepared within project “Assessing equitable access to water and sanitation in Armenia”. United Nations Economic Commission for Europe (Geneva) and State Committee on Water Economy (Yerevan) (http://www.unece.org/fileadmin/DAM/env/water/activities/Equitable_access/Armenia_Country_report_EqAccAssessment_08.11.2016_part1.pdf, accessed 4 December 2017).

UNECE and FinWaterWei project (2013-2014). Draft targets in the context of the Protocol on Water and Health in Armenia” prepared within project “Protocol on Water and Health – Improving health in Armenia through target setting to ensure sustainable water management, access to safe water and adequate sanitation”. United Nations Economic Commission for Europe (Geneva) and Finish FinWaterWei programme.

UNECE and FinWaterWei project (2013-2014). Technical report: the baseline analysis of legal, institutional and substantive aspects related to target-setting process in Armenia in the context of the Protocol on Water and Health prepared within project “Protocol on Water and Health – Improving health in Armenia through target setting to ensure sustainable water management, access to safe water and adequate sanitation”. United Nations Economic Commission for Europe (Geneva) and Finish FinWaterWei programme.

UNECE and WHO-Europe (2006). Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes. Geneva: United Nations Economic Commission for Europe and WHO Regional Office for Europe (<http://www.euro.who.int/en/publications/policy-documents/protocol-on-water-and-health-to-the-1992-convention-on-the-protection-and-use-of-transboundary-watercourses-and-international-lakes>, accessed 4 November 2017).

UNECE and WHO-Europe (2010). Guidelines of setting of targets, evaluation of progress and reporting. Geneva: United Nations Economic Commission for Europe and WHO Regional Office for Europe (https://www.unece.org/fileadmin/DAM/env/water/publications/documents/guidelines_target_setting.pdf, accessed 1 December 2017).