



Annex IV to 2009 report on National Policy Dialogue on Integrated Water Resources Management in Armenia

Policy package

Improving health in Armenia through target setting to ensure sustainable water management, access to safe water and adequate sanitation

The policy package was drawn up during policy dialogue meetings in April and May 2009 and representatives of the Steering Committee were entrusted to present this proposal at the second meeting of the Ad Hoc Project Facilitation Mechanism (AHPFM) established under article 14 of the Protocol on Water and Health to the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes. The policy package has been adopted at the meeting of the high-level Steering Committee for the National Policy Dialogue on integrated water resources management under the EU Water Initiative in Armenia on 10 December 2009



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Applicants' official title and address

- Ministry of Environmental Protection, represented by the Water Resources Management Agency
- Ministry of Health represented by State Hygiene and Anti-Epidemic Inspectorate and
- Ministry of Territorial Administration represented by State Committee on Water Systems

Main Executive Agency

Taking note of high level decision of the Coordination Council on the National Dialogue on Water Policy in the Armenian Republic, the leading agencies in the implementation of the Project shall be the Ministry of Nature Protection and Ministry of Health.

Contact persons

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Engaged organizations

- Ministry of Foreign Affairs of the Republic of Armenia;
- Ministry of Finance of the Republic of Armenia;



- Ministry of Justice of the Republic of Armenia;
- Ministry of Health of the Republic of Armenia;
- Ministry of Nature Protection of the Republic of Armenia;
- Ministry of Territorial Administration of the Republic of Armenia;
- Non-Governmental Organizations¹ - “Armenian Women for Health and Healthy Environment”.

Language of the document

Armenian/English

Location

The Project will be implemented in the Republic of Armenia

Short review

The main aim is to provide assistance to Armenia to promote the implementation of specific scopes in the frame of the 1999 Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, thus, «to promote at all appropriate levels, nationally, as well as transboundary and international contexts, the protection of human health and well-being, both individual and collective, within a framework of sustainable development, through improving water management, including the protection of water ecosystems, and through preventing, controlling and reducing water-related diseases». (Article 1 of the Protocol).

The specific objective is to provide assistance to Armenia in setting and publishing national and/or local targets for standards and levels of work that should be reached or maintained in order to ensure a high level of protection of human health and well-being, to improve access to safe water and ensure safe discharges of wastewater, as well as sustainable management of watercourses, including development and approval of agreed objectives with the participation of all engaged national organizations.

Armenia is not a Party to the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes. Armenia signed the Protocol on Water and Health in 1999. It is in the process of ratification. According to Articles 21 and 22 of the Protocol Armenia may become a Party to the Protocol, despite not being a Party to the Convention.

In April 2006 Armenia sent a letter to the European Union, stressing its interest in starting a process of the National Policy Dialogue (NPD) in the water sector and asked the European Commission to support that initiative. The main purpose of that dialogue is to improve the use of water resources and provide for sustainable investment in implementing the Millennium Development Goals. Particularly, within the framework of the NPD it was envisaged to develop a financing strategy for rural water supply and discharge, taking into consideration the Millennium Development Goals, as well as promote the introduction of the integrated water resources management principles, according to the approach of the EU Water Framework Directive.

¹ It is considered that the NGO dealing with water supply systems, sanitation and environment may be eventually engaged into the Project.



To reach this objective, it has been envisaged, in particular, to discuss the Protocol on Water and Health from the point of view of an opportunity to ratify it in the Republic of Armenia.

An Action Plan has been developed in Armenia for the NPD implementation. This Plan is based on selected priorities of political measures. The Plan envisages establishment of Protocol discussions in the frame of a Steering Committee. This Plan was approved by the First Meeting of the Steering Committee in the frame of the NPD held on January 12, 2007 in Armenia. By the end of the Meeting a Memorandum of Understanding had been signed between the Ministry of Nature Protection of Armenia and the United Nations Economic Commission for Europe (UNECE).

It has been assessed that, for promotion and implementation of the Project on Targets and Target Dates in accordance with the Protocol on Water and Health in Armenia, the following key Ministries, Departments and Non-Governmental Organizations (NGOs) will be engaged:

- Ministry of Nature Protection
- Ministry of Health
- Ministry of Territorial Administration:
 - a. Local self-governance authorities
 - b. State Committee of Water Systems
- Ministry of Foreign Affairs
- Ministry of Finance
- Ministry of Justice
- Public participation is an important condition for the target implementation process, taking note of Article 6 paragraph 2 «these targets shall be periodically revised. In doing so, they shall make appropriate practical and/or other provisions for public participation, within a transparent and fair framework, and shall ensure that due account is taken of the outcome of the public participation». In the sector of water supply, water abstraction, sanitation and ecology in Armenia, there are several non governmental organizations (NGOs) actively engaged in the matter, including “Armenian Women for Health and Healthy Environment”, “Ecological Survival”, “Earth’s Water Partnership” and “Lore Ecoclub” NGOs.

Task Force

- State management agencies, which are responsible for water resources management, public health, provision for safe water supply and discharge, including Ministries, self-governance authorities, water supply companies, water users and environmental NGOs;
- European Union and other donors, international financial institutions collaborating in water sector of Armenia, will be also engaged in the Project.

Main users

The whole population of Armenia and all water users will gain long-term advantage as a result of the Project development.



Expected outcomes:

- (a) Development of established targets and target dates at national level in accordance with the Protocol on Water and Health in the Republic of Armenia.
- (b) Support to issues envisaged by the Protocol on Water and Health, as well as national regulatory processes.
- (c) Development of an Action Plan and its presentation to the Government.

Main activities

Taking note of already existing Project *Guidance on targets, assessment of progress and summary reports*², the situation in Armenia will be analyzed and the implementation of established duties and obligations on water and health matters will be coordinated. On the basis of this analysis, a realistic plan to improve the situation in the country according to the established priority targets and target dates will be developed. Such activity is based on a logical provision for established targets, see Fig. 1 and Annexes 1, 2 and 3 of the given document.

Preliminary assessment of the budget

Preliminarily, the budget of the Project is estimated as 145 500 USD (Annex 4).

Should the Project be approved, co-financing for implementation will be sought from the National Dialogue on Water Policy in Armenia (one meeting of a Coordination Council is around 5 000 USD) and the Government of Armenia will provide resources equivalent to 12 500 USD.

The NGOs will contribute by providing resources for public awareness activities to be implemented.

Expert assistance from the Parties of the Protocol on Water and Health is expected; travel expenses of participating experts will be covered from the budget of the Project.

² The Project is established by the Task Force on the basis of indicators and reports (ad hoc group meeting of the Parties on the Protocol on Water and Health) under the leadership of Switzerland. The Project is available on: http://www.unece.org/env/water/meetings/documents_TFIR.htm.



Introduction

Water resources of Armenia mainly originate within the territory of the country and compose approximately 46.7 billion m³, of which about 35.9 billion m³ is the national water reserve, 1.7 billion m³ is the strategic water reserve, and 9.1 billion m³ is usable water resources. The annual river flow composes approximately 6.8 billion m³, and the deep inflow is 0.6 billion m³. The annual flow of groundwater resources composes about 4 billion m³, of which spring flow is 1.6 billion m³, drainage flow is 1.4 billion m³, and outflow is 1 billion m³.

Although Armenia is not considered a water-stressed country, there is significant temporal and spatial imbalance in water resources availability in the country. There is also significant annual fluctuations of river flow volumes. In addition to annual fluctuations, there are also significant seasonal variations in river flow volumes. About 55% of total river flow originates in spring, during the snowmelt and rain periods. The ratio of the maximum and minimum flows in normal year can reach up to 10:1.

The quality, reliability, and efficiency of water supply services have considerably improved in the capital, Yerevan, since 1998. Water supply has increased from about 7 hours to about 18.5 hours a day, and more than 48 percent of Yerevan now has 24-hour service. Outside Yerevan, 15.5 percent of the population in the service area of the second urban water utility now have access to 24-hour water. Water quality is better monitored, with modern chlorination equipment and improved security at all water sources

(<http://www.worldbank.org.am/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/ARMENIAEXTN/0,,menuPK:301584~pagePK:141159~piPK:141110~theSitePK:301579,00.html>).

The WHO Health For All database report significantly fewer children under 5 with diarrhoeal diseases in recent years (Table 1)

Table 1: Age standardised rates, diarrhoeal diseases, under 5 years per 100000

Date	SDR, diarrhoeal diseases, under 5 years per 100000
1998	29.88
1999	27.32
2000	22.99
2001	16.8
2002	9.1
2003	8.63
2004	
2005	
2006	4.16

Source: Health For All database



Intestinal infectious diseases show a slight increase since 2006 (Table 2).

Table 2 Intestinal infection diseases (acc. ICD-10) per 100 000 of population

Dates	2006	2007	2008
Intestinal infections	165.6	167.9	178.7

Source: National Statistical Service of Armenia

Despite obvious improvements, the slight increase in the morbidity proves that long term solutions need to be found to provide adequate quantities of safe drinking-water outside the capital.

The WHO-Unicef Joint Monitoring Programme coverage estimates provide the following for Armenia:

Table 3: Coverage estimates for improved drinking water in Armenia

Year	Rural		Urban	
	Total (percentage coverage)	Household connections (percentage coverage)	Total (percentage coverage)	Household connections (percentage coverage)
1990	68		99	97
1995	80	67	99	97
2000	80	66	99	97
2004	80	66	99	97
2006	96	74	99	97

Source: http://www.wssinfo.org/pdf/country/ARM_wat.pdf; Unicef-WHO, 2008

Table 4: Coverage estimates for improved sanitation in Armenia

Year	Rural		Urban	
	Total improved access (percentage coverage)	Sewerage connections (percentage coverage)	Total (percentage coverage)	Household connections (percentage coverage)
1990			96	
1995	61	24	96	93
2000	61	24	96	93
2004	61	24	96	93
2006	91	Not available	96	Not available

Source: http://www.wssinfo.org/pdf/country/ARM_san.pdf; Unicef-WHO, 2008



Improvement of maintenance, monitoring, and treatment of drinking-water and wastewater infrastructure would help to reduce the potential threat of incidents or outbreaks of waterborne diseases in some areas of Armenia. In addition, Armenia is prone to earthquakes and floods and therefore climate change adaptation to minimize potential vulnerabilities could also be considered.

Ministry of Nature Protection of Armenia

The reforms in the sector of water resources management of the Republic of Armenia were initiated in 1999-2000 through the World Bank supported project "Integrated Water Resources Management". As a result of implementation of the project water resources of Armenia were assessed, structural reforms for water resources management were suggested, and an outline of the management of water supply and demand was formulated. In addition to this, the idea of river basin management was proposed through the introduction of annual and long-term planning mechanisms of water resources. Taking into consideration the recommendations of the "Integrated Water Resources Management Programme" in 2001 the Government of the Republic of Armenia initiated a targeted programme for improving the water sector in the country, and revised the legal and institutional framework in the field. All this was incorporated in Resolution No. 92 on "Concept for Water Sector Reforms in the Republic of Armenia", adopted by the Government.

One of the most important steps in water sector reforms in Armenia is the new Water Code of Armenia which was adopted on June 4, 2002. The Code contains the idea of integrated river basin planning, promotes the allocation of water resources based on supply and not demand, creates a basis for establishment of the State Water Cadastre (SWC), obliges issuing water use permits based on available information, and provides an opportunity to employ economic mechanisms in the course of the management of water resources.

In order to ensure the proper application of the new Water Code of Armenia, the Government has prepared over 80 regulations and by-laws since 2002, which relate to the procedures of issuing water use permits, river basin management, transparency and public participation in the decision-making process, information accessibility, establishment of the SWC, formation of water resources monitoring, management of transboundary water resources and others.

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. Since 2005, the principles of river basin management have been applied in Armenia.

In 2006 the "Law on the National Water Programme of the Republic of Armenia" was adopted. The overall goal of the law is development of measures aimed at satisfying the needs of the population and economy, ensuring ecological sustainability, formation and use of the strategic water reserve, and protection of the national water reserve. Short-term (until 2010), medium-term (2010-2015) and long-term (2015-2021) measures for implementation of the National Water Programme objectives are defined in the law as well.

In 2002 a new institutional system was introduced, according to which management of the water sector is implemented by the following authorities:



- Ministry of Nature Protection of the Republic of Armenia, and its Water Resources Management Agency, which implements management and protection of water resources;
- State Committee on Water Systems under the Ministry of Territorial Administration of Armenia, which implements the state management of water systems and;
- Public Services Regulatory Commission of Armenia, which implements a tariff policy in the water sector.

In order to promote a more efficient, targeted and decentralized management of water resources, five territorial divisions (Northern, Akhuryan, Araratian, Sevan-Hrazdan and Southern) have been established under the auspices of the Water Resources Management Agency. The Water Basin Management Authorities (WBMA) are responsible for the development of river basin management plans, 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 five water basin management areas.

Parallel to the legal and institutional reforms mentioned above the SWC for Armenia has been developed, which is one of the most important supporting tools for introduction of integrated water resource management (IWRM) process in Armenia. The SWC is a continuously functioning system, which registers integrated data on water resources quantity and quality indicators, watersheds, materials extracted from river beds, composition of biological resources, water users, water use permits and water system use permits.

The institute of the SWC nowadays has a corresponding supporting legal framework and implements the following tasks:

- Establishment of a data warehouse related to the water sector,
- Registration of documentations in the cadastre and provision of corresponding information,
- Formation of the tasks for water resources monitoring,
- Planning of the implementation of water resources monitoring, and inclusion of the monitoring results into the management process,
- Inventory of hydro-technical structures related to water resources, in order to increase the efficiency of water use,
- Composition of water resources balance, according to separate river basins and overall.

According to water legislation each water user shall obtain a water use permit for regulating the maximum allowable pollution (MAP). For that purpose the future water user submits an application to the Water Resources Management Agency (WRMA). According to the Water Code the water user shall apply 180 days before the actual water use. This period is required for an initial assessment of the water use permit application, public notification, and if necessary, discussion by the National Water Council, as well as final discussion, complaints and registration of water use permit. In some cases the initial assessment can require that the water user shall present the results of an environmental impact assessment (EIA). Thus, the above-mentioned period can be prolonged.

Information on MAPs and pollutant materials shall be presented by water users as actual data characterizing the situation. MAPs are calculated according to the Republic of Armenia Minister of



Nature Protection Decree No 464 of 10.12.2003 on "Approving the Methodology for Calculating MAPs of Wastewater Flowing into the Water Resources".

The MAP developed, independent of the self-cleaning capacity of the water, shall satisfy the level of treatment required for the application of typical technologies in such cases. While defining the values of MAPs the following is important:

- If the actual outflow from the existing company is less than the calculated MAP, then the actual outflow value shall be considered as the new MAP,
- if the planned MAP for the company being constructed is less than the calculated MAP, then the planned value shall be considered as the new MAP.

Based on the values of MAPs and water use permit conditions, the State Environmental Inspectorate implements compliance assurance activities. Water quality samples are taken from the water users and analyzed against the water use permit conditions.

Ministry of Health

The State Hygiene and Anti-Epidemiological Inspectorate of the Ministry of Health of Armenia has an important role in the implementation of the Protocol on Water and Health. The main objective of the Protocol on Water and Health is reduction of the burden of water-borne diseases, thus providing for safe drinking-water supply and improved discharge services, as well as protection of water sources from pollution and their sustainable management.

The general requirements for the provision of sanitary-epidemiological safety of the population of the Republic of Armenia from water-borne diseases are specified in the law "On Provision for Sanitary-Epidemiological Safety of Republic of Armenia Population", other laws of Armenia, several Government Resolution and other inter-agency resolutions.

The Republic of Armenia law "On Provision for Sanitary-Epidemiological Safety of Republic of Armenia Population" defines the legal, economic and logistical foundations for the provision of sanitary-epidemiological safety of the population of the Republic of Armenia, as well as the state guarantees, which exclude the impact of harmful and dangerous substances into humans, as well as ensuring favourable conditions for the health of current and future generations.

The main requirements related to water supply and water use sectors are provided in Article 16 of the Law: "Article 16 – The General Requirements for Ensuring Sanitary-Epidemiological Safety of Republic of Armenia Population in the Field of Water Supply and Water Use".

Inhabitants of urban and other settlements are supplied with drinking-water in the quantity required for drinking and physiological needs, according to hygiene norms.

The quality of drinking-water for communal-household use, industrial and other non-potable use shall correspond to sanitary requirements.



The state agencies implement measures towards protection, development of water supply systems and towards providing high-quality water to the population.

The quality of centralized and decentralized water supplies, bathing, sports and leisure water, water for health purposes and that located in the reservoirs near settlements shall satisfy the corresponding sanitary regulations.

In order to prevent and eliminate the pollution of water used by populations local self-governance councils have determined sanitary protection zones with special protection regimes, according to legislation of the Republic of Armenia.

In case of water quality not satisfying the sanitary regulations, the State Hygiene and Anti-Epidemiological Inspectorate of Armenia prohibits the use of water sources by industries, companies, organizations and citizens.

The requirements for sanitary protection zones and regimes are regulated also according to the Republic of Armenia Land Code, Republic of Armenia Government Resolution No. 96 of February 2, 2002, according to which the state authorized agency in charge of limiting the use of sanitary protection zones and setting the norms is the Ministry of Health.

Sanitary rules and hygiene norms, like all other acts, are normative agency acts and according to the Armenian law "On Legal Acts" as applied as envisaged by the law.

In the field of water supply and water use the safety requirements for populations are defined according to the following legal acts:

- Sanitary protection zones for household drinking-water, water supply and water sources No.2-III-A2-2 sanitary rules and norms (registered in 28.12.2002), which define the sanitary-hygiene and anti-epidemiological requirements for organization and operation of sanitary protection zones for household drinking- water supply sources,
- Drinking water. Requirements imposed on water quality for centralized systems. Quality enforcement sanitary rules No. 2-III-A2-1 and norms (registered in 28.12.2002), which defines the hygiene requirements for drinking-water quality, as well as the drinking-water quality enforcement rules provided to settlements.

The above-mentioned sanitary rules and norms are obligatory for implementation according to Armenian law: "On Provision for Sanitary and Anti-Epidemiological Safety of the Republic of Armenia Population".

Article 4 – Sanitary Rules and Hygiene Norms (Excerpt): The sanitary rules and hygiene norms (hereinafter – sanitary rules) are defined for the population in order to satisfy the requirements for ensuring a safe environment and non-harmful criteria for human activities.

Implementation of sanitary rules is obligatory for all state agencies, industries, companies, organizations, as well as official individuals and citizens.



At the same time, according to the Armenian Government Resolution No 218-N of 07.03.2003 "On Approving the Exemplary Water Use Form and Water Use Permit Forms", for drinking, household, health and other purposes endorsement is required from the State Hygiene and Anti-Epidemiological Inspectorate of the Ministry of Health of Armenia.

The provision of sanitary-epidemiological safety of the Republic of Armenia population and corresponding enforcement functions are the responsibility of the State Hygiene and Anti-Epidemiological Inspectorate of the Ministry of Health of Armenia. The inspectorate performs several tasks, including the following:

- Exclusion of harmful and dangerous environmental factors through defining sanitary-epidemiological limitations, sanitary and anti-epidemiological rules and norms, developing hygiene norms and enforcement of their compliance assurance;
- implementation of state hygiene and anti-epidemiological control;
- organization of sanitary-hygiene and anti-epidemiological measures to prevent communicable and non-communicable diseases and poisonings;
- coordination of public health care activities and prevention of communicable and non-communicable diseases and poisonings, provision of organizational-methodological guidance for ensuring sanitary-epidemic safety of the population;
- identification and prevention of violations of sanitary safety rules of Armenia in order to prevent diseases and poisonings.

For the above-mentioned objectives and tasks the State Hygiene and Anti-Epidemiological Inspectorate, among other functions, implements the following:

- Enforcement of assurance of sanitary and anti-epidemiological rules and norms, hygiene norms by legal and physical entities acting in the territory of Armenia, using laboratory testing and technical measurements.
- Identification of cases of violations of sanitary-epidemiological safety of the Republic of Armenia population and imposing appropriate penalties as defined by laws.
- Organization of sanitary-hygiene and preventive works for ensuring sanitary-epidemiological safety in terms of communicable and non-communicable diseases and poisonings, as well as participation in development of necessary suggestions.
- Investigation of cases of communicable and non-communicable diseases and poisonings, to find causes and pathways of transmission.
- Organization of anti-epidemic (containment) measures in the sources of diseases and parasitic illnesses.
- Submission of proposals or requirements on sanitary-epidemiological safety in the territory of the Republic of Armenia to corresponding authorities, including a decision to define quarantine, medical examination of individual who are possible carriers of communicable diseases, imposing hospitalisation for people possible carrying communicable diseases
- Surveying environmental factors affecting public health.
- Implementation of hygiene expertise, including the cases of land provision, construction, renovation and construction designs works, identification of water abstraction point, wastewater discharge point, location of landfills, etc.



- Sampling of water and other products and materials for the purposes of implementing hygiene expertise and laboratory testing.
- Adoption of a resolution to temporarily stop the activities of hydro-technical structures, operation of systems until elimination of violations of sanitary rules and norms, hygiene norms and anti-epidemiological regimes.
- Temporary prohibition of the application of chemical material, means and methods for drinking, household, industrial and technical needs, when there is a danger for human health.
- Temporary suspension of drinking, household-communal, industrial and technical water use, when the water quality does not correspond to the sanitary-hygiene safety requirements.
- Implementation of legal proceeding according to Republic of Armenia Law on Legal Proceedings.

The Inspectorate is a centralized unified body and has structural units (Centres) and regional bodies (Expertise Centres) all over the country.

Inspectorate centres ensure implementation of requirements and measures, defined by Republic of Armenia governmental resolutions and other legal acts, of national programmes (immunization, malaria, etc.) in the sphere of hygiene and anti-epidemic safety of the population. They conduct inspection controls, take administrative proceedings, investigate them, and apply adequate penalties.

Inspectorate centres receive notification about each case of infectious diseases, including water-borne diseases, and poisonings from health-care facilities, conduct and/or coordinate epidemiological investigation of cases of infectious diseases through expertise centres, identify sources of infection, develop and introduce measures and recommendations on the prevention of further spread of infection, containment and elimination.

The inspectorate centres also monitor the quality of drinking-water. During outbreaks of infectious diseases, including water-borne diseases, inspectorate centres develop, organize and, jointly with expertise centres, implement appropriate activities aimed at detecting the causes of those outbreaks, containing and eliminating them.

SHAEI regional expertise centres: - state non-commercial organizations assist SHAEI regional centres' work, ensuring the implementation of necessary investigations, expertise and laboratory analyses.

Based on the demands of the appropriate regional centre, expertise centres conduct epidemiological research of cases aimed at detection of causes and conditions. They undertake clinical examinations on people who had contact with infectious patients, provide laboratory analyses, as well as measurements, specimen collection from air, water, soil, supply and food, as well as from other products, objects, materials, and conduct laboratory testing of their microbiological, parasitological, radioactive and chemical contamination. They analyze the impact of those factors on the population's health.

During outbreaks of infectious diseases expertise centres jointly with inspectorate centres participate in appropriate activities aimed at detecting the reasons for those outbreaks, limiting and eliminating them.



State Committee on Water Systems under the Ministry of Territorial Administration

The state policy on management and use of state-owned water systems in the Republic of Armenia is being developed and implemented by the State Committee on Water Systems under the Ministry of Territorial Administration. The State Committee on Water Systems under the Ministry of Territorial Administration implements its tasks based on the principles of the Water Code of Armenia, Law on National Water Programme, Law on Fundamental Provisions on National Water Policy, as well as Government Resolutions on Reformation on the Water Sector (including the Poverty Reduction Strategic Programme and Medium Term Programme).

There are five large companies, which provide centralized drinking-water supply and discharge services in the Republic of Armenia:

- “Yerevan Jur” CJSC – since June 1, 2006 the drinking-water systems of Yerevan city and several adjacent villages are leased to French company “General Dezaú”, which serves Yerevan city and several adjacent communities,
- “Arm Water Supply” CJSC – 100% of the shares belong to the Republic of Armenia. In 2004 the management right was transferred to a French company “Saur” for a four-year term, with possibility to extend by another two years. The company serves 305 urban and rural communities.
- “Lori Water Supply and Sewerage” CJSC – 51% of the shares belong to the Republic of Armenia, and 49% belongs to corresponding communities in the service area of the company. The company serves Vanadzor city and adjacent rural communities.
- “Shirak Water Supply and Sewerage” CJSC - 51% of the shares belong to the Republic of Armenia, and 49% belongs to corresponding communities in the service area of the company. The company service the cities of Gyumri and Maralik, as well as adjacent rural communities.
- “Nor Akunq” CJSC - 51% of the shares belong to the Republic of Armenia, and 49% belongs to corresponding communities in the service area of the company. The company services the cities of Armavir and Metsamor, as well as adjacent rural communities.

For further management of “Lori Water Supply and Sewerage”, “Shirak Water Supply and Sewerage” CJSC and “Nor Akunq” CJSC a process of selection of a new operator has been initiated through international tender.

In the Republic there are about 560 rural communities, which are historically self-supplied through local springs and other sources. Drinking-water supply in those communities is being organized by the communities themselves, or community level organizations. These communities are outside of the service areas of large water supply companies, and have been largely left outside of investment, technical assistance and other projects implemented in Armenia in recent years. Unlike for large companies, in the above-mentioned communities issues related to drinking-water service provision (tariff, minimum water supply criteria and other issues) are not regulated. Institutional structures in charge of operation and maintenance of drinking-water systems are largely absent in these communities.



Irrigation water supply in Armenia is being organized by “Sevan-Hrazdan Jrar (water abstraction)” CJSC, “Akhuryan-Araks Jrar” CJSC and “Debed-Aghstev Jrar” CJSC, as well as through 44 water users associations in charge of irrigation water supply.

In total, the irrigated areas of Armenia compose 207 thousand ha, of which in 2008 actually 128.8 thousand ha were irrigated.

The functional objectives of the State Committee on Water Systems under the Ministry of Territorial Administration of the Republic of Armenia relate to the following: provision for reliable, safe, stable and continuous water supply through financially healthy, sustainable and competitive water supply companies, as well as provision for the safety of water systems, required drinking-water quality, improving environmental and technical conditions of the systems, preventing pollution of the environment through wastewater, and finally, financial strengthening of the systems, making them completely manageable and efficiently used.

Non-Governmental Organizations

Armenian Women for Health and Healthy Environment (AWHHE), founded in 1999, is an NGO working for sustainable rural development, protection of human health and the environment and poverty reduction. The organization involves experienced specialists: epidemiologists, hygienists, scientists, environmentalists and toxicologists.

AWHHE promotes the solution of problems related to health and the environment; provides independent monitoring, risk assessment and scientific investigations on water supply and sustainable sanitation management; lobbies decision-makers to make sound solutions; contributes to capacity building of rural communities; strengthens the participation of women in decision-making at local and national levels; conducts awareness-raising and information campaigns, and organizes and participates in international and national conferences and forums contributing to environmental policy making .

The recognition of AWHHE as a leading environmental NGO in Armenia has resulted in involvement of the organization in: National Council on Sustainable Development facilitated by Tigran Sargsyan, Prime Minister of Armenia; Drafting Group on Guidelines on Water Supply and Sanitation in Extreme Weather Events in frame of Task Force on Extreme Weather Events (TFEWE) under the framework of the Protocol on Water and Health to the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes; Steering Committee of the National Policy Dialogue on water-related issues in Armenia.

During recent years the problem of water and sanitation has become the main priority of AWHHE activities in the frame of the implemented projects aimed at sustainable rural development which has resulted in the provision of sustainable adequate water and sanitation in project areas.

AWHHE has applied the community-based approach involving local people in projects and strengthening the capacity of the whole community.

- In the frame of “**For Sustainable and Environmentally Sound Rural Armenia**” two-stage project AWHHE constructed three school- and 28 household- urine diverting toilets. In two



targeted villages 450 water meters were installed. Thus, the villagers had water inside their houses.

- AWHHE implemented “**Safe Water Supply for Hayanist Village**” project aimed at improving the water supply system by constructing new pipelines. As a result of this project 1120 households were connected to the piped water system.

Other NGOs who will be engaged in the proposed project are:

(1) **Environmental Survival** - founded on December 25, 1996, and registered at the Ministry of Justice of the Republic of Armenia on February 14, 1997.

The main mission of **Environmental Survival** is to contribute to biodiversity conservation in Armenia and the entire South Caucasus region and rehabilitation of water resources quality in Armenia through scientific research, expertise, advocacy campaigns and publications.

Among the completed and ongoing projects are:

- “Support to Integrated Water Resources Management in the South Caucasus Countries” of the Eurasia Foundation’s South Caucasus Cooperation Programme.
- The regional project “Strengthening Transboundary Cooperation and Community Involvement for Sustainable Water Resources Management” of the South Caucasus.
- Since January 2009 “Environmental Survival” has implemented the ADB project monitoring Water Supply and Sanitation Sector and Rural Road Sector Project in Gegharkunik marz, Armenia.

(2) The scientific and ecological NGO "**Country Water Partnership**" which is a non-profit making NGO. The Organization was founded in 2005 by experienced specialists of water resources protection, management and use. The Country Water Partnership was established as the partner of Global Water Partnership (GWP) in Armenia.

As a GWP partner and member of international network, the mission of the Country Water Partnership is to assist in the introduction and implementation of Integrated Water Resources Management principles in Armenia.

Completed projects include:

- “Considering Gender Aspects - Key Goal of IWRM Approach”
- 2. World Water Monitoring Day
- 3. Kura - Araks Rivers’ Protection Day

(3) **Lore Ecological Club** was founded in January 1999. As a result of nine years experience the NGO is well known and respected by the local community. The mission statement of the organization is: “We turn ideas into actions for the ecological harmony, health and prosperity of people and the future generations”.

A number of projects have been implemented by the Lore Ecological Club aimed at environmental conservation, better management of water and natural resources, ecological educational projects aimed



at raising environmental awareness and responsiveness of the local population, best practices in ecological management, protection of woodlands and projects in low income communities aiming at alleviation of extreme poverty and reaching environmental sustainability like:

- Clean Dzoraget River, Clean water and;
- Organization of Environmental Summer Camps to raise Children's Ecological Awareness.

Goal

The goal of the proposed project is to develop target indicators to assist Armenia in implementing certain requirements of the 1999 Protocol on Water and Health, thus to promote at national level the protection of life and health of the public both in terms of individual and collective aspects, as well as to improve management of water resources use, including protection of ecosystems, improvement of safe water supply and discharge, and controlling and reducing water-borne diseases.

Main objectives

1. Needs assessment related to implementation of requirements included in the Protocol of Water and Health.
2. Establish and approve targets and target dates in accordance with the Protocol on Water and Health in Armenia with participation of all engaged national institutions.
3. In order to implement the target indicators of the Protocol on Water and Health, develop a timeframe of actions for agencies involved in the Project according to the requirements of the reports through development of the outline of the National Report.

Activities

1. Promotion and provision of consultations to Ministries and Departments engaged in the matter of water management, watercourse protection and public health services.
2. Discussion of the main provisions in the Protocol on Water and Health.
3. Assessment of current status on water and health in Armenia.
4. Needs assessment and definition of priorities.
5. Establishing a list of responsibilities and obligations regarding implementation of the requirements of the Protocol and Water and Health.
6. Analysis and publication of the existing problems and drawbacks.
7. Development of an Action Plan for further activities.
8. Development of an Action Plan on the basis of time schedule and expected outcomes. Targets and indicators will be established and agreed upon.
9. Organization of meetings and seminars with participation of engaged parties. As an outcome of these meetings, the Action Plan will be established and approved, which will provide a precise indication of the responsibilities of every participant for relevant activities.
10. Coordination of the schedule of activities by all engaged parties (cooperatives, Ministries and Departments) at national level.
11. Raise public awareness about the programme, scopes and targets.
12. Definition of monitoring indicators and assessment of progress. The indicators should reflect various activities, undertaken by a variety of participants at national and local levels. It will comply with the provisions approved by the meetings of the Parties.



13. Coordination of assessment mechanism.

The format of the National Report will be in compliance with the requirements and standards of already existing mechanisms of summary report preparation. The report will provide the assessment of targets.

Methodology and Project State-of-the-Art

International level

Role of WHO and UNECE

UNECE and WHO Regional Office for Europe will provide expert evaluation of established aims and targets and relevant summary reports. Logistical expenses of UNECE and WHO representatives participating in the meetings will be covered by the project budget.

Support for the implementation will be requested from Finland, Norway, Switzerland and other countries, as well as from international finance institutions during the second meeting of AHPFM in Geneva (July 1, 2009).

National Level

Steering Committee and Working Group

Fairly established national targets may be used by national and local public authorities as a baseline for the distribution of resources. Transparent and politically approved targets may also serve as a secure background for international aid application, increasing the opportunity to apply for international financing. For this purpose a steering committee and working group will be established.

The steering committee will consist of key ministry officials and a representative from the NGO, AWHHE. The main responsibilities will be to collect interim reports from the project and provide feedback. At least two meetings of the steering committee will be held to establish the work plan.

A working group composed of specialists from the key ministries and NGOs will be established. This will meet periodically to discuss the progress of the work.

Further details of the methods to be followed are given below:

1. Consultations of representatives of Ministries and Departments engaged in matters of water management, water protection and public health services in the frame of Round table discussions.
2. Assessment of current status on the implementation of the requirements of the Protocol on Water and Health in compliance with the existing reports and their formats.
3. Analysis of actual problems and drawbacks regarding implementation of the requirements of the Protocol on Water and Health, and its publication.
4. Organization of a kick-off national meeting to deliver the main information to the participants. Organization of a meeting at the national level on the advanced phase of development in order to review and assess the progress and to discuss the schedule of activities.
5. Development of an Action Plan in touch with all engaged parties.
6. Engagement of the public to ensure transparency.
7. Establishment and adoption of indicators for monitoring and assessment of progress.
8. Coordination of assessment mechanism.
9. Monitoring and assessment of the Project through the Steering Committee on the national level



and by WHO and UNECE on the international level.

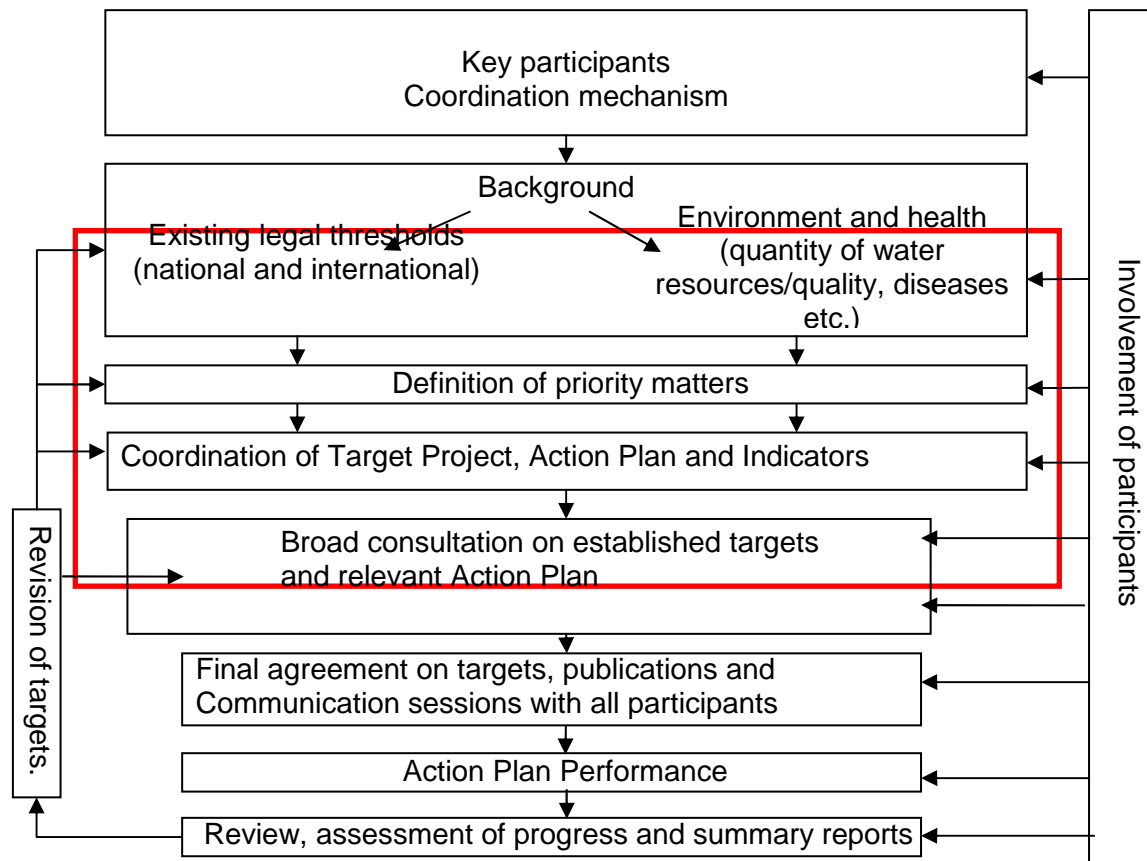
Project activities

The activities, due to be initiated in Armenia, are based on the method developed by the Task Force on indicators and summary reports (ad hoc group to the Protocol on Water and Health).

This method, summarized in the Guidance Principles, demonstrates, step by step, the provisions to be taken and the aspects to be considered while establishing the targets, relevant actions and reports on assessment of progress in respect to health protection and sustainable water resource management in accordance with Articles 6 and 7 of the Protocol.

However, the framework of Guidance Principles will be adapted to specific national and local conditions in Armenia. Intrinsic measures, which are responsible for establishing targets and implementation of relevant actions, are shown in Fig. 1.

Figure 1: Logical structure



Annex 1 shows the activities to be covered during the project. Annex 2 shows the timetable for the Project over a one-year period.



It is suggested to share responsibilities among key Ministries, Departments and NGOs (see pp. 8-16) in establishing targets and indicators (Annex 3). These will be agreed upon during the meeting of the Steering Committee and Coordination Council.

However, government institutions should be supported by consultants and other experts in the matter of target definitions.

It is noteworthy that, public participation, including local, national and international NGOs, is a very important condition for promotion and provision of targets, in accordance with Article 6 paragraph 2 of the Protocol «appropriate practical and/or other provision for public participation, within a transparent and fair framework shall ensure that due account is taken of the outcome of the public participation».

A budget is provided in Annex 4. This takes account of the availability of long-term and short-term consulting services as well as management expertise.

Long-term consultants will work on matters related to public health services (15 corresponding provisions in Article 6); watercourse management and ecology (12 corresponding provisions in Article 6); water supply and sanitation (12 corresponding provisions in Article 6). It is anticipated that, short-term consultants will provide their expertise on administration and institutional aspects, and they will also assist in report preparation in accordance with the Protocol, including the activity of key Ministries and Departments, as indicated on pp. 8-16. Nominated representatives of NGOs will provide expert services on the provisions of public participation, as indicated in 19 relevant provisions in Article 6 of the Protocol.

Preparation and implementation of such «appropriate practical and/or other provisions for public participation» is a part of the project under consideration. This envisages activities in the frame of the project to pursue «transparent and fair framework for the public participation», as a guideline of the whole project. Practical steps (i.e. identification of the NGO Coordinator with experience relevant to the Water and Health Protocol, NGO management, nomination of an NGO representative for the Steering Committee and during the meetings of Coordination Council) are provisions for the Project implementation.

Therefore the budget of the project includes financial support of local and international NGOs: (a) for establishing targets (financial support for organization of three meetings of NGO representatives); and (b) to pay a fee directly to consultants (financial support for expertise and contribution to public participation in the frame of the Protocol).

Involved foreign organizations and status of discussions

- UNECE and Regional Office for Europe WHO: will provide expertise on established scopes and targets and relevant summary reports. Expenses of UNECE and WHO representatives to participate in the meetings, will be covered by the project budget.



- Economic Commission for Europe: the Project falls under the activities of the European Water Initiative as a part of the Road Map Project in the frame of a Dialogue on national policy in Armenia: co-financing of one of the meetings of Coordination Council makes part of the Project provisions. Support for the Project implementation will be made available through acting and future Projects of the European Union.
- Other countries: Support for implementation will be requested from Finland, Norway, Switzerland and other countries as well as from International Finance Institutions during the second meeting of AHPFM in Geneva (July 1, 2009)

Timing of the project (Annex 2)

12 months: November 1, 2009- October 31, 2010

Monitoring and assessment

1. An Intermediate Report will be made available within 6 months of the initiation of the Project.
2. A Final Report will be made available by the completion of the Project, but no later than October 30, 2010
3. A monitoring and assessment mechanism will be established by donors.
4. Preparation of a booklet for publication will be over no later than three months after the Project completion.



Annex 1. Action Plan.

Activities	Description and outcomes
Preparation of the presentation of the Protocol and targets in accordance with Article 6 to the participants engaged at national level	Preparation to the Coordination Council meeting
Presentation of the Protocol and targets in accordance with Article 6 to the participants engaged at national level	Coordination Council meeting with participation of Ministries and Departments engaged in the matters of water resources management, their protection and public health services.
Strategy and understanding of roles of various participants to the process	Assessment of current status on water and health. Establishing a list of scope of activities and corresponding actions of Ministries and Departments engaged in water and health matters.
Analysis of existing problems and drawbacks	Current problems and drawbacks analysis. Scheduling further activities.
Development of a joint programme supported by major participants	Analysis of existing problems and drawbacks, and development of Action Plan with a schedule of activities and expected outcomes. Targets and indicators must be established and agreed upon.
Revision and finalization of a programme through wider discussions and consultations	Organization of meetings and seminars with participation of engaged Parties. The outcome of these meetings shall be an Action Plan, indicating precisely the responsibility of every participant for his relevant activity.
Discussion of a programme by interested parties	Agreement upon the Action Plan by all engaged participants (cooperatives, Ministries and Departments) at national level.
Public communications about the programme in a frame of Coordination Council	Coordination Council meeting dedicated to public communications about the program, scopes and targets.
Establishing of monitoring indicators	Establishing targets, used for monitoring and assessment of progress by key participants. Indicators will reflect various activities, implemented by various participants at national and local levels. They will comply with parameters adopted by the Parties during the meetings.
Coordination of assessment mechanisms	Approval of indicators elaborated for assessment methods.
Establishing format and occurrence of national reports. Establishing format and contents of final report in the frame of Coordination Council meeting.	Coordination Council meeting to pursue the structure of national report which will meet the requirements and standards of already existing mechanisms of report presentation. This report will provide assessments of progress.
Publication of the results	Preparation of materials, booklet model, its draft and design. Publication of a booklet in the Armenian Russian and English languages.





Annex 2. Timetable of the Project.

Project activity framework												
Month	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Establishment of the Steering Committee and Working	x											
Establishing and implementing a transparent and fair framework for public participation	x	x	x	x	x	x	x	x	x	x	x	x
Target-setting activities												
Preparation of the presentation of the Protocol and targets in accordance with Article 6 to the participants engaged at national level		x										
Presentation of the Protocol to the stakeholders at the national level			x									
Strategy and understanding of roles of various participants to the process		x	x	x								
Baseline analysis of existing problems and drawbacks (existing legal, institutional, managerial, financial basis; existing framework for public participation)		x	x	x	x	x						
Agreement on a draft programme of measures supported by the main stakeholders						x	x					
Consultations with stakeholders on the programme of measures and priorities (governmental entities, private sector, water users, general public)							x	x	x	x	x	x
Development of relevant legal and administrative tools for implementation (e.g. draft government decree on targets and target dates and on reporting)							x	x	x	x	x	x
Drafting targets and target dates					x	x	x	x	x	x		
Agreement on targets and target dates											x	
Establishing format of national reports and final report.												x
Publications and public relations work	Publication: At least 5 month after project end PR work, such as press conferences: continuing, particularly during											



	Steering Committee meetings
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Annex 3. Sample Output of the Project. Share of responsibility of Armenian organizations in connection with the Water and Health Protocol Article 63

Relevant to Article 6 (2)	Description	Implementer	Co-Implementer
(a)	Drinking water quality		
(b)	Reduction of water-related diseases outbreaks and incidents		
(c)	The area of territory, or the population sizes or proportions, which should be served by collective systems for the supply of drinking water or where the supply of drinking water by other means should be improved		
(d)	The area of territory, or the population sizes or proportions, which should be served by collective systems of sanitation or where sanitation by other means should be improved		
(e)	The level of performance to be achieved by such collective systems and by such other means of water supply and sanitation respectively		
(f)	The application of recognized good practice to the management of water supply		
	The application of recognized good practice to the management of sanitation		
	The protection of waters used as sources for drinking water		
(g)	The occurrences of discharges of untreated waste water		
	The occurrences of discharge of untreated storm water overflows		
(h)	The quality of discharges of water from waste water treatment installations		
(i)	The disposal or reuse of sewage sludge from collective systems or other sanitation installations		
	The quality of waste water used for irrigation		
(j)	The quality of waters which are used as source for drinking water		
	The quality of waters which are generally used for bathing		
	The quality of waters used for aquaculture or for the production or harvesting		

³ This list will be discussed in details during the meeting of Coordination Council for final discussion of share responsibility among organizations



Relevant to Article 6 (2)	Description	Implementer	Co-Implementer
	of shellfish		
(k)	The application of recognized good practice to the management of enclosed waters generally available for bathing		
(l)	The identification and remediation of particularly contaminated sites		
(m)	The effectiveness of systems for the management, development, protection and use of water resources		
(n)	The frequency of the publication of information		



Annex 4. Requested financial funds.

Category	Costs	Amount USD
Local consultants' services	<p>1 Project manager (to be decided) (12 months) 1000 USD/month, in total 12.000 USD</p> <p>5 long-term national consultants (water resource management, water supply, and sanitation, environment protection, public health service) 400 working days 100 USD/day, in total 40.000 USD</p> <p>experts:</p> <p>5 short-term national consultants on administration and institutional aspects in accordance with Article 6, as well as report preparation according to Article 7. 60 working days, 100 USD/day, in total 6.000 USD</p> <p>2 NGO experts (provisions for public participation) 40 working days 100 USD/day, in total 4.000 USD</p>	62.000 USD
International consultants' services	2 international consultants, 30 working days 300 USD/day	9.000 USD
Meetings and seminars	<p>3 national meetings: 15.000 USD</p> <p>6 ad hoc meetings: 6.000 USD</p> <p>3 NGO coordination meetings 3.000 USD</p>	24.000 USD
Travel expenses and daily allowance	<p>Travel expenses of international consultants(1,600 USD per two persons) 3.200 USD</p> <p>DSA for 30 days (160 USD/day) 4.800 USD</p> <p>Travel expenses and DSA for UNECE personnel and WHO Regional Office for Europe personnel: 4 trips to participate to the Coordination Council meetings and/or ad hoc meetings (12,000 USD)</p> <p>Home travel expenses for local participants to the meetings, hotel expenses: 3 trips to participate to the Coordination Council meetings (3,000.USD)</p>	23.000 USD
Preparation and publication of materials	<p>Preparation of materials, booklet model draft and design 3.000 USD</p> <p>Publication of a booklet in Armenian, Russian and English languages 21.000 USD</p>	



	Preparation and allocation of material in internet page 3,500 USD	27.500 USD
Other fees	Translation services (1000 pages, 10 USD/page)	10.000USD
Unforeseen expenditures		7.000 USD
Co-financing (international organizations)	Via the procedures of National Dialogue on Water Policy (5.000 USD)	- 5.000 USD
Co-financing (national)	Contribution of the Government : leasing of the office (6.000 USD), office equipment (4.000 USD) TLC bills (2.500 USD)	- 12.500 USD
<u>TOTAL</u>		<u>145.500 USD</u>

