

# European Solidarity Week for Water

## Case Study on the Right to Water and Sanitation in Armenia

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## I. Abstract

In the last five years, the Armenian Government has taken important steps towards providing an adequate water supply to the population. The Government has:

- developed, with the support of the World Bank, the *Integrated Water Resources Management Programme* (1999-2000);
- adopted the Republic of Armenia (RoA) *New Water Code* (June 4, 2002) ;
- adopted the Republic of Armenia (RoA) Law, “*On Fundamental Provisions of the National Water Policy*” (June 3, 2005);
- initiated the National Water Programme drafting process, a tool to ensure the implementation of the principles and approaches set out in the RoA *Water Code* and RoA Law “*On Fundamental Provisions of the National Water Policy*”.

The right to water and sanitation is not contained in law as a justiciable right and is not recognised yet in Armenia as a fundamental human right. However, the Armenian policy regarding the right to water is that everyone should have access to safe drinking water and sanitation. It is declared that water resources are the state property; their use and disposal are controlled through economic instruments.

Armenia aims at ensuring access to drinking water for everyone. However, water providers are still not able to guarantee the implementation of the right to water for all, in particular for the poorest. Taking into account the growing water prices and fact that the 50% of population, mainly in rural areas, lives on or below the poverty line, urgent legislative measures should be taken to provide the implementation of right to water to the poor and the disadvantaged. It is noteworthy to state that Armenia has sufficient water resources to provide all the population with safe drinking water; however, 60-80% of water is lost on the way from the source to the consumers because of pipe deterioration and other reasons. As a consequence, Armenia faces the problem of scarce water resources.

There have been some investments in the water sector; however, lack of recent investment and collapse of water supply systems, especially in rural communities, have resulted in inadequate and often unsanitary water supplies. By way of contrast, with respect to investment, the sanitation sector has been absolutely neglected, particularly in rural areas. Urgent investments are required to improve water and sanitation services.

As the majority of potable water supplies in Armenia are from ground water sources, the quality of the water is generally good and should not be a hazard to public health. Some communities in the rural areas now have to rely on surface water supplies instead of pumped ground water. These surface supplies sometimes come from irrigation canals and are contaminated, with associated health risks.

This report provides the case study of a village in the Charentsavan district of Kotayk marz, which demonstrates how one community has improved their access to a safe water supply through working with the local government and NGOs.

To conclude, the right to water and sanitation is not contained in law as justiciable right and is not yet recognised in Armenia as a fundamental human right. To implement the right to water, Armenia should legally define the right to water as a human right. In spite of the progress in Armenia in the improvement of water supply and legislative measures, water providers still are not able to guarantee the implementation of the right to water for all in particular for the poorest. The legislative measures should be taken in accordance with the population means, as 50% of the population in Armenia lives at or below the poverty line.

## II. National context

*But whatever may have been their destiny... their country must ever be one of the most interesting on the globe; and perhaps their language only requires to be more studied to become more attractive.*

Lord Byron

### *Historical situation*

Armenia is located in the south Caucasus neighbouring Azerbaijan, Iran, Georgia, and Turkey. The area of the country covers 29 743 sq km., with a population of three million people.<sup>1</sup>

Armenia has a highland continental climate. It is dry, with an average of 550mm annual rainfall.

Armenia is the first nation to formally adopt Christianity in 301. Despite periods of autonomy, over the centuries Armenia came under the sway of various empires including the Roman, Byzantine, Arab, Persian, and Ottoman empires. It was incorporated into Russia in 1828 and the Soviet Union in 1920.

In 1991, Armenia gained its independence and entered a transition period, which gradually brought about significant changes in the country. The Republic of Armenia (RoA) undertook important political, economic, and institutional reforms.

The country has two levels of governance: state (central) government and local self-government.

### *Political Situation*

Armenia is a presidential republic based on the principle of separation of powers. Its constitution was adopted in 1995 and revised in 2005.

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<sup>1</sup> UN, Country profile: Armenia. 2005.

[http://news.bbc.co.uk/1/hi/world/europe/country\\_profiles/1108052.stm](http://news.bbc.co.uk/1/hi/world/europe/country_profiles/1108052.stm)

According to the Constitution of Armenia, state power is exercised in accordance with the law and divided into three branches: the legislative, executive and judicial powers. Legislative power is exercised by the National Assembly (the Parliament); executive power, by the government and judicial power, by the Constitutional Court, a three-level system of general jurisdiction courts plus economic and military courts.

The President is the head of state. He is directly elected for a five-year term and can only serve two consecutive terms. Armenia has a unicameral parliament, the National Assembly, with 131 members elected every four years.

### *Economic Situation*

Armenia is a small open economy with a population of about three million. Annual gross domestic product (GDP) growth averaged double -digit levels over the last three years, including 10.1% in 2004, so that over the past ten years, Armenian GDP has more than doubled. Real GDP growth has accelerated each year since 1999. Industrial production is supported by new investment in the mining, metallurgy, diamond polishing and food processing sectors. Tourism and information and communication technologies are identified by the government as potential new growth areas but substantial new investment has yet to materialise. Recent rapid growth has helped reduce poverty, yet per capita GDP—about \$800 last year—remains among the lowest in the lower middle -income group, almost pushing it into the low-income group. (See Appendix 1). Additionally, the level of unemployment remains stubbornly high. However, around 70% of total employment is located in self-employment, small enterprises and agriculture, i.e. largely in the informal economy, about 46% of gross national income. Levels of income inequalities are relatively high, although on a declining trend since the late 1990s. Closed borders with Azerbaijan and Turkey as well as poor transport and communications infrastructures are significant constraints to the economic development of this landlocked country.

### *Social Situation*

Economic growth has started to have an impact on poverty indicators. The proportion of the population living below the poverty line fell from 56% in 1998/1999 to 47% in 2004, and share of extreme poverty from 26% to 17%.

The World Bank estimates that Armenia is likely to meet the Millennium Development Goals for gender and education, may meet the goals for poverty reduction, infectious diseases and environmental sustainability, but is unlikely to meet those on child mortality and maternal health.

Emigration has radically changed Armenia's demographics and labour force since the beginning of the 1990s. Around one million persons, or about 25% of the population, have left the country. Emigration has resulted in an ageing population, a gender imbalance and a loss of skilled labour. There has been a sharp fall in the birth rate from 21.6 per 1000 (1989) to 11.7 in 2004 whereas the death rate increased over the same period from 6.5 to 7.99 per 1000.

The current level of pensions is below the minimum subsistence level. Public spending on health and education has remained at low levels in recent years.

## *Gender*

Armenia has achieved gender equality in adult literacy and life expectancy (76 years for women compared to 70 for men). According to the National Statistical Service of the RoA, the registered unemployment rate among women is particularly severe: 14.4 % versus 5.9% among men in 2003, and the gap between the unemployment rates for women and men widened in the 2000s.

Gender asymmetry is also visible in the political realm: women are not adequately involved in politics and their interests are not sufficiently represented and taken into consideration in the areas where vital decisions are made, for example in the legislature and at a level of political appointment in the executive branch of government.

## *Legal and Institutional Framework of Water and Sanitation Services*

The Government of Armenia strongly realises that integrated water resources management (IWRM) is the only way to ensure environmentally and economically sustainable use.

The *Integrated Water Resources Management Program* (IWRMP) was drafted in 1999-2000 with World Bank support for regulating water resources management. The Program covered an assessment of water resources in Armenia and developed fundamental provisions of Armenian's water policies. Built on the IWRM Program's accomplishments, *Concept Paper for Reforming Water Resources and Water System Management in Armenia* has been drafted and approved by the RoA Government Decision No. 92 dated 9 February 2001.

In 2001, the *State Committee of Water Resources* (SCWR) was established to unify the previously separate responsibilities for water services (water supply, sanitation, irrigation) with the main purpose being to supervise state-owned water management. In February 2001, the *Water Resources Management Agency* was established to regulate water resources management issues.

On June 4, 2002, a new *Water Code* was adopted. The Code is the water sector's legal framework, setting overall objectives and main directions, while leaving detailed regulation concerning the water sector to other legislation. This basic document is a tool for water resources management both on national and local levels.

The Water Code introduces an institutional setting including the following main authorities: the *Water National Council*; the *Ministry of Nature Protection*, which includes in its structure the *Water Resources Management Agency*; the *State Committee of Water Resources* under the RoA Government and the *Public Services Regulatory Commission*.

Over the last four years, the country's water sector management has been reformed with elements of both centralisation and decentralisation. In 2002, the responsibility for the operation of water supply and sanitation systems (WSS) was vested with the State Water Sector Committee of the RoA. However, there are many regions in Armenia where such services are rendered and owned by local governments. Those services rely on the law on local self-government, according to which community administrations of small communities and villages are responsible for drinking water and wastewater services within their own geographic boundaries. Moreover, there are some regions where services are provided by rural prefectures.

The RoA Government Resolution No. 149 dated 13 March 1999 has approved the rules for using WSS. The contracts, regulating the relations between the community administration of cities, villages or small communities and the WSS companies, provide the legal basis for the legal relations between the aforementioned community administrations and the water supply and sanitation companies. The contracts set out consumers' rights and companies' responsibilities.

#### *Water and Sanitation Services*

The WSS services are provided by five closed joint stock companies (CJSCs.): the "Yerevan WSS" (YWSS), "The Armenia WSS" (AWSS), "Nor Akunq WSS", "Shirak WSS", "Lori WSS" CJSCs. The two largest organisations, Armenia WSS CJSC and Yerevan WSS serve the Armenian villages and the city of Yerevan, respectively. They are both owned by the state and cover about 80% of the population, which accounts for 95.5% for AWSS CJSC, and some 78% for YWSS CJSC.

#### *Financing Water and Sanitation Services*

Subsidies and donations for the WSS can be allotted by the communities on account of equalisation of the grants submitted by the State budget of the RoA and taking account the possibilities of the local budget of the community, that is to say the communities themselves establish the sums allotted to the mentioned companies. The size of the budget subsidies to the WSS is determined on the basis of the financial estimation of the results and calculations of financial streams of the given year. Based on the prognosis for the financial streams of the WSS, appropriate sums are foreseen in the state budget, which are then allotted to the corresponding departments that are considered to be a plenipotentiary representative of the corresponding branch.

Several loan projects were implemented during the last five years and are ongoing in the country: The main loans are coming from The World Bank total more than \$ 121 million; the International Development Association (IDA), United Nations Development Program (UNDP), United States AID (USAID); the German Government through the KfW Bank made further loans.

Community Development Project I for a total project budget amount of US \$ 35.5 million, the creditor is the IDA;

Two WSS projects in the Armavir, Lori and Shirak marzes (provinces) with total cost €41.5 million, the creditor is the German Government through the KfW Bank;

A rehabilitation project for a total amount of US \$ 41.2 million, the creditor is the IDA;

Community development Project II for a total project amount of US \$ 50-55 million is under preparation.

\$ 46 million was allocated to the state budget of RoA for provision of technical equipment for the state water cadastre by World Bank & USAID

In the smaller communities, where the majority of the population is poor, the lack of recent investment and collapse of water supply systems have resulted in inadequate and often unsanitary water supplies.

### III. The Right to Water and Sanitation

#### a. General Issues

In Armenia the right to water is not yet legally recognised as a justiciable right. However, the general idea that everyone should have access to sufficient, safe, acceptable, physically accessible and affordable water and sanitation is contained in the new *Water Code* adopted in 2002, the Law “*On Water Users’ Associations and Unions of Water Users’ Associations*” adopted in 2002 and the Law “*On the Provision of the Sanitary-Epidemic Security of the Population of RoA*”.

The Water Code stipulates in Article 7 on the “Objectives of the Water Code” that the latter aims at:

- “Ensuring water supply to the population and economy in necessary quantity and quality by regulated tariffs;
- Conservation and protection of water resources, including mitigation of pollution, maintenance and supervision of water standards and water level of the national water reserve;
- Prevention of harmful impact connected with insufficient quality of drinking water”

Article 16 “General Requirements for the Provision of Sanitary-Epidemic Security of the Population in the Sphere of Water Supply” of the Law “*On the Provision of the Sanitary-Epidemic Security of the Population of RoA*” states, “The inhabitants of the cities and other dwellings are provided with the essential quantity of drinking water for domestic and hygienic needs in accordance with the hygienic norms.”

The quality of water used for drinking, domestic and household, production and technical needs must conform to the sanitary rules.

The state bodies realise measures aimed at maintaining and developing the water supply system and providing the population with high quality water.

The Armenian courts consider the claims of consumers regarding the poor quality and insufficient quantity of drinking water relying on Articles 109-118 of the *Water Code* of the RoA and these claims are resolved in a legal form in accordance with the established procedure.

Article 109 “Dispute Resolution Bodies in Water Relations” states, “Disputes in water relations and those related to water resources use and protection shall be resolved by the bodies authorised by the Government to regulate water relations according to a procedure established by the legislation, this Code and other legal acts”.

Article 110 “Resolution of Disputes Evolving in Water Relations” states, “Disputes evolved in water relations may be resolved by a Dispute Resolution Commission. In case of no consent is attained by the parties the disputes shall be resolved in a legal form.”

Article 116 “Compensation of Losses Due to a Violation of this Code” states, “Persons violating requirements of this Code are obliged to compensate the losses caused due to the violation in the established by law procedure. Officials in charge of causing losses to water users shall bear liability in a procedure established by the legislation.”

### *Right to Water Expressly Contained in Treaties, Declarations or Resolutions*

The idea of a right to sufficient, safe, acceptable, physically accessible and affordable water is reflected in the RoA Government Decisions related to water and to sanitation. It is also expressly contained in international human rights instruments: “Convention on the Rights of the Child” and “Convention on the Elimination of Discrimination Against Women” ratified by Armenia.

### *National Strategy and Plan of Action*

The draft of *National Plan of Action* (NPA) for water delivery and sanitation has recently been developed, discussed and is in the procedure of the official approval. The plan envisages 31 measures that are aimed at the efficient management and maintenance of the water resources and systems of Armenia. In the whole, all the suggested measures of the NPA are aimed at ensuring access to water, and less to sanitation. The timeframe is specified in the draft of the *National Water Policy*: short-term (2001-2010), medium-term (2010-2015) and long-term (from 2015) objectives for water resources and systems management and maintenance.

### *Participation of Individuals and Groups in Water Supply Decision-Making*

The mechanism of public participation in decision making is described in the *Water Code* in Articles 20 and 106 Participation of Non-Governmental Organisations (NGOs) and Citizens in the Protection of Water Resources and Water Systems: “*Non – Governmental Organisations and citizens are entitled to participate in the discussions relevant to the water resources and water systems and provide comments by procedures established by the legislation*”.

As a rule, public hearings are organised in the provinces and in the city Yerevan. They are held with the considerable participation of representatives from different ministries, authorities, NGOs and individuals engaged in water problems. The last public hearing was organised by the Ministry of Nature Protection in December 2005. Marginalised, vulnerable individuals and groups have the same opportunity of participating in the process. Responsible bodies announce hearings through mass media.

### *Information and Education*

Access to information and education is available to everybody according to Aarhus Convention on Access to Information, Public Participation in Decision-making, and Access to Justice in Environmental Matters ratified by Armenia in 2001 and the Armenian Law, Access to information (2003).

### *Accountability Mechanisms*

The monitoring system exists to assess and report on implementation of the legislation on sufficient, safe, acceptable, physically accessible and affordable water and includes the following state bodies: ArmStateHydroMet, Monitoring Center on Environmental Impact, Republican Geological Fund, State Nature Protection Inspection, Nature Protection Expert Examination and State Inspection for Sanitary-Epidemic Supervision.

Groups and individuals are formally included in the monitoring process. However, the marginalised and vulnerable individuals and groups do not participate although there is no restriction.

In case of complaints, violations and breaches of contract these issues can be resolved by:

- appealing the decision in the court of last resort
- submitting an application to the general prosecutor
- submitting an application to the ombudsman
- submitting a statement of claim to the court
- submitting a notification to the Aarhus Convention Enforcement Controlling Commission
- submitting an application to the European Court of Human Rights

#### **Box- Cases of Complaints**

Between 26 October and 6 November 2003, about 70 000 inhabitants of Arabkir and Center communities were supplied with water that did not meet the water standards' requirements. The "Yerevan Water & Sewerage" CJSC was sued for compensation.

According to the calculation made by the abovementioned company, each inhabitant who could submit a certificate demonstrating his residence in those communities was paid 329. 34 Armenian drams (AMD) or € 0.45 per person in compensation for the 11 days, in January 2004.

In connection with the prosecution by Susanna Tovmasyan, a citizen of Yerevan against the above-mentioned company, 2 200 000 AMD or € 3 014 was recompensed for damage to a private house because of an accident with the water pipes. Several cases against the "Yerevan Water & Sewerage" CJSC are still in the judicial process.

#### *International Economic Agreements and Private Sector*

Pursuant to the water legislation to provide competition, the transfer conditions of water systems are to be defined according to the delegated management contracts (concession agreement, lease contract, trust management, and establishment of commercial company). The private sector can participate in the delivery of WSS services as it is in Armenia. There are different ways to involve the private sector, starting from the minimal participation (for example collection of payments) up to trust management and privatisation.

The Water Code, in order to choose an operator, stipulates that the applicant submit a programme of the fiduciary management, which will consider technical and professional potentialities of the future operator, as well as the offered works and technical-economic substantiation of the works.

In Armenia, three private providers (CJSCs) exist and own 49% of stocks. These companies are: Nor Akunk, Shirak and Lori. The other 51% of stocks belong to the State.

The management of Yerevan Water & Sewage Company was transferred to the French Company SAUR under agreement.

## **b. Key Elements**

- *Availability*

In Chapter 2 of the draft of the *National Water Program* the aim and objectives of the programme are defined. The provision of essential amounts of water for personal and domestic uses is prioritised within this programme. The National Water Program includes the NPA and both of them are elaborated on the basis of the Water Code and the National Water Policy.

### *Quantity of Water*

Article 7 of the Water Code stipulates ensuring the supply of water for residential needs and the economy in the necessary quantity and quality by regulated tariffs.

The water use volume is estimated on the basis of norms of consumption assuming a continuous (24 hours per day) water supply and amounts for 200 litres per capita per day (lcd) in the service area of the AWSS. Drawing on this volume, which is specified also in the Government Decision N55 (24 January 2002), the AWSS calculate the tariffs. For rural areas 200l/day is the norm for personal and domestic uses. However, since these estimations assume a continuous water supply and this is not guaranteed everywhere in Armenia, the real water use volumes do not correspond to the estimated ones.

The article Economic and Social Aspects of Reforming Water Resources Management: Case of Armenia states that, "The theoretical norms assume 250 lcd of drinking water use by consumers in Yerevan and 200 lcd nation-wide (net of leakage prior to delivery). Only 20% of consumers are supplied water more than 12 hours a day on average (eight hours per day in urban areas, 14 in rural areas). Only 50 % of the population received water every day over the past year, with the rest experiencing up to 40 days without access. Meanwhile, evidence indicated that water consumption is much lower than theoretical norms – ranging from 40 to 80 lcd, far lower than the theoretical norm. Due to low water pressure, the higher floors in apartment buildings have especially poor and irregular service with interruption in water supply often lasting a few days."

Permanent water supply is one of the main priorities of the strategy towards poverty reduction in Armenia. It was followed by significant increase in financing of WSS services from the State budget, on account of the involved international loans (World Bank and KfW).

There are incentives for efficient water use and efficient water delivery in the form of profit due to reduction of water losses through rehabilitation of water systems, disconnection of illegal water-pipe connections, installation of water-meters, and reduction of power use and provision of water-supply by gravity, which reduces electricity costs. Where illegal connections to the water system are found, the householder must pay a penalty and the connections must be removed. The water

supply can be restored on condition that the resident gets official permission. Meanwhile the resident can request the neighbours for assistance.

### *Regularity of Water Supply*

Considerable progress has been attained through the introduction of water meters, moving to volume-based pricing, and also in the improvement of payment collection. These achievements of the Government of Armenia have improved the situation in WSS services. It is much easier to find illegal connections while installing the water meters and the number of subscribers increases. As a result of this, the payments increase and some part of these payments cover the costs of repairing the water pipes, so that the loss of water decreases. People use water more efficiently as a result of the meters, preventing the generation of a lack of water supply. All the above-mentioned approaches improve the regularity of water supplies.

### *Physical Accessibility*

Physical accessibility to water for personal and domestic uses reported in Economic and Social Aspects of Reforming Water Resources Management: Case of Armenia<sup>2</sup> states that, "Approximately 80 % of the population has access to piped water supply networks; the rest receive water from an irrigation company or from local and often unprotected sources (such as private or public wells, springs, open sources): Indoor water taps are available to 71% of the populations (87 % urban, 47 % rural)".

The UNDP Report (2001), Humanitarian Assistance and Community Development Needs, concluded that about 17.3% of Armenia's population belongs to one of the seven vulnerable groups (internally displaced people, refugees, single elderly, disabled, large families, families of perished soldiers and orphans). The bulk of the vulnerable are large families, refugees and the disabled: 24.25%, 16.7% and 16.15 % respectively. The report established that these groups lack adequate access to water. In Poverty of Vulnerable Groups in Armenia,<sup>3</sup> the UNDP offers the following conclusions: "71 % of local households have indoor taps in their dwellings, while the corresponding figure for refugee households is 52 % (and much worse for refugees in temporary shelters). In villages where refugees live, the water supply infrastructure is worse (by 1.5 to 2.5 times) than other villages surveyed. Seventy percent of their dwelling lack water taps, or the outdoor tap is located at a significant distance from their homes....".

Everyone has free access to drinking water from public fountains but there is not free access to public baths.

### *Expanding Access to Water Services*

The draft of the National Water Policy presents the descriptions of short-, medium- and long-term measures for water resources and systems management and maintenance. In the following table, the data of the centralised water supply in 2001 in urban and rural areas are given, as well as the stipulated extensions according to the timeline.

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<sup>2</sup> Melikyan L. *Economic and social aspects of reforming water resources management: Case of Armenia*. 37, 56. 2003

<sup>3</sup> United Nation Development Program. *Poverty of vulnerable groups in Armenia*. 2004.

## Access to Water Supply Service

Access to centralised water supply, %	2001	2003	2006	2009	2012	2015
Urban population	87	90	93	95	98	98
Rural population	45	47	49	51	70	70
Duration of water delivery, hour						
City	8	10	12	14	24	24
Village	14	16	18	20	24	24

In the last five years, the percentage of people in Armenia without access to water has decreased by 5.0% in urban and 3.5% in rural areas.

- *Quality*

The State has standards on drinking water that are defined in Article 70 of the *Water Code*. According to this article, water supplied for drinking, healthcare purposes, needs of municipal and household services must meet the requirements of drinking water quality standards. Officials responsible for supplying drinking water must provide drinking water quality in accordance with drinking water standards. Water treatment and processing for drinking water shall be implemented only in accordance with the developed and adopted methods established according to the Governmental Procedure.

The Ministry of Health of the RoA has confirmed N2-III-A2-1 Sanitary Norms and Rules on Drinking Water: Hygienic Requirements Against the Drinking Water Quality of the Centralised Water Supply Systems:

“The quality of municipal water has deteriorated in the last decade, often failing to meet hygienic standards. This stems from: (a) an insufficient amount of chlorine used to increased cost of operating the chlorination systems, and (b) the poor condition of the networks, resulting in intrusion of raw wastewater into the pipelines. Particularly poor is the quality of water supplied by systems managed by local communities: 60% of the 883 rural systems do not have any facility for disinfection.”

### *Regulation and Surveillance*

In accordance with Article 70 of the Water Code and Article 16 of the Law of the RoA, on Provision of the Sanitary-Epidemic Security of the Population, the state authorised body (Hygienic and Anti-Epidemic Supervision Inspection) monitors whether the supplied water conforms to the drinking water standards. Laboratory investigations are organised by the laboratories of water suppliers and the Hygienic and Anti-Epidemic Supervision Service.

The *Water Code* stipulates in Article 20 that, “Any person who becomes aware of a situation where water resource quality or water use poses a potential threat to human health or security; or causes water resources pollution, that person should notify the Water Resources Management and Protection Body of the occurrence and location. The water resources polluter has a duty to notify the Water Resources Management and Protection Body of the pollution. The latter should immediately disclose this information to the public using mass media ensuring that all persons at risk have an adequate opportunity to learn about the level of risk and the potential consequences.”

### *Pollution*

According to Chapter 8, Articles 66-70 of the *Water Code*, if the water use permit establishes norms that allow for a deviation from standards and may lead to cumulative impact, than these permits considered as invalid according to order established by the legislation. Water resources meeting the requirements of drinking water standards can be used for drinking, health, municipal and household public needs, if it is possible, in accordance with the order established by the government, to provide sanitary zones and special maintenance territories.

The sanitary zones of drinking water sources are defined in the Sanitary Rules and Norms N2-III-A2-2. The Hygienic and Anti-Epidemic Supervision Service implements the control over the maintenance of the sanitary zones. The provision of sanitary zones is the responsibility of the water supply organisations and local authorities. The sanitary zones are: the zone of strict regime, zone of restrictions and zone of observation. The size of the zone depends on the kind of water source.

- *Affordability*

WSS tariffs are regulated by the Public Service Regulatory Commission. The *Water Code* sets rules of review of tariffs requests and minimum validity of the approved tariff. Armenia has switched to single tariff for household and industry.

### *Assistance to Low-Income Groups*

The *Water Code* defines a conception of adjustable tariff, and the necessity of adjustment comes from the deficit of water resources and also from the necessity of providing consumers with a minimum volume of water.

The *Public Services Regulatory Commission* is responsible for the establishment of tariffs. In practice there are not any special confirmed rules and procedures for the determination of tariffs, and the changes in tariffs take place according to the preliminary agreement with the State Water Committee. The principles of planning the tariffs are the same for all CJSCs, in other words provide equality between all the consumers and are defined separately for the water supply and sewage. After confirmation, the tariffs are considered to be the same for all consumers. The Water Committee can raise the question of tariff changing in cases it considers necessary. According to the *Water Code* (Article 14), the Regulatory Commission develops and implements the tariff policy. In the *Water Code* (Article 16, Item 6), the establishment of maximum and minimum water use permit fee (water use fee) is defined, including establishment of rates for water resource extraction, discharge and environmental fees.

In the case of a lack of measuring meters for water use, the payments for the AWSS and the YWSS are calculated on the basis of the norms. About a quarter of the population of Armenia are not permanent residents and do not participate in the payment for the maintenance of the water supply network and management expenditures.

The Water Code plans to transfer the function of determination of tariffs from the government to an independent body. In 2002, this body was the Commission for the regulation of energetic branches. Later, the function of adjustment of tariffs for WSS services was given to the Regulatory Commission of Public Services in 2002.

Tariffs for WSS did not change from 1998 to 2003. Since 2003 the tariffs have been increased. In regions of Armenia, the tariff for one cubic metre is 115.5 AMD (0.27 USD), and for sewage it is 24.35 AMD if the distribution and maintenance are provided directly by CJSC. In case of wholesale water supply the price is 51.49 AMD.<sup>4</sup> There are three categories of consumers: inhabitants, budget institutions and others, and tariffs are the same for all types of consumer. In practice, tariffs do not include amortisation costs, because the inclusion of such costs could raise existing tariffs. The established tariffs cover the current expenses and envisage even some profit, but because of low collection of payments, there appears to be a considerable deficit in income.

To overcome this deficit, the state adopted a resolution according to which a considerable part of the debts of the inhabitants was written off. After that resolution, people set water- meters and began to pay per month under the control of inspection. This measure was accomplished in Yerevan and is an ongoing process in other communities. The Household Arrears Restructuring Program is an important step towards the realisation of the right to water, facilitating the financial rehabilitation of the WSS utilities and the mass installation of water meters.

#### **Household Arrears Restructuring Program**

In November 2002, the National Assembly passed Law No. 441-N, which granted major privileges to the country's population in the clearance of water arrears provided that they are partially paid back. It was recommended that the population install water meters in their apartment within six months and conclude to that end respective agreements with the water utility – water supply agreement and arrear write-off agreement.

**Arrear Write-off Procedure.** All the water arrears up until 1 January 2000 will be written off from water users provided they pay 50 % (for round-the-clock water supply) or 30 % (for scheduled supply as of 1 January 2003) of the arrears accumulated between 1 January 2000 and 9 December 2002. Those covered by the social assistance program (PAROS) and entitled to poverty benefit are to pay 30 % and 15 % of the charges respectively. This would mean that the water user has settled with the water utility for water consumption. For those who have duly paid for the water all those years, the bill would also be re-assessed. Thirty percent would be deducted from the amount paid between 1 January 2000 and 9 December 2002 (as payment for water), and the remaining 70 % would be deemed to be an advanced payment. However, in addition to installing a meter, the debtor would also have to make current payments in full and in a timely manner.

It should be noted that the Government Decree does not oblige one categorically to install a meter in their apartment. However, it is a prerequisite for the arrears write-off.

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<sup>4</sup> official data of AWSC CJSC, 2005

Programme results. The Household Arrears Restructuring Programme has had a major positive impact on the collection rate. This is because an alternative to meeting the conditionality of the programme was arrears collection in court in full over the entire period of default without any relief. Thus, the implementation of the programme facilitated financial rehabilitation of the water supply and sanitation utilities.

The same programme accounts for mass installation of individual water meters in the households, which has also increased the collection rate, because, firstly, this lowered the bill, and secondly, increased public confidence in the bills issued. By incorporating the promotion of individual meter installation as one of the key components of the programme, the government accomplished several things at once: it improved the financial standing of the water utilities and enhanced transparency in the sector.

*Source: Review of key reforms in urban water supply and sanitation sector of the Republic of Armenia. Final Report, 2004.*

Upon proven success of the new lease contract for CJSCYV, the Global Partnership for Output-Based Aid (UK) proposes providing grant funds in the order of \$ 3 - 4 million to subsidise water services fees for the poor. The grant would utilise existing government social support programmes.

In accordance with the Government Decision N251 dated 8 July 1997, the population of the RoA and particularly distinct groups of citizens were granted certain privileges. The first and the second items of this Decision defined 50 % discount of payments for gas, water supply and sanitation, garbage collection and also for telephone use. These privileges were granted to the following groups of citizens: war participants becoming invalids; heroes of the former Soviet Union, heroes of social labour, national heroes of Armenia; recipients of a special pension. However, in January 2004, these privileges were abolished.

As another national measure towards the realisation of the right to water the Water Code provides for public participation in decision-making regarding urban water supply, especially, the NGOs and other representatives of the public in the approval of WSS tariffs by the regulator. According to Review of Key Reforms in Urban Water Supply<sup>5</sup> mentioned that, "this provision works in practice. For example, when tariffs were revised for the services of Yerevan and Armenia Vodokanals, a consumer rights organisation was really involved in the activities of the Public Service Regulatory Commission".

### *Disconnections*

Where there is a violation of the established water standards, water use is considered illegal. The water supply is delivered on the basis of contracts. In case of non-payment on part of the population, the issues are discussed in the Government of the RoA. As for the payments failure on part of the other consumers, the issues are regulated by the Government Decision N149 on penalties down to the disconnection of water supply. However, there is no disconnection in case of inhabitants' failure to pay.

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<sup>5</sup> Institute of Urban Economics. Review of key reforms in urban water supply and sanitation sector of the republic of Armenia. 12-18. Moscow 2004.

The article on Economic and Social Aspects of Reforming Water Resources Management: Case of Armenia,<sup>6</sup> stipulates that, “There are several laws and regulations, as well as technical problems that make it difficult for water companies to stop services for non-payment. Meanwhile, contracts between water operators and condominiums currently specify that in the case of non-payment by households, and provided that it is technically feasible to do so, water supply is to be limited to one hour a day.”

- *Sanitation*

There is no information on the proportion of the population with access to improved or unimproved sanitation facilities. There is no difference according to gender, ethnicity, age, social origin or other similar grounds regarding use of sanitation facilities. As a rule, in rural areas people use pit-latrines, e.g. in Fantan. Unimproved sanitation facilities affect the quality of drinking water and may cause/spread infectious diseases.

It is worth stating that there is no national policy on sanitation services. However, it is planned to include sanitation in the new Water Law. The lack of financial means does not allow extending WSS service rapidly. There is no significant change in the proportion of people without access to sanitation in the last five years.

#### **IV. Local Context: The village of Fantan**

Fantan is a small village situated at the northern foothills of the mountain of Gutanacar. The village belongs to the Charencavan district of Kotayk marz. The population of Fantan consists of 1 117 inhabitants. There are 340 families that live in 240 private houses. There are no minorities in this village. About 60 households are Armenian refugees from Azerbaijan and Nagorno-Karabagh conflict. The village has a village council, a small, almost “mini”, health care centre with one medical assistant and a school with 172 pupils.



Mayor's office in Fantan

There are no employment opportunities in Fantan. The only working institutions are the school, the health care centre and the village council. About 30-40% (mainly men) go to

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<sup>6</sup> Melikyan L. *Economic and social aspects of reforming water resources management: Case of Armenia.* 37, 56. 2003

the city of Charencavan to find a job, while most households try to generate income by selling their own products (e.g. dairy products, hay or wheat). The monthly income per person in Fantan varies between nothing and US \$24. For the majority of the households, most of their expenditures are on food and utilities. According to the mayor of Fantan, 40% of the households are so poor that they cannot even pay for any of the utilities.

### *Water Resources and Uses*

One of the biggest problems of Fantan is the limited access to water sources and the lack of a sewage system. This village even got a nickname '*Dry Fountain*'. During the Soviet times about 50 households living closer to the central pipe of SOLAK were connected to the centralised water supply system from an adjacent rural area. However, in 1993, these households were switched off due to the deterioration of water pipes.

The remaining 190 households used water from the 'old surface water point', that is, a supply of surface water collected from small mountain springs and melted mountain snow. Thus, particularly in summertime, the water quantity collected is limited. The collected water goes through tunnels and later on enters into a piped system. The water gets some mechanical treatment but does not undergo microbiological decontamination. Since there is no hydro-engineering construction, the water can be constantly polluted and contaminated.

However, although the quantity and the quality of the water from the old water point was unsatisfactory, for a long time the villagers used only water from this point. As a consequence, the village Fantan registered outbreaks of diarrhoea and even dangerous infectious diseases, such as tularaemia in 2003. The outbreak of tularaemia traced back to the pollution of the old source by an infected rat allegedly having fallen into the water supply tunnel. Tularaemia, also known as 'rabbit fever', is an extremely dangerous infection that can be fatal if the person is not treated with appropriate antibiotics. There were 157 cases registered in Fantan.

After the aforementioned outbreak of Tularaemia in 2003, a second 'new groundwater water point' was constructed with the financial support of the Italian and the USA governments to ensure water quality according to regulations and norms of water standards. Water pipes were built and a reservoir for daily regulation constructed to ensure permanent water supply. Unfortunately, the latter does not work at the moment, as it has no chlorination plant yet. To protect the well, additional measures were undertaken, such as fencing the well, cementing the surroundings and setting a lock to protect the well. Currently the second water-point provides the village with drinking water of good quality. The use of water from the old water point was officially banned. However, even though the new water point is sufficient to supply all villagers with drinking water, some households still rely on the old source as it is closer to their homes.



### *Water and Sanitation Services*

The abovementioned water system in Fantan is managed by a local representative of the Water Users' Company (WUS) of Charentsavan. The WUS is a state-owned provider, which together with the mayor of Fatan is responsible for water supply. It is also formally responsible for sanitation in the cases where there is a sewage system. But, as already mentioned elsewhere, as a general rule, there are no sewage systems in rural areas in Armenia.

In 2003, using the funds of the international investors, the WUC constructed water pipes from the 'new' water point and installed street taps at various points in the village. Currently, WUC is extending the water pipes, connecting the various households with the main pipe and providing indoor-taps. However, the lack of financial means does not allow extension of water pipes rapidly, not to mention the installation of a sewerage system.

In general, the Council of Fantan, that is, the elected representatives of the villagers, participate in discussions and decision-making processes in cooperation with the prefecture.

- *Availability*

The construction of the new water pipes and the installation of street-taps in have made it possible to provide the villagers with a basic minimum amount of water. However, although water supply (ten cubic meters per hour) is enough to provide all the villagers with sufficient quantity of drinking water, the access to water is limited due to both incomplete centralised water system resulting in the need for carrying the water from the streets to the households and shortage of electricity for water pumping, jeopardising the regularity of water supply in the village.

Consequently, water consumption for personal and domestic uses is comparatively low in Fantan. However, some households close to the taps use the drinking water for irrigation, resulting in increased water consumption, while water consumption, in wintertime, is even higher since the villagers cannot switch off the outside taps, as the water pipes may freeze and break (winter night-time temperature in Fantan is about -30° C).

As mentioned above, at the moment, water pipes are being extended to ensure continuous water supply in the village; moreover, to set incentives for efficient water use the connection of the various households is accompanied with the installation of water meters. Against the background of the high percentage of poverty in Fantan, the NGO Armenian Women for Health and Healthy Environment (AWHHE) purchased 247 water-meters for the villagers within the scope of a joint project with Women of Europe for a Common Future (WECF).

The process of water meters implementation is in progress, and till now, 50% of the water meters are already set up. It is noteworthy that the WUC of Charentsavan will financially support the poorest part of the villagers concerning the extension of water pipes and the installation of water meters. It is also important to stress that information and raising awareness campaigns carried out by AWHHE promoted the installation of water meters, since villagers were in a doubt about the installation, demanding exact information about benefit they will have.



- *Quality*

AWHHE monitored the quality of drinking water through the analysis of water samples. The results proved periodical contamination of the first water point and the need to ban water supply from the old water point officially. By way of contrast, the results proved water of good quality of the second water point.



It is important to highlight that national standards apply completely to local sources for water provision. Monitoring of the water quality is ensured regularly by the WUC and the Hygienic and Anti-Epidemic Supervision Service of Charentsavan.

It is also worth noting that, before AWHHE campaign, the villagers used the water from both the old and the new sources, despite the outbreak of tularaemia exposing their health to contamination risk. Using the results of the laboratory analysis on water contamination, AWHHE persuaded the people to use the safe water source. Community mobilisation conducted by AWHHE with large involvement of schoolchildren was one of the effective tools for changing the attitude with respect to water safety and sanitation.

Currently the villagers basically use water from the safe water source and boil water from the old source when they use it. However, when the installation of water meters is accomplished, households will use only safe water from the second water point.

- *Physical Accessibility*

Although there is a new water point with drinking water of good quality, some households rely on the old water point, showing that in some cases, 'physical accessibility' jeopardises the realisation of the right to water, since some villagers still draw on water supply from the old water point since it is closer to their households. However, it is important to stress that principally, villagers have equal opportunity to access both water points.

In cases of the absence of a centralised water supply, it is mainly women, usually girl and children who collect water with rather big containers outside the immediate vicinity of their homes; however, there is no exact data concerning the security of girl and children at the different water points.



- *Affordability*

In Fantan, the payment for water per month per person was and still is 150 AMD whichever water source they use. As the water meters are not installed completely, people pay the same price despite the water quantity they use. Currently the

government gives the village a donation for pumping (300 000 AMD or US \$670 per month). After installation of the water-meters each household will pay according to the used water volume and the price for one cubic metre of water in Fantan will be 90 -116 AMD.

If the poorest families use the good quality water only for drinking and domestic purposes, the payment will not exceed current expenditures or will be less. For other purposes (laundry, for cattle) they could use the old water source. If each family pays regularly for water use it will be possible to have additional financial means for the improvement of the water and sanitation system. Nowadays the consumption depends only on physical availability of water.

- *Sanitation*

There is no sewage system in Fantan. Most of the households have pit-latrines. Only two or three households in the whole village have flush-toilets connected to septic tanks. As a rule, the pit-latrines are not emptied. Every three to five years, when the pit-latrines gets full, the owners just cover it with earth and dig a new one in the yard. The lack of adequate sanitation causes the risks for contamination of drinking water and the outbreaks of infectious diseases.

## **V. Conclusion**

Armenian Government has taken important steps in the last five years towards delivering an adequate water supply to the population. The water supply service has been considerably restructured, supported by a legal framework. Armenia aims to ensure access to drinking water for everyone. However, water providers are still not able to guarantee the implementation of the right to water for all, in particular for the poorest. Taking into account the growing water prices and fact that the 50% of population, mainly in rural areas, lives at or below poverty line, urgent legislative measures should be taken to implement the right to water to the poor and the disadvantaged. It is noteworthy to state that Armenia has sufficient water resources to provide all the population with safe drinking water; however, 60-80% of water is lost on the way from the source to the consumers because of pipe deterioration, etc. Hence, as a consequence, Armenia faces the problem of a lack of water resources.

There are some investments for water sector, but the same cannot be said for the sanitation sector, which is absolutely neglected, particularly in rural areas. Urgent investments are required to improve water and sanitation services.

Recommendations for achieving the implementation of the right to water and sanitation:

- To improve condition of water supply constructions that results in worsening the water quality and causes great losses;
- To improve or to construct condition of sewage in several rural areas;
- To repair or implement treatment plant in the communities;
- To develop the Law on Drinking Water (presently in process) and legislative acts;

- To give more attention to and financing of sanitation;
- To develop a strategy to address the needs of marginalised and vulnerable individuals and groups;
- To raise knowledge among the rural population about the efficient use of water resources;
- To implement differentiation of tariffs for different groups of consumers;
- To obtain more finance for improvement water supply and sanitation.

The case study of the village of Fantan shows that much work has been done over the last few years, thanks to an activity of the administration of Fantan which found the financial means for improving the water supply of the village. At the moment they are putting a lot of effort into finding additional means for completion of the work. The participation of AWHHE also contributed to the implementation of the right to water at the local level. While this is not an isolated case, it is also not yet very common. There is political support as well as some financial support as it fits the Millennium Development Goals.

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## VII. Appendix 1

### Lower-middle-income economies (54)

Albania	El Salvador	Namibia
Algeria	Fiji	Paraguay
Angola	Georgia	Peru
Armenia	Guatemala	Philippines
Azerbaijan	Guyana	Romania
Belarus	Honduras	Samoa
Bolivia	Indonesia	Serbia and Montenegro
Bosnia and Herzegovina	Iran, Islamic Rep.	Sri Lanka
Brazil	Iraq	Suriname
Bulgaria	Jamaica	Swaziland
Cape Verde	Jordan	Syrian Arab Republic
China	Kazakhstan	Thailand
Colombia	Kiribati	Tonga
Cuba	Macedonia, FYR	Tunisia
Djibouti	Maldives	Turkmenistan
Dominican Republic	Marshall Islands	Ukraine
Ecuador	Micronesia, Fed. Sts.	Vanuatu
Egypt, Arab Rep.	Morocco	West Bank and Gaza

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Source:

<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20421402~menuPK:64133156~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html#lmidincome>

### Currency and Equivalent Units

USA = 450 AMD

1.0 Euro = 540 AMD

MANVELYAN Elena, SIMONYAN Lilik, ANAKHASYAN Emma and GRIKORYAN Knarik, « *Case Study on the Right to Water and Sanitation in Armenia* », In : HOFFMANN Sabine, *The Implementation of the Right to Water and Sanitation in Central and Eastern Europe*, Solidarité Eau Europe, Strasbourg, 2006.

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