

Involuntary Resettlement Due Diligence Report

April 2015

ARM: Water Supply and Sanitation Sector Project – Additional Financing

Prepared by the Armenian Water and Sewerage Closed Joint Stock Company (AWSC) for the Asian Development Bank.

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INVOLUNTARY RESETTLEMENT DUE DILIGENCE REPORT

SUBPROJECT IX, SHIRAK MARZ

ARMENIA. WATER SUPPLY AND SANITATION SECTOR PROJECT; PHASE II

Project Number: L2860-ICB-1-9



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ABBREVIATIONS

ADB	Asian Development Bank
PC	Public Consultation
GoA	Government of Armenia
RA	Republic of Armenia
AMD	Armenian Dram
LAR	Land Acquisition and Resettlement
LARF	Land Acquisition and Resettlement Framework
AWSC	Armenian Water and Sewerage Company
SCWE	State Committee for Water Economy
WSS	Water Supply and Sewerage
LA	Local Authorities
DRR	Daily Regulating Reservoir

TABLE OF CONTENTS

- 1. INTRODUCTION..... 4
 - A Project Background..... 4
 - B Scope of the Project..... 4
 - C Design Features of Subproject IX..... 5
 - D. Objective and Scope of the Report 7
- 2. LAR REQUIREMENTS FOR THE PROJECT 7
- 3. MINIMIZING OF LAR IMPACTS..... 8
- 4. SCOPE OF POTENTIAL LAR IMPACTS 10
- 5. CONCLUSION 11

1. INTRODUCTION

A Project Background

1. On the back of the successful implementation of the Water Supply and Sanitation Sector Project, Phase I, the Government of Armenia (GoA) through the State Committee for Water Economy (SCWE) has requested Asian Development Bank (ADB) to support the funding of a new project. ADB agreed to provide GoA with the loan of 40 mln US\$ (Armenian Dram) to rehabilitate and extend Water Supply and Sewerage (WSS) systems across 10 Subprojects and improvements in operational efficiency and financial management of Armenian Water and Sewerage Company (AWSC)¹. The additional financing project of the WSS Sector, Phase II includes 18 towns and 92 villages in order to implement the above-mentioned procedures. Within the scope of 10 Subprojects it is foreseen to make investments in 10 regions. This due diligence report concerns to Subproject IX in the absence of any land acquisition and consequently, no resettlement impacts.

B Scope of the Project

2. The Project is aimed (a) to rehabilitate and upgrade water supply infrastructures, (b) to improve the performance of water supply services, and (c) to improve the management and operational efficiency of the water utility company.
3. As a result, Project will ensure further public health and environmental improvements by providing potable and reliable water supply to beneficiary households. It will also support poverty reduction by (i) reducing the incidence of waterborne diseases and costs of medical care; (ii) improving the time poverty of women due to labor intensive housework such as water collection, which may allow them to participate more in social and economic activities; increasing water supply duration (iii) providing safer and more reliable water supply; and (iv) improving the quality of life of households in all the project towns and villages by improving their access to safe and sustainable drinking water.
4. The Project will establish safe, reliable piped water supply for 110 communities: 18 towns and 92 villages within 10 Marzes (Aragatsotn, Ararat, Amavir, Geharkunik, Tavush, Lori, Kotayk, Shirak, Syunik, and VayotsDzor). The Project will be implemented through subprojects. The beneficiaries of Subproject IX from Shirak Marz are Artik town, Nor Kyanq, Vardaqaq, Hovtashen, Meghrashen, Panik, Spandaryan, Mets Mantash, Geghanist villages. The total number of beneficiaries is 33,145 in 2014.

¹AWSC – a government-owned commercial company that is managed and operated through a management contract by an international water utility company.

C Design Features of Subproject IX

5. The network in beneficiary communities was mostly built in the 1960s-70s. The improvement works of the water supply system was implemented in 2005 financed by ADB. Water metering junctions were placed on the external conduits of the communities. Some repairing construction works of the town distribution network were also implemented in 2009 in the framework of the projects financed by ADB.
6. The following approaches lay as the basis of proposals for improvement of water supply systems of the settlements Artik town and Nor Kyanq, Vardaqar, Hovtashen, Meghrashen, Panik, Spandaryan, Mets Mantash, Geghanist villages covered by the project:
 - leakage reduction,
 - water quality improvement,
 - water amount calculation, service quality improvement,
 - extension of water supply duration,
 - rational usage of potable water.
7. The following works are included in the proposed measures for improvement of water supply condition in the communities covered by the Subproject:
 - reconstruction and restoration of water supply distributing networks, regulating and water metering junctions, waterlines of private houses, public entities, community and state buildings;
 - realization of entry lines construction by replacement of water metering chambers
 - reconstruction of external conduits in Mets Mantash, Geghanist villages
 - Reconstruction of distributing network of Artik town
 - construction and reconstruction of distributing networks and DRRs in Hovtashen, Nor Kyanq, Vardaqar, Panik, Meghrashen, Spandaryan villages.
8. The studies of the sewage system in the subproject communities revealed that the rural communities do not have complete sewerage system. Artik town has been seweraged by 95%.
9. Given the number of communities included in the ADB financed project and limited resources envisaged for improvement of these communities, the first priority actions included those works that will solve the most urgent issues giving the preference to the proposals that can be technically and financially achieved.
10. The main criteria for water supply system improvement for Artik town and Nor Kyanq, Vardaqar, Hovtashen, Meghrashen, Panik, Spandaryan, Mets Mantash, Geghanist villages is briefly presented below, which served as a basis for developing the priority investment program:
 - possibility to include the residential areas in AWSC area,
 - collection level by the customers and willingness to pay,

- current condition of the water supply to the community and the possibility of improvement,
- capacity of the system, including that of the water source and possibility of water provision,
- possibilities to increase the manageability level of the system,
- technical condition of all of the elements of the system and improvement needs,
- water metering availability and possibilities to apply or introduce the metering system,
- necessary volumes of construction of private house entry lines and water meter installation,
- possibilities to reduce leakage and wastage and the required bill of quantities,
- possibilities to reduce operation costs, management efficiency.

Foreseen detailed activities In order to improve water supply system in the settlements of Subproject is given in the [Table 1](#) below.

Table 1: Summary of Activities For Subproject IX by communities

Works to be implemented	Unit	Package 1						Package 2			Total
		t. Artik	v. Nor Kyang	v. Vardakai	v. Hovtashan	v. Mets Masntash	v. Geghanist	v. Meghrashan	v. Panik	v. Spandaryan	
Reconstruction of DRRs	cubm	-	400	200	200	-	-	-	250	250	1300
Reconstruction of water intake	km	-	-	-	-	2.415	2.839	-	-	-	5.24
Replacement of waterlines with de250 – de40 polyethylene pipes	km	9.515	11.505	7.460	3.165	-	-	11.445	18.045	6.690	67.825
Installation inlet lines of private houses with de32 – de20 polyethylene pipes	km	3.399	3.034	1.745	0.913	-	-	3.087	4.336	3.284	19.798
Installation of inlet lines of apartment buildings	km	0.040	0.040	0.030	0.030	-	-	0.040	0.030	-	0.210
Construction of buried valve node	piece	13	13	7	6	-	-	10	13	7	69
Construction of water supply chambers	piece	5	6	3	4	1	1	6	8	5	39
Construction of fire hydrant	piece	3	4	2	1	-	-	3	3	2	18
Replacement of water metering chambers	piece	352	350	200	100	-	-	355	480	235	2072
Repair of valve node	piece	-	-	-	-	-	-	1	-	-	1
Project Beneficiaries	Num	19665	1968	791	299	2601	1321	1497	3210	1793	33145

11. Among the above - mentioned settlements the water supply of Artik town is realized from river bed intake structures built on the sources of the river Mantash. The water supply system feeds from 4 group reservoirs. The Water Treatment Plant in Artik was built in 1982 and located at the 1912m above sea level. It was planned only for Artik town water supply. The treatment plant has been out of the operation for 23 years. The main building of structures damaged. The water supply of Hovtashen, Meghrashen, Nor Kyanq, Vardaqaq, Panik, Spandaryan, Mets Mantash, Geghanist villages is realized from Mantash water supply system.

D. Objective and Scope of the Report

12. There is no land acquisition requirement; hence no resettlement impacts, in this subproject. The objective of this Due diligence report (DDR) is to review the Subproject IX Land acquisition and resettlement (LAR) impacts, if any, based on the detailed design and propose mitigation measures, if necessary in accordance with ADB Safeguard Policy Statement (2009). This Report has been also developed according to the project of WSS sector - of Additional financing Resettlement framework (2011).

2. LAR REQUIREMENTS FOR THE PROJECT

13. In accordance with Safeguard Policy Statement requirements, the project is defined as B category for involuntary resettlement impact (limited impacts). The preliminary design and later on the detailed design of this subproject showed that the rehabilitation and construction would be conducted on property owned by the AWSC, on municipal/community land, or within the rights-of-way assigned to municipal/community infrastructure.
14. Land Acquisition and Resettlement Framework (LARF) for AWSS Project (Phase II) has been prepared by the AWSC and was endorsed first by the SCWS under the RA Ministry of Territorial Administration and then by the Government of Armenia in March 2012. The document details mechanisms, procedures and compensation entitlements to be applied in the planning and implementation of Land Acquisition and Resettlement (LAR) activities. A sample Land Acquisition and Resettlement Plan (LARP) for AWSS Project (Phase II) was developed in December 2011 for the purpose of guidance in preparing a LARP, if there are land acquisition and resettlement impacts. The document addressed project LAR impacts based on the preliminary design and respective budget for its implementation. The sample resettlement plan was also endorsed by SCWE and uploaded on ADB's website (<http://www.armwater.am/am/current-activities.html>) together with the Project LARF on 19 December 2011.

3. MINIMIZING OF LAR IMPACTS

15. One of the main preconditions of the detailed design was the avoidance of LAR impacts as LARF states that subprojects involving acquisition of private properties and/or cause significant IR impacts are ineligible for project financing and thus must be dropped from the project.
16. Therefore, prior to each section detailed design, the cadastral maps for each community were examined to understand if there are any overlaps between the private or used lands and the existing water pipes. Verification of the cadastral maps was done also in the field based on the survey and measurement where applicable. After the exercise, impact on the legally/ illegally used lands/structures was avoided in the detailed design.
17. Main principles of the detailed design are as follows:
 - New lines were selected in the community streets, which helped to avoid the LAR as well as usage of the used lands by community members in the future. Also it will ensure easier maintenance of the infrastructure as well as prohibit illegal use of water from the pipes network.
 - Where the private usage of the land was identified (legal or illegal) a new design solution was given to avoid the impact.
18. Figure 1 below shows how the impact on residential areas was avoided in Panik village. The existing waterline passed through residential lands and homestead plots. According to the project It is foreseen for the mentioned conduit disconnection, dismantling and construction of a new waterline near the territory along asphalt cover road.



Figure 1. Panik village

Note

- existing waterlines
- designed waterlines
- x x x waterlines out of order
- waterlines implemented by other project

Figure 2 below also shows how the impact on residential areas was avoided in Spandaryan village. The existing waterline passed through residential lands and homestead plots. In this village also, it is foreseen for the mentioned conduit disconnection, dismantling and construction of a new waterline near the territory along asphalt cover road.

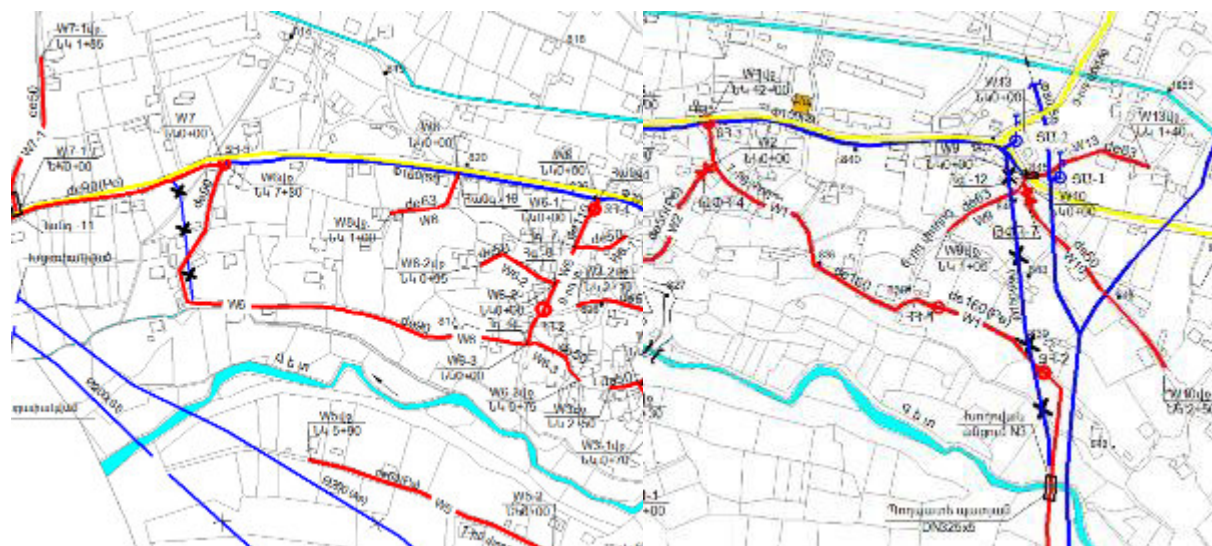


Figure 2. Spandaryan village

Note.

- existing waterlines
- designed waterlines
- x x x waterlines out of order

20. All the designs were presented, reviewed, agreed and confirmed by the Local Authorities (LAs). The LAs also confirmed minor replacements of the water pipes. The design was also reviewed and confirmed by the owners of the public utilities such as Armentell CJSC, ArmRusGazProm CJSC, and Electric Networks of Armenia CJSC. In case of the reinstallation of the water pipes on the community lands, it is envisaged in the design, that the pavement of the road/land will be replaced with the same type of the pavement.

21. Project design was implemented in the close cooperation with beneficiary communities.

- Public awareness about the project and the design was ensured by public consultations (PC) with the representatives and the members of beneficiary communities during detailed design stage (see [Table 2](#))
- All the designs were presented, discussed and agreed with the LAs. As a result of an agreement all the designs were accepted by the LAs.

Table 2: Public Awareness Campaign Implementation Status in Shirak Subproject IX

No.	Community	Date of meetings	Place of meeting	Approximate Time spent per meeting	Number of participants	Number of Female participants	% of Female participants
1	t.Artik	12.12.2014	municipality	1 hour	58	50	86.2
2	v.Hovtashen	12.12.2014	village hall	35 min.	15	5	33.3
3	v.Meghrashen	11.12.2014	village hall	45 min.	82	35	42.7
4	v.Nor Kyanq	12.12.2014	village hall	35 min.	22	6	27.3
5	v.Vardakar	11.12.2014	village hall	40 min.	15	3	20.0
6	v.Panik	10.12.2014	village hall	40 min.	25	10	40.0
7	v.Spandaryan	10.12.2014	village hall	50 min.	27	12	44.4
8	v.Mets Mantash	26.12.2014	village hall	50 min.	26	5	19.2
Total					270	126	46.7

4.SCOPE OF POTENTIAL LAR IMPACTS

22. Subproject IX will not cause any permanent and/or temporary impacts, as the operation and maintenance activities will be conducted on property owned by the AWSC, on municipal land, or within the rights-of-way assigned to municipal infrastructure.
23. Therefore, no impact is envisaged on privately owned land plots or community lands rented or otherwise used by community members. Construction of the water transmission pipeline will not cause any impact on the businesses as well. The roads and shoulders are wide enough so customers should not be impeded and there will be no loss of income. Additionally, constructors will provide temporary access during construction works.
24. No impacts on the water supply access to households and businesses are expected in the project areas during the reconstruction of the water supply pipes and reservoir. The following measures are foreseen to eliminate such impacts, despite these disturbances being rather short in duration:
- Informing all residents and traders about the nature and duration of work well in advance so that they can make necessary preparations;
 - Increasing the workforce and using appropriate equipment to complete the work in a minimum timeframe on these stretches; and
 - Ensuring that the connection to the new system is well coordinated before disconnecting households and business from the old system.
25. During the implementation of construction works, temporary restriction of access or difficult pass ability situation may occur. The following provisions will be included in the construction

Contractors' contract for the purpose mitigation or neutralization of the impact due to the above-mentioned issues.

- Before the commencement of civil works, the construction Contractor will ensure the alternative solution for the access of community members to their land or place of residence;
- In case of unavailability of alternative solution for the access, the Contractor will have to arrange/plan his works so that they do not affect local residents. Contractor also should inform all residents and traders about the nature and duration of work well in advance so that they can make necessary preparations;
- To maintain customer access to the acting businesses, Contractor will provide wooden walkways and appropriate vehicle access across trenches at intervals.
- In certain unforeseen cases when the land user loses his crop due to the restriction of access to the land the contractor has to report to the supervision consultant and stop the civil work activities in the affected areas until the crop are compensated as indicated in the LARF provisions.
- AWS CJSC will monitor Construction impact in terms of relevance to the described procedures and approaches.

5.CONCLUSION

26. A final screening and due diligence for involuntary resettlement impacts for Subproject IX were implemented to ensure that the Subproject will not cause any LAR impacts. Both permanent and temporary impacts were considered and analyzed during this process.
27. Subproject IX includes upgrading and rehabilitation of existing physical facilities. The detailed design confirms that rehabilitation and construction will be done on property owned by the AWSC, on municipal land, or with the rights-of-way assigned to municipal infrastructure.
- The activities will not require permanent or temporary land acquisition irrespective of the ownership status and current usage of the land.
 - There is no impact on businesses and/or any impact-generated activities
 - No one will lose access to facilities, services, or natural resources.
28. During the construction phase AWSC will monitor the construction works in terms of any temporary/permanent impact, such as limitation of access to businesses or other livelihood resources etc. Any impact identified during construction works to be compensated based on the LARF provisions.