

Environmental Monitoring Report

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L2363-ARM: Water Supply and Sanitation Sector Project

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Bi-annual Environmental Monitoring Report

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Republic of Armenia

Water Supply and Sanitation Sector Project

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I. PART I. INTRODUCTION

A. Project Description

1. Impact and Outcome

1. The Water Supply and Sanitation Sector Project (Project) is aimed at improving the public health and environment for about 576,000 people living in 16 towns and about 125 villages through safe and reliable water supply and improved sewerage and sanitation facilities. Based on the submission made by the Government of the Republic of Armenia (GRA) and as appraised by the Asian Development Bank (ADB), there are approximately 18 subprojects covering towns and villages where there is an urgent need for WSS improvements. The Project will help the Government provide the required institutional and management support to the Armenia Water and Sewerage Company (AWSC) and local municipal governments to enable them to be more self-disciplined in financial, managerial, and technical aspects.

2. The outcome of the Project is improved access to safe, reliable, and sustainable water supply and sanitation (WSS) services managed on commercial principles and environmentally sound practices. The Project will focus first on optimizing the operation of existing infrastructure and maximizing the operating efficiency of WSS service providers, followed by constructing new infrastructure.

2. Outputs

3. The Project comprises the following main components: (i) municipal infrastructure rehabilitation and improvement; and (ii) management improvement and development.

3. Municipal Infrastructure Rehabilitation and Improvement

4. This component comprises two parts: (i) rehabilitation and extension of distribution systems; and (ii) improvement of sewerage and sanitation systems. The first part will address rehabilitation and replacement of the deteriorated water supply infrastructure by reducing leakage; improving supply pressure; constructing new mains to connect new consumers, particularly poorly served low-income communities; installing water meters to all bulk and domestic consumers, and repairing/remodeling water intakes, pumps, flow meters, valves, and treatment units; and providing new storage reservoirs and tubewells at technically viable locations. The second part will address sanitation requirement in the subproject towns and villages and address improvement of the sewerage system by cleaning existing sewers and carrying out urgent repairs/replacement of damaged sewers that are polluting water supply in selected towns and villages. This part also includes the provision of sewer cleaning machinery and other essential equipment required for efficiently operating WSS systems.

5. By redesigning the overall WSS systems, this component addresses the existing problems of the systems being oversized/under-designed. It also includes updating of consumer databases, conversion of illegal connections to registered accounts, and monitoring of water quality. To demonstrate 100% water supply coverage, 100% metering, 24-hour water supply with the desired pressure, and 100% collection efficiency, the Project will select a pilot zone and concentrate resources to undertake the related actions. This will help gain the confidence of all consumers in the Project area in an efficient and strongly governed WSS system, and help the implementing agency (IA) to replicate it smoothly. Selection of the pilot zone will be based on active participation and strong commitment of the users, apart from technical considerations to isolate the zone hydraulically for the required water pressure after addressing all the water losses.

6. As of 01 June 2012, the Project aimed at improving the public health and environment for about **600,000** people living in **21 towns** and about **101 villages** where is an urgent need for WSS improvements in the frame of **25 subprojects** through safe and reliable water supply and only urgent improvement of sewerage and sanitation facilities (original aim was about 576,000 people living in 16 towns and about 125 villages in the frame of 18 subprojects).

B. Environmental and Social Safeguards Framework

7. The Project has been classified as Environmental Category B and provides environmental benefits by improving sanitation and providing safe, reliable water supply to towns, villages, and communities. Initial environmental examinations (IEEs) were carried out in accordance with ADB's Environment Policy (2002), Environmental Assessment Guidelines, and Armenian environmental guidelines.

8. Subprojects has been classified as a Environmental Category B, IEE reports were developed for all subprojects and EMPs were developed based on the IEE reports.

9. The screening process carried out for the IEEs has identified minor possible adverse environmental impacts likely to be caused by the Subprojects. Most potential negative impacts may occur during construction. However, they will be temporary and can be mitigated to acceptable levels. Effort will be made to (i) protect the sources, (ii) minimize construction pollution and waste, and (iii) limit specific impacts related to the pipeline routes. Overall, according to the findings of the IEEs, the Subprojects were have significant positive impacts on the quality of life and environment for beneficiaries; and were ensure environmental safeguards for implementing a continuous, reliable water supply and adequate sanitation facilities.

C. Construction activities and Project Progress

10. During reporting period 2 new contracts have been signed. Detailed information on ongoing projects, IEE and EMP development, Bid opening and submission to ADB is presented in the table below.

Project title	IEE development	EMP development, Bid opening	IEE and EMP submission date to ADB	Contract signing	Status of implementation
L2363-ICB-1-15 Water improvement in Charentsavan, Solac, Argel villages WSS and Makravan N2 PS reconstruction	04.06.2009	13.01.2010	27.03.2010	02.04.2010	30.06.12 Finalized
L2363- NCB-1-18-1 Agarak town and Karchevan village WSS reconstruction	21.07.2009	21.02.2011	11.02.2011	31.03.2011	On going
L2363-NCB-1-27 Ijevan town WESS reconstruction	02.06.2010	18.01.2011	11.02.2011	07.02.11	31.05.12. Finalized
L2363-NCB-1-28 Tashir town WSS	22.09.2011	16.05.2011	16.02.2011	30.05.2011	On going
L2363-NCB-1-28/1 Tashir region, Mecavan and Sarchapet WSS, Novoselcevo and Getavan PS reconstruction	22.09.2011	26.03.2012	16.02.2011	06.04.2012	On going
L2363-NCB-1-29 Stepanavan WSS reconstruction	22.09.2011	09.03.2011	16.02.2011	08.04.11	31.05.12 Finalized
L2363-NCB-1-30 Odzun and Tsater village WSS reconstruction	22.09.2011	15.03.2012	02.04.2012	04.04.12	On going
L2363-NCB-1-31 Bypass of Dzknet-Sevan water main	11.03.2011	31.01.2012	16.02.2011	23.03.2011	30.04.12 Finalized
L2363-NCB-1-32 Eghegnadzor, Noyemberyan, Aygepat and Mkhchan village WSS reconstruction	07.06.2010	18.01.2011	16.02.2011	17.02.11	30.06.12 Finalized

D. Changes in project organization and Environmental management team

11. Environmental and social impact specialist has been hired by AWSC since January 2009. No changes have been made in Environmental Team of AWSC since that time.

12. During the first term of 2012 there were some structural changes in Water Quality Team of AWSC. The company expanded Water Quality Division into Department in order to improve water production control and coordination of regional branches' water quality laboratories works. Environmental and Water Quality Team close cooperate, particularly on public participation and public hearing conduction issues, where complaining on water quality issues usually raised.

E. Relationships with Contractors, owner, lender, etc.

13. Site engineer of Contractors is responsible for environmental supervision during construction works. During the Reporting period SSEMP explanation meeting has been held for the new Contractors site engineers as well as for technical supervision team. Meeting dated on 10.04.2012. AWSC IPCD environmental and social impact specialist in details presented the social, health benefits from the implementation of the project. Importance of environmental mitigation measures included in site specific Environmental Management Plan during the construction works have been explained. **Photos are attached.**

II. PART II ENVIRONMENTAL MONITORING

14. **AWSC**, through its **PME**, carries overall responsibility for environmental compliance of works performed under the WSS Project and to meet this responsibility provides day-to-day environmental supervision of the project implementation. According to the requirements of the national legislation, AWSC/PME hires a Consultant to provide technical supervision of works, including environmental monitoring. AWSC's environmental specialist oversees performance of the TSC for the purpose of quality assurance, which implies review of TSC's monthly reports and validation of the provided information through periodic field visits of AWSC's environmental specialist.

15. Various state agencies authorized to carry out monitoring of respective thematic aspects pertaining WSS Project at its construction and operation phases include:

- **State Environmental Inspectorate** of the RA Ministry of Nature Protection;
- **State Hygiene and Anti-Epidemic Inspectorate** of the RA Ministry of Health;
- **State Agency for Protection of Historical and Cultural Monuments**, if necessary;
- **RA Ministry of Transport and Communications**;

- **Local self-governance bodies.**

16. Environmental impact mitigation measures implementation strongly supervised for all abovementioned contracts during construction implementation period. No omissions or violations of environmental standards and norms have been identified on noise, water and air quality as well as biodiversity protection sectors.

15. Water quality monitoring plan is developed for the water springs and the water supply systems under the service coverage of AWSC. As a result of the study of the current water quality monitoring plan of AWSC, it was found to be conforming to the requirements of the existing RA standards.

16. AWSC have 4 regional and 17 sectors laboratories. In order to improve water production control and coordination of regional branches' water quality laboratories are implementing preparation works for starting accreditation procedure by ISO 17025 international standards: laboratories' equipments are passing metrological procedure with National Institute of Metrology, water quality analytical methods' guideline is elaborating in laboratories; training courses are organizing for laboratories' staff; also there is expecting General course of Standardization training of chiefs of regional branches' laboratories in cooperation with National Institute of Standards.

III. PART III ENVIRONMENTAL MANAGEMENT

17. IEE and SSEMP have been developed for all abovementioned projects. Dates of submission of all environmental documentation are in above-mentioned table and all documents are attached to the report.

18. Due to unfavorable weather conditions and winter brakes in construction works site visits started from March 2012. Site inspections and randomly visits have been organized during construction period. Average number of visits twice to each construction site per month. The compliance of environmental impact mitigation measures during construction and restoration works has been supervised by the Environmental and Social Impact Specialist. **Reporting on site visits and photos have been included in QPR.**

19. In general during site visits, there no negative environmental impact was registered. Some omissions and negligence was identified during randomly visits, respectively notifications have been sent to Contractors and Technical Supervisors.

Project title	Contractor	Omitted mitigation measures	Data of omission	Non compliance notices/comment
L2363-ICB-1-15 Water improvement in Charentsavan, Solac, Argel villagies WSS and Makravan N2 PS reconstruction	SADE Armenian Branch	Restoration in proper way, construction site contamination by construction and domestic wastes, remaining soil not removed	01.05.12	Notification has been sent to Contractor. Strongly supervised the process of final restoration after completion of construction works in quasi original condition.
L2363-NCB-1-29 Stepanavan WSS reconstruction	Silvana Mkhitar LLC	Restoration in proper way, construction site contamination by construction and domestic wastes, remaining soil not removed	30.04.12	Notification has been sent to Contractor. Strongly supervised the process of final restoration after completion of construction works in quasi original condition.
L2363-NCB-1-27 Ijevan town WESS reconstruction	Baghramyanshin OJSC	Restoration in proper way, construction site contamination by construction and domestic wastes, remaining soil not removed	30.04.12	Notification has been sent to Contractor. Strongly supervised the process of final restoration after completion of construction works in quasi original condition.
L2363-NCB-1-31 Bypass of Dzknet-Sevan water main	Pareks Gaz LLC	Restoration in proper way, construction site contamination by construction and domestic wastes, remaining soil not removed	01.05.12	Notification has been sent to Contractor. Strongly supervised the process of final restoration after

				completion of construction works in quasi original condition.
L2363-NCB-1-32 Eghegnadzor, Noyemberyan, Aygepat and Mkhchan villagise WSS reconstruction	Ais LLC	Restoration in proper way, construction site contamination by construction and domestic wastes, remaining soil not removed	17.05.12	Notification has been sent to Contractor. Strongly supervised the process of final restoration after completion of construction works in quasi original condition.
L2363-NCB-1-28/1 Tashir region, Mecavan and Sarchapet WSS, Novoselcevo and Getavan PS reconstruction	Shmsh-23 OJSC	construction site organization in non proper way, partially fenced, not enough installation of safety signs, workers partially were wearing safety uniform.	25.05.12	Strong notification has been sent to the Contractor.

20. During regular staff meetings with Contractors issues on mandatory implementation of environmental impact mitigation measures was discussed.

21. QPRs all reports were sent to ADB on time. Separate part of SAFEGUARD COMPLIANCE is detailed all issues concerning EMP development and environmental impact mitigation measures implementation, public participation component, resettlement and gender points.

22. 2 public consultations have been held during II quarter of 2012, in Tashir and Sevan regions. Full report on Public Outreach Program on period 2008-2012 has been sent to ADB on 10 May, 2012. **PR report is attached.**

Annexes

- Monitoring data – No specific monitoring data.
- Photographs – Attached, Screening form is in IEE reports.
- Implementation report on EIA/IEE mitigation requirements

Reference	Requirement	Action to date	Action required/comment
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