

Environmental Monitoring Report

Semestral Report
July 2015

GEO: Urban Services Improvement Investment Program – Project 1

Prepared by United Water Supply Company of Georgia, LLC, Government of Georgia for the Asian Development Bank.

This environmental monitoring report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

Bi-annual Environmental Monitoring Report

Project Number: 43405-023

January-June 2015

Loan Number 2749-GEO (SF)

**Georgia: Urban Services Improvement Investment Program (Tranche 1)
(Financed by the Asian Development Bank)**

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Protection

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ABBREVIATIONS

ADB	Asian Development Bank
DC	Design Consultant
DREP	Division of Resettlement and Environmental Protection
EA	Executing Agency
EARF	Environmental Assessment and Review Framework
EHS	Environmental Health & Safety
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP/ SSEMP	Environnemental Management Plan/ Site-Specific Environmental Management Plan
ES/ SES	Environmental Specialist/ Senior Environmental Specialist
GoG	Government of Georgia
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
USIIP	Urban Sector Improvement Investment Program
IA	Implementing Agency
IEE	Initial Environmental Examination
MFF	Multi-tranche Financing Facility
MoENRP	Ministry of Environment and Natural Resources Protection
MoRDI	Ministry of Regional Development & Infrastructure
NEA	National Environmental Agency
SC	Supervision Consultant
UWSCG	United Water Supply Company of Georgia
WSS	Water Supply & Sewerage

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I. INTRODUCTION

1. The present Bi-annual Environmental Monitoring Report covers the time period from January till June 2015.
2. The Urban Services Improvement Investment Program was developed as the Government's response to the lack of adequate and/or safe water supply, sewerage and sanitation in urban areas of Georgia. This is intended to optimize social and economic development in selected urban areas through improved urban water and sanitation services, and is financed by the ADB through its Multi-tranche Financing Facility. The Ministry of Regional Development and Infrastructure is the Executing Agency and the United Water Supply Company of Georgia, LLC is the Implementing Agency of the Investment Program. UWSCG is a 100% state-owned company.
3. The Investment Program will improve infrastructure through the development, design and implementation of a series of subprojects, each providing improvements in a particular sector (water supply and/or sewerage) in one town. Subprojects will rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements will include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network; and, sewerage improvement works will include sewer network, pumping stations, main collectors and waste water treatment plants.
4. The Investment Program will improve the health of residents in the urban centers of Mestia, Anaklia, Kutaisi, Poti, Ureki, Zugdidi and Marneuli. The outcome of the Investment Program is improved WSS services in these urban centers.
5. Tranche 1 of the Investment Program includes: Construction of Mestia Headworks (MES-01); Construction of Mestia Water Treatment Plant and Reservoirs (REG-02), Improvement of Water Supply Infrastructure in Anaklia, Kutaisi and Poti (REG-01), UWSCG Office Building and Construction of the Water Supply Network in Ureki (Ure-01).
6. The following projects are financed under **Tranche 1**:

Mestia Water Supply Headworks (Contract MES-01)

7. The project comprises of the construction of a Tyrolean Weir as intake structure on Mestia Chala River for the capture of raw water. The discharge is estimated at minimum 1,000 liters/second in dry seasons. The location has been chosen for its altitude and the possibility to supply the water treatment plant, the adjoining reservoir and from there the largest part of the distribution network, by gravity. Apart from the intake, the scope of work comprises 10.75 km transmission lines to the site of Water Treatment Plant and a reservoir and the connection of this location to the distribution network.
8. The contract MES-01 was signed on 10 October 2011 with Joint Venture of Dagi LTD – Georgia and Enguri 2006 LTD – Georgia (which changed its corporate name to Enguri - New Construction LTD on 11 April 2013), and the scheduled Time for Completion was on 31 October 2013. The contract has completed the works on the reservoir, the intake, and the transmission pipeline, including its testing and the installation of the last section in the LARP Corridor. LARP compliance report was issued by EPTISA in July 2014. Taking over of the facilities took place on 20 July 2014.

Post Construction Audit

9. Mes-01 project Compliance Audit was carried out on 1-7 September of 2014. The Compliance Audit Report was prepared to comply with the 2009 ADB's SPS and Georgian legislation, including

Safeguards Requirement and aims to identify past and present concerns from the production and business activities of Project Company that related to impacts on environment. Main recommendations of the audit report included the following: SC to carry out additional environmental audit before defect liability period (July 31, 2015) of the territory adjacent to the new reservoir in order to determine effectiveness of conducted restoration works. According to the above requirements additional audit will be conducted in July 2015 by SC and UWSCG and main findings will be presented in the next EMR.

- 10. KUTAISI, POTI & ANAKLIA Water Supply Infrastructures (Contract REG-01).** The scope of works includes improvement of water supply infrastructure in Anaklia, Kutaisi and Poti, in particular, reservoirs and pumping stations, transmission lines and distribution lines of water supply systems as well as a water treatment plant in Poti. The project envisages installation of water pipelines on 96 km. Concrete water reservoirs will be built on 5 places with total capacity of 35,000m³. The project also covers construction of 4 pumping stations (with total capacity of 4,516 m³/h) as well as construction of water treatment facility. Works worth of 26,422 935 GEL will be implemented in Kutaisi, as a result of which 14,000 households will receive a 24-hour water supply whereas 36,000 household will see their water supply services improved.
- 11.** United Water Supply Company under the Ministry of Regional Development and Infrastructure of Georgia signed a contract (#UWSCG/ICB/CW-2013-REG-01) with an agreement with Spanish Cobra Instalaciones y Servicios. The Contract was made effective 19 September 2013.
- 12. TBILISI Office Building.** Detailed design for construction of a new head office of UWSCG was prepared and funded by GoG. Draft IEE for office building completed and was submitted to ADB. The baseline survey and biodiversity study of the project area was conducted. Public Hearing meeting was held on 2 July 2014.
- 13.** The new construction area is located in the suburb area of the city in close proximity with Tbilisi State University. Number of door-to-door public consultations have been carried out with the local population. The specially developed invitation letters prior to the Public Hearing, signed by the head of UWSCG was distributed among the local population and stakeholders.
- 14. MESTIA Water Supply Facilities (Contract REG-02).** The scope of works includes: a new water treatment plant (WTP); the rehabilitation of Tsrniashi spring catchment; the rehabilitation of Lanchvali reservoir (1,000 m³); a new reservoir at Lanchvali (1,000 m³); a new high level reservoir at Lebelani (2,000 m³); a new reservoir at water treatment plant (2,000 m³); transmission pipes of approximately 9,200 meters.
- 15.** The Contractor has to design and build a WTP with a treated water standard that complies with the European standard for the drinking water quality and is defined in the Council Directive 98/83/EC. The new WTP will have a design capacity of 80 l/s to serve the projected population in 2040. Some of the components (hydrocyclone, micro-/ultrafiltration, drinking, process and backwash water pumps) to be constructed under this contract will be for half of the design population in 2040 at this stage. Contract was signed with JV Ludwig Pfeiffer Hock und Tiefbau GmbH & Co. KG and ProtecnoSrl on 22 September 2014 and Notice-to-Proceed given on 08 December 2014.
- 16. Construction of Water Supply and Wastewater Network in Ureki/Phase I (URE-01).** The project is simultaneously financed from Tranches I, II and III. The main works under Tranche I comprises construction of two reservoirs (2 x 3,000 m³ and 1 x 1,200 m³) and one water supply pumping station (78m³/h and 676 m³/h).
- 17.** The Contract is signed with JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan) on October 28, 2014. Commencement date was November 24, 2014. Completion date is scheduled on

November 22, 2017. The project is foreseen to serve 35,000 tourists and 5,400 local inhabitants by year 2040.

A. Construction activities and project progress during the previous 6 months

18. Construction Activities during previous 6 months under REG-01 project (January - June 2015)

Table 1: project progress during the previous 6 months

KUTAI SI LOT

REG-01 (KUT)	Kutaisi water distribution networks
Sites	1. Kutaisi - streets
Works Undertaken during January-June 2015	<ul style="list-style-type: none"> 16,627 km of network pipes (PE 63-355mm) laid (74%) 23 no. fire hydrants installed (35%) 30 connections of existing pipes to new network made (76%) 1 no. connection to existing reservoir and PS made (25%) 2,077 water meters (houses) done (53%)

REG-01 (KUT)	Kutaisi transmission pipelines
Works Undertaken during January-June 2015	<ul style="list-style-type: none"> 4,707 km of water transmission line (DCI 150-400mm) laid (76%)

REG-01 (KUT)	Kutaisi reservoirs & pump stations
Site	TV Tower reservoir
Works Undertaken during January-June 2015	<ul style="list-style-type: none"> 515 m3 of concrete (for reservoir and chlorination unit) poured at TV Tower (100%)
Site	Tetramitsa reservoirs
Works Undertaken during January-June 2015	<ul style="list-style-type: none"> Concrete poured at Tetramitsa – 150m3 (8%)
Sites	Vazha Pshavela reservoir & pumping station
Works Undertaken during January-June 2015	<ul style="list-style-type: none"> 769 m3 of concrete (for reservoir and PS) poured at Vazha Pshavela (92%)
Site	Kldiashvili reservoir & pumping station
Works Undertaken during January-June 2015	<ul style="list-style-type: none"> At Kldiashvili PS 100% completed

ANAKLIA LOT

REG-01 (ANA)	ANAKLIA reservoir and pumping station
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Works Undertaken during January-June 2015	<ul style="list-style-type: none"> Concrete (reservoir and PS) poured (100%) Completed Concrete (chlorination unit) poured (100 %) Mechanical works done (100 %)
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REG-01 (ANA)	ANAKLIA wells and transmission pipelines
Works Undertaken during January-June 2015	<ul style="list-style-type: none"> 0km of water mains (DCI 400-500mm) laid (100%) 2 unit drilling of deep wells done (100%)

POTI LOT

REG-1 (POT)	Nabada reservoirs and pump station
Works Undertaken during January-June 2015	<ul style="list-style-type: none"> (Demolition of existing warehouse done during the previous period) Demolition of existing bunker done (100%) Drilling made for piles (100%) 322 m³ of concrete (for PS, res, operation building and chlorination) done (40%) 86 m² of masonry done for PS (98%)

REG-01 (POT)	Poti other sites
Works Undertaken during January-June 2015	<ul style="list-style-type: none"> 10 % work done at WTP. 80% work done at Nosiri well field. 1062 m of connection pipes HDPE 500-1,000mm laid (76%) 1677m of drainage pipes from PS & reservoir laid (66%) 230 m of sewerage pipes of operation bldg. laid (100%)

19. Construction Activities during previous 6 months under MES-01 project (January-June 2015)

MES-01

MES-01 (water)	Water Supply Headworks
Works Undertaken during January-June 2015	<ul style="list-style-type: none"> 100% works completed

B. Changes in Project Organization and Environmental Management Team

(i) Agencies Involved in Investment Program Implementation

- 20.** The following agencies are involved in implementing the Investment program.: Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) responsible for

management, coordination and execution of all activities funded under the loan. MoRDI has overall responsibility for compliance with loan covenants.

21. United Water Supply Company of Georgia (UWSCG) is the implementing agency (IA), which is responsible for administration, implementation (design, construction and operation) and all day-to-day activities under the loan. An Investment Program Management Office (IPMO), which is under the Department for Investment Projects Management is established within the UWSCG for all Investment Program related functions. The IPMO coordinates construction of subprojects, and ensures consistency of approach and performance. In May 2015 a new director Mr.Nikoloz Kizikurashvili was appointed in UWSCG.
22. UWSCG as responsible IA for the project recruited a Supervision Consultant (SC). The national and international team of consultants assists UWSCG in the supervision of the construction of subprojects under the USIIP. The SC also provides capacity building training to contractor staff in the management and operation and maintenance of the subprojects. The SC assists UWSCG in ensuring that the subprojects are implemented according to the specified standards. SC assignment also includes the supervising of the implementation of the environmental management plans.
23. All mitigation measures during construction have to be implemented by the contractor and these are monitored by the supervision consultant (SC). To ensure the smooth implementation of EMPs and SEMP of subprojects, an Environmental Management Specialist (EMS) is employed by the SC. SC/EMS conducts routine observations and surveys, prepares quarterly environmental reports and submits these to UWSCG.
24. The Contractor has the following obligations:
 - to prepare SSEMPs;
 - to employ Environmental Consultant responsible for developing and implementing the construction phase SSEMPs and for providing the corresponding information to UWSCG and SC;
 - to develop, if required, a Spoil Disposal Plan and Construction Waste;
 - Disposal Plan agreed with the MoENRP and Local Government
25. DC is responsible for developing and incorporation of mitigation measures in design and construction.
26. The environmental specialist (ES) is hired by UWSCG under the USIIP to assist and advise the Division of Resettlement and Environmental Protection (DREP) of UWSCG in USIIP program implementation in compliance with the ADB Safeguard Policy Statement 2009 and National Legislation, and oversee the work of DCs and SCs in safeguards compliance. ES supports DREP in EARF implementation, in particular, reviewing IEE/EIA Reports and overseeing implementation of EMP/SSEMPs and in training and capacity-building activities. The ES prepares bi-annual and annual environmental monitoring reports and submits to ADB.
27. DREP is responsible for the implementation of mitigation and monitoring measures during construction and operation of subprojects under USIIP. Currently DREP is staffed with a Head of Division, who is responsible for both resettlement and environmental issues, and the Resettlement Specialist.
28. ADB is the donor financing the Investment Program.

Environmental management organization is shown in Figure 1 and Figure 2.

Figure 1. Structure Diagram of the Environmental Management Unit of UWSCG

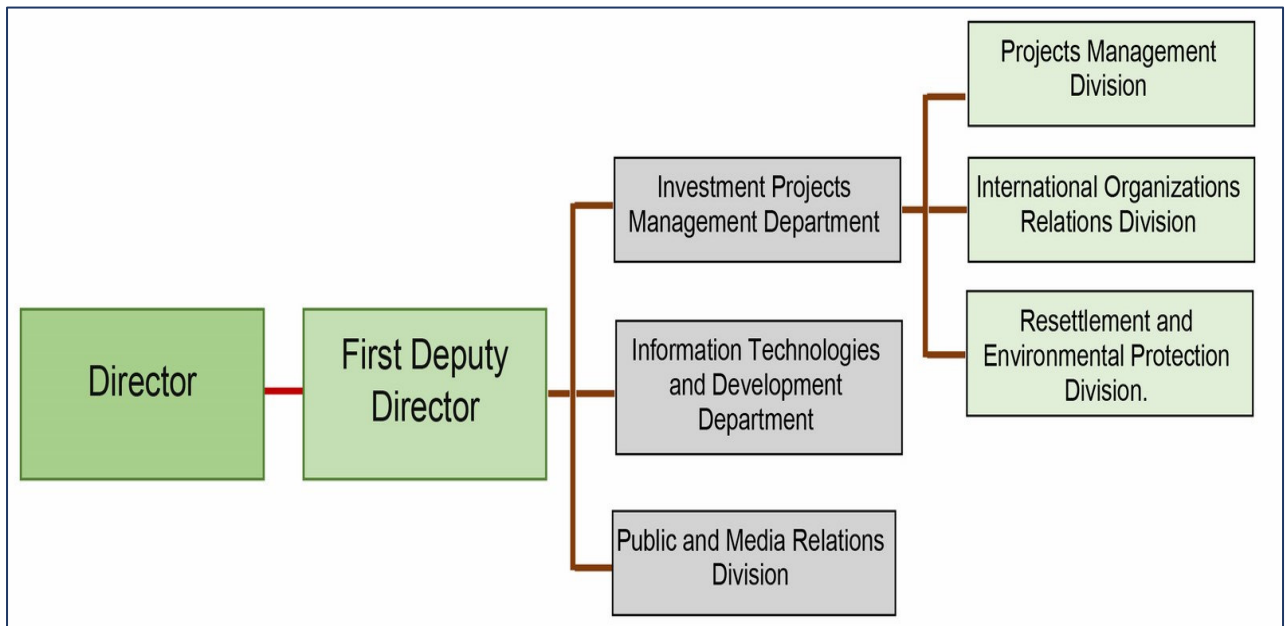
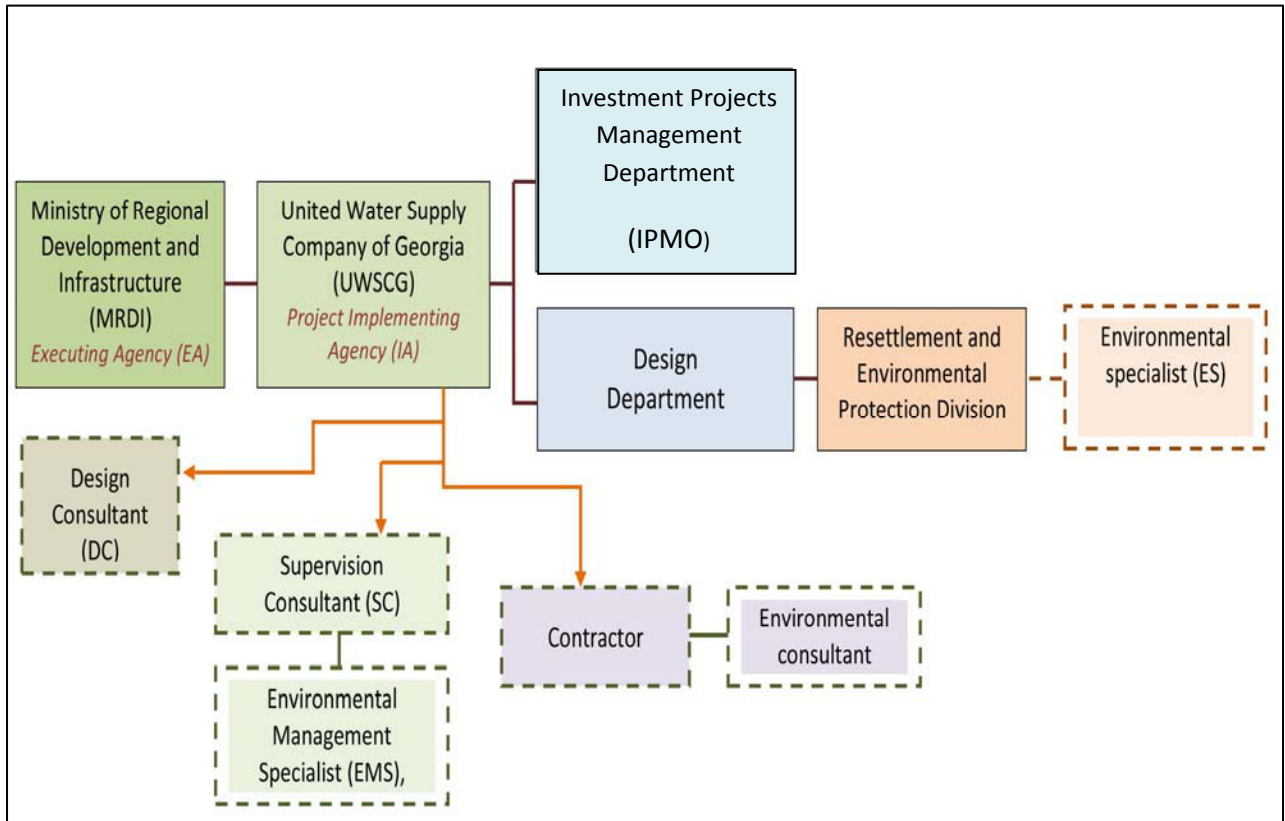


Figure 2. Structure Diagram of the Agencies Involved in Investment Program Implementation



B.

29. Relationships with Contractors, Owner and Lender are considered as normal working relationships. At the working level, coordination of environmental issues has been satisfactory, the government agencies, UWSCG, consultants and contractors are in frequent communication and consultation.
30. Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) responsible for oversee progress and provide guidance on the Investment Program implementation; convene regular meetings in consultation with the SC Chairperson and UWSCG; ensure compliance with Investment Program covenants.
31. Oversight of the USIIP with regards to environmental management is the responsibility of the environmental safeguards team, in particular UWSCG/DREP and the Environmental Specialist of USIIP.
32. The team has constant communication with the Supervision Consultant, Contractor, reviews/ comments all environmental reports submitted by DC, SC and contractors.
33. In fact the SSEMPs has been approved by UWSCG/DREP after the numerous discussions with the contractor until the specific situations of the site as well as mitigation measures under the site specific management plans are reflected.
34. SC is responsible for environmental capacity building, monitoring of implementation of SEMP and for developing quarterly reports. The Contractor has a full time Environmental Specialist who carries out day to day monitoring as submits a monthly progress reports.
35. ADB oversees project sites regularly and gives clear instructions for the project sites improvements with regard to environmental safeguards.
36. To resolve the observed environmental safeguard issues, the regular Environmental Meetings are organized with participation of UWSCG/IPMO/DREP, Eptisa, Contractors. During the meetings environmental issues and implementation of the mitigation measures are discussed.
37. A Grievance Redress Committee has been established within REG-01 in Kutaisi, Poti and Anaklia, to date all grievances have been dealt to the satisfaction of complainants.
38. Contractor of REG-01 package operated during the reporting period with the following sub-contractors:
 - Becker Group Development Ltd (reservoirs in Kutaisi) (Spanish)
 - Espaneti LLC (TV Tower & Tetramitsa reservoirs - both in Kutaisi)
 - PRIME CONCRETE LLC (civil works reservoirs Anaklia and Nabada Poti)
 - Georgian Plastic LTD (Network Kutaisi)
 - Archikultura Ltd (network Kutaisi)
 - Comremi Ltd (network Kutaisi)
 - Industrial group Ltd (network Kutaisi)
 - Geo Construction Ltd (PRV chambers Kutaisi)
 - BTB (mechanical works All sections (Turkish)
 - Sub contractor Dagi plus (Asphalt pavement Kutaisi)
39. Monthly site meetings have taken place with all Contractors during the reporting period, with a focus on progress and technical problems as well as environmental safeguard issues.
40. Under the REG-01 project contractor has signed agreement with National Environmental Agency for the bi-annual monitoring measurements (dust, CO, NO2, SO2, noise) of all construction sites.

41. Project organization for the awarded contracts listed above is given in the table below.

Table 2: List of contracts under T1

Contract #	Employer	Contractor
Contract No UWSCG/ICB/CW/2011- MES-01	UWSCG	Joint Venture of Dagi LTD - Georgia and Enguri 2006 LTD – Georgia (on April 2013 the name of Enguri 2006 LTD was changed to Enguri - New Construction LTD)
Contract No: UWSCG/ICB/CW-2013- REG-01	UWSCG	Cobra Instalaciones y Servicios SA (from Spain)
Contract No: P43405-ICB-URE-01	UWSCG	JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan)

II. ENVIRONMENTAL MONITORING

42. Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of DREP under USIIP on a regular basis, during the period January-June, 2015. Monitoring sheets (Mitigation Compliance & Inspection Monitoring Forms submitted by ADB) were filled in on a monthly basis. Unscheduled monitoring visits were carried out and non-compliance notes has been issued to the contractor as needed. Mitigation measures to reduce major environmental impacts have been instructed to contractors during the monitoring visits.
43. The monitoring activities included:
- The monitoring of compliance of construction activities under Reg-01 project sites to the SSEMP requirements;
 - The monitoring of compliance of construction activities under REG-01 project sites to the overall project EMP;
 - Removal of vegetation
44. Environmental Monitoring Specialist hired under the REG-01 subproject conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to Eptisa.
45. Environmental Monitoring Specialist of SC developed quarterly monitoring reports for UWSCG/DREP based on the monthly reports submitted by Contractor and on environmental site inspection.
46. ES of DREP performed monitoring of contractor's performance with the approved EMPs and SEMP, environmental standards and other environmental commitments of the contractor. ES developed bi-annual and annual environmental monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
47. The USIIP's Environmental Impact Monitoring and Mitigation is carried out in accordance with the updated EMPs and Site-Specific Environmental Management Plans (SSEMPs) prepared by the Contractors. The construction activities affecting the environment are as follows:

- Excavation works
 - Removal of soil
 - Removal of vegetation
 - Backfilling of trenches
 - Reinstatement activities
48. The following items are monitored during the implementation of the project: (only REG-01 are reported on in this report).
- Air Quality
 - Noise
 - Vibration
 - Reinstatement of top soil
 - Removal of vegetation/trees for construction
49. There are no protected areas, wetlands, mangroves, or estuaries. Trees, vegetation (mostly shrubs and grasses), and animals in the subproject sites are those commonly found in built-up areas. The geological structure of the area is stable and no potential land subsidence is foreseen.

A. Monitoring Measurement Data

KUTAIISI, POTI & ANAKLIA Water Supply Infrastructures (Contract REG-01):

50. In order to monitor measurements under the REG-01 project, Contract was signed between the Contractor and the Ltd “Eco Service” instead of the the National Environmental Agency (NEA) of the MoENRP as it was done in previous cases. This change was made in order to simplify procedures and to get measurement data on time.
51. The parameters measured for the monitoring data at the construction sites are as follows: dust, carbon monoxide, nitrogen dioxide, sulfur dioxide and noise. The measurements were carried out at various construction sites (reservoirs, pumping stations, network) in Kutaisi, Anaklia and Poti.
52. The monitoring measurements were carried out in June 2015, while final results were submitted to Cobra in July 10, 2015 (See Annex 1). Location and data are included in the table below (Table 1). The next monitoring measurements will be conducted in mid November 2015 and results will be reflected in the next EMRs. According to data received in July 2015 the obtained results did not exceed the National Environmental Standard (Maximum Permissible Level) of Dust, CO, NO₂, SO₂ and Noise, therefore no additional mitigations are required.

Table 3: Monitoring measurements under REG-01 project

N	Place of measurement	Coordinates	Results				
			Dusts Mg/m ³	CO Mg/m ³	NO ₂ Mg/m ³	SO ₂ Mg/m ³	Noise db
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	70

1.	Kutaisi, Tetramitsa Reservoir	N4683582 E309673	0,014	0,18	0,001	<0,1	42
2.	Kutaisi, Vzha-Pshavela Str. 84	N4682535 E309743	0,019	1.02	0,001	<0,1	68
3.	Kutaisi, Rua Str. 1	N4683571 E310994	0.024	0.34	0.02	<0,1	57
4.	Kutaisi, Kldiashvili Str. 104	N4682638 E312274	0,020	0.94	0.003	<0,1	62
5.	Kutaisi, Solomon II, Str.7	N4681770 E311898	0.043	0,71	0,002	0,1	43,1
6.	Kutaisi TV Tower	N4683429 E313492	0.037	0.24	0.003	<0.1	42
7.	Kutaisi, Leselidze str.9	N4683514 E311868	0.016	0.32	0,009	<0.1	51
8.	Anaklia Darecheli Reservoir	N4701306 E720498	0.002	0.02	0.003	<0,1	41
9.	Anaklia, Vil. Darcheli	N4701915 E721183	0.09	0.85	0.01	<0,1	58
10.	Poti, territory near water Supply	N4671946 E720628	0.012	0.97	0.024	<0,1	52
11.	Poti, vil.Khorga	N4678430 E731259	0.003	0.74	0.008	<0,1	49
12.	Poti, vil. Nosiri,	N4683018 E261548	0.004	0.12	0,001	<0,1	48

B. Removal of vegetation/trees for construction

53. Although, SSEMP was prepared for Tetramitsa reservoir site, due to the fact that the construction area included red book trees, additional biodiversity survey was required prior to development of environmental management measures. Two types of trees were observed on reservoirs construction site, which are protected by Georgian legislation and shown in the IUCN Red List of Threatened Species: 1. *Zelkova carpinifolia* (*Zelkova* or *Caucasian Zelkova*) is a species of *Zelkova*, native to the Caucasus - Georgia and 2. *Quercus imeretina* (*Imereti oak*), this tree is native to Georgia.
54. At the starting phase of the project, reservoirs has been planned to install at the *Zelkova* trees area and cutting of 6 *Zelkova* trees and number of Oak trees were considered. To avoid cutting of *Zelkova* grouping and to minimize impact on Red List species the UWSCG instructed contractor and conducted meeting inviting SC, contractor and UWSCG's design department and DREP to optimize reservoir's design. Finally reservoir site was relocated and it was necessary to remove only 5 Imeretian Oaks.

55. In accordance with the Georgian legislation In case of cutting of the red book tress, company has to go through the long procedures agreed with the Ministry of Environment and Natural Resources Protection of Georgia (MoENRP) while final decision is made by the Prime-Minister of Georgia.
56. In the first phase UWSCG appealed to the MoENRP of Georgia through the Executive Agency for USIIP – Ministry of Regional Development and Infrastructure (MoRDI), by official letter requesting permission to cut down Red List trees.
57. As suggested by the MoENRP a letter clearly stated the type, age and exact geographical coordinates of the trees which should be removed. As a result Government of Georgia has issued an Ordinance N1147, “About removal of wooden plants included in the red data list from natural environment”, and dated 26th July of 2014, where Government requested UWSCG to develop Compensation Action Plan for damage done to the biodiversity of Georgia. At the same time the MoENRP and its National Forestry Agency has identified a suiting place for planting the trees.
58. As a follow up to these requirements the Contractor has developed a Compensation Action Plan and officially submitted to the UWSCG on 6th of July, 2015, taking responsibility for launching appropriate actions to plant and take care of 50 individual (10 instead of each cut tree) saplings of the same species in suiting environment. This responsibility includes purchasing of needed saplings and planting and taking care (during the 5 years) of purchased seeds in natural environment indicated by the MoENRP. Currently UWSCG is discussing the proposed action plan with the MoENRP. The final agreement will be made by 20th of July, 2015.

III. ENVIRONMENTAL MANAGEMENT

A. The Environmental management System, site-specific environmental management plan (SSEMP), and work plans

SSEMPs prepared under Reg-01, Reg-02 and Ure-01 projects

59. The following Site-Specific Environmental Management Plans (SEMPs) were prepared by the Contractor, revised by SC and approved by UWSCG under the Reg-01 project: Vazha Phshavela (Kutaisi); Kldiashvili (Kutaisi); Tetramitsa (Kutaisi); TV Tower (Kutaisi); Nabada (Poti) and Darcheli (Anaklia).
60. SSEMP for Mestia WTP under the Reg-02 project is prepared by contractor/ Pfeiffer and submitted to SC for endorsement. After the endorsement from SC SSEMP will be submitted to UWSCG for approval.
61. SSEMP for Reservoir #2 (Ure-01) is already prepared by Contractor, endorsed by the SC and approved by UWSCG. SSEMP for Reservoir #1 (Ure-01) was prepared by contractor and submitted to SC, but following the new requirements of UWSCG (to optimize the design of the reservoir in order to avoid removal of the one 100 years old pine tree) the SSEMP was revised and re-submitted to the SC in July 2015. Final approval of SSEMP will be done by the end of July 2015.

B. Site Inspections and Audits

62. Regular site monitoring visits were carried out during the reporting period by Eptisa and UWSCG for REG-01 projects. Some monitoring visits were conducted jointly by the SC/EMS

and ES of USIIP. During the field visits a number of EHS issues were noted and brought to the attention of the Environmental Consultant and the H&S manager of REG-01 project. Mitigation measures were then discussed with the contractor on-site and detailed instructions were given. Good Practice in compliance with Georgian and international H&S legislation were therefore enforced in accordance with the legislation and the Contractor's contract for REG-01 project.

63. Site inspection and audit during the reporting period have been carried out on: 6 February 2015, 17-18 March 2015, 8 and 27 April 2015, 5-8 May 2015. Monitoring Compliance and inspection monitoring forms have been filled in during the site visits.
64. The contractors were always informed on the detected non-compliances and were demanded to improve on the deadline set and send photos of improvements made. Environmental team of Eptisa and UWSCG monitored the improvements during the next monitoring visits. Unimproved environmental issues were qualified as non-compliances and notices issued to contractor (Annex C).
65. A summary of the identified issues during the site monitoring by EMS/SC and USIIP ES, recommended mitigations and the status of implementation is presented in Annex D:

C. Non-compliance Notices

REG-01

66. All corrective actions requested after the Monitoring of sites were mostly improved by contractor; however, there were some Environmental issues that were not addressed adequately. During the course of the construction supervision in the previous six months of the works, only one "Non-compliance notice" was issued by the environmental specialists of Eptisa and UWSCG to the contractor.
67. The Non-compliance notice was issued based on site monitoring visit executed in 17-18 March 2015, and 28 April 2015 (See Annex C).

C. Corrective Action Plans

68. For the purpose of resolving the observed issues, the regular Environmental Meetings were initiated with the participation of UWSCG/IPMO/DREP, Eptisa, contractors. During the meetings environmental issues and implementation of the mitigation measures were discussed. Agreements were reached that contractors should respond to the findings of the compliance monitoring carried out by SC and UWSCG.

Table 4: Actions taken for implementation of mitigation measures under REG-01 project by the end June 2015

REG-01

Construction Site	Environmental Issues	Action taken
Kutaisi/Vazha Phshavela	Proper fuel/oil spill response items should be available at the site as per SEMP. It should be noted that non-relevant spill response item (adsorbent) was only once available on site according to monitoring recordings	Completed
	Special shelter or storage should be arranged for hazardous materials storage	Completed

	On site there is only non-hazardous waste container available, however there are number of spots detected with improper placement of hazardous waste. Hazardous waste container should be available permanently on site	Completed
	Site internally should be arranged properly and cleaned regularly	Partially Completed
	Warning sign at the entrance gate should be bilingual	Completed
	Cover trucks with tarpaulins and spraying water on the road to avoid dust generation	Not Completed
	There is no enough personnel safety measures implemented i.e. there is high risk of personnel damage with electric devices	Partially Completed
Kutaisi/Kldiashvili	Accumulated waste soil and construction waste should be taken out of the site immediately	Not Completed
	Proper site fencing needs to be arranged	Not Completed
Kutaisi/ Network	Tranches should be fenced with safety lines to avoid accident of population	Completed
	Accumulated waste soil should be placed in a place to avoid disturbance of population	Partially Completed
	Construction materials should be brought when needed to avoid its long time disposal in the streets. Even if so, construction materials have to be fenced and marked relevantly	Partially Completed
	Enough and relevant walkways/planks should be installed across open tranches when passing settlement area	Partially Completed
	Water should be pumped immediately from the tranches	Partially Completed
	Improvement of traffic management for avoiding traffic jams at narrow streets around the construction areas	Partially Completed
	Special blinking signs and flag men should be provided when passing intensive streets to avoid disturbance of car movements	Not Completed
	Cover trucks with tarpaulins while transporting the construction materials	Not Completed
	Entrance of resident houses should be clean from construction materials to avoid disturbance of residents and businesses	Completed
Kutaisi /Tetramitsa	Whole site should be fenced properly with its relevant warning signs. Moreover, lockable gate with signs should placed	Partially Completed
	All trees located at the construction site should be fenced and protected properly with Special care for Red List highly preserved trees	Completed

	Surplus soil should be relocated out of the site along with bulky waste (rocks)	Partially Completed
	Since there is newly constructed concrete road access to the site and as per SEMP requirements there should be established trucks wheel cleaning equipment at the entrance	Not completed
	Household and Hazardous Waste containers should be installed in proper place with relevant signs	Completed
	Site internally should be arranged properly and cleaned regularly. All construction materials should be properly segregated and stored adequately	Partially Completed
	Special place for materials storage (including for hazardous materials) and equipment parking should be allocated with relevant signs	Partially Completed
	Fuel/oil spill response items should be available at the site as per SEMP	Partially Completed
Poti-Nabada	Proper fencing of left site with relevant material (several times instructed by ADB, Eptisa, UWSCG) site not to be visible	Completed
	The chlorine container should be disposed in safe place urgently	Completed
Anaklia/Darcheli	Carry out proper reinstatement of the Area	Partially Completed
	Cover reservoir with purchased topsoil	Not Completed
TV Tower site	Site boundaries are not well defined/fenced and there is risk of damage of vegetation	Completed
	Relevant and enough warning signs should be installed	Completed
	Site should be organized and cleaned regularly	Partially Completed
	Construction materials should be kept segregated and in appropriate places to avoid blockage of road	Completed
	Special place for hazardous materials (chemicals) storage should be allocated/arranged	Completed

69. These issues were captured in project photos and are shown in Annex C (Non-compliance notices).

70. An Annual Environmental Compliance Safeguard Review Mission was carried out on 5 - 8 May 2015 to review environmental safeguards compliance of Tranche 1 project.

Actions taken to reflect the findings of ADB mission carried out in 5-8 May 2015:

71. Monitoring activities carried out by SC and UWSCG/DREP within the reporting period were closely linked with mission's findings that provides clear statement for further actions to be taken to improve environmental safeguard of Reg-01 project.

72. Mission visited and reviewed on-going construction works under Reg-01 in Kutaisi, Poti and Anaklia, in particular, Vazha Pshavela, Tetramitsa and Kldiashvili reservoirs and pumping stations and network in Kutaisi, Poti (Nabada) reservoirs and pumping stations, Anaklia (Darcheli) reservoir. Mission found that all recommendations made in the Bi-annual EMR Jul-Dec 2014 have been implemented or were on-going. Significant improvements have been made in waste management, health and safety (installation of warning signs and safety tapes), creation of track record system for site inspection and monitoring reports, conducting of regular EHS trainings for sub-contractors, establishment of GRM and conducting of Public Awareness campaigns in different cities. The GRM is hosted in each local service center and centrally managed by the PIU.
73. The Mission requested CSC to identify specific type of fencing at each site and submit a proposal to UWSCG until the end of May 2015. The proposed requirement is under implementation and final proposal will be agreed between the Contractor, SC and UWSCG by the end of July 2015 and presented in the next EMR.
74. Mission requested UWSCG to discuss several alternatives in order to minimize cutting of trees and make optimal design of reservoir #1 under the Ure-01 project. ADB's approach was to keep 100 years old tree, which is located at the border of the reservoir design, close to the residential house and the households' graveled road and applied to the Contractor's representative during the mission to discuss all possible options to avoid cutting of this particular tree.



Fig. 3: 100 years old pine tree in Ureki #1 Reservoir

75. As a follow up to this requirement UWSCG/DREP organized special meeting and developed Minutes of the Meeting, shortly after the return of the mission to discuss how to proceed with this issue. UWSCG/DREP invited UWSCG's design staff, SC, Contractor and Environmental Specialist of RETA/ADB Ms. Ketevan Dgebuadze. Based on the hard discussions it was agreed that in order to save this particular tree, there would not be any problem if the location of the red line of the reservoir will be shifted with 5-6 meters at the expense of the reservoir's

capacity. Currently, two reservoirs 3,000m³ of each is designed to be constructed on this territory 24-hour-acquisition and for 2040 years for approx 50 000 people.

76. Finally, as a result of intensive communication with the biodiversity specialist, parties agreed (in order to avoid any unforeseen cases, like damage of the roots of the tree) the reservoir border to be shifted with 6 meters underling that this will reduce capacity of one of the reservoirs down to 2,000m³ and instead of two 3,000m³ reservoirs finally two reservoirs with the capacity of 3,000m³+2,000m³ will be constructed.
77. Other activities envisaged by the Mission's Note (5-8 May, 2015) are currently on-going and new deadlines are presented in Article 5 – Action Plan for the Next Period. Implementation status of these activities will be presented in the next EMRs.

Actions taken regarding the action plan of the EMR January-June 2014:

78. Monitoring measurements were carried out by Cobra in July 2015, with particular reference to dust and noise. Measurement results are presented in Table 3.
79. The Compensation action plan for removed Red books trees in Kutaisi Tetramitsa reservoir (Reg-01) was finalized and submitted to the MoENRP for approval.
80. Fencing of Poti reservoir sites along the residential houses per standards recommended by Eptisa and UWSCG was finalized during the reporting period.

D. Consultations and Complaints

Public Awareness Activities:

81. During the reporting period public awareness activities in Kutaisi continued on both the water supply rehabilitation sites as well for the apartment buildings where water meter installation will take place.

Kutaisi water supply project

82. In January, 2015 the public awareness campaign started for the households living in the apartment buildings in Kutaisi where the installation of the new water meters is planned. Based on the inquiries and stakeholder analyses a special brochure was created which included information about the project, expected results, project timeline, special grievance committee and answers to frequently asked questions.
83. Eptisa PA consultants conducted a special training for the UWSCG staff selected to conduct the door to door campaign in the apartment buildings. The UWSCG staff was provided with the complete information about the project, frequently asked question, main messages and information that they had to deliver to the population including: safe and wise water consumption, grievance committee, hot line and others.
84. The first phase of intensive door to door campaign started at the end of January, 2015 for the apartment buildings on Chavchavadze, Bukia and Kharebava streets. More than 2500 households were provided with the brochures and information about the project and planned activities. This Brochures include information about the GRM System and GRC. The door to door campaign showed that households were most of all interested in tariffs, costs connected to water meters and water meter placement scheme. The 1st phase of the door to door campaign ended in the end of February.

85. In March, 2015 a new, updated brochure was prepared and printed for the second phase of the door to door campaign which is intended to start in mid-July. Intensive public consultation meetings are also planned with the households after the end of door to door campaign.

PA activities for water supply rehabilitation

86. During the reporting period EPTISA PA consultants were actively involved in continuous communication/consultations with the local population, living near the water supply pipeline rehabilitation sites in Kutaisi to make sure that affected population was provided with complete and updated information about the project progress, grievance commission, rehabilitation timelines and other information. Small scale complaints like cleaning the road and other similar issues were addressed in a timely manner in coordination with the construction company. EPTISA local PA Consultant observed the situation and made sure that the problems were taken care in a timely and professional manner.
87. Eptisa PA consultants also closely cooperate with local Civil Society Organization and NGOs to provide them with up to date information about the project progress and keep them informed and consulted. On 12 June 2015 the meeting was held with the local non-governmental organizations to discuss the project progress and timelines. The meeting was attended by representatives of local NGOs as well as affected population, UWSCG, EPTISA and Construction Company. The presentation on project progress and updates was delivered by UWSCG and EPTISA representatives together with public awareness activity updates. The similar meeting is planned to take place in July 2015.
88. Regular meetings are held with the PR department of UWSCG head office as well as the UWSCG local office in Kutaisi to discuss and plan public awareness activities. Monitor results and further improve communication among UWSCG, Consultants and local population.

Grievance redresses mechanism (GRM)

89. There was no GRM system existing under USIIP before the Reg-01 project. Therefore, there was no structured mechanism and procedure to help the affected population and stakeholders send their grievances related to project-induced environmental impacts and nuisances to UWSCG or directly to the administrative bodies responsible for environmental protection.
90. For the effective implementation of a GRM system under the USIIP, UWSCG issued special order (#122) on 30 April 2014. The “Establishment of GRM within the Framework of the Asian Development Bank Funded Projects” signed by the head of UWSCG gives clear instructions to every involved stakeholder how to act when affected people are impacted by the project.
91. After issuance of the special order, a GRM was first set up by UWSCG under the REG-01 project of USIIP (operational since April, 2014) that includes rehabilitation of water supply system in Kutaisi,. The GRM allows affected people to appeal any disagreeable decision, practice or activity arising from project implementation.
93. Any affected person can apply at a UWSCG **local service centre** through different ways, either by going to the service centre, sending a letter to the service centre, or calling a hotline. The operators of the service centre can respond by going directly to the affected person if they are disabled to get the written grievance from them. As it was mentioned above the GRM in Kutaisi has been operational since April 2014, and the system operates in three stages:

94. During the **first stage**, complaints are discussed within two weeks of being received by the local service centre of UWSCG (e.g. Kutaisi office), based on the verbal or written complaint. In the first stage of grievance review and resolution, an authorized representative of the local service centre is responsible for ensuring the registration of the claim and its further processing. He/she engages in the grievance review and resolution process representatives (managers and environmental specialists) of Construction and Supervision Companies, and the representatives of UWSCG central office as required. At the local service centre, the affected person is provided with a queue number and then registers the grievance at the service desk.

95. The service centre operators, who are trained¹ in USIIP/Reg-01project, register all relevant grievances with support of an **online task management system**, which tracks information on the grievance review process and the responsible person. Moreover, the operators fill the ADB complaints log with the registered grievance that coincides with local internal forms. This **electronic intranet system**² allows the UWSCG Tbilisi Office to immediately see claims. Therefore, claims submitted to any regional service centre can be monitored by the Head of the Investment Projects Management Office (IPMO), as well as the Head of the Environmental and Resettlement Division, Maka Goderdzishvili.

96. When a grievance is solved positively in the first stage, the grievance is closed through an Agreement Protocol, which is reflected in the eDocument – Task Management System.

97. The grievance enters a **second stage** if it is not solved. In that case, the authorized representative of the local service centre will help the claimant prepare a package of grievance application documents for official submission to the Grievance Redress Committee (GRC). The package contains the following information:

- Name, ID, address and contact details of the claimant
- Description of the essence of the complaint
- Supporting documents and evidences (photos, maps, drawings/sketches, conclusion of experts or any other documents confirming the claim)
- Brief description of the actions proposed for the grievance resolution at the first stage and the reasons why these actions were denied
- Minutes of meetings conducted at the first stage

98. The GRC should make a decision within two weeks after the registration of the grievance. The GRC is staffed as follows: (i) Representative of self-government – the head of committee; (ii) 99. Director/ Manager of UWSCG service centre; (iii) Investments Project Management Division representative of the company; (iv) Representative of local authoritative NGO (according to the claim reference); (v) Stakeholders' female representative; (vi) Stakeholders' informal representative; and (vii) Heads of local municipalities.

99. The GRC will review the package of grievance documents, set a date for a meeting with the claimant, discuss the claim at the meeting, and set up a plan for further actions (actions, responsible persons, schedule etc.). Upon the resolution of the case, the GRC will prepare a brief

¹ UWSCG and Supervision Consultant (Eptisa) conducted trainings for service center operators covering general procedures of GRM functioning in order to ensure proper coordination of different departments.

²The **eDocument - Task Management System** was developed by LEPL Financial-Analytical Service of the Ministry of Finance of Georgia. It is an innovative electronic document and task management mechanism for electronically processing of documents. Used by almost all the major budgetary organizations in Georgia, the eDocument service offers an opportunity to manage, find, and track documents for information-intensive organizations.

resume and protocol and the protocol signed by complainant and all parties will be registered in a grievance log.

100. There is a **third stage** in case there is a failure to resolve the grievance. In this case, GRC will help the claimant to prepare the documents for submission to the Rayon (municipal) court. They can also apply to ADB at the address below:

*Complaints Receiving Officer, Accountability Mechanism
Asian Development Bank Headquarters
6 ADB Avenue, Mandaluyong City 1550, Philippines
Email: amcro@adb.org, Fax +63-2-636-2086*

101. As it was mentioned above APs were fully informed through very intensive public consultation process carried out within Reg-01 projects of their rights and of the procedures for addressing complaints whether verbally or in writing during planning and implementation of the project. Up to 25 complains have been recorded since establishment of the GRM system under the Reg-01 project in Kutaisi. Majority of complaints mainly related to the temporarily blocking of the water during the construction activities carried out by Cobra (contractor). Out of these 25 cases only 5 are related to environment and all of them are satisfactorily closed in a very short time. Two cases were related to the crack of the houses caused by construction activities and described in details in para 96-97 of the proposed EMR. The last complaint received on 7 May 2015 from the local resident form #74 Vazha-Pshavela street was related to a crack caused by truck vibration as well and was followed up by the Service Center immediately to solve the problem.

102. Local Service center informed the Investment Projects Management Department and its DREP immediately about the above mentioned complaint. DREP applied to contractor and SC by the official letter to provide proper justification whether Contractor “Cobra” used heavy equipment and trucks for transportation of construction materials near the affected house, or carried out other activities that may cause such damage to the house.

103. As a response to the request of Kutaisi Service Center, “Cobra” and SC prepared a letter to the AP. The letter clearly stated that “Cobra” was not performing any works near the mentioned street, due to the fact that construction area is located approximately 350m away. Moreover, the contractor argued that the part of the street was not even used by suppliers of “Cobra” for the transportation of the materials. In addition, it was clarified that it is a public road without any restriction of circulation of trucks. Therefore, any cracks that may exist in said house cannot be assigned to this project. The explanation letter was send to the AP through the service center and the case was satisfactorily closed.

Follow up regarding with two houses damaged in Kutaisi #1Tskaro Street and #9^a Koguashvili Street

104. There were two houses damaged in Kutaisi as a result of tranches excavation works in scope of REG-01 Project in May 2014. The cases of crack of two houses were registered at the Kutaisi Service Center. This was the first example of registered grievances as GRM was established in May 2014 and were closely followed up. The works were stopped immediately in the damaged areas. UWSCG together with the Supervisor Consultant (EPTISA) evaluated situation, identified Affected Persons (APs) needing temporary resettlement, elaborated relative compensation plans and remuneration matrixes and drafted corresponding documents Emergency Temporary Resettlement Framework (ETRF), Temporary Resettlement Plan Contract (TRPC) and

other relevant documents, all according to ADB SPS 2009 and the recommendations of ADB Safeguards Specialists.

105. UWSCG engaged an independent agency to investigate the exact cause of the cracks. UWSCG has taken up the matter also with local municipal authorities to provide suitable protection to the houses resulting in some delays in execution. Hence, in September 2014 the urgent relocation was conducted of APs. The substantial rehabilitation was carried out of the damaged house and finally inhabitants were moved back to the safe houses.

IV. CONCLUSIONS AND RECOMMENDATIONS

106. As presented in this report, Tranche-1 of this Investment Program is being implemented in compliance with the ADB Safeguards Policy Statement, 2009, National Legislation and overall EARF.

107. Necessary instructions have been given to the Contractor by UWSCG and SC to follow the EMPs and SEMP for REG-01 project.

108. More detailed recommendations are with indication of the entities responsible for their implementation are provided in the table below:

Table 5: Recommendations to address Environmental Issues

Recommendations REG-01	Responsible Party
Kutaisi: Networks	
Cover trucks with tarpaulins and spraying water on the road to avoid dust generation	Contractor
Improvement of traffic management for avoiding traffic jams at narrow streets around the construction areas, and provide flag men when passing intensive streets to avoid disturbance of car movements	Contractor
Relevant wooden/metal walkways/planks should be installed across open tranches when passing settlement area	Contractor
The surplus/waste soil should be stored separately for further use at the dedicated place to avoid disturbance of the population, if trenches are left open more than 24 hours	Contractor
Kutaisi: Vazha Pshavela Reservoir	
Cover trucks with tarpaulins and spraying water on the road to avoid dust generation	Contractor
Improvement of traffic management for avoiding traffic jams at narrow streets around the construction areas	Contractor
Kutaisi: Kldiashvili Reservoir	
Accumulated waste soil and construction waste should be	Contractor

taken out of the site immediately	
Arrange proper fencing of site	Contractor
Kutaisi: TV Tower Reservoir	
Construction site should be kept clean of illegal dumping by other people	Contractor
Poti: Nabada Site	
Cover trucks with tarpaulins and spraying water on the road to avoid dust generation	Contractor
Anaklia: Darcheli	
Carry out proper reinstatement activities and cover reservoir with topsoil	Contractor


V. ACTION PLAN FOR THE NEXT PERIOD

- Identify specific type of fencing at each site and submit a proposal to UWSCG (end of July, 2015).
- UWSCG and Eptisa to be carry out environmental audit of the territory adjacent to the new reservoir within Mes-01 sub-project in order to determine effectiveness of conducted restoration works. The audit will be conducted in late July 2015, before defect liability period and the results will be presented in the next EMRs.
- To prepare Landscaping Plan and access road reinstatement plan to submit to CSC for approval (31 July 2015).
- To sign contract with agency for implementation of the compensation actions for Red Book trees at Tetramitsa reservoir (31 August, 2015).
- Contractor to Finalize SC to endorse and UWSCG to approve SSEMPs under the Ure-01 and Reg-02, projects (25 July 2015).
- Conduct monitoring of environmental quality under REG-01 project at each construction site in Kutaisi, Poti and Anaklia with particular reference to dust and noise. The specific plan for measurement is as follows:

Parameters	Quarterly measurement
Dust	November 2015
Vibration	November 2015
carbon monoxide	November 2015
nitrogen dioxide	November 2015
sulfur dioxide	November 2015
gamma radiation	November 2015
el-magnetic field radiation	November 2015
Noise	November 2015

ANNEXES:

ANNEX A: MONITORING MEASUREMENTS DATA

<p>ეკო სერვისი ტელ. (995)32218127 მობ. (995)599181753 E-mail: geocospace@yahoo.com ქ. თბილისი ვაჟა ფშაველას VII კვარ. კორ. 13</p>		<p>Eco Service Tel. (995)32218127 Mob. (995)599181753 E-mail: geocospace@yahoo.com 13, VII Block Vaja-pshavela ave, Tbilisi</p>
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No 18 10 04 2015

შპს "კობრა ჯორჯის"-ს უფლებამოსილ წარმომადგენელს
ბატონ ხესუს სენსეს როდრიგესს

ბატონო ხესუს,

გაწვდით ქუთაისში, ფოთსა და ანაკლიაში აღებული ატმოსფერული ჰაერის
სინჯების ქიმიური ანალიზისა და ხმაურის დონის გაზომვის შედეგებს.

დანართი ფურცლად.



პატივისცემით,
შპს "ეკო სერვისი"-ს დირექტორი,
პაატა ჭანკოტაძე

ატმოსფერული ჰაერის სინჯების ქიმიური ანალიზისა და ხმაურის დონის გაზომვის შედეგები

№	გაზომვის ადგილი	GPS კოორდინატები WGS 84	გაზომვის შედეგები							
			მტვერი (PM), მგ/მ³		ნახშირბადის მოнокსიდი (CO), მგ/მ³	აზოტის დიოქსიდი (NO ₂), მგ/მ³	გოგირდის დიოქსიდი (SO ₂), მგ/მ³	ხმაური, დბ		
			გაზომვის შედეგი	ზღკ	გაზომვის შედეგი	ზღკ	გაზომვის შედეგი	ზღკ	გაზომვის შედეგი	
1	ქ. ქუთაისი, თეთრამიწას რეზერვუარი	N4683582 E309673	0.014	0.5	0.18	5.0	0.001	0.2	<0.1	42
2	ქ. ქუთაისი, ვაჟა- ფშაველას 48 (მუშაობდა ბეტონის შემრევი ა/მანქანა)	N4682535 E309743	0.019		1.02		0.001		<0.1	68
3	ქ. ქუთაისი, რუას ქ. №1	N4683571 E310994	0.024		0.21		0.001		<0.1	48
4	ქ. ქუთაისი, კლდიაშვილის ქ. 104	N4682638 E312274	0.020		0.34		0.02		<0.1	57
5	ქ. ქუთაისი, შოლომოვ მე-2ს ქ. 7	N4681770 E311898	0.043		0.94		0.003		<0.1	62
6	ქ. ქუთაისი, ტელეანძის რეზერვუარი	N4683429 E313492	0.037		0.24		0.003		<0.1	42
7	ქ. ქუთაისი, ლესელიძის მე-2 შეს. 9	N4683514 E311868	0.016		0.32		0.009		<0.1	51
8	ანაკლია, რეზერვუართან	N4701306 E720498	0.002		0.02		0.003		<0.1	41
9	ანაკლია, სოფ. დარჩელი	N4701915 E721183	0.09		0.85		0.01		<0.1	58
10	ფოთი, წყალსადენის მიმდებარე ტერიტორია, უახლოეს საცხოვრებელ სახლთან	N4671946 E720628	0.012		0.97		0.024		<0.1	52
11	სოფ. ხორვა	N4678430 E731259	0.003		0.74		0.008		<0.1	49

12	სოფ. ნოსირი	N4683018 E261548	0.004	0.12	0.001	<0.1	48
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შემსრულებელი

გარემოსდაცვითი ინჟინერი *ჩანგაშვილი* /*გარამაშვილი*

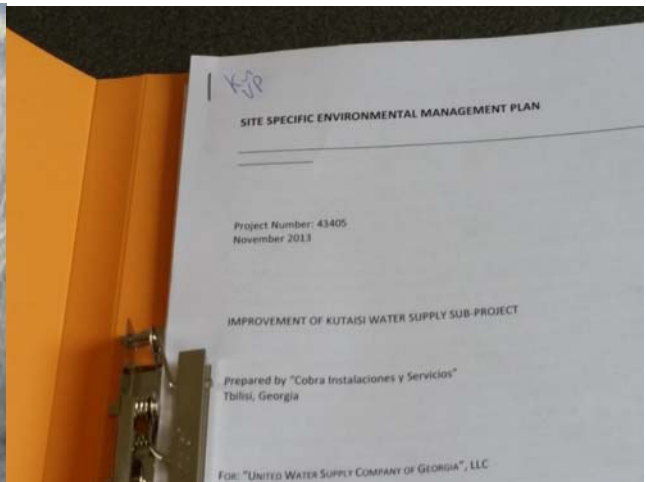
შპს "გეო სერვისი"-ს
პაატა ჭანგოშვილი



ANNEX B: PROJECT PHOTOS



Kutaisi Vaja-Pshavela



EMR reports and Non-compliant Notes are available on all construction sites

Kutaisi TV Tower





Kutaisi Network



Anaklia (Darcheli)

ANNEX C: NON-COMPLIANCE NOTICES

Non-Compliance Notice (17-18 March, 2015)

Project: USIIP	Non-compliance Notice KUTAISI
Contract No: REG-01	
Contractor: COBRA	
Supervision: Eptisa	
Reference: Kutaisi – Network, Tetramitsa, TV Tower and Vaja-Pshavela sites	
This notice is to advice you, the Contractor, of the following notice on health, safety and environmental measures to be implemented urgently	
<u>Non-Compliance in Kutaisi</u>	
Tetramitsa site	
<ul style="list-style-type: none">- Whole site should be fenced properly with its relevant warning signs. Moreover, lockable gate with signs should placed- All trees located at the construction site should be fencedand protected properly! Special care for Red List highly preserved trees!- Top soil is mixed with surplus soil, hence for reinstatement purposes contractor will need to allocate (purchase) needed topsoil- Surplus soil should be relocated out of the site along with bulky waste (rocks)- Since there is newly constructed concrete road access to the site and as per SEMP requirements there should be established trucks wheel cleaning equipment at the entrance.- Household and Hazardous Waste containers should be installed in proper place with relevant signs- Site internally should be arranged properly and cleaned regularly. All construction materials should be properly segregated and stored adequately!- Special place for materials storage (including for haz.materials) and equipment parking should be allocated with relevant signs- Fuel/oil spill response items should be available at the site as per SEMP	
<div></div>	
Vaja-Pshavela site	
<ul style="list-style-type: none">- Proper fuel/oil spill response items should be available at the site as per SEMP. It should be noted that non-relevant spill response item (adsorbent) was only once available on site according to monitoring recordings- Special shelter or storage should be arranged for hazardous materials storage.- On site there is only non-hazardous waste container available, however there are number of spots detected with improper placement of hazardous waste. Haz.waste container should be available permanently on site.- Site internally should be arranged properly and cleaned regularly- There is only tree available on site that needs thorough protection, however contractor does not take any measures for its protection- Warning sign at the entrance gate should be bilingual- Trucks wheel washing platform and its drainage system needs fixing and regular cleaning	

- There is no enough personnel safety measures implemented i.e. there is high risk of personnel damage with electric devices



TV Tower site

- Site boundaries are not well defined/fenced and there is risk of damage of vegetation.
- Relevant and enough warning signs should be installed
- Site should be organized and cleaned regularly. Moreover, hazardous waste should not be available on site.
- Construction materials should be kept segregated and in appropriate places to avoid blockage of road.
- Special place for hazardous materials (chemicals) storage should be allocated/arranged
- Bio Toilet should be installed



Network

- Tranches should be fenced with safety lines to avoid accident of population
- Accumulated waste soil should be placed in a place to avoid disturbance of population
- Construction materials should be brought when needed to avoid its long time disposal in the streets. Even if so, construction materials have to be fenced and marked relevantly
- Enough and relevant walkways/planks should be installed across open tranches when passing settlement area! (example: Solomon I street)
- Water should be pumped immediately from the tranches
- Special blinking signs and flag men should be provided when passing intensive streets to avoid disturbance of car movements
- Entrance of resident houses should be clean from construction materials to avoid disturbance of residents and businesses
- Enough and regular safety personnel should be provided by contractor when passing heavily populated sections



All these conditions have to be remedied immediately by the Contractor (Cobra).

Site visit date: 17-18/03/15

Site visit and monitoring was conducted by:

- Mr. Irakli Legashvili – Eptisa
- Ms. KetevanChomakhidze - UWSCG-USIIP
- Ms. MakaGoderdzishvili – UWSCG (attended network and tetramitsa site monitoring)

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Non-Compliance Notice (28 April, 2015)

Project: USIIP Contract No: REG-01 Contractor: COBRA Supervision: Eptisa Reference: Kutaisi: Tetramitsa, TV Tower and Vaja-Pshavela sites Poti: Nabada site	Non-compliance Notice
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This notice is to advise you, the Contractor, of the following notice on health, safety and environmental measures to be implemented **urgently**

NON-COMPLIANCE IN KUTAISI

Tetramitsa site

- Whole site should be fenced properly with its relevant warning signs. Moreover, lockable gate with signs should installed (existing gate can be repaired)
- All trees located at the construction site should be fenced and protected properly! Special care for Red List highly preserved trees!
- Surplus soil should be relocated out of the site along with bulky waste (rocks) – if surplus soil or bulky waste can be used for construction purposes when such materials should be stored and fenced properly
- Household and Hazardous Waste containers should be installed in proper place with relevant signs
- All construction materials should be properly segregated and stored adequately
- Special place for parking should be allocated with relevant sign
- Fuel/oil spill response items should be available at the site as per SEMP



Vaja-Pshavela Site

- Proper fuel/oil spill response items should be available at the site as per SEMP
- Hazardous materials are stored improperly. Moreover, the sign of its leaking was detected. Urgently such materials should be reallocated and stored in safe place with special protection measures
- Hazardous waste container should be available permanently on site
- Site internally should be arranged properly and cleaned regularly
- There is only tree available on site that needs thorough protection, however contractor does not take any measures for its protection
- Trucks wheel washing platform and its drainage needs fixing. Drainage pipe is not available at all
- Safety signs should be placed at the fencing (especially from school side)



TV Tower site

- Relevant and enough warning signs should be installed
- Site should be organized and cleaned regularly
- Hazardous waste container should be available permanently on site
- Household container should be marked with sign
- Bio Toilet should be installed



NON-COMPLIANCE IN POTI

Poti - Nabada

- Open trenches should be fenced with safety lines to avoid accident
- Hazardous and household waste container should be available permanently on site. In the past it was available all the time!
- Proper fuel/oil spill response items should be available at the site as per SEMP. Due to improper operation of contractor such items are damaged and are not available anymore!
- Special place for parking should be allocated with relevant signs. Due to trenching of the site actually now there is no place for parking available anymore!
- Trucks wheel washing relevant platform and its drainage should be installed. Please note! the perfect platform was available at the site in the past. Now there is no even sign of its existence! It should be reinstalled again urgently!
- Relevant and enough warning signs should be installed. Actually, there is scarce number of warning signs available at the site!
- Site internally should be watered time-to-time to avoid dust generation
- All trees located at the construction site should be fenced and protected properly
- Site internally should be arranged properly and cleaned regularly. Accumulation of different types of waste is visual!
- Tarpaulins should be used to cover trucks when transporting construction materials
- Chlorine balloon should be removed from construction site. No measures are implemented with this regard!
- Bulky waste materials should be removed from the site!
- Site should be fenced completely
- Surplus soil should be removed from construction site. If it is intended to be used for beneficial purposes it should be stored and fenced in proper remote place!



All these conditions have to be remedied immediately by the Contractor (Cobra).

Site visit date: 28/04/15

Site visit and monitoring was conducted by:
Mr. Irakli Legashvili – Eptisa

ANNEX D: IMPLEMENTATION REPORT ON THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) /INITIAL ENVIRONMENTAL EXAMINATION (IEE) MITIGATION REQUIREMENTS:

Reference	Requirement	Action to date	Action required/comment
Reg-01 Kutaisi Vazha- Pshavela reservoirs			
	Cover trucks with tarpaulins and spraying water on the road to avoid dust generation	Not completed	Despite of the numerous instructions given by SC and UWSCG trucks are not covered with tarpaulins. Contractor is requested additionally to improve the situation ASAP
	Improvement of traffic management for avoiding traffic jams at narrow streets around the construction areas and provide flag men when passing intensive streets to avoid disturbance of car movements	Not Completed	Despite of numerous instructions given by EMSs of SC and UWSCG this requirement needs to be improved
	Proper fuel/oil spill response items should be available at the site as per SEMP	Completed	Maintain the same standard
	Non-hazardous and Hazardous waste container should be available permanently on site	Completed	Maintain the same standard
	Site internally should be arranged properly and cleaned regularly	Completed	Maintain the same standard
	Warning sign at the entrance gate should be bilingual	Completed	No further action required
	There is no enough personnel safety measures implemented i.e. there is high risk of personnel damage with electric devices	Partially Completed	Contractor's environmental and H&S Specialist instructed several times to avoid risk of personnel damage with electric devices
Reg-01 Kutaisi Kldiashvili reservoir site			
	The surplus/waste soil should be stored at specially allocated place or	Completed	

	fenced properly		
	The proper fencing of the site along the street with residential houses with relevant materials	Not completed	Contractor is instructed to provide proposal for adequate fencing of site by the end of July 2015
Reg-01 Kutaisi TV Tower reservoir site			
	Site boundaries are not well defined/fenced and there is risk of damage of vegetation	Completed	
	Relevant and enough warning signs should be installed	Completed	
	Site should be organized and cleaned regularly	Partially completed	
	Construction materials should be kept segregated and in appropriate places to avoid blockage of road	Completed	
	Special place for hazardous materials (chemicals) storage should be allocated/arranged Bio Toilet should be installed	Completed	
Reg-01 Reg-01 project Kutaisi network			
	Cover trucks with tarpaulins and spraying water on the road to avoid dust generation	Not completed	Despite of the numerous instructions given by SC and UWSCG Trucks are not covered with tarpaulins and needs immediate actions to be improved
	Special blinking signs and flag men should be provided when passing intensive streets to avoid disturbance of car movements	Not Completed	Contractor is given strong instruction to improve the situation and follow up the requirements
	Tranches should be fenced with safety lines to avoid accident of population	Completed	Maintain the same standard
	Accumulated waste soil should be placed in a place to avoid disturbance of population	Partially completed	To improve the standard is required
	Enough and relevant walkways/planks should be installed across open tranches when passing settlement area	Completed	Maintain the same standard
	Water should be pumped	Partially completed	In some cases

	immediately from the tranches		tranches are pumped only after additional instruction given to contractor by SC and UWSCG
	Entrance of resident houses should be clean from construction materials to avoid disturbance of residents and businesses	Completed	
Reg-01 Kutaisi Tetramitsa			
	Whole site should be fenced properly with its relevant warning signs. Moreover, lockable gate with signs should be placed	Completed Partially	Proper lockable gate with signs should be installed
	All trees located at the construction site should be fenced and protected properly. Surplus soil should be relocated out of the trees along with bulky waste (rocks)	Completed	After verbal and written instruction given by UWSCG and non-compliance notes issued by SC the situation was improved shortly
	Household and Hazardous Waste containers should be installed in proper place with relevant signs	Not completed	After instruction of contractor situation will be improved easily
	Site internally should be arranged properly and cleaned regularly. All construction materials should be properly segregated and stored adequately	Partially Completed	Strong instruction is given to the Contractor by ESs of SC and UWSCG to improve the situation
	Special place for materials storage and equipment parking should be allocated with relevant signs	Partially Completed	Should be improved shortly as the relevant instruction is given to contractor
Reg-01 Poti Nabada			
	Cover trucks with tarpaulins and spraying water on the road to avoid dust generation	Partially completed	Despite of issuing of non-compliance notes and numerous instruction given to Contractor's ES, the situation was only partially improved
	Proper fencing of left site with relevant material (several times	Completed	

	instructed by ADB, Eptisa, UWSCG) site not to be visible		
	The chlorine container should be disposed in safe place urgently;	Completed	
	All workers (even personnel of subcontractor) should be equipped with complete PPE;	Completed	
	All construction materials should be properly segregated and stored adequately	Partially Completed	There are some construction materials stored outside the fenced area, those belong to the UWSCG's local service center, contractor was instructed to remove the construction materials with coordination of local service center and to keep the site clean and organized
Reg-01 Anaklia Darcheli			
	Site internally should be arranged properly and cleaned regularly. All construction materials should be properly segregated and stored adequately	Partially completed	Site should be organized properly and construction site kept clean
	Proper site reinstatement should be carried out	Not implemented	Contractor is given instruction to improve the situation as soon as possible