

SEMI-ANNUAL ENVIRONMENTAL MONITORING REPORT

Project Number: 43405-024

Reporting Period: July-December 2019

GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 2) (FINANCED BY THE ASIAN DEVELOPMENT BANK)

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For: The Ministry of Regional Development and Infrastructure of Georgia and the Asian Development Bank

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ABBREVIATIONS

ADB	Asian Development Bank
DC	Design Consultant
DEPP	Department of Environmental protection, Resettlement and Construction Permit
DPM	Department of Project Management
EA	Executing Agency
EARF	Environmental Assessment and Review Framework
EHS	Environmental Health & Safety
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP/ SSEMP	Environmental 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
IPMO	Investment Program Management Office
USIIP	Urban Services Improvement Investment Program
IA	Implementing Agency
IEE	Initial Environmental Examination
MFF	Multi-tranche Financing Facility
MEPA	Ministry of Environmental Protection and Agriculture
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

1.1 Preamble

1. This report represents the Semi-Annual Environmental Monitoring Review (SAEMR) for “Urban Services Improvement Investment Program” (USIIP), Tranche 2 and describes the period of July-December 2019.
2. This report is the 12th Semi-Annual EMR for the T2 of “Urban Services Improvement Investment Program”.

1.2 Headline Information

3. N/A

II. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

4. 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.
5. 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.
6. Tranche 2 of the Investment Program includes:
 - Construction of Anaklia Water and Sewerage Network (ANA-01);
 - Construction of Mestia Water and Sewerage Network (MES-02),
 - Construction of Anaklia Waste Water Treatment Plant (REG-02),
 - Construction of Water Supply and Wastewater Network in Ureki/Phase II (URE-01).

Status of the projects financed under Tranche 2:

- MES-02, Rehabilitation of Water Supply and Sewerage System in Mestia (completed)
- ANA-01, Construction of Water Supply System and Sewerage Networks in Anaklia (completed)

- REG-02 Anaklia Lot, Construction of Wastewater Treatment Plant in Anaklia (completed)
 - URE-01, Construction of Water Supply and Wastewater Network in Ureki (Completed)
7. **Anaklia Water and Sewerage Network (Contract ANA-01).** The construction involved the supply and installation of approximately 69 kilometers of water supply and 70 kilometers of sewerage networks and service connections to all residents and hotels defined for the year 2040 for Anaklia and Ganmukhuri villages (total projected population of about 25,600 people). The construction works under Contract ANA-01 started on 16th of January 2012 and was completed in May 2014.
 8. **Mestia Water and Sewerage Networks (Contract MES-02).** The Construction rehabilitation of approximately 30 kilometers of water supply and 46 kilometers of sewerage network will cover the whole town of Mestia including the historic center and the future touristic zones covering all residents and hotels defined for the year 2040 thus benefiting total projected population of about 25,300 people. The construction works under MES-02 project started in October 2011 and was completed in the mid of August, 2015.
 9. **Conduction of Waste Water Treatment Plant in Anaklia (Contract REG-02)** The scope of works includes Construction of Waste Water Treatment Plant in Anaklia (the treated wastewater to be discharged into Enguri River).
 10. Contract was signed with JV Ludwig Pfeiffer Hock und Tiefbau GmbH & Co. KG and Protecno Srl on 22 September 2014 and Notice-to-Proceed given on 08 December 2014. Contract completion date is May 2018.
 11. **Construction of Water Supply and Wastewater Network in Ureki/Phase I (URE-01).** The project is simultaneously financed from Tranches I, II and III and therefore might be some overlap of T1-T3 Semi-Annual EMRs. The main works under Tranche II will comprise laying of sewerage network with the total length of 70 km.
 12. 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 of URE-01 project was scheduled on November 22, 2018 but due to changes in the design of project, which include the construction of an Aqueduct across the Natanebi River, the construction of Gabion wall to protect well fields from flooding and erosion, and the construction of an additional deep well No. 8 along the banks of the Natanebi River, completion date was extended to June 2019. The project is foreseen to serve 35,000 tourists and 5,400 local inhabitants by year 2040.

Post Construction Audit

13. Mes-02 project Post Construction Environmental Audit was carried out in November 2015. The main findings revealed during the post construction audit are presented in Bi-annual report of July-December 2015.
14. Ana-01 project Post Construction Environmental Audit report was prepared in September 2014. The main findings revealed during the post construction audit are presented in EMR of July-December 2014.
15. Post Construction Environmental Audit under REG-02/Anaklia WWTP sub-project was conducted by the independent consultant in December 2018. The main findings revealed during the post construction audit are presented in EMR of July-December 2018.

16. No-post construction Audit was conducted under URE-01 sub-project as yet. Conducting of Post-construction environmental audit and preparation of relevant report is planned in Q1 2020.

2.2 Project Contracts and Management

17. 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.
18. Ministry of Environmental Protection and Agriculture of Georgia (MEPA). MEPA has the overall responsibility for protection of environment in Georgia. The Department of Permits of MEPA is responsible for reviewing EIAs and for issuance of the Environmental Permits. MEPA is the main state body pursuing state policy in the sphere of environment. Their functions for regulating economic or development activities with regard to environmental protection include:
 - Issuing permits for project development (Environmental Decision)
 - Setting emission limits and issuing surface water intake and discharge consents
 - Responding to incidents and complaint
19. 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. Since September 2018, the Investment Program Management Office (IPMO) under UWSCG is Project Management Department, the Head of Department is Mr. Giorgi Archaia. Environmental issues are followed by the Department of Environmental Protection and Permits of UWSCG. The head of the department is Ms. Maka Goderdzishvili. Ms. Ketevan Chomakhidze is the Environmental Specialist of USIIP under the Department of Environmental Protection and Permits.
20. UWSCG as responsible IA for the project recruited a Supervision Consultant (SC) – EPTISA. 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.
21. All mitigation measures during construction were implemented respectively by the contractor companies. Contractors had Environmental and H&S officers responsible for HSE issues during construction process. Construction companies were monitored by the supervision consultant (EPTISA) environmental specialist – Irakli Legashvili and Environmental Specialist of UWSCG/USIIP Ms. Ketevan Chomakhidze. Environmental Specialists of SC and UWSCG/USIIP conducted routine observations and surveys of project sites, issues non-compliance notes. ES of EPTISA prepared quarterly environmental reports and submits to UWSCG.
22. The Contractors prior to the onset of the construction were obliged to conduct a number of studies and develop environmental plans, including “Site Environment Management Plan” (SEMP). Such plans can be further subdivided into Topic Specific or Site Specific EMP’s. The number of such plans will depend upon the type of project, complexity and sensitivity of the receiving environment.

- 23.** Topic Specific EMPs were developed on a topic by topic basis. For example:
- Waste Management Plans;
 - Traffic Management Plans;
 - Protected Species Management Plans;
 - Water Management Plans.
- 24.** These plans were detailed and set out how the project will address potential issues identified in the impact assessment process and ensure that specific mitigation and monitoring measures are fully implemented. A topic specific environmental management plan will cover all of the project.
- 25.** The environmental specialist of UWSCG/USIIP assists and advise the Department of Environmental Protection and Permits of UWSCG for implementation of USIIP in compliance with the ADB Safeguard Policy Statement 2009 and National Legislation, and oversee the work of CCs and SCs in safeguards compliance. ES supports DEPP in EARF implementation, in particular, reviewing IEE/EIA Reports, overseeing implementation of EMPs, Reviewing and approving SEMP and carrying out training and capacity-building activities in cooperation with Supervision Company. The ES prepares Semi-annual and annual environmental monitoring reports and submits to ADB.
- 26.** Department of Environmental Protection and Permits of UWSCG is responsible for the implementation of mitigation and monitoring measures during construction and operation of subprojects under USIIP. Currently DEPP is staffed with a Head of Department and 5 specialists, those are responsible for environmental safeguard and construction permission issues.
- 27.** 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

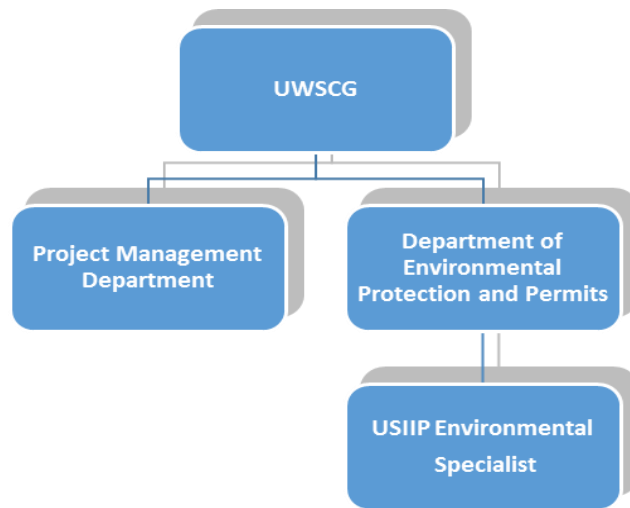
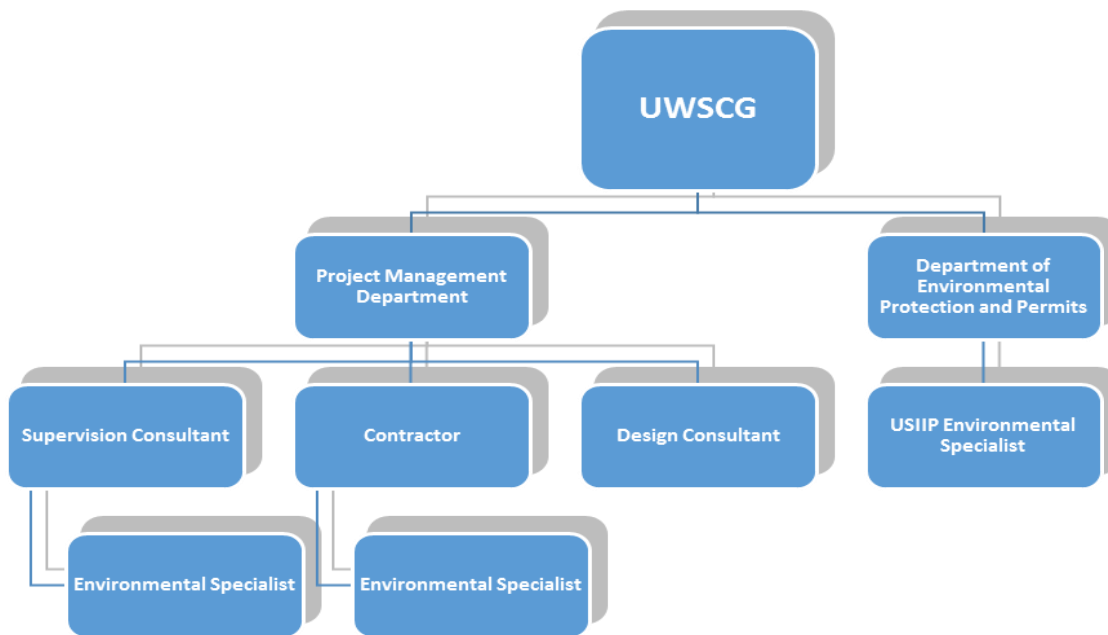


Figure 2: Structure Diagram of the Agencies Involved in Investment Program Implementation



28. Main organizations involved in the project and related to environmental safeguard are presented in the table 2 below:

Table 1: List of Main Organizations under USIIP/T2

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Lender	Asian Development Bank	Head Office, Environmental Specialist, Portfolio, Results,	Nurlan Djenchuraev

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
		Safeguards and Gender Unit (PSG), CWRD.	E-mail: ndjenchuraev@adb.org
		ADB RETA International Environmental Consultant	Keti Dgebuadze +995 577232937 ketdgeb@yahoo.com
		Associate Safeguards Officer, Georgia Resident Mission Asian Development Bank	Nino Nadashvili +995 595 070442 nnadashvili@adb.org
Borrower	UWSCG	UWSCG, Department of Environmental Protection and Permits, Head	Ms. Maka Goderdzishvili Tel: +995 599 229925 E-mail: m.goderdzishvili@water.gov.ge
		UWSCG/IPMO Department of Projects Management, Head	Mr. Giorgi Archaia E-mail: G.Archaia@water.gov.ge Tel: +995 577 380213
Borrower	UWSCG	UWSCG, Department of Environmental Protection and Permits, Head	Ms. Maka Goderdzishvili Tel: +995 599 229925 E-mail: m.goderdzishvili@water.gov.ge
Borrower	UWSCG	UWSCG/IPMO Department of Projects Management, Head	Mr. Giorgi Archaia Tel: +995 577 380213 E-mail: G.Archaia@water.gov.ge
Borrower	UWSCG/USIIP/T3	Environmental Specialist	Ms. Ketevan Chomakhidze Tel: +995 577 380309 E-mail: Chomakhidzek@yahoo.com

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Supervision Consultant	A Consortium of Consulting Firm led by Eptisa Servicios de Ingenieria S.L. (Spain) in association with SAFEGE (Belgium) and JSC Georgian Water Project (Georgia)	Environmental Specialist:	Mr. Irakli Legashvili Tel: +995 577 177016 E-mail: chem_ira@yahoo.com
Contractor URE-01	JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan)	Environmental H&S Specialist	Mr. Levan Asabashvili Tel: +995 599 962 693 Email: levani.asabashvili@mail.ru
Contractor KUT-01	SMK Ulusal Insaat Ve Ticaret A.S. (Turkey)	Environmental Specialist	Ms. Natia Babukhadia E-mail: natiiibab@gmail.com Tel: +995 595 150444
		H&S Specialist	Mr. Mamuka Darakhvelidze E-mail: mamuka.darakhvelidze@gmail.com Tel: +995 592 87 0087

2.3 Project Activities During Current Reporting Period

29. No construction activities were implemented under USIIP/T2 during the reporting period, July-December 2019.

2.4 Description of Any Changes to Project Design

30. Due to the fact that during the reporting period no construction work was carried out no changes took place to the project design and accordingly nothing has been updated or prepared.

2.5 Description of Any Changes to Agreed Construction methods

31. Due to the fact that during the reporting period no construction work was carried out no changes took place to the construction methods.

III. ENVIRONMENTAL SAFEGUARD ACTIVITIES

2.4 General Description of Environmental Safeguard Activities

32. Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of USIIP on a regular basis, during the implementation of the sub-projects under the USIIP T1. Also unscheduled monitoring visits were carried out and non-compliance notes had been issued to the contractor as needed. Mitigation measures in order to reduce major environmental impacts had been instructed to CCs during the monitoring visits as well.
33. The monitoring activities included monitoring of compliance of construction activities to the IEE/EMP and SEMP requirements under MES-02, ANA-01, REG-02 and URE-01 sub-projects.
34. During the reporting period, the Environmental E&S specialists of contractors were responsible for the daily monitoring of the project sites, development of monthly monitoring reports for submission to SC/Eptisa.
35. Environmental Monitoring Specialist of SC/EPTISA, Mr. Irakli Legashvili conducted monthly monitoring of project sites under T2 of USIIP and developed Non-Conformance Notices were required. He also developed quarterly environmental monitoring reports based on the monthly reports submitted by Contractor and environmental site inspections and submit to UWSCG.
36. Environmental Specialist of USIIP Ms. Kate Chomakhidze performed monitoring of contractor's performance in accordance with the requirements of approved IEE/EMPs, SEMPs, and other environmental commitments of the contractor. USIIP/ES developed Semi-annual monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
37. In accordance with the requirements of IEEs, Contractor was required to undertake parametric measurements and observations on air quality and noise and socio-cultural resources. The monitoring guidelines were set as shown in the Table 3 below for URE-01 sub-projects.

Table 3: Parametric Measurement Guidelines

Parameters	Frequency & Location	Remarks
Ure-01		
Air Quality	Air Quality Every 6 months UWSCG/Office Construction Site	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Noise, Every 6 months Mukhnari Reservoir, Networks, Transmission Main	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm
Incorrect surplus/waste soil	Monthly during the site	Utilize surplus/waste soil

Parameters	Frequency & Location	Remarks
management	Inspection and audit	for beneficial purposes such as in construction or to raise the ground-level of low lying sites. Dispose extra waste soil at special disposal place identified by Municipality
REG-02		
Air Quality	Air Quality Every 6 months UWSCG/Office Construction Site	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Noise, Every 6 months Mukhnari Reservoir, Networks, Transmission Main	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm
Incorrect surplus/waste soil management	Monthly during the site Inspection and audit	Utilize surplus/waste soil for beneficial purposes such as in construction or to raise the ground-level of low lying sites. Dispose extra waste soil at special disposal place identified by Municipality
Impact on Flora	Monthly during the site Inspection and audit	Avoid tree cutting In unavoidable cases, plant four trees of same species for each tree that is cut for construction
MES-02		
Air Quality	Air Quality Every 6 months UWSCG/Office Construction Site	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Noise, Every 6 months Mukhnari Reservoir, Networks, Transmission	Ensure that all equipment & vehicles used for

Parameters	Frequency & Location	Remarks
	Main	construction activity are in good condition Limiting working hours to 8 am – 6 pm
Incorrect surplus/waste soil management	Monthly during the site Inspection and audit	Utilize surplus/waste soil for beneficial purposes such as in construction or to raise the ground-level of low lying sites. Dispose extra waste soil at special disposal place identified by Municipality
Impact on Flora and Fauna	Monthly during the site Inspection and audit	Avoid tree cutting In unavoidable cases, plant four trees of same species for each tree that is cut for construction
Cultural heritage Disturbance to cultural resources	Every time along the alignment Archaeological & Cultural Properties	Contractor shall put in place a protocol for conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved. Calling in the state archaeological authority if a find is suspected, and taking any action they require to ensure its removal or protection.
ANA-01		
Air Quality	Air Quality Every 6 months UWSCG/Office Construction Site	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Noise, Every 6 months Mukhnari Reservoir, Networks, Transmission Main	Ensure that all equipment & vehicles used for construction activity are in good condition

Parameters	Frequency & Location	Remarks
		Limiting working hours to 8 am – 6 pm

38. 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. Site Audit

39. No Site audit was carried out during the reporting period, since there were no construction activities.

3.3 Issues Tracking (Based on Non-Conformance Notices)

N/A

A. Trends

N/A

3.4 Unanticipated Environmental Impacts or Risks

N/A

IV. RESULTS OF ENVIRONMENTAL MONITORING

3.5 Overview of Monitoring Conducted during Current Period

40. No monitoring was carried out during this reporting period as all construction work under USIIP/T2 was completed. Non-compliances from the previous reporting period have not been identified.

3.6 Trends

N/A

4.3 Summary of Monitoring outcomes

N/A

4.4 Material resources Utilization

4.4.1 Current Period

N/A

4.4.2 Cumulative Resources Utilization

N/A

4.5 Waste Management

4.5.1 Current Period

N/A

4.5.2 Cumulative Waste Generation

N/A

4.6 Health and Safety

4.6.1 Community Health and Safety

N/A

4.6.2 Worker Safety and Health

N/A

4.7 Training

N/A

V. FUNCTIONING OF THE SEMP

5.1 SEMP Review

- 41.** Location Specific Environmental Management Plan under T2 were prepared only for REG-02/Anaklia WWTP and URE-01 sub-projects. All SEMP's were prepared by Contractor, endorsed by SC, reviewed/commented by the RETA International-Regional Environmental Consultant of ADB under RETA 8663 - Ms. Ketii Dgebuadze and reviewed/ approved by UWSCG.
- 42.** The following SSEMPs were prepared within the framework of REG-02/Anaklia WWTP sub-project:
 - SSEMP Anaklia WWTP (May 2015)
- 43.** The following SSEMPs were prepared by contractor, within the framework of Ure-01, project during the previous reporting periods:

URE-01:

- Ureki Well Fields (June 2016);
- Reservoir#1 (June 2015);
- Water Supply Pumping Station (June 2015);
- Reservoir #3 (May 2018);
- Natanebi River Protection Gabion Construction (November 2018);
- Natanebi River Crossing Aqueduct Construction (November 2018)

VI. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

6.1 Good Practice

N/A

6.2 Opportunities for Improvement

N/A

VII. SUMMARY AND RECOMMENDATIONS

7.1 Summary

- 44.** Construction work within the framework of the MES-01, MES-02, REG-02 /Anaklia WWTP and URE-01 sub-projects have already been completed. Post-construction environmental audit reports for MES-01, MES-02, REG-02/Anaklia WWTP were prepared by Independent Consultants and approved by ADB during the previous reporting period.

7.2 Recommendations

- 45.** Post-construction Environmental Audit will be conducted under URE-01 sub-project by independent consultant and Post-Construction Audit report will be prepared and submitted to ADB during the next reporting period January-June 2020 (in Q1 2020).