

SEMI-ANNUAL ENVIRONMENTAL MONITORING REPORT

Reporting Period: July-December 2018

**GEORGIA: Sustainable Urban Transport Investment Program, Tranche 5
(SUTIP T5)
(FINANCED BY THE ASIAN DEVELOPMENT BANK)**

Prepared by: Ketevan Papashvili, Environmental Safeguards Specialist, “Municipal Development Fund” of Georgia”, Tbilisi, Georgia

Endorsed by: Elguja Kvantchilashvili, Head of Environmental and Resettlement Unit
Municipal Development Fund (MDF) Tbilisi, Georgia

March 2019

Contents

1. INTRODUCTION	4
1.1 Preamble	4
1.2 Headline Information	4
2.1 Project Description	4
2.2 Project Contracts and Management	6
2.3 Project Activities During Current Reporting Period	7
2.4 Description of Any Changes to Project Design	8
2.5 Description of Any Changes to Agreed Construction methods	8
3.1 General Description of Environmental Safeguard Activities	Error! Bookmark not defined.
3.2 Site Audit	Error! Bookmark not defined.
3.3 Issues Tracking (Based on Non-Conformance Notices)	Error! Bookmark not defined.
3.4 Trends	Error! Bookmark not defined.
3.5 Unanticipated Environmental Impacts or Risks	Error! Bookmark not defined.
6.1 Good Practice	8
6.2 Opportunities for Improvement	8
7.1 Summary	8
7.2 Recommendations	8

ABBREVIATIONS

ADB	Asian Development Bank
EA	Executing Agency
EARF	Environmental Assessment and Review Framework
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP	Environmental Management Plan
EPSM	Engineering Procurement and Construction Management
GoG	Government of Georgia
SUTIP	Sustainable Urban Transport Investment Program
IA	Implementing Agency
IEE	Initial Environmental Examination
MDF	Municipal Development Fund of Georgia
MFF	Multi-tranche Financing Facility
MEPA	Ministry of Environmental Protection and Agriculture
MoRDI	Ministry of Regional Development & Infrastructure
SSEMP	Site-Specific Environmental Management Plan

1. INTRODUCTION

1.1 Preamble

1. This report represents the Semi - Annual Environmental Monitoring Report (SAEMR) for the GEORGIAN SUSTAINABLE URBAN TRANSPORT INVESTMENT PROGRAM, Tranche 5.
2. This report is the first Environmental Monitoring Report (EMR) of SUTIP/Tranche 5.

1.2 Headline Information

3. On 19 December 2017 - Sustainable Urban Transport Investment Program, Tranche 5 Loan agreement was signed between Georgia and Asian Development Bank. The Project Agreement was signed between ADB and Municipal Development Fund of Georgia (MDF), Tbilisi City Municipality (TCM) and Tbilisi Transport Company LLC (TTC). Under Tranche 5 ADB has agreed to lend to the Borrower from ADB's ordinary capital resources in an amount of twelve million Euros (€12 million).
4. The loan agreement was ratified by Parliament on 22 February 2018, upon which the government submitted the legal opinions showing that the Loan Agreement is legally binding upon the Borrower and that the Project Agreement is legally binding upon MDF, TCM and TTC.
5. Tranche 5 was approved on 7 December 2017 and declared effective on 8 March 2018. Tranche 5 is scheduled for completion by 18 July 2020.
6. Sustainable Urban Transport Investment Program – Tranche 5 (SUTIP T5) will improve living conditions in urban areas, through improved urban transport infrastructure and services, and comprises one subproject: Tbilisi Metro Rehabilitation.
7. The project will have the following components and outputs:
 - Component 1: Urban Transport Infrastructure Improvement
 - Output 1: Replacement of power transmission cabling in Tbilisi Metro, including 191,000 meters of low voltage lines (220-380v); and 137,000 meters of medium voltage lines (6-10kV)
 - Output 2: Rehabilitation of ventilation system in Tbilisi Metro, including the installation of 32 ventilation fans replacing missing and worn out equipment.
 - Component 2: Institutional Effectiveness
 - Output 3: Consulting services for the development of a Waste Management Plan for the operation and maintenance of Tbilisi Metro.
 - Component 3: Project Management Facility
 - Output 4: Consulting services for (a) supervision of works, (b) financial audit, and (c) safeguards oversight and monitoring.

2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

8. The Sustainable Urban Transport Investment Program (SUTIP) is financed by ADB under a multi tranche financing facility (MFF), and is aimed at promoting a sustainable, integrated, socially affordable and cost-efficient urban transport system in cities of Georgia, to energize the economy and improve the quality of life of citizens. Projects

involve rehabilitation and repair of existing infrastructure, provision of new facilities and capacity building.

The following projects are financed under Tranche 5:

1.1. Tbilisi Metro Rehabilitation project

- 9.** Tbilisi Metro opened in 1966 and became the fourth Metro system in the former Soviet Union. The Tbilisi metro system currently consists of 2 lines totaling 27.1 km of double-track and 23 stations.
 - The first line “Akhmeteli–Varketili Line” was opened on 1966, it serves 16 stations over 20.1 km.
 - The second line, called “Saburtalo Line” was opened on 1979, it serves 6 stations over 7 km (its extension is still in progress).
- 10.** 21 of 23 stations are below ground and 2 are at surface level. Among the underground stations, 17 are at deep level and 4 shallow. The underground structure is composed by twin tunnels interconnected by cross passages, rail crossings and stations. Despite the continued efforts of TTC to keep maintenance activities on track, major concerns have been identified regarding the current condition of key components such as cabling, escalators, ventilation system and water drainage pumps of the metro system. Aside from the Metro systems having been worn out for decades of under maintenance, it also has inadequate accessibility, weakness in the multimodality transfer with other public transport modes in interchanges stations, and low energy efficiency as compared to similar modern metro systems in the world.
- 11.** The objective of the project is rehabilitation, replacement, and upgrading of Tbilisi Metro installations, particularly: (i) replacement of power transmission cabling in Tbilisi Metro, i.e. 191,000 meters of low voltage lines (220-380v), and 137,000 meters of medium voltage lines (6-10kV); and (ii) rehabilitation of ventilation system in Tbilisi Metro, including the installation of 32 ventilation fans replacing missing and worn out equipment.
- 12.** The project has been designed to address the main priorities of the Tbilisi Metro Upgrade investment plan. These priorities are the result of a multicriteria analysis considering safety, technical, social, economic, operational and environmental factors. The proposed project will address mainly safety, reliability and efficiency concerns. The cables installed in the metro system will be specified to be flame retardant and not generate dense, obscuring smoke and toxic or corrosive gases. In addition, estimated energy savings of 670,000 KW/hour per year will be achieved, while the probability of service disruption due to power deficiencies will be reduced. New ventilation fans will improve air flow in metro tunnels providing better air quality and regulating temperature, and will serve to clear smoke from tunnels in case of fire. Estimated energy savings of 305,000 KW/hour per year will be achieved.

1.2. Tbilisi Transport Company Waste Management Plan

- 13.** The purpose is to develop a Waste Management Plan for Tbilisi Transport Company (TTC). The preparation of a Waste Management Plan is a key in achieving sustainable waste management towards improved urban environment in Tbilisi. The primary purpose assignment is to provide an outline of waste streams and corresponding treatment options in the form of a waste management plan for the operation for all type of public transport under TTC, including Tbilisi Metro, buses and cable cars.
- 14.** The main objective of this assignment is to provide a framework for the following:
 - (i) Effective management of wastes during the operation of TTC;
 - (ii) Compliance with local and national waste policy and contribute in achieving local/national targets in waste management;
 - (iii) Identification of waste characteristics, estimation of quantity, and provision of waste collection and treatment options that are adequate and sufficient for managing the identified waste streams;
 - (iv) Development of a system for monitoring and reporting waste generation;

- (v) Identification of requirements to strengthen capacity of TTC and EAs in implementing the Waste Management Plan.

2.2 Project Contracts and Management

15. The Implementing Agencies for the Tbilisi Metro Rehabilitation project are the Municipal Development Fund of Georgia (MDF), the Tbilisi City Municipality (TCM) and the Tbilisi Transport Company LLC (TTC). MDF shall procure all items of expenditures to be financed out of the proceeds of the Loan in accordance with the provisions of the Loan Agreement. Coordination and approval of TCM will be requested for all strategic aspects of the project. Review and approval of the TTC will be sought for main technical decisions.
16. The works will be executed under the Procurement of Plant - Design, Supply, and Installation - Single-Stage: One-Envelope Bidding Procedure, to be procured under the ADB's International Competitive Bidding procedures. The construction period for the Contract will be 18 months.
17. The Tbilisi Metro Upgrade Study was prepared by French Consulting Company "Systra" under financing of the Cities Development Initiative for Asia (CDIA) in August 2017. The Study was financed by ADB. The Report includes top priority investments described in the study's investment plan. Technical specifications and bidding documents were prepared by Systra in January 2018. The draft bidding documents revised by MDF and reviewed by ADB.
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

Table 1: List of contracts under Tranche 5

Contract #	Sub-project Title	Employer	Contractor	Contract Signature date	Contract Final Date	Environmental Staff under T6 of USIP
Contract No: SUTIP5-IC-01-2018	Waste Management Specialist	MDF	Individual Consultant – Ms. Medea Chachkhiani	10-Dec-18	10-Jun-2019	Ms. Medea Chachkhiani Tel: +995 577 498 512 E-mail: medeachachkhiani@gmail.com
P42414-SUTIP-ICB-1.01Lot 1	Design, Supply and Installation of Cables and Accessory Equipment (Lot 1, 2)	MDF	JV: Dogus Insaat ve Ticaret A.S. (Turkey) and Elsitelektromekanik Insaat Proje Ticaret Ve Sanayi A.S. (Turkey, JV Member) (Dogus-Elsitel JV)	21 Dec 2018	540 days from the effective days	

Contract #	Sub-project Title	Employer	Contractor	Contract Signature date	Contract Final Date	Environmental Staff under T6 of USIIP
Contract #	SC for T5	Employer	Consultant	Contract Sign. date	Contract Final Date	
SUTIP5/C/QCBS/01-2017	Construction Management and Supervision of the Tbilisi Metro Rehabilitation	MDF	JV of ILF Beratende Ingenieure AG (Lead. Switzerland) and ILF Consulting Engineers Austria GMBH Branch in Georgia (JV Partner, Austria)	5 Oct 2018		Giorgi Gurgenzidze Giorgi.Gurgenzidze@ilf.com Dato Girgvliani

2.3 Project Activities During Current Reporting Period

- **Tbilisi Metro Rehabilitation project**

19. Invitation for bids was advertised on 9 March 2018 with the deadline of 20 April 2018. Out of 29 potential bidders who received the Bidding Document, only two submitted their bids. Currently the evaluation process is ongoing. The submitted bids required some clarifications, request for clarification was sent to the both bidders with the deadline of 19 July 2018.

20. The prices of bids for supply and installation of cables are higher than anticipated and exceed allocated loan resources. Therefore, it was agreed with the MOF and ADB that savings from T1 (about 5,57 million USD) would be considered to finance part of the contracts originally envisaged under T5. This would include the financing of the supply and installation of ventilators under T1 while the supply and installation of cables would remain under T5. During the reporting period no physical works have been started.

- **Tbilisi Metro Supervision**

21. Outline Terms of Reference for consulting services has been prepared by MDF and cleared by ADB. On 8 February 2018, ADB provided no objection to issue the RFP to the shortlisted firms for the supervision of the metro rehabilitation works; Out of the 6 shortlisted consultants, three submitted the proposals. by the deadline set out in the RFP, 10 April 2018. Technical Proposals were evaluated and sent to the ADB on 14 June 2018. Upon receiving the ADB's no objection, on 20 June 2018, the consultants were invited for the opening of the financial proposals. The opening of the financial proposals was held on 27 June 2018. Currently the evaluation of financial proposals is ongoing.

- **Tbilisi Transport Company Waste Management Plan**

22. The MDF prepared the TOR and submitted it to the ADB on 30 June 2018 for no objection. The contract with individual consultant to prepare a Waste Management Plan for Tbilisi Transport Company was signed on December 10, 2018. Duration of the contract is six months.

2.4 Description of Any Changes to Project Design

N/A

2.5 Description of Any Changes to Agreed Construction methods

N/A

3. ENVIRONMENTAL SAFEGUARD ACTIVITIES

N/A

4. RESULTS OF ENVIRONMENTAL MONITORING – N/A

5. FUNCTIONING OF THE SEMP

- 23.** The contractor has to follow the requirements enshrined in the Environmental Code of Practice (ECP), which is integral part of the contract signed between MDF and the contractor. The objective of the ECP preparation is to address less significant environmental impacts and all general construction related impacts of the proposed projects implementation. The ECPs prepared for Metro Rehabilitation Project covers the following issues: Waste Management; Fuels and Hazardous Goods Management; Waste Resource Management; Air Quality Management; Noise and Vibration Management; Road Transports and Road Traffic Management; Construction Camo Management; Community and Worker's Health and Safety.

6. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

6.1 Good Practice

Not yet applicable.

6.2 Opportunities for Improvement

Not yet applicable.

7. SUMMARY AND RECOMMENDATIONS

7.1 Summary

- 24.** As presented in this report, Tranche-5 of this Investment Program is being implemented in compliance with the ADB Safeguards Policy Statement, 2009 and National Legislation.
- 25.** Necessary instructions have been given to the Contractor by MDF and TTC.

7.2 Recommendations

- 26.** The following activities are recommended for the next reporting period:
- Preparation of Waste Management Plan and submission to the Ministry of Environment and Agriculture of Georgia by TTC Waste Management Expert – Q2 2019.
 - Preparation of Waste Management Plan by CC – Q1 2019

- Completion of Design works by CC – Q2
- Beginning of physical works by CC – Q2