



# Periodic Financing Request Report

---

Project Number: 42414-045  
MFF Number: 0043  
November 2017

## Georgia: Sustainable Urban Transport Investment Program (Tranche 5)

Distribution of this document is restricted until it has been approved by Management. Following such approval, ADB will disclose the document to the public in accordance with ADB's Public Communications Policy 2011.

Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 04 December 2017)

Currency Unit	–	lari (GEL)
GEL1.00	=	\$0.3704
\$1.00	=	GEL2.7000
€1.00	=	\$1.1896

## ABBREVIATIONS

ADB	–	Asian Development Bank
EBRD	–	European Bank for Reconstruction and Development
FFA	–	framework financing agreement
GRM	–	grievance redress mechanism
km	–	kilometer
MDF	–	Municipal Development Fund of Georgia
MFF	–	multitranche financing facility
MRDI	–	Ministry of Regional Development and Infrastructure
TCH	–	Tbilisi City Hall
TCM	–	Tbilisi City Municipality
TRURL	–	Tbilisi–Rustavi Urban Road Link
TTC	–	Tbilisi Transport Company

## NOTE

In this report, "\$" refers to United States dollars, "€" refers to euro.

<b>Vice-President</b>	Wencai Zhang, Operations 1
<b>Director General</b>	Sean O’Sullivan, Central and West Asia Department (CWRD)
<b>Director</b>	Yong Ye, Urban Development and Water Division, CWRD
<b>Team leader</b>	Nicolas Dei Castelli, Urban Development Specialist (Transport), CWRD
<b>Team members</b>	Michael Beauchamp, Senior Social Development Specialist (Safeguards), CWRD
	Jenevieve Javier, Senior Operations Assistant, CWRD
	Duncan Lang, Environment Specialist, CWRD
	Massimo Petrone, Senior Urban Development Specialist, CWRD
	Patricia Rhee, Senior Counsel, Office of the General Counsel
	Nathan Rive, Climate Change Specialist, CWRD
	Mary Alice Rosero, Social Development Specialist (Gender and Development), CWRD
	Carina Soliman, Project Officer, CWRD
	Mookiah Thiruchelvam, Urban Development Specialist, CWRD
	Avtandil Tskhvitava, Senior Project Officer, CWRD

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area

## CONTENTS

	<b>Page</b>
TRANCHE AT A GLANCE	
I. BACKGROUND	1
II. ASSESSMENT OF IMPLEMENTATION	1
A. Sector Policy, Strategy, and Road Map	1
B. Impact, Outcome, and Outputs	2
C. Assessment of Investment Program Implementation	2
III. PERIODIC FINANCING REQUEST	5
A. Impact and Outcome	5
B. Outputs	5
C. Investment and Financing Plans	6
D. Implementation Arrangements	6
E. Project Readiness	7
IV. DUE DILIGENCE	7
A. Technical	7
B. Economic and Financial	8
C. Governance	8
D. Poverty, Social, and Gender Dimensions	9
E. Safeguards	9
F. Risks and Mitigating Measures	10
G. Risk Categorization	10
V. ASSURANCES AND CONDITIONS	10
VI. RECOMMENDATION	10
APPENDIXES	
1. Periodic Financing Request from the Government	
2. Design and Monitoring Framework for Project 42414-045	
3. Loan Agreement	
4. Project Agreement	
5. Project Administration Manual for Project 42414-045	
6. Updated Contribution to the ADB Results Framework	
7. Economic and Financial Assessments for Project 42414-045	
8. Updated Summary of Poverty Reduction and Social Strategy	
9. Safeguards Due Diligence Report	
10. Updated Environmental Assessment and Review Framework	
11. Updated Risk Assessment and Risk Management Plan	
SUPPLEMENTARY APPENDIX	
Compliance with Framework Financing Agreement Undertakings	



## TRANCHE AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 42414-045</b>	
<b>Project Name</b>	Sustainable Urban Transport Investment Program - Tranche 5	<b>Department/Division</b>	CWRD/CWUW
<b>Country Borrower</b>	Georgia Georgia	<b>Executing Agency</b>	Ministry of Regional Development and Infrastructure of Georgia
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ Transport	Urban public transport		14.27
		<b>Total</b>	<b>14.27</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Mitigation (\$ million)	12.00
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	CO <sub>2</sub> reduction (tons per annum)	1,850
	Urban environmental improvement	Climate Change impact on the Project	Medium
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Governance and capacity development (GCD)	Institutional development	No gender elements (NGE)	✓
<b>5. Poverty and SDG Targeting</b>		<b>Location Impact</b>	
Geographic Targeting	No	Urban	High
Household Targeting	No		
SDG Targeting	Yes		
SDG Goals	SDG8, SDG11		
<b>6. Risk Categorization:</b>	Low		
<b>7. Safeguard Categorization</b>	Environment: C Involuntary Resettlement: C Indigenous Peoples: C		
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>14.27</b>	
Sovereign MFF-Tranche (Regular Loan): Ordinary capital resources		14.27	
<b>Cofinancing</b>		<b>0.00</b>	
None		0.00	
<b>Counterpart</b>		<b>2.68</b>	
Government		2.68	
<b>Total</b>		<b>16.95</b>	



## I. BACKGROUND

1. A framework financing agreement (FFA) for the Sustainable Urban Transport Investment Program multitranche financing facility (MFF) was signed between Georgia and the Asian Development Bank (ADB) on 21 June 2010.<sup>1</sup> ADB's Board of Directors approved the facility for financing the investment program in the amount of \$300 million on 19 July 2010. The MFF is being implemented by the Municipal Development Fund of Georgia (MDF),<sup>2</sup> under the Ministry of Regional Development and Infrastructure (MRDI).

2. Tranche 5 is aligned with the proposed impacts and outcomes of the MFF. It will improve living conditions in urban areas through improved urban transport infrastructure and services, and comprises one subproject: Tbilisi Metro rehabilitation.<sup>3</sup> On 7 September 2017, the government submitted a periodic financing request for tranche 5, requesting a loan of €12 million from ADB's ordinary capital resources.<sup>4</sup>

## II. ASSESSMENT OF IMPLEMENTATION

### A. Sector Policy, Strategy, and Road Map

3. The government envisions that cities will drive economic growth and job creation, and emphasizes city cluster development and high-quality infrastructure and urban services. These are considered essential to increase the quality of life, investment, productivity, and competitiveness. This vision is shared by all municipalities, and the government has developed an urban and regional renewal strategy. Urban transport and other urban services constitute the core of this strategy. The supporting policy reform framework, actively implemented in Tbilisi under tranche 1, promotes competition, private sector involvement, efficiency, fairness, transparency, environmental sustainability, value for money on capital investment, maintenance, and sound service provision. The sector road map prepared for the MFF comprises a sequenced investment plan for 2010–2020 for approximately \$1.4 billion. Priorities set in the road map are to (i) complete and upgrade the road network; (ii) develop public and nonmotorized transport to reduce pollution, noise, and traffic crashes; and (iii) improve living conditions in urban areas. These priorities are consistent with the country partnership strategy approved in 2014,<sup>5</sup> and with ADB's sustainable transport objectives.<sup>6</sup>

4. The MDF and Tbilisi City Hall (TCH) have been implementing most of the projects listed in the immediate action investment plan of the sector road map. Achievements include:

- (i) **Urban infrastructure rehabilitation, modernization, and expansion.** The national and municipal governments in Georgia have improved urban infrastructure, particularly in Anaklia, Batumi, Mestia, and Tbilisi. TCH constructed a new road link to bypass Vake district and a new four-lane tunnel, relieving two road bottlenecks. Other projects promoting nonmotorized transport have been implemented: (i) a pedestrian footbridge over the Mtkvari River, (ii) creation of a

---

<sup>1</sup> ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to Georgia for the Sustainable Urban Transport Investment Program*. Manila. <https://www.adb.org/projects/documents/sustainable-urban-transport-investment-program-georgia-rrp>

<sup>2</sup> Set up in 1997 for a World Bank project, the MDF channels development partner funding for municipal projects.

<sup>3</sup> The subproject complies with selection criteria and approval procedures set out in schedule 4 of the FFA.

<sup>4</sup> ADB. 2017. *Georgia: Country Operations Business Plan (2018-2020)*. <https://www.adb.org/documents/georgia-country-operations-business-plan-2018-2020>

<sup>5</sup> ADB. 2014. *Country Partnership Strategy: Georgia, 2014–2018*. Manila.

<sup>6</sup> ADB. 2010. *Sustainable Transport Initiative Operational Plan*. Manila.

landscaped park on the left bank near the Metekhi cliff, (iii) upgrading of a ropeway system, and (iv) renovation and beautification of all major commercial avenues in Tbilisi. Bus shelter replacement, sidewalk improvement, introduction of real-time passenger information system, and an integrated ticketing system are making public transport in Tbilisi more appealing. Under the MFF, Mestia road access was upgraded, and construction of the Tbilisi–Rustavi Urban Road Link (TRURL), the Tbilisi Metro extension, and coastal protection in Anaklia and Batumi are ongoing.

- (ii) **Improved institutional framework and increased private sector involvement.** As planned in the policy reform framework, TCH outsourced management of parking, and entered an agreement with the Ministry of Internal Affairs to set up an integrated traffic control and management center to coordinate traffic signals. TCH also restructured the bus and microbus networks with the introduction of new, energy efficient, high-capacity vehicles and innovative financial incentives for drivers, with European Bank for Reconstruction and Development (EBRD) funding.
- (iii) **Improved governance and management capacity.** The capacity of the MDF and TCH to prepare and appraise project feasibility, engineering design, and environmental and social safeguards has improved through ADB training and on-the-job activities. The MDF's objective is to identify, assess, prepare, finance, and implement projects with and on behalf of local self-governments. In 2010, the MDF formed monitoring and safeguards divisions to strengthen the organization and comply with a recommendation of Georgia's development partners. In 2014, the MDF reorganized structurally to further strengthen capacity and increase efficiency in handling project monitoring, procurement, and safeguards activities.

5. ADB, World Bank, European Investment Bank, and the EBRD have been the main urban sector financiers. Financing for projects in the sector road map from 2012 includes \$150 million from the World Bank, €296 million from the European Investment Bank, and €44 million from the EBRD. Additionally, the United States Agency for International Development is helping to develop local management capacity, promote private investment, and structure the tourism industry.

## **B. Impact, Outcome, and Outputs**

6. The expected impact of the MFF is an improved urban environment, local economy, and living conditions within urban areas. This will expand economic growth, job opportunities, and environmental sustainability. The expected outcome is improved efficiency, reliability, and affordability of urban transport infrastructure and services. The outputs of the investment program include (i) road and bridge construction, and urban habitat and waterfront improvement; (ii) public transport network and infrastructure rehabilitation and extension; and (iii) multimodal facilities, including parking and traffic management.

## **C. Assessment of Investment Program Implementation**

7. **Component A: Urban transport infrastructure.** Tranche 1 focuses on the extension, rehabilitation, and improvement of urban transport infrastructure in Anaklia, Mestia, and Tbilisi.<sup>7</sup> It comprises (i) the upgrading of 20 kilometers (km) of road between Zugdidi and Mestia for year-round access to the Mestia urban area and heritage site, (ii) a 1.5-km Tbilisi Metro extension to the university district, and (iii) a 2-km coastal improvement project in Anaklia to limit erosion and protect urban infrastructure. In December 2011, the MDF commissioned the Mestia Road

<sup>7</sup> Tranche 1 (Loan 2655) is a loan of \$85 million equivalent from ADB's concessional ordinary capital resources lending; signed on 5 August 2010, declared effective on 29 September 2010, and closing on 30 September 2018.



Improvement Subproject.<sup>8</sup> Civil works are ongoing for the Anaklia Coastal Protection (phase 1), and the Tbilisi Metro extension was completed in October 2017. The project experienced changes in subprojects and implementation schedules.<sup>9</sup> Consequently, outputs and contract awards and disbursements were adjusted, and an extension of loan closing date was approved in May 2013.<sup>10</sup> As of 31 October 2017, \$69.9 million (91.6%) in contracts had been awarded, with \$68.3 million (81.1%) in disbursements; physical progress was 94.1% against an elapsed period of 88.8%. Tranche savings will cover contract variations on the Metro extension, and studies and investments for Metro improvement are under consideration. Tranche 1 is currently rated *on-track*.

8. Tranche 2 focuses on the extension, rehabilitation, and improvement of urban transport infrastructure in Rustavi and Tbilisi.<sup>11</sup> It comprises the 10.6-km TRURL (sections 1 and 3) subproject. Following a revision of the subproject, the civil works contract was awarded in March 2014 after rebidding. Works were completed in May 2016.<sup>12</sup> A major change in scope for tranche 2, including cancellation of the Mtskheta bridge subproject at the government's request and reallocation of the loan proceeds, was approved by ADB on 17 May 2013.<sup>13</sup> As of 31 October 2017, \$45.0 million (85.7%) in contracts had been awarded under tranche 2, with disbursements of \$50.6 million (78.8%); the loan had achieved physical progress of 94.7% against an elapsed period of 81.8%. Tranche savings are being considered to be applied to urban road connectivity projects in Tbilisi. Tranche 2 is currently rated *on-track*.

9. Tranche 3 focuses on the extension, rehabilitation, and improvement of urban transport infrastructure in Anaklia, Rustavi, and Tbilisi.<sup>14</sup> It comprises the 6.8-km TRURL (section 2) subproject and Anaklia Coastal Protection (phase 2), which are the second phases of the subprojects under tranches 1 and 2. The Anaklia Coastal Protection (phase 2) civil works contract was awarded in October 2014 and completed in April 2016.<sup>15</sup> For TRURL (section 2), the civil works contract was awarded in December 2016. Since the subproject is currently subject to compliance review under ADB's accountability mechanism, the contract award is subject to partial handover of contract sites. The sections subject to compliance review (approximately 3 km in Ponichala) will be handed over to the contractor after approval of the remedial action plan to be submitted to the Board Compliance Review Committee by mid-December 2017. Proposed remedial actions include the construction of a noise barrier, in line with the findings of the compliance review. The civil works are ongoing in the other sections of the road. As of 31 October 2017, \$42.6 million (67.5%) in contracts had been awarded under tranche 3, with disbursement of \$18.4 million (25.2%); the loan had achieved physical progress of 35.1% against an elapsed

<sup>8</sup> Maintenance of the road has been conducted on a regular basis by the Roads Department of Georgia.

<sup>9</sup> The Kutaisi nonmotorized transport and Gorgasali tunnel construction and urban redevelopment subprojects were removed from the scope of tranche 1 at the government's request. (ADB. 2013. *Periodic Financing Request Report for Sustainable Urban Transport Investment Program Tranche 3*. Manila; para. 11). The Anaklia Coastal Improvement subproject (phase 1), initially planned in tranche 2, proceeded because project readiness requirements were satisfied. However, in June 2016, the subproject scope was reduced consistently with a new project for a deep-sea port in Anaklia not financed by ADB. The detailed design of the Metro extension was delayed to ensure an appropriate interface between the existing line and the modern systems to be installed.

<sup>10</sup> Original loan closing date of 31 December 2016 was extended until 30 September 2018.

<sup>11</sup> Tranche 2 comprises a loan from ADB's ordinary capital resources for \$48.9 million (Loan 2879) and from ADB's concessional ordinary capital resources lending for \$16 million equivalent (Loan 2880), approved on 24 July 2012, declared effective on 20 August 2012, and closing on 31 December 2018.

<sup>12</sup> The defects liability period ended in May 2017 and therefore no maintenance activities have been conducted to date.

<sup>13</sup> ADB financing envisaged for the canceled items included \$13.3 million for physical investment and \$1.8 million for consulting services; the tranche amount has been reduced and baseline projections realigned accordingly.

<sup>14</sup> Tranche 3 (Loan 3063) is a loan of \$73 million from ADB's ordinary capital resources which was approved on 25 November 2013, declared effective on 14 March 2014, and closes on 31 December 2018.

<sup>15</sup> As in the case of phase 1, the subproject scope was reduced consistently with the new deep-sea port project. The defects liability period ended in April 2017 and no short-term maintenance activities are required.

period of 77.1%. Tranche savings will cover the costs of remedial actions for TRURL (section 2). Tranche 3 is currently rated *on-track*.

10. Tranche 4 focuses on the extension, rehabilitation, and improvement of urban transport infrastructure in Batumi. It comprises the 5-km Batumi coastal protection project. The civil works contract was awarded in November 2016, and works are ongoing. As of 31 October 2017, \$11.3 million (65.5%) in contracts had been awarded under tranche 4, with disbursement of \$5.5 million (27.7%); the loan had achieved physical progress of 24.1% against an elapsed period of 45.1%. Tranche 4 is currently rated *on-track*.<sup>16</sup>

11. **Component B: Institutional effectiveness.** The policy reform framework comprised institutional strengthening, including reorganization and reforms at municipalities and urban transport service providers. Under tranche 1, workshops and seminars were organized in 2010 to raise public awareness on urban transport and attract possible private investors and other cofinanciers. The sector road map prepared for the MFF enabled Tbilisi to subsequently obtain a grant from the Government of France. This grant financed three key activities originally under tranche 1's institutional component, which have now been successfully completed: (i) a 2011 transport household survey, (ii) establishment of an urban planning transport unit at TCH in 2011, and (iii) a feasibility study for a light rail system in 2012. Under tranche 1, the Urban Transport Strategy for Tbilisi was completed in September 2015, and endorsed by TCH in February 2016. Activities also included a study tour in Europe, the organization of the Tbilisi Sustainable Urban Mobility Forum in Tbilisi in December 2014, and a new household survey in 2016 to obtain updated mobility information. Under tranche 2, a bridge and tunnel laboratory strengthening (at the Georgia Technical University) is ongoing. A geographic information system has been implemented in nine secondary cities (including Anaklia, Gori, Mestia, Mtskheta, and Rustavi) under parallel capacity development technical assistance financed through a Spanish grant, which has covered urban transport at the government's request.<sup>17</sup> Under tranche 4, the MDF will implement a management information system, centralizing all project information within a single framework, with defined processes to administer, monitor, and implement projects.

12. **Component C: Program management facility.** The engineering, procurement, and construction management consultants for all subprojects under previous tranches of the MFF were recruited under tranches 1 and 2.<sup>18</sup> The consultants strengthened capacity in the MDF and TCH to prepare and appraise project design and environmental and social safeguards. Additional individual international and national consultants have been recruited by the MDF to provide technical expertise—on Metro, urban road, coastal protection, and safeguards—and strengthened MDF technical capacity. Assignments also include training for MDF staff. Since 2010, MDF staff have benefited from ADB-organized training on social safeguards, environment, procurement, and gender, and from support by consultants recruited by ADB under regional technical assistance projects. With the support of ADB and the Office of the Special Project Facilitator (ADB accountability mechanism) in 2016, the MDF streamlined its grievance management procedures and adopted a new grievance redress mechanism (GRM).

13. **Compliance.** Undertakings in the FFA and covenants in the loan and project agreements due at the time of processing tranche 5 of the MFF have been complied with. MFF undertakings

<sup>16</sup> Tranche 4 (Loan 3273) is a loan of \$20 million from ADB's ordinary capital resources which was approved on 25 August 2015, declared effective on 8 January 2016, and closes on 30 June 2020.

<sup>17</sup> ADB. 2010. *Technical Assistance to Georgia for Developing a Geospatial Urban Water Supply and Sanitation Utility Management System*. Manila.

<sup>18</sup> Engineering, procurement, and construction management consultants for projects 1–3 were recruited under tranche 1, and for project 4 under tranche 2.

include (i) developing the Tbilisi Urban Transport Strategy; (ii) strengthening urban transport policy and management; (iii) supplying counterpart funding and resources; (iv) applying sound technical standards on civil works; (v) preparing and implementing land acquisition and resettlement plans, initial environment examinations, and environmental management plans following ADB's Safeguard Policy Statement (2009); (vi) implementing the gender action plan, local consultations, and contractually required workers health and safety programs; and (vii) implementing measures to ensure transparency and good governance. Compliance with FFA undertakings is further detailed in Supplementary Appendix.

14. All tranches are classified category B for environment and category C for indigenous peoples. Tranches 1 and 4 are classified category C for involuntary resettlement, while tranches 2 and 3 fall under category A. The MDF has submitted periodic monitoring reports that indicate compliance with environmental and social safeguards.<sup>19</sup> The MDF's gender specialist monitors the ongoing implementation of the gender action plans under tranches 1–3.

### III. PERIODIC FINANCING REQUEST

#### A. Impact and Outcome

15. Tranche 5 is in line with the following impact: urban environment, local economy, and living conditions within urban areas in Georgia improved. The tranche's outcome will be efficient, reliable, safe, and affordable urban transport services provided in Tbilisi urban area. It will directly benefit 1.15 million urban residents (25% of the national population and 47% of the urban population), and will improve living conditions and the economic and urban environment of Tbilisi.

#### B. Outputs

16. **Output 1: Urban transport infrastructure.** The output will be urban transport infrastructure extended, rehabilitated, and improved by the MDF and Tbilisi City Municipality (TCM) through the implementation of the Tbilisi Metro rehabilitation subproject. The Metro is the backbone of the city's transport system and carries 260,000 passengers daily. Improvements to rolling stock have been made since 2007, and tranche 1 financed a 1.5-km Metro extension to the university district, including a new station, tunnels, and modern electromechanical equipment. The next phase of investments in the Metro system is the rehabilitation and upgrading of components critical to improved safety, reliability, and efficiency of the Metro system, and to harmonize with the standards of the new extension. The top priorities of the Metro modernization investment plan, prepared under the Tbilisi Metro Upgrade Study conducted in the context of the MFF, include the renovation of electromechanical equipment, tracks, and stations. This output will provide funding for, among other things: (i) replacement of power distribution cabling, including 191,000 meters of low voltage lines (220–380 volt), and 137,000 meters of medium voltage lines (6–10 kilovolt); and (ii) rehabilitation of the ventilation system, including the installation of 32 ventilation fans to replace missing and worn out equipment. It also includes consulting services for supervision of works, financial audit, and safeguards oversight and monitoring.

17. **Output 2: Institutional effectiveness.** The output will be institutional and management capacity of the Tbilisi Transport Company (TTC) strengthened. The output is aimed at strengthening the waste management capacity of the TTC for the operation and maintenance of the Metro system through funding for the development of a waste management plan. The TTC

---

<sup>19</sup> For tranche 3, the ADB Board of Directors approved a remedial action plan in June 2017, to be implemented to ensure project execution in compliance with ADB's Safeguard Policy Statement.

lacks such a plan, as mandated by law,<sup>20</sup> for proper waste collection and disposal. The project will support the TTC in complying with legal requirements and improving waste management practices through the development of the plan, including training of TTC personnel.

### C. Investment and Financing Plans

18. Tranche 5 is estimated to cost €14.25 million, inclusive of taxes and duties, and interest and other charges on the loan during construction (Table 1).

**Table 1: Tranche Investment Plan**  
(€ million)

Item	Amount <sup>a</sup>
<b>A. Base Cost</b>	
Output 1: Urban infrastructure	12.36
Output 2: Institutional effectiveness	0.12
<b>Subtotal (A)</b>	<b>12.48</b>
<b>B. Contingencies<sup>b</sup></b>	<b>1.53</b>
<b>C. Financial Charges<sup>c</sup></b>	<b>0.24</b>
<b>Total (A+B+C)</b>	<b>14.25</b>

<sup>a</sup> In July 2017 prices.

<sup>b</sup> Physical contingencies computed at 10% for civil works and consulting services. Price contingencies computed at 1.48% on foreign exchange costs and 3.75% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>c</sup> Includes interest and commitment charges. Interest during construction for Asian Development Bank loan(s) has been computed at the 5-year forward London interbank offered rate plus a spread of 0.5% and applicable maturity premium of 20 basis points. Commitment charges for the Asian Development Bank loan are 0.15% per year to be charged on the undisbursed loan amount.

Sources: Asian Development Bank and Municipal Development Fund of Georgia estimates.

19. The government has requested a loan of €12 million<sup>21</sup> from ADB's ordinary capital resources to help finance the project. The loan will have a 22-year term, including a grace period of 15 years, straight-line repayment method, an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.15% per year (the interest and other charges during construction to be capitalized in the loan), and such other terms and conditions to be set forth in the draft loan and project agreements. Based on this, the average loan maturity is 18.75 years and the maturity premium payable to ADB is 0.20% per annum. The financing plan is in Table 2.

**Table 2: Financing Plan**

Source	Amount (€ million)	Share of Total (%)
Asian Development Bank (ordinary capital resources)	12.00	84.2
Government	2.25	15.8
<b>TOTAL</b>	<b>14.25</b>	<b>100.0</b>

Sources: Asian Development Bank and Municipal Development Fund of Georgia estimates.

### D. Implementation Arrangements

20. The implementation arrangements are summarized in Table 3 and described in detail in the project administration manual (PAM) (Appendix 5). ADB's Procurement Guidelines (2015, as

<sup>20</sup> Waste Management Code of Georgia (26.12.2014), Reg. code 360160000.05.001.017608.

<sup>21</sup> The ADB President approved a minor change to the MFF on 15 May 2015 to (i) allow the submission of periodic financing requests without limitation on the number of individual tranches and on tranche amounts, and (ii) extend the MFF availability period from 30 December 2018 to 18 July 2020. The FFA was amended accordingly, effective on 10 July 2015. After the approval of tranche 4, \$57.1 million remains available under the facility for tranche 5.

amended from time to time) and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time) will be followed.

**Table 3: Implementation Arrangements**

Aspects	Arrangements		
Implementation period	March 2018–December 2019		
Estimated completion date	31 December 2019 (loan closing date is 18 July 2020)		
Management			
(i) Oversight body	MDF Supervisory Board <sup>a</sup>		
(ii) Executing agency	MRDI		
(iii) Implementing agencies	MDF, TCM, and TTC <sup>b</sup>		
Procurement <sup>c</sup>	ICB (Plant)	1 civil works contract	€9.27 million
Consulting services <sup>c</sup>	QCBS (90:10)	1 contract (supervision)	€0.93 million
	LCS	1 contract (financial audit)	€0.10 million
	ICS	4 individual consultants	€0.10 million
	CQS	1 contract (waste management plan)	€0.10 million
Advance contracting and/or retroactive financing	€9.27 million works and €0.93 million consulting services packages required for civil works and supervision are proposed for advance contracting. Retroactive financing will apply up to 20% of the loan amount incurred prior to loan effectiveness, but not earlier than 12 months before signing the legal agreement.		
Disbursement	The loan proceeds will be disbursed in accordance with the ADB <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, CQS= consultants' qualifications selection, ICB = international competitive bidding, ICS = individual consultant selection, LCS = least-cost selection, MDF = Municipal Development Fund of Georgia, MRDI = Ministry of Regional Development and Infrastructure, TCM = Tbilisi City Municipality, TTC = Tbilisi Transport Company, QCBS = quality- and cost-based selection.

<sup>a</sup> The supervisory board of the MDF (chaired by the prime minister) includes representatives from the Ministry of Finance, MRDI, and the Ministry of Economy and Sustainable Development, with other ministries and municipalities invited to participate as appropriate. The board provides guidance and reviews the MFF and its performance.

<sup>b</sup> The MDF will be the implementing agency responsible for project implementation, and the TCM and the TTC will act as implementing agencies committing to operation and maintenance of the Metro system, and the TTC's financial sustainability and capacity development activities.

<sup>c</sup> All amounts are exclusive of taxes and duties.

Sources: Asian Development Bank and Municipal Development Fund of Georgia estimates.

## E. Project Readiness

21. Terms of reference for supervision of works were completed by mid-November 2017. Technical specifications and bidding documents for works to be financed under tranche 5 will be ready by end November 2017. Invitation for bids and request for proposals for works and supervision are expected to be advertised by December 2017.

## IV. DUE DILIGENCE

### A. Technical

22. The Tbilisi Metro Upgrade Study was prepared under Cities Development Initiative for Asia financing in August 2017. The study produced a detailed inventory of the Metro system's assets and a phased investment plan. The tranche 5 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 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. Also, 670,000 kilowatt-hours of energy per year will be saved, while the probability of service disruption due to power deficiencies will be

reduced. New ventilation fans will improve air quality and the temperature in Metro tunnels, will serve to clear smoke from tunnels in case of fire, and will save additional 305,000 kilowatt-hours of energy per year. Furthermore, works contracts will require the training of TTC personnel for the operation and maintenance of new installations.

23. The TTC currently conducts routine maintenance following specific plans for each of the Metro's installations. The TTC's capacity in this regard is considered strong as evidenced in the continued operation of outdated equipment despite the lack of major capital investments. In addition, the detailed asset inventory and asset management training provided under the Tbilisi Metro Upgrade study will strengthen the TTC's planning of periodic maintenance and rehabilitation investments. The project is categorized as having a *medium* climate risk. Direct risks are not likely to be significant because of the nature of underground installations, and thus a full climate assessment is not warranted. Specifications of installations will incorporate appropriate risk mitigation measures to minimize the impacts of flooding in case of exceptional rainfall and concurrent failure of the drainage system. Energy savings from Metro operation and reduced fuel consumption from passengers shifting from other modes to the Metro will result in a reduction of carbon emissions, mitigating climate change impacts.

## **B. Economic and Financial**

24. The project will improve the reliability and energy efficiency of the Metro system, while also reducing fire-related risks. The project economic analysis compared the incremental capital costs (i.e., the investment cost plus the cost of operating and maintaining the project over the appraisal period) against the incremental benefits from the proposed interventions. The main benefits included savings in travel time and vehicle operating costs. The calculated economic internal rate of return of 19% is above the social discount rate of 9.0%, thus confirming the project's economic viability. The sensitivity analysis shows that the economic internal rate of return remains above 9% with a reduction of benefits, a cost increase or implementation delays.

25. In the absence of a cost-recovery tariff, a conventional financial evaluation based on cash flow analysis leading to the computation of a financial internal rate of return is not considered appropriate.<sup>22</sup> Instead, an analysis of the TTC's financial sustainability was conducted. The TTC's operations include the Metro, buses, and a ropeway. The TTC's revenues in 2016 comprised passenger ticketing and other income of GEL60.5 million and preferential fare compensation<sup>23</sup> of GEL61.9 million, indicating dependence on TCM.<sup>24</sup> Nonetheless, TCM's support has been consistent, allowing the TTC to cover operating expenses. To minimize risks related to increased operation and maintenance costs, covenants will require the TTC to maintain its operating ratio at less than 1 in any financial year, through tariff adjustments or other means.

## **C. Governance**

26. Financial management systems and procurement capacity at the MDF are considered reliable. Financial management and procurement risk management assessments of the MDF have been updated. Procurement training on international and national competitive bidding was

---

<sup>22</sup> The government will be responsible for repayment of the loan from its own resources, and the TTC will not have to repay the loan from its revenues. The various terms and conditions of the ADB loan will not impact this financial analysis.

<sup>23</sup> Based on Tbilisi City Municipal Assembly Decree 20-81 (30 December 2014), and its modifications.

<sup>24</sup> The government has given assurance that it will provide maintenance from its budget during the lifespan of the infrastructure. Schedule 6 of the FFA (undertakings) stipulates that government allocate adequate funds to sustainably maintain the infrastructure throughout its service life.

carried out in 2011 and 2014, and combined training on ADB procurement policy and consulting services, case studies conducted by ADB procurement specialists, and International Federation of Consulting Engineers (FIDIC) contract training by a consultant engaged under regional technical assistance were held in 2015 and 2017. This included a presentation of ADB's Anticorruption Policy (1998, as amended to date), which was explained to and discussed with the government and the MDF. The specific policy requirements and supplementary measures on governance are described in the PAM.

#### **D. Poverty, Social, and Gender Dimensions**

27. The potential beneficiaries are local residents without cars, students, commuters, and road and public transport users. Businesses will benefit from people having greater mobility and connectivity. The poor and socially excluded will benefit from (i) better access to the city and other activity centers, (ii) affordable transport alternatives, (iii) better living conditions and less pollution, (iv) employment opportunities from works and maintenance, and (v) development of business activities after project completion. Tranche 5 will contribute to poverty reduction by stimulating economic development, and will increase the mobility of the population. It will generate 250–300 jobs during implementation. Tranche 5 is categorized as having no gender elements.

28. **Health.** Health hazards from poor air quality in the Metro, car pollution, and traffic accidents will be reduced. Reductions in congestion, noise, and gas emissions will benefit health and quality of life. Shorter travel times and better transport services will improve lives—especially for women, the elderly, and children—as they will have better access to social services such as schools, universities, and hospitals. Awareness training on HIV/AIDS and sexually transmitted diseases will be included in all bidding documents and will be monitored during implementation.

#### **E. Safeguards**

29. **Environment.** Tranche 5 is classified category C for environment under ADB's Safeguard Policy Statement. The tranche includes only rehabilitation of the existing ventilation system and power distribution cabling for the Tbilisi Metro project. No change in the footprint of the Metro will occur; only replacement of fans and cables will be conducted. A due diligence report has been completed by the MDF which identified waste generation, transportation of large project components, and general construction pollution as the key potential impacts associated with the project. While impacts are considered minimal, to mitigate any risks the project will follow a strict environmental code of practice in line with best international standards. Furthermore, prior to contract award, the environmental issues will be revisited to determine whether any additional management or mitigation is required or whether the tranche categorization needs to be reconsidered. The environmental assessment review framework of the MFF will apply if any unforeseen impacts occur during construction.

30. **Involuntary resettlement.** The tranche is classified category C for resettlement. Due diligence was conducted during project preparation and screened temporary and permanent impacts. It concluded that the Metro rehabilitation subproject requires no land acquisition and resettlement.<sup>25</sup> Ventilation fans and any other large units to be transported will require review of access requirements and, if appropriate, mitigation measures to ensure livelihoods are not affected. The MDF will establish a project-specific GRM, including means to register and address grievances. The project-specific GRM shall be an extension of the existing GRM effective within the MDF, and shall have a designated focal person to maintain the grievance log and help address

---

<sup>25</sup> If unforeseen impacts arise during implementation, the land acquisition and resettlement framework will apply.

project-related concerns. Also, the MDF shall require the contractor to develop and implement a functional grievance mechanism at the local level to address grievances received in the field, including those related to social concerns, environmental management, and community safety.

31. **Indigenous peoples.** There are no indigenous peoples per the ADB Safeguard Policy Statement definition in the project area, and the project is classified category C.

## F. Risks and Mitigating Measures

32. The project has limited risks. ADB's previous experience in the sector shows a sound record of implementation in Georgia, and the MDF has reasonable capacity<sup>26</sup> administering donor-funded projects. With consultant support for the MDF, works will be properly controlled and monitored. Major risks and mitigating measures are summarized in Table 4, and described in detail in the updated risk assessment and risk management plan (Appendix 11).

**Table 4: Summary of Risks and Mitigation Measures**

Risk	Mitigating Measures
High workload of Municipal Development Fund of Georgia (MDF) procurement unit affects the timeliness of procurement activities, particularly considering the short implementation period.	MDF to use national consultant and ongoing Asian Development Bank (ADB) procurement regional technical assistance to support the procurement unit. MDF procurement unit staff to attend ADB-organized procurement trainings to improve knowledge and efficiency. ADB project team to provide advice and guidance to MDF.

Source: Asian Development Bank.

## G. Risk Categorization

33. Tranche 5 is *low risk* because it features (i) a loan amount not exceeding \$200 million, (ii) a sound record of previous ADB experience in the sector in Georgia, (iii) reasonable implementing agency capacity in terms of externally financed project administration, (iv) no integrity concerns identified, (v) no significant climate risk, (vi) safeguard categorization other than A, (vii) no waiver of policy envisaged, and (viii) no use of high-level technology.

## V. ASSURANCES AND CONDITIONS

34. The government and MRDI have assured ADB that implementation of the project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents. The government and MRDI have agreed with ADB on certain covenants for the project, which are set forth in the loan agreement and project agreement.

## VI. RECOMMENDATION

35. On the basis of the approval by ADB's Board of Directors for the provision of loans under the multitranches financing facility in an aggregate principal amount not exceeding \$300,000,000 equivalent to Georgia for the Sustainable Urban Transport Investment Program, it is recommended that the President approve the proposed tranche as described in para. 20 and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements for the proposed tranche.

<sup>26</sup> The MDF implemented the Municipal Services Development Project phases 1 and 2. The projects were completed ahead of schedule and were rated *successful* in ADB. 2012. *Completion Report: Municipal Services Development Project*. Manila (Loan 2441); and ADB. 2013. *Completion Report: Municipal Services Development Project – Phase 2*. Manila (Loan 2534).