

First Annual Monitoring Report to the Board of Directors
on the
Implementation of Remedial Actions
for the
Sustainable Urban Transport Investment Program Tranche 3 in Georgia
(Asian Development Bank Loan 3063)

4 September 2018

ACKNOWLEDGMENTS

The Compliance Review Panel thanks all those who contributed to this first monitoring report of the Sustainable Urban Transport Investment Program Tranche 3, the Municipal Development Fund of Georgia, the complainants, Green Alternative, and other government agencies for their cooperation during our site visit, the Asian Development Bank (ADB) Board of Directors, in particular, the members of the Board Compliance Review Committee; and the ADB Management and staff concerned.

ABBREVIATIONS

ADB	– Asian Development Bank
CRP	– Compliance Review Panel
IEE	– initial environmental examination
MDF	– Municipal Development Fund of Georgia
MFF	– multitranche financing facility
RAP	– remedial action plan
RAPFS	– remedial action plan final solution
SSEMP	– site-specific environmental management plan
SPS	– Safeguard Policy Statement

WEIGHTS AND MEASURES

dBA	– A-weighted decibels
km	– kilometer
km/h	– kilometer per hour
m	– meter

NOTE

In this report, “\$” refers to United States dollars.

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.

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I. INTRODUCTION

1. In 2016, the Compliance Review Panel (CRP) received two requests for compliance review on Asian Development Bank (ADB) Loan 3063: Sustainable Urban Transport Investment Program (Tranche 3) (Project) in Georgia.¹ The first complaint was received by the CRP on 14 March 2016 from 81 residents of a 9-storey building identified as 12 v/g (first complaint) while the second complaint was from 72 residents of building 16 a/b (second complaint). Both buildings are in Ponichala area of the Rustavi Highway in Tbilisi, Georgia. The second complaint was received by the CRP on 10 November 2016, i.e., a few days after the CRP sent its draft report on compliance review to the borrower, the complainants of the first complaint, and ADB Management for a 45-day comment period.

Figure 1: Building 12 v/g (left) of the first and Building 16 a/b (right) or the second, set of complainants, respectively



Source: OCRP

2. Following the procedures in the ADB Accountability Mechanism Policy (AMP),² the CRP conducted a compliance review of the Project based on the first complaint and an eligibility determination assessment of the second complaint. Since the second complaint raised issues that are like those raised in the first complaint and these issues are already covered under the compliance review of the first complaint, the CRP did not recommend to the Board the conduct of a compliance review for the second complaint. Instead, the CRP recognized in its compliance review report on the first complaint that the harm and noncompliance issues in the second complaint are also covered in the CRP's final report.

3. The CRP submitted to the ADB Board of Directors (Board), a report on the eligibility determination of the second complaint³ on 16 January 2017 and the CRP's final report on the compliance review of the Project on 13 February 2017. On 6 March 2017, the Board considered the CRP's findings in its final compliance review report and requested ADB Management to submit a Remedial Action Plan (RAP) for the Project to address the noncompliance found by the

¹ The Loan 3063-GEO: Sustainable Urban Transport Investment Program – Tranche 3 project web page is at <https://www.adb.org/projects/42414-043/main>.

² Asian Development Bank (ADB). *2012 Accountability Mechanism Policy*. Manila.

³ See the Compliance Review Panel's (CRP's) Report on Eligibility, To the Board of Directors on Compliance Review Panel Request No. 2016/3 on the Sustainable Urban Transport Investment Program Tranche 3 in Georgia (Asian Development Bank Loan 3063), 16 January 2017 available at [https://lnadbg4.adb.org/dir0035p.nsf/attachments/GEO-SUTIP%20T3-2ndComplaint-Eligibility%20Rpt_16Jan_ForBoard.pdf/\\$FILE/GEO-SUTIP%20T3-2ndComplaint-Eligibility%20Rpt_16Jan_ForBoard.pdf](https://lnadbg4.adb.org/dir0035p.nsf/attachments/GEO-SUTIP%20T3-2ndComplaint-Eligibility%20Rpt_16Jan_ForBoard.pdf/$FILE/GEO-SUTIP%20T3-2ndComplaint-Eligibility%20Rpt_16Jan_ForBoard.pdf)

CRP. Subsequently, ADB Management submitted to the Board its proposed remedial actions on 8 June 2017. The Board considered and approved the RAP for the Project on 30 June 2017. Since the RAP does not specify actions that would still need decisions based on studies, ADB Management submitted a RAP Final Solution (RAPFS) to the CRP and the BCRC on 15 December 2017 after dialogues with the project executing agency; consultations with affected persons; further studies; and inputs from consultants/technical experts. The RAPFS was reviewed by the CRP and submitted to the Board Compliance Review Committee (BCRC) with the CRP's comments on 21 December 2017.

4. According to para. 192 of the AMP, the CRP will monitor the implementation by ADB Management of Board-approved remedial actions relating to a complaint, to ensure that a project is brought into compliance with ADB's operational policies and procedures. As the ADB Management's RAP⁴ was approved by the Board on 30 June 2017, the CRP is expected to annually submit to the Board, from that date, a monitoring report on the progress of the implementation of the Board-approved remedial action plan. This is the first annual monitoring report of the CRP which describes and assesses the progress made by ADB Management on the implementation of the Board-approved RAP, which also includes, the Final Solution⁵ for the Project which was submitted by ADB Management to BCRC in April 2018 together with the comments of the CRP and BCRC, which are integral part of the Remedial Action Plan approved by the Board in June 2017.

5. Unless otherwise specified by the Board, the CRP will monitor the implementation of the remedial action plan annually for up to 3 years from the Board decision on the RAP.

6. In preparation of this annual monitoring report, the CRP reviewed relevant project documents, including additional studies and back-to-office reports; held meetings with government representatives of Georgia, particularly the executing agency (i.e., the Municipal Development Fund of Georgia-MDF), including its project consultants and contractors; met with the complainants, as well as the ADB project team. The CRP also conducted a mission from 8 to 11 July 2018 to Tbilisi and visited the project site.

II. DESCRIPTION OF THE PROJECT

7. The complaints refer to sub-project 1: Tbilisi-Rustavi Urban Road Link (section 2) of the Project which involves the modernization of an existing and the construction of a new road from Ponichala to Rustavi. When finished, the total road length for this Project will be 6.8 km, of which 3.8 km is new road construction along and into the Mtkvari river. When finished, the road section will be of international standard, Category I highway, with 4 lanes and with design speed of about 80km/h.

⁴ ADB. Central and West Asia Department. Loan 3063-GEO: Sustainable Urban Transport Investment Program Tranche 3 Remedial Action Plan; June 2017 available at [https://lnadbg4.adb.org/dir0035p.nsf/attachments/GEO-Board%20Approved-RAP-30June2017-ForWeb.pdf/\\$FILE/GEO-Board%20Approved-RAP-30June2017-ForWeb.pdf](https://lnadbg4.adb.org/dir0035p.nsf/attachments/GEO-Board%20Approved-RAP-30June2017-ForWeb.pdf/$FILE/GEO-Board%20Approved-RAP-30June2017-ForWeb.pdf) and its Board approval available at

[https://lnadbg4.adb.org/dir0035p.nsf/attachments/Board%20Consideration%20of%20the%20GEO-RAP-Minutes-30June2017.pdf/\\$FILE/Board%20Consideration%20of%20the%20GEO-RAP-Minutes-30June2017.pdf](https://lnadbg4.adb.org/dir0035p.nsf/attachments/Board%20Consideration%20of%20the%20GEO-RAP-Minutes-30June2017.pdf/$FILE/Board%20Consideration%20of%20the%20GEO-RAP-Minutes-30June2017.pdf)

⁵ ADB. Central and West Asia Department. Loan 3063-GEO: Sustainable Urban Transport Investment Program Tranche 3 Remedial Action Plan Final Solution; April 2018 available at [https://lnadbg4.adb.org/dir0035p.nsf/attachments/GEO-SUTIP3-RAP-Final%20Solutions%20\(Post%20CRP%20and%20BCRC%20Review\) 3May2018.pdf/\\$FILE/GEO-SUTIP3-RAP-Final%20Solutions%20\(Post%20CRP%20and%20BCRC%20Review\) 3May2018.pdf](https://lnadbg4.adb.org/dir0035p.nsf/attachments/GEO-SUTIP3-RAP-Final%20Solutions%20(Post%20CRP%20and%20BCRC%20Review) 3May2018.pdf/$FILE/GEO-SUTIP3-RAP-Final%20Solutions%20(Post%20CRP%20and%20BCRC%20Review) 3May2018.pdf)

8. The Project is part of an overall investment program valued at \$1.1 billion to be implemented from 2010-2020 which aims to improve the reach, quality, and continuity of urban transport in Georgia. To partially fund it, a multitranche financing facility (MFF) with a maximum financing amount of \$300 million was approved by ADB in July 2010. This MFF which is to be implemented from 2010 to 2018, is for the (i) extension, rehabilitation, and improvement of urban transport infrastructure in Anaklia, Batumi, Kutaisi, Poti, Rustavi, and Tbilisi; (ii) increased institutional effectiveness, including the reorganization and reforms at the Tbilisi municipality, other municipalities and urban transport service providers; and (iii) establishment of program management team with a capability and funds to handle project preparation, technical design, contract bidding, evaluation and award, contract supervision, progress monitoring and reporting.⁶ Investments funded under the MFF will improve the transport system and infrastructure in urban areas. Tranche 3 of the MFF includes two subprojects: (i) section 2 (km 4.0-10.8) of the international standard Tbilisi-Rustavi Urban Road Link; and (ii) phase 2 of Anaklia Coastal Improvement.

9. The Project is funded under Tranche 3 of the MFF, which was approved on 25 November 2013. The total project cost is \$118.2 million and ADB funds \$73 million under this tranche. The borrower is the Government of Georgia and MDF is the executing agency. The Project, which is implemented from ADB Headquarters by the Urban Development and Water Division of the Central and West Asia Department, is categorized as B for environmental impacts; A for involuntary resettlement impacts; C for indigenous peoples' impacts. Construction work for the Tbilisi-Rustavi Urban Road Link (section 2) subproject has started except in the Ponichala area where the complaints come from. Project-related documents, including safeguard documents and monitoring reports, as well as additional studies or reports have been disclosed in the ADB project and MDF's websites.⁷

10. A draft initial environmental examination (IEE) for the Project was completed and posted on the ADB website in September 2013 and a revision of it was posted in December 2015. Additional noise and vibration studies; a study on the ecology of Mtkavi river; and a consultation plan were disclosed in the project website in 2017 to inform the affected persons and as part of the implementation of remedial actions. The construction of Section 2 of 6.8 km will involve acquisition of 312 land plots with 29.5 hectares of land areas, demolition of 692 structures (82 residential structures, 90 industrial and commercial structures, and 520 minor structures). A total of 282 households and 33 businesses will be affected. Per ADB Safeguard Policy Statement (SPS),⁸ a land acquisition and resettlement framework (LARF) was prepared prior to the approval of the MFF and subsequently, a land acquisition and resettlement plan (LARP) was prepared and implemented prior to start of construction works. As the properties of the complainants will not be required by the Project, the complainants are not covered by the LARP.

11. Since 2015, the complainants have raised their concern to local and national government authorities in Georgia, including the MDF. They have also raised their concerns with ADB Georgia Resident Mission and ADB project team. Several meetings have been held between the complainants and the MDF as well as ADB project staff or consultants to address the complainants' concerns. Because the residential buildings of the complainants (i.e., 12 v/g and 16 ab) are beside the Mtkvari river where the road will be built, the complainants felt they will be negatively impacted by noise and vibration during road construction and operation. As their buildings are already dilapidated, they fear that their buildings will be further damaged and might

⁶ Details of the Project are available at <http://www.adb.org/projects/42414-013/main#project-pds>.

⁷ Documents pertaining to the Project are available at <https://www.adb.org/projects/42414-043/main#project-documents>.

⁸ ADB. 2009. *Safeguard Policy Statement*. Manila.

collapse due to road construction or operation. Further, since there are several residents in those buildings who are disadvantaged, primarily because they are visually impaired and poor, these people will certainly find it hard to orient themselves as their residences will become noisy and dark during road construction and operation. Deterioration of air quality during road operation is also among the allegations of the complainants.

12. In June 2018, a third complaint was received by the CRP from 30 residents of building 28a of Rustavi Highway, Tbilisi, Georgia. While this building is not immediately beside the buildings of the first two sets of complainants in the Ponichala district, it shares the same state of physical decay/damage as the first two. This third group of complainants alleged that they were not provided adequate information about the Project and its impact to them, particularly as cliff cutting will be done very near to their building during road construction. Like the earlier complaints, they fear the collapse of their building during road construction as they claim that their location and the seepage of water in their building foundation makes their building prone to landslide. They stated in their complaint that they would like the Project to consider the noise, vibration, and other health impacts of road construction and operation to their daily lives particularly on the safety of their residence and well-being and expressed their strong desire to be resettled as a remedy.

III. COMPLIANCE REVIEW AND REMEDIAL ACTION PLAN

13. This section summarizes the findings and conclusions arrived at by the CRP as a result of its compliance review and the scope of the Management's RAP, including the RAPFS and the CRP's and BCRC's comments to it, which collectively will be the basis for CRP's monitoring of the progress of the implementation of actions to ensure that the Project is brought back to compliance with ADB's operational policies and procedures.

14. In its compliance review, the CRP looked into the Project's compliance with the following ADB policies and operational procedures that were in effect when the Project was processed and approved:

- (i) Safeguard Policy Statement (2009);
- (ii) Public Communications Policy (2011);
- (iii) OM Section F1 (Safeguard Policy Statement) issued on 1 October 2013;
- (iv) OM Section C3 (Incorporation of Social Dimensions into ADB Operations) issued on 6 December 2010; and
- (v) OM Section L3 (Public Communications) issued on 2 April 2012.

15. After its fact finding, the CRP's final compliance review report stated that it found noncompliance primarily with the environment section of SPS as:

- (i) *the Project will create noise impacts on people living in a densely populated area above the ADB allowed maximum noise standards;*
- (ii) *people might be endangered from loose parts of buildings falling down during road construction;*
- (iii) *Vibration impacts have to be reassessed for all project-affected buildings which have annexes which – in terms of size – are a significant part of the building, and where impacts have only been modeled on the core structure of the building. Vibration impact assessments need to consider the core structure and the annexes. Moreover, natural frequencies need to be measured for all project-*

affected buildings included under the vibration impact studies. Measured data then need to be entered into the vibration impact model (rather than assumed data) to assess the vibration impacts on buildings. If revised calculations of the model show that the project affected buildings will be damaged by the impacts of vibrations, adequate mitigation measures need to be taken. Mitigation measures need to be implemented prior to the commencement of road construction to secure the buildings and assure safety of residents;

- (iv) *impacts on vulnerable and disadvantage groups have not been assessed and no mitigation measures have been designed;*
- (v) *insufficiently targeted consultations have been conducted with vulnerable groups, especially vision impaired people;*
- (vi) *ecological impacts of the project on the Mtkvari River have not been assessed; and*
- (vii) *the Project has not been appropriately classified for environmental impacts.*⁹

16. The CRP finds that the Project is compliant with ADB air quality standards and requirements.

IV. RESULTS OF THE FIRST MONITORING OF THE REMEDIAL ACTION PLAN

15. During this first annual monitoring of the implementation of the RAP for the Project, the CRP noted that substantial progress has been made by ADB Management in its collaboration with the executing agency of the Project - MDF. The annual monitoring mission was led by Ajay Deshpande, CRP member. The mission was also attended by Dingding Tang, Chair of the CRP, and Arntraud Hartmann, CRP member. Josefina Miranda, Senior Compliance Review Officer from the Office of the Compliance Review Panel (OCRP) provided logistical support and Vijay Joshi as OCRP Environment consultant. A list of persons met by the CRP during its mission is provided in Appendix 4.

Figure 2: The CRP discussing the road alignment and construction work impacts with project supervision consultant



Source: OCRP

⁹ The CRP's "Final Report on Compliance Review Panel Request No. 2016/1 on the Sustainable Urban Transport Investment Program (Tranche 3) in Georgia (Asian Development Bank Loan 3063) dated 13 February 2017" is available at [https://lnadbg4.adb.org/dir0035p.nsf/attachments/GEO-CRP-Final%20Report-6March-Board.pdf/\\$FILE/GEO-CRP-Final%20Report-6March-Board.pdf](https://lnadbg4.adb.org/dir0035p.nsf/attachments/GEO-CRP-Final%20Report-6March-Board.pdf/$FILE/GEO-CRP-Final%20Report-6March-Board.pdf).

17. The following paragraphs detail the CRP's observations; assessment of the Project's level of compliance; and provide suggestions to ADB Management to ensure that the Project is brought back into compliance with ADB's operational policies and procedures.

A. Noise Impacts

Status of Compliance: At the time of this report, ADB is in partial compliance with this action.

Management's Action Plan No. 1: Action to address ADB's noncompliance in relation to CRP's findings on noise impacts¹

Noise Impacts Study:

- 1.1 Establish noise baseline in Ponichala and a model under different scenarios to meet WHO standards reflected in the WB EHS Guidelines.
- 1.2 Draft Noise Impact Study report reviewed by ADB and MDF and shared with CRP for review.
- 1.3 Selection of a noise mitigation approach which will bring the Project into compliance with ADB's policies and requirements.
- 1.4 Start implementation of mitigation option following the integrated approach.
- 1.5 Preparation and implementation of noise monitoring program during construction and operational phases (for at least up to 3 years of road operation with one set of sampling annually)
- 1.6 Inclusion of following in the agreement with contractor during project construction:
 - restriction of working hours from Monday until Friday with work conducted only between 7 am – 7 pm
 - installation of temporary noise barriers in construction areas located near residential buildings.

(See Appendixes 1 and 3 for the full text and details of the Management's Remedial Action Plan and the Management's Remedial Action Plan Final Solution, respectively.)

18. **CRP findings regarding compliance with Action No. 1.** The CRP finds that ADB Management has completed the study on the noise impact assessment and has also finalized the technical solution for abatement of noise in the entire stretch of Ponichala. The proposed solution will include acoustic tunnel of 560m length, covering both carriageways and two noise walls, one 5-m high, 880m long wall and the second 8m high and 188m long wall. The total area of the walls will be about 46% less than that of the noise wall only option. As proposed originally, the speed in this section is limited to 80km/hour. Moreover, ADB also informed that the entire stretch will have special pavement design which will reduce the traffic noise. During the pre-mission conference, ADB shared a technical sketch of the noise barrier (wall) design with some details of its physical shape and also the possible construction material. The CRP noted that the design of the acoustic tunnel is still not finalized as ADB and MDF are exploring the possibility of a gallery (acoustic tunnel with opening along the river side) to avoid the air quality impacts due to vehicular emissions and also, accentuated noise and air quality impacts at the tunnel mouth (entry and exit). At few locations, it is observed that the residential buildings on the opposite bank of river are quite close to the river and total distance from the road is likely to be within 100m. In these sections, if for noise abatement a noise gallery is constructed instead of a closed tunnel, there is a possibility that noise during road operation may impact these receptors. The project team should include assessment of noise impact at nearest receptors at the opposite bank while finalizing the noise abatement option.

19. The CRP noted that the entire noise abatement studies have been based on the quantitative assumptions relating to traffic pattern, construction methodology, and effectiveness of planned noise abatement measures. The CRP finds that ADB has considered uniform distributed traffic flow in and out of Tbilisi and they still confirm that the similar traffic pattern is relevant in the road stretch under consideration. The CRP notes that even after the design and construction of such noise abatement measures, it would be necessary to verify the adequacy of such control measures by carrying out post-implementation monitoring studies to ensure compliance, through a well-designed study, of which terms of reference (ToR) shall be submitted to the CRP for review and comments.

20. The CRP notes that the construction noise is the most relevant aspect of noise concern as the construction activity will be carried out very near a residential area, may be within 15m at some stretches, and the proposed methodology involves use of heavy machinery during construction. During the site visit, the CRP also observed the operation of the proposed heavy machinery in some other stretch of the highway construction, and noted that the noise levels, though for shorter time intervals, are significantly higher than the specified noise standards for residences. The CRP is of the view that the proposed Site-Specific Environmental and Social Management Plan (SSEMP) need to consider such field observations and, include suitable training/awareness and safety measures for the construction workers as well as the public who may be passing by the construction site.

Figure 3: Operation of pneumatic drill used for cutting rock and soil leveler observed by the CRP during its project site visit



Source: OCRP

21. The CRP finds that the noise abatement study findings are subject to strictly ensuring the construction methodology including the use of specified type and number of construction machinery, specific construction hours and also, appropriate temporary noise barriers. The CRP, during the mission, desired to understand how such variables will be under control of EA or ADB to ensure the resulting noise. During the annual monitoring mission, CRP was informed that all these aspects will be controlled by the supervising engineers and they have even been mandated to restrict the construction activities or even stop the construction activities if observed noise levels are high. The CRP was also informed that MDF will have its supervision staff at site for all operational time and such staff will be empowered to take immediate actions including stoppage of construction, if necessary. The CRP was informed that suitable provisions are being made in the proposed SSEMP in this regard.

22. The CRP would like to reiterate that the construction noise will be the critical impact considering the proximity of construction to the residential buildings, and the presence of vulnerable people in these buildings. Under item 2.6 of RAP, the semi-annual RAP implementation progress report (January-June 2018) mentions that contractor has prepared a draft construction noise management plan that is being reviewed by ADB and will be submitted to the CRP in July 2018, which has not been submitted to the CRP so far. The CRP would also like to highlight that the noise impact assessment study indicates that fifth and higher floors for several buildings will experience noise above 60 dB(A) during construction. Mitigation measures in addition to installation of temporary noise barriers will be necessary to protect these floors from excessive noise.

23. The CRP was informed during the annual monitoring mission that ADB and MDF are planning to develop new route for material handling and transportation bypassing the residential areas and the details are being worked out. The CRP was further informed that the requirement of heavy machinery which generate significant noise is also being reviewed for optimization to reduce the number of heavy equipment at the sensitive site. The CRP was informed that all such details including the temporary noise mitigation measures, construction plans, enforcement and response strategies are expected to be in the SSEMP which is shared with CRP on 2 August 2018 for review and comments before finalization.

24. The CRP notes that the proposed noise monitoring program (action 1.5 of RAP and proposed solutions) has not been formulated and submitted to the CRP for review and comments. During the discussions, ADB informed that the monitoring program is being finalized and will be shared with the CRP for review and comments, before initiation of monitoring in September 2018. The CRP would reiterate that the noise monitoring particularly during construction and, immediate post-construction would be critical as such monitoring would ensure that the construction noise is well managed. Such monitoring would be necessary to assess the adequacy of noise barriers in the real-life situation post-commissioning of the road.

25. The CRP finds that though RAP refers to public consultation on noise-related issues, particularly action 1.3 above, according to the complainants, no such consultations have been conducted so far and the residents including complainants have not been informed about the selection of noise control measures and their details. During the meeting with vulnerable group of people in the community, similar grievance was received. ADB and MDF, however, claimed that there were several group and individual briefings or consultations on such measures and the consultation document recorded such consultations. The CRP, on review of the consultation document submitted in December 2017 and an update shared on 27 June 2018, is of the view that there was no systematic and structured consultation conducted for noise abatement measures as ADB and MDF only presented the noise and vibration study reports and proposed options for mitigation. However, the consultation did not cover selected mitigation options and also, the methodology to implement such measures, particularly removal of loose parts and strengthening the annexes, among others. There are references to such discussions with local residents, but it would have been more prudent to conduct a specific consultation with well-defined agenda to ensure that residents know the agenda well before the meetings. This aspect of consultations is being discussed separately in Section D below.

26. **CRP conclusions regarding compliance with Action No. 1.** The CRP notes that ADB is in partial compliance with this action. In order to achieve full compliance, the following measures should be taken:

- (i) The noise mitigation approach and strategies during construction and operation need to be finalized after the consultation with affected people (Action items 5.3 and 5.4) and record of such consultations be shared with the CRP. The CRP has already communicated its comments on consultation strategy through memo dated 27 June 2017.
- (ii) ADB shall share the final solution for noise mitigation during operation, once the design of tunnel and noise wall barrier is finalized, with the detailed assessment of the expected noise mitigation (insertion loss) as compared to the applicable noise standards for review and comments of the CRP. (Action item 1.3)
- (iii) ADB shall share details of the proposed the temporary noise mitigation measures during construction period and its adequacy to comply with the applicable noise standards to CRP for review and comments. (Action item 1.6)
- (iv) The details of noise monitoring program (ToR) during construction and operation including the location of sampling, sampling frequency, duration, etc. shall be submitted to the CRP for review and comments.
- (v) The SSEMP which is expected to have detailed construction plan, temporary noise mitigation measures, enforcement strategies, etc., shall be shared with the CRP for review and comments before finalization.
- (vi) Implement the mitigation and monitoring measures. (Action items 1.4 to 1.6)

B. Vibration Impacts

Status of Compliance: At the time of this report, ADB is in partial compliance with this action.

Management's Action Plan No. 2: Action to address ADB's noncompliance in relation to CRP's findings on vibration impacts

Vibration Impacts Study:

- 2.1 Measure the natural frequencies of the core and annexes of the buildings in the Ponichala. Model the impacts of the vibrations from the project and recommend appropriate mitigation measures.
- 2.2 Draft report with measured natural frequency reviewed by ADB and MDF and shared with CRP for review.
- 2.3 Second draft of the vibration report submitted to CRP for comments, including vibration impact assessments on the core and annexes, if annexes are significant, of the buildings under different noise mitigation scenarios.
- 2.4 Selection of a vibration mitigation approach which will bring the Project into compliance with ABD's policies.
- 2.5 Start implementation of mitigation option following the integrated approach.

continuation from previous text box

- 2.6 Operation of an effective monitoring system of vibration impacts during construction phase and inclusion of following in the contractual agreement with contractor:
- (i) Plan of location of vibration monitoring system (for structural assessment vibration of foundation, for impact on people in the flats);
 - (ii) Online analysis of vibration monitoring data (for structural assessment: DIN 4150-3; for impact on people: DIN 4150-2);
 - (iii) Definition of threshold values (early warning stage, exceedance) for an automatically generated message to a defined group of persons;
 - (iv) Action plan in case of exceedance; and
 - (v) Documentation and report of vibration monitoring.
- 2.7 Removal of loose parts from buildings subject to result of vibration impact study prior to beginning of construction work.
- 2.8 Adequate securing of all annexes prior to construction work.

(See Appendixes 1 and 3 for the full text and details of the Management's Remedial Action Plan and the Management's Remedial Action Plan Final Solution, respectively.)

27. **CRP findings regarding compliance with Action No. 2.** During the annual monitoring mission, the CRP was informed by ADB that MDF completed the vibration impacts study in two stages. Through the first study, measurement of the natural frequencies of the core and voluntary additions of the buildings in the Ponichala area was made. In the second study, vibration modelling was then completed based on the measured natural frequencies and vibration impacts that may result from construction of different noise mitigation measures. The report concludes that based on the analysis, vibration impacts are lower than the thresholds assigned by the UNI 9916 (Italian Criteria for the measurement of vibrations and the assessment of their effects on buildings) or International Standard Organization (ISO) 4866 for residential buildings and their annexes. Nevertheless, the report recommends to: (i) instruct the contractor to strictly follow, with legal liability, the construction method and equipment list, and respect the boundaries of the construction provided in the contract; (ii) reinforce the annexes based on the engineering design of reinforcement works required in the original study and included as part of the contract; and (iii) conduct technical monitoring of all buildings concerned with community participation.

Figure 4: Status of buildings and its foundation which are critical for vibration assessment



Source: OCRP

28. The CRP has identified the vibration aspect as noncompliance primarily on three considerations namely: proximity of construction works involving heavy machinery to the residential buildings; present status of these residential buildings; and more importantly, presence of visually impaired people in some of these buildings which are located very near the construction site like Building No. 8.

29. The studies commissioned by MDF¹⁰ concluded that the analysis of the data reported in the report shows that, along the route, the level of vibration evaluated in terms of speed of vibrations, is lower than the thresholds assigned by the UNI 9916/ISO 4866 for residential buildings. As such, the expected level of vibrations caused by the new road construction will not result in any danger or damage to the considered buildings. As for the annexes to the buildings, even though the modeling showed no risk of damage to the annexes resulting from road construction (assuming no other vibration-generating equipment or method other than those included in the detailed design for the Project will be used in practice) – the annexes, mostly built originally with disregard of essential engineering practices, are in poor shape.

30. With such prevailing precarious condition of the buildings, there could be a reasonable probability that some of these structures or their unstable parts can get damaged or even collapse over a period of time for the reasons other than the road construction related vibrations (e.g. seismic activity, some further modification of annexes done by the inhabitants of the flats, other construction activity or soil works in the area, or a combination of these). In case such incident occurs during the construction or even after commissioning of the road, the resident may simply claim that such damage is attributed to the project construction. Moreover, even without such consideration of any claim, ADB needs to address this issue to avoid any potential reputational risk and the building safety and stability problems should be adequately addressed.

31. The CRP further notes that this study has given some mandatory recommendations including 1. pile drilling, as opposed to pile driving should be used, 2. Reinforcing the Annexes (the same as voluntary additions) and 3. Monitoring for compliance. During the annual monitoring mission, the CRP was informed by ADB and MDF that they are still working on these recommendations and are in the process of devising an elaborate action plan and also, strategy as regards to actions 2.5, 2.6, 2.7 and 2.8 referred in RAPFS. The CRP was also informed that ADB and MDF are identifying a suitable and experienced organization and also, developing proposed scope of work. ADB informed that such an action plan including details of agencies and the proposed scope of work would be submitted to CRP for its comments and review once it is ready.

32. During the annual monitoring mission, the CRP interacted with residents including the complainants and also, specifically with vision impaired people. The CRP notes that their biggest concern for the Project is related to vibration impacts and they expect severe damage to their building resulting from the construction, in particular. ADB has already taken cognizance of the CRP's concern over the weak structures and also, additions/alterations in these buildings. Still however, the CRP is concerned with the strong view of residents on vibration aspects. Residents also informed the CRP that ADB and MDF have not consulted with them adequately to inform

¹⁰ SUTIP2/C/QCBS/08-2015 Development of a bridge and tunnel laboratory at the Georgian Technical University Additional Assignment 2: A Round Of Modeling Of Road And Noise Barrier Construction-Related Vibration Impact On 9 Residential Buildings In Phonichala DRC – Diagnostic Research Company Via Montesicuro, 60131, Ancona, Italy; September 2017 available at https://www.adb.org/sites/default/files/project-documents/42414/42414-043-sddr-en_1.pdf

about vibration and noise issues as well as proposed mitigation measures. As noted in the Noise section above, the CRP, on review of the consultation document submitted in December 2017, is of the view that there was no systematic and structured consultation conducted for vibration-related issues. There are references to such discussions with residents, but it would have been more prudent to conduct a specific consultation with well-defined agenda to ensure that affected residents know the agenda well before the meetings. The consultations in November 2017 were focused on noise and vibration studies and options related to noise and vibration control. However, the population was not informed about final selected mitigation option and also, methodology to implement these measures, including the removal of loose parts, strengthening the annexes, proposed alignment of road on ground, among others. This aspect of consultations is being discussed separately in Section D below.

33. The CRP during annual monitoring mission visited the on-going road construction works of the project in a different stretch and observed the operations of heavy construction machinery like excavator and also pneumatic drills. The equipment not only generate significant noise but also vibration, more particularly pneumatic drills used for excavating the soft and hard rocks. The CRP was informed, based on the drawings that most of the stretch near buildings 8,12 and 16 are in filling section, thereby meaning that the road will be constructed in embankments by filling soil to achieve the desired road level. Such construction would require transport of significant quantities of soils and also, use of heavy machinery for compaction and consolidation of soil layers. CRP was also informed that near building 28a (building 6 as per report) there will be cutting of hill nearly up to 9.3m with the excavation slope starting very near to the building (14.3 m). However, no such constructions details could be found in the study report. The CRP notes that the noise generated would depend on the rock strata prevalent in this stretch and no such site-specific data was available, though MDF informed availability of such data on larger scale (km wise) on the soil type i.e. excavation of different types of soil i.e. excavators, excavation by bulldozers and excavation using pneumatic hammers is available for the entire stretch of road, and in the stretch near building 28a, the hard rock is expected to be 8%-9% of the total soil volume.

34. The CRP notes that the findings of the study referred above on the vibration impacts are subject to strict compliance of the construction methodology prescribed, including type and number of machinery, safe practices and strict supervision and monitoring. The CRP was informed by ADB and MDF that all these aspects will be covered in SSEMP which is under final review of ADB and will be submitted to the CRP for review and comments before finalization.

35. The CRP is of the view that meaningful consultations are necessary on vibration issue (action 2.5 through 2.8 and action 5.2) more pertinently since all proposed activities including vibration monitoring, securing of buildings and also, removal of loose parts etc. are required to be carried out in the building premises, directly interacting with the concerned local residents. It is also necessary that the actions under 2.6, 2.7 and 2.8 including vibration monitoring, removal of loose parts and securing of annexes and buildings precede the actual road construction works. The CRP finds this activity under action 2.7 and 2.8 as most challenging part of the entire action plan related to vibration. Moreover, the CRP finds that all these actions and measures proposed under vibration control including online vibration monitoring, project construction methodology, removal of loose parts, securitization of annexes etc. needs to be implemented in an integrated manner as emphasized in action 2.5. All these actions are interlinked and interdependent and hence, the proposed implementation strategy needs to consider this aspect.

36. **CRP conclusions regarding compliance with Action No. 2.** The CRP finds that Action No. 2 is yet to be complied with. The following measures need to be undertaken to reach full compliance:

- (i) The vibration impact mitigation approach and strategies for the construction and operation phase need to be finalized after the consultation with local people (Action 5.3 and 5.4 read with Action 2.7 and 2.8) and record of consultations be shared with the CRP. The CRP has already communicated its comments on consultation strategy through memo dated 27 June 2017.
- (ii) ADB shall examine specific impacts of vibration due to rock cutting near building 28a as the cutting activity is located only 14m from the building edge.
- (iii) ADB shall share the details of final solution and actions proposed along with methodology for works to be carried out under action 2.7 and 2.8 with the CRP for review and comments.
- (iv) The SSEMP which is expected to ensure compliance of action 2.6 and likely to include detailed construction plan; deployment of the machineries; temporary vibration control and mitigation measures; vibration monitoring system, enforcement strategies; shall be shared with the CRP for review and comments before finalization.
- (v) ADB shall implement the proposed mitigation measures and monitoring system as per action 2.5 to 2.8.

C. Impacts on Vulnerable Groups

Status of Compliance: ADB is in partial compliance with this Action. ADB needs to do substantial additional work to reach compliance with SPS, Appendix 1, para. 8.

Management's Action Plan No. 3: Action to address ADB's noncompliance in relation to CRP's findings on impacts on vulnerable groups¹

- 3.1 Recruitment of a national communication consultant.
- 3.2 Prepare the methodology for targeted consultations with vulnerable people and groups.
- 3.3 Conduct targeted consultations with vulnerable groups and people to assess impacts during (i) construction phase, and (ii) operations phase.
- 3.4 Findings of the draft report to be reviewed by ADB and MDF and shared with CRP for review.
- 3.5 The report findings and proposed measures will be translated in to local language and disseminated and discussed with affected people.
- 3.6 Implement identified mitigation measures (including social assistance program for vision impaired persons during construction) following the integrated approach for protection of vulnerable people during (i) construction phase and (ii) operation phase.

(See Appendixes 1 and 3 for the full text and details of the Management's Remedial Action Plan and the Management's Remedial Action Plan Final Solution, respectively.)

37. **CRP findings regarding compliance with Action No. 3.** MDF engaged a national consultant to conduct consultations and a methodology for consultations was prepared in June

2017 and posted on the ADB website.¹¹ In June 2017, the CRP provided comprehensive comments on the proposed methodology and proposed, among others, that for vision impaired people a 100 percent onsite consultation should be conducted as focus groups would not be representative, given the heterogeneous nature of the group of vision impaired people, who have different degrees of vision impairments, and whose living conditions and likely impacts from the road construction and operation will differ significantly, depending on the location of their apartment. As part of the consultation process, a survey was conducted to establish the number of vulnerable households. The survey found 75 households with 95 vision impaired people and an additional 76 households which are either poor (based on social security categorizations), households with single mothers, refugees and/or disabled or sick. In addition to the survey, one focus group discussion was conducted for the poor (10 participants); one for single mothers (10 participants); one for disabled (2 participants); and two focus group discussions for vision impaired people (13 participants). Unfortunately, the attendance of vision impaired people was proportionally lower than in other focus groups. The CRP was informed that vision impaired people found it difficult to participate in target groups. This is also stated in the report on public consultations of December 2018.”

38. In December 2017, a report on the consultations was submitted to the CRP. Upon review of the consultation report it became evident, that the consultations focused predominantly on an assessment of the present living conditions in the Ponichala area. The consultations asked the questions how the present living areas could be improved for vision impaired and other vulnerable people. Unfortunately, the report does not present consultation results of the expected impacts of the new road construction and operation and does not present possible mitigation measures of these impacts. Consultations did not assess impacts and possible mitigation measures of the new road on the vulnerable people. The consultation report lists measures, such as the need for adapted buses and bus stops; improved safety measures for the existing road; including reductions of speed of cars travelling on the existing road; the need for repair of pot holes; drainage areas; and improvement of curbs that are a hazard to vision impaired people walking around. The need to improve an under-path under the existing road was highlighted. The survey questions did include one question on the desirability of resettlement as a result of the new road. The consultation report states that of the vulnerable people who responded to the survey questionnaire, 47 percent preferred to be resettled while 26 percent expressed a reluctance to be resettled.

39. As no consultations have taken place to assess the impacts to vulnerable people, particularly, the vision impaired people, of the construction of the new road which passes very near the residential buildings, the consultations so far conducted do not respond to the requirements of Action item 3.3. Though the methodology prepared very clearly lay down the objectives of consultations, the CRP, from the available records of consultation, finds that the consultation methodology was not fully implemented in the consultation process. It is also not clear how and when these consultations, as per the methodology keeping focus on the objectives of the consultations, would be conducted in the near future. The importance of such impact assessments as part of ADB policies was emphasized in paras. 55-58 of the CRP’s compliance review report.¹² The compliance review report found noncompliance with SPS, Appendix 1, para. 8 and OM Section C3/OP para. 5 which requires that project impacts on vulnerable people are identified and mitigated. This impact assessment has, as yet, not been done and no mitigation program has been established. The consultations conducted are thus not responsive to Action

¹¹ MDF and ADB. Loan 3063-GEO: Sustainable Urban Transport Investment Program Tranche 3: *Remedial Action Plan for Targeted Consultation: Methodology Statement*, June 2017 available at https://www.adb.org/sites/default/files/project-documents/42414/42414-043-sddr-en_4.pdf.

¹² Footnote 9, pages 22-23.

item 3.3 of the remedial action plan which calls for consultation to assess impacts during construction and operation of the new road. The consultations are also not responsive to the provisions laid out in the Methodology Statement for the Targeted Consultations, which states: *“The objective of the targeted consultations is to ensure that (i) all vulnerable people are provided with information to fully understand the likely impacts of the Project on their lives during construction and operation phases; (ii) all vulnerable people are given the opportunity to express their views, opinions, and concerns in relation to the Project; (iii) all vulnerable people are given the opportunity to discuss and propose potential mitigation measures; and (iv) the Project obtains information to facilitate an understanding of the concerns and challenges faced by the vulnerable people of Ponichala in relation to the Project and in their day to day lives.”*¹³

40. The CRP recognizes that information collected during the consultations so far conducted are useful to improve the present living areas and to make them more appropriate especially for vision impaired people. The CRP also recognizes the importance of the survey conducted which identifies the households with vision impaired and other vulnerable people. The survey provides the knowledge of the population which is vulnerable and vision impaired. Proposals for improvements in the present infrastructure, might be incorporated in the improvements to the Ponichala living area which is planned under the Project. But consultations on the impacts of the new road on vulnerable people, including both impacts during the construction and the operation phase, still need to be conducted. Moreover, once the impacts have been identified in consultations with the vision impaired people, mitigation measures with vision impaired people need to be consulted with the affected group and a mitigation program needs to be defined and subsequently implemented. The CRP is of the view that these consultations need to focus on vision impaired people, with particular focus on those households in buildings directly adjacent to the road, such as buildings Number 8, V, 12 v/g, 16 a/b and 28a. In these five buildings, a total of 64 vision impaired people lives. The number of vision impaired people is particularly high in building 16 a/b, where 20 vision impaired people live. A number of these vision impaired people live in one room apartments facing the direction where then new road will be built. As the apartments only have one window, vision impaired people in these one-room apartments will be significantly impacted by noise and vibrations, even maybe by dust, during the construction period. Important impacts, especially during construction, will also be felt in Building No. 8, which is the building located most closely to the new road and the construction site.

41. To bring the Project into compliance with ADB operational policies and procedures, ADB needs to assure that consultations are conducted with vision impaired people to assess impacts during construction and operation of the new road (Action item 3.3), and to share the findings and proposed measures with the local community (Action item 3.5). Further, ADB is required to implement mitigation measures for these impacts (Action item 3.6) in a time bound manner. The consultation need to be conducted prior to construction as the period of construction is the subject of the consultations. For the vulnerable people, the objective of outstanding consultations is the agreement of a mitigation program during construction. The other outstanding consultations are to inform the people on the final project design and inform them about the construction process and on participatory measures during the construction phase. The CRP requests that this additional consultation report and program for mitigation measures be submitted for review and comment prior to finalization (Action item 3.4). The CRP suggests that submitted consultation report (pages 1-20) be translated in local language and be posted on ADB and MDF websites and that the supplemental consultation reports or at least a summary of those with mitigation program then also be translated and posted on ADB and MDF websites, once completed.

¹³ Footnote 11, para. 3.

42. **CRP conclusions regarding compliance with Action No. 3.** The CRP finds that Management is in partial compliance with this action item. ADB needs to do substantial additional work to reach compliance with SPS, Appendix 1, para. 8. The following measures remain outstanding:

- (i) conduct targeted consultations with vision impaired people to assess impacts during the construction and operation of the new road on vision impaired people living in buildings adjacent to the new road (including buildings No. 8, V, 12 v/g, 16 a/b and 28a) and to consult on possible mitigation measures (Action item 3.3);
- (ii) define a social assistance program of measures to mitigate impacts especially during construction of road;
- (iii) submit results of targeted consultations on impacts of road construction and proposed mitigation program to CRP for review and comment prior to finalization;
- (iv) translate results of consultations on impacts during construction and proposed mitigation measures into local language and post on ADB website (Action item 3.5);
- (v) implement agreed mitigation measures (action item 3.6); and
- (vi) translate Consultations Report for Ponichala (pages 1-20, dated December 2017) and post on ADB and MDF website.

D. Impacts on River Ecology

Status of Compliance: ADB is in partial compliance with this action.

Management's Action Plan No. 4: Action to address ADB's noncompliance in relation to CRP's findings on impacts on water and river ecology¹

River Ecological Impact:

- 4.1 Establish baseline survey, conduct ecological screening and impact assessment study to investigate impacts of project construction and operation on the river, with particular attention paid to impacts on protected fish species, if detected.
- 4.2 Draft report reviewed by ADB and MDF and shared with CRP for review.
- 4.3 Translate summary of draft report into local language, disseminate and conduct consultations with local stakeholders.
- 4.4 Implement mitigation measures based on an updated environmental management plan (EMP), which would include specific EMP for the river ecosystem to be affected by the road with additional mitigation measures based on the findings and recommendations of the river ecology report.
- 4.5 Revise the design of the storm water drainage to protect the river water in case of traffic accidents. Contingency plans will be prepared as part of the site specific environmental management plan. The volume of storm water retention basin with oil separator, has to in the magnitude to store the content of one full tank volume of a truck.

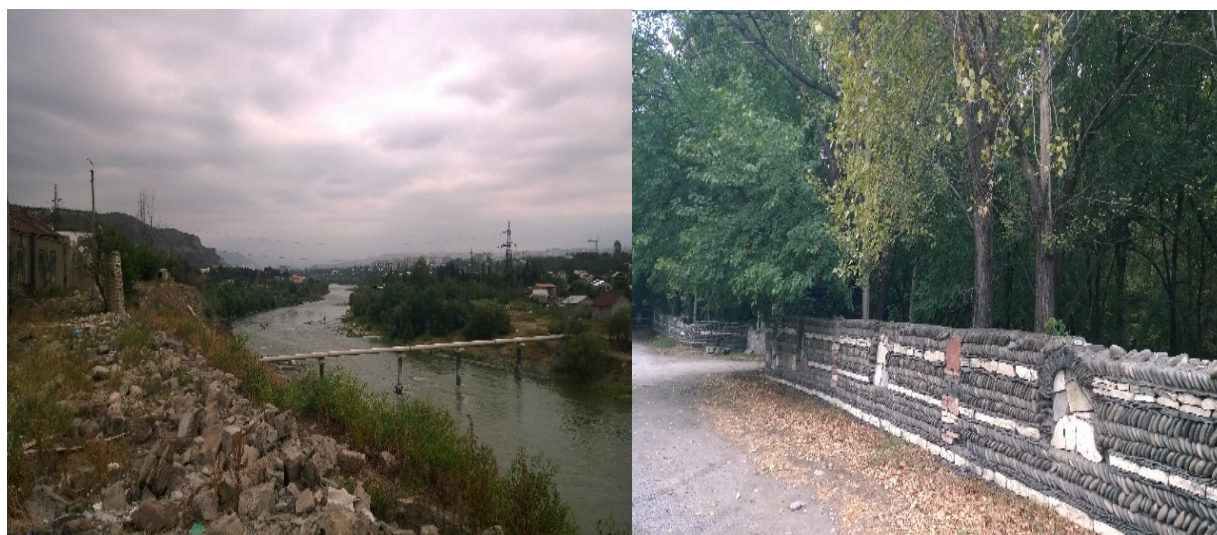
(See Appendixes 1 and 3 for the full text and details of the Management's Remedial Action Plan and the Management's Remedial Action Plan Final Solution, respectively.)

43. **CRP findings regarding compliance with Action No. 4.** The CRP notes that ADB has conducted a river ecology screening and impact assessment study to investigate the ecological sensitivity of the river; assess the magnitude of impacts from the Project; and propose likely

mitigation measures. The report concludes that impacts from the Project on the Mtkvari River ecosystem will be minor. However, the study does conclude that the Mtkvari River while degraded, is still considered to be a natural habitat. ADB therefore informed the CRP that in order to meet the requirements of SPS, the SSEMP will be prepared (Action item 4.4) with additional mitigation measures based on the findings and recommendations of the ecology report. ADB further informed that the SSEMP would also include the compliance of action 4.5 regarding storm water drainage system.

44. ADB has also proposed to undertake habitat restoration along the river banks to mitigate the residual impact on the natural habitat, to create additional riparian areas with connection to adjacent parklands and meet no net loss requirements. During the annual monitoring mission, the CRP was informed that the proposed SSEMP and also, habitat restoration programs (Action item 4.4) are being reviewed by ADB and will be submitted to the CRP for review and comments before finalization. The CRP is of the view that the environmental restoration measures need to be undertaken, preferably, prior to occurrence of the actual impacts but in any case, at least, simultaneous to project development activities. ADB needs to consider this aspect of undertaking and implementing the several measures proposed under the environmental management plan, simultaneous with project development activities.

Figure 5: A section of the Mtkvari River and the National Forest Park which are part of the environmental impact zone of the Project



Source: OCRP

45. The CRP notes that about 57 trees, under the national red-list, are to be cut and removed from National Forest Park due to the construction of the Project. During the annual monitoring mission, ADB informed the CRP that per Georgian legislation, compensation will be paid for felling of red-list tree species and prior to this all legal requirements will have to be met before felling can commence. In addition to these legal requirements, the Project is committed to meeting a target of 'no net loss' per SPS requirements and so replanting of red-list tree species and others will be included in the habitat restoration plan referred above.

46. The CRP was informed that the storm water drainage has been suitably modified and the SSEMP which will be submitted to the CRP for review and comments before finalization, will include these details.

47. **CRP conclusion on compliance with Action No. 4.** This action item is in partial compliance. The following measures need to be undertaken to reach compliance:

- (i) ADB shall submit the SSEMP and the ecological restoration plan to the CRP for review and comments before finalization (Action items 4.4 and 4.5). The CRP finds it necessary that the ecological restoration plan need to include site details; quantum of restoration work; methodology for execution of works; monitoring and supervision; expected cost; and timelines proposed for such program.
- (ii) ADB needs to ensure that all the proposed actions and measures as part of EMP are implemented in a time bound manner. (Action item 4.4.)

E. Consultations

Status of Compliance: At the time of this report, ADB is in partial compliance with this action.

Management's Action Plan No. 5: Action to address ADB's noncompliance in relation to CRP's findings on consultations¹

- 5.1 Communications specialist, directed by the project team, prepares a methodology for conducting additional meaningful and targeted consultations with different stakeholders (this action is done in parallel to item 3.2 above).
- 5.2 Conduct consultations in accordance with actions specified in action items 1.3, 2.3, 3.3 and 4.3.
- 5.3 Records on consultation conducted for action items 1.3, 2.3, 3.3 and 4.3 to be reviewed by ADB and MDF and shared with CRP for comments.
- 5.4 Findings of further consultations to be shared with CRP.

(See Appendixes 1 and 3 for the full text and details of the Management's Remedial Action Plan and the Management's Remedial Action Plan Final Solution, respectively.)

48. **CRP findings regarding compliance with Action No. 5.** The Consultations Report submitted to the CRP in December 2017, summarized consultations conducted in November 2017. In these consultations findings of the noise and vibration impact studies were presented as well as findings of the study on the river ecology. According to information received by the CRP, all residents of the project affected buildings were invited to these consultations. Appropriate consultations for Action items 1.3, 2.3, and 4.3 were thus conducted. As laid out in paragraphs 38-41 of this report appropriate consultations on the impacts of the new road on vision impaired people still need to be conducted. Consultation measures in respect to Action item 3.3. are thus still outstanding. The noise, vibration and impact study on river ecology have also been disclosed on the ADB website.

49. However, potential affected residents in Ponichala have not been informed yet about the detailed alignment of the road and the mitigation measures chosen. While the studies presented in the consultations during November 2017, presented different options for mitigation of noise and ecological impact and vibration monitoring, residents do not yet, know what specific mitigation measures have been chosen. As there is much uncertainty about the exact alignment of the road and details about the noise tunnel/gallery and the location and nature of the noise barriers, there is much anxiety and misunderstanding among the affected residents about efforts expected to be made by ADB and MDF to mitigate noise impacts and to assure that vibration impacts will remain within the acceptable limits. It is important that the residents be informed as soon as possible

about the specific alignment of the road and the location of noise barriers and the tunnel or gallery to be constructed to reduce noise impacts to the appropriate levels. Ongoing consultative processes should also be conducted throughout the construction period with representatives of group of residents in an organized and structured manner. Such ongoing consultations would allow the Project to respond quickly to unexpected impacts and to be responsive to residents' concerns. Participatory processes should also be established in vibration and noise monitoring efforts. Such structured participatory monitoring processes have been useful in other projects monitored by the CRP where participation of representatives of the population have helped to establish trust in the validity of the data gathered and the monitoring process.

50. To complement the consultations with project affected people, ADB should continue its efforts to assure that a functioning project level grievance redress mechanism (GRM) is accessible to the people. The CRP has been shown records by MDF which provide evidence that a system has been established where grievances are recorded. While numerous grievances seem to have been recorded relating to compensation issues which arose from resettlement claims, no grievances have been recorded since December 2017. It is important that residents of the buildings which are affected by the road are fully aware where they can address grievance concerns, and that these complaints are recorded and addressed by the implementing agency and that ADB pays appropriate attention in its supervision efforts to ensure that the project grievance redress system is accessible and operates effectively.

51. **CRP conclusion regarding compliance with Action No. 5.** This action item is in partial compliance. To achieve full compliance, the following measures should be taken:

- (i) conduct consultation process for Action item 3.3 (see paras. 37, 38, and 39);
- (ii) inform residents about the selected final solution based on noise and vibration impact and ecological impact studies already presented;
- (iii) conduct ongoing consultations during construction with representatives of a group of project affected people; and
- (iv) maintain an effective project level grievance mechanism.

F. Environmental Categorization of the Project

Status of Compliance: Project categorization remains but Project shall be monitored by ADB Management as if it was category A.

Management's Action Plan No. 6: Action to address ADB's noncompliance in relation to CRP's findings on environmental categorization of the Project.

52. The CRP recommended that the Project be categorized as Category A for Environment. Per the Board-approved RAP of 30 June 2017, the project categorization was to be determined after the completion of all studies. The approved final solution as of 03 May 2018 states that project categorization remains but it shall be monitored by ADB Management as if the Project was category A. During its annual monitoring mission, the CRP was informed that ADB operations department had conducted four supervision missions from December 2017 to June 2018, which is in line with this monitoring protocol. Similarly, semi-annual progress reports on compliance of RAP have been submitted to the CRP on 25 July 2018 for review.

53. **CRP conclusion regarding compliance with Action No. 6.** ADB will remain in compliance as long as it implements and conducts loan supervision and review of the Project as what is done for category A projects for environment.

V. CONCLUSION

54. The CRP notes in this first annual monitoring report that

Management's Action Plan Topic	Feedback to Management on Actions to Bring the Project into Full Compliance
1) Noise Impacts	<p>Status of compliance: Partial Compliance</p> <ul style="list-style-type: none"> (i) The noise mitigation approach and strategies during construction and operation need to be finalized after the consultation with affected people (Action items 5.3 and 5.4) and record of such consultations shared with the CRP. (ii) ADB shall share the final solution for noise mitigation during operation, once the design of tunnel and noise wall barrier is finalized, with the detailed assessment of the expected noise mitigation (insertion loss) as compared to the applicable noise standards for review and comments of the CRP. (Action item 1.3) (iii) ADB shall share details of the proposed the temporary noise mitigation measures during construction period and its adequacy to comply with the applicable noise standards to CRP for review and comments. (Action item 1.6) (iv) The details of noise monitoring program (ToR) during construction and operation including the location of sampling, sampling frequency, duration, etc. shall be submitted to the CRP for review and comments. (v) The SSEMP which is expected to have detailed construction plan, temporary noise mitigation measures, enforcement strategies, etc., shall be shared with the CRP for review and comments before finalization. (vi) Implement the mitigation and monitoring measures. (Action items 1.4 to 1.6)
2) Vibration Impacts	<p>Status of compliance: Partial Compliance</p> <ul style="list-style-type: none"> (i) The vibration impact mitigation approach and strategies for the construction and operation phase need to be finalized after the consultation with local people (Action 5.3 and 5.4 read with Action 2.7 and 2.8) and record of consultations be shared with the CRP. The CRP has already communicated its comments on consultation strategy through memo dated 27 June 2017. (ii) ADB shall examine specific impacts of vibration due to rock cutting near building 28a as the cutting activity is located only 14m from the building edge.

	<ul style="list-style-type: none"> (iii) ADB shall share the details of final solution and actions proposed along with methodology for works to be carried out under action 2.7 and 2.8 with the CRP for review and comments. (iv) The SSEMP which is expected to ensure compliance of action 2.6 and likely to include detailed construction plan; deployment of the machineries; temporary vibration control and mitigation measures; vibration monitoring system, enforcement strategies; shall be shared with the CRP for review and comments before finalization. (v) ADB shall implement the proposed mitigation measures and monitoring system as per action 2.5 to 2.8.
3) Impacts on vulnerable groups	<p>Status of compliance: Partial Compliance</p> <ul style="list-style-type: none"> (i) conduct targeted consultations with vision impaired people to assess impacts during the construction and operation of the new road on vision impaired people living in buildings adjacent to the new road (including buildings No. 8, V, 12 v/g, 16 a/b and 28a) and to consult on possible mitigation measures (Action item 3.3); (ii) define a social assistance program of measures to mitigate impacts especially during construction of road; (iii) submit results of targeted consultations on impacts of road construction and proposed mitigation program to CRP for review and comment prior to finalization; (iv) translate results of consultations on impacts during construction and proposed mitigation measures into local language and post on ADB website (Action item 3.5); (v) implement agreed mitigation measures (action item 3.6); and (vi) translate Consultations Report for Ponichala (pages 1-20, dated December 2017) and post on ADB and MDF website.
4) Impacts on river ecology	<p>Status of compliance: Partial Compliance</p> <ul style="list-style-type: none"> (i) ADB shall submit the SSEMP and the ecological restoration plan to the CRP for review and comments before finalization (Action items 4.4 and 4.5). The CRP finds it necessary that the ecological restoration plan need to include site details; quantum of restoration work; methodology for execution of works; monitoring and supervision; expected cost; and timelines proposed for such program. (ii) ADB needs to ensure that all the proposed actions and measures as part of EMP are implemented in a time bound manner. (Action item 4.4.)

5) Consultations	<p>Status of compliance: Partial Compliance</p> <ul style="list-style-type: none"> (i) conduct consultation process for Action item 3.3 (see paras. 37, 38, and 39); (ii) inform residents about the selected final solution based on noise and vibration impact and ecological impact studies already presented; (iii) conduct ongoing consultations during construction with representatives of a group of project affected people; and (iv) maintain an effective project level grievance mechanism.
6) Environmental categorization of the Project	<p>Status of compliance: Full Compliance</p> <p>ADB will remain in compliance as long as it implements and conducts loan supervision and review of the Project as what is done for category A projects for environment.</p>

/S/ Dingding Tang

Chair, Compliance Review Panel

/S/ Arntraud Hartmann, Panel Member

Part-time Member, Compliance Review Panel

/S/Ajay Deshpande

Part-time Member, Compliance Review Panel

Manila, Philippines

21 August 2018

REMEDIAL ACTION PLAN APPROVED BY THE ADB BOARD OF DIRECTORS



Project Number: 42414-043
Loan Number: 3063
June 2017

Proposed Remedial Action Plan Georgia: Sustainable Urban Transport Investment Program Tranche 3

This document will be disclosed by the Compliance Review Panel on the ADB website after the Board's decision on Management's proposed remedial actions, in accordance with the Accountability Mechanism Policy (2012).

Asian Development Bank

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 documents, the Asian Development Bank does not intend to make any judgement as to the legal or other status of any territory or area.

Attachment 1

**L3063-GEO: SUSTAINABLE URBAN TRANSPORT INVESTMENT PROGRAM (SUTIP)
TRANCHE 3
REMEDIAL ACTION PLAN**

1. This document outlines ADB Management's proposed remedial action plan ("Action Plan"), which is submitted to the Board of Directors for its consideration and approval pursuant to paragraph 191 of the Accountability Mechanism Policy (2012) ("**AM Policy**"). The Action Plan takes into account the comments of the Compliance Review Panel ("CRP") shown in attachment 2 and received on 29 May 2017. In accordance with paragraph 190 of the AM Policy, the executing agency has agreed to the remedial actions Action Plan on 30 May 2017.

A. Introduction

2. The Compliance Review Panel ("CRP") on 13 February 2017 submitted its final report ("**CRP Report**") for the above project ("**Project**"). The CRP found Asian Development Bank ("**ADB**") out of compliance with its operational policies and procedures in six aspects: (i) noise impacts, (ii) vibration impact, (iii) impacts on vulnerable groups, (iv) impacts on water and river ecology, (v) consultations, and (vi) environment categorization of the project. The report finds air quality impact compliant.

3. The Action Plan is attached as Appendix 1 and includes the actions and timelines to bring the Project into compliance with ADB's relevant policies. While it is ADB's responsibility to take all the required measures to bring the Project back into compliance with ADB's policies, the action to implement such measures 'on the ground' will be undertaken by Municipal Development Fund of Georgia ("**MDF**"), the executing agency for the loan, unless otherwise indicated in the Action Plan. Implementation will be monitored by ADB.

4. ADB acknowledges the ongoing cooperation of MDF in addressing the various issues which have arisen from ADB's noncompliance with its policies. This demonstrates Ministry of Regional Development and Infrastructure (MRDI) and MDF's strong commitment to ensure compliance with ADB's policies. Management is positive that, with the support of MRDI and MDF, ADB can implement the Action Plan effectively and within the required timeline.

B. Approach and Methodology

5. In order to bring the project back into compliance, and in response to the findings of the CRP report, ADB and MDF propose to undertake an integrated approach¹ involving additional studies for noise impact, vibration impact, impact on the river ecology and targeted consultations at the community level with a particular focus on the vulnerable. This approach will be instrumental in identifying suitable solutions that are technically feasible, cost effective, and compliant with all relevant standards. Several specific action items will be determined following completion of such studies. ADB and MDF will review and assess the results and any alternative options revealed by such studies, and identify specific remedial actions that will most effectively and efficiently bring the project back into compliance. The identified solutions and actions will be submitted, through CRP, to the Board Compliance Review Committee (BCRC) of the Board of Directors for review. ADB and MDF will take into account the BCRC's and CRP's views from this review prior to the definitive inclusion of such actions in the remedial plan and implementation. Also, as required by

¹ The integrated approach refers to identifying a solution based on the results of the additional actions, see section D. This will concurrently address all six OCRP findings to bring the Project as a whole back to compliance with ADB's policies. This will be done by examining options for addressing each OCRP finding.

2 Attachment 1

ADB's Safeguard Policy Statement, consultations with communities must continue throughout the project, or if there are changes in the project. A summary of all the reports will be translated into local language, disseminated, and consulted with stakeholders, including the affected people. Final reports will be disclosed in ADB and MDF websites. An Action Plan agreed with the government is in **Appendix 1** and the schedule of actions proposed is presented in **Appendix 2**. ADB will share drafts of the additional studies with the CRP, as they become available to solicit CRP's feedback, prior to finalization of the results. A summary of cost estimates in relation to the actions is set out in **Appendix 3**.

C. Implementation Timelines

6. The proposed Action Plan is to be implemented over a period of three (3) years, to be completed by June 2020. During this period, ADB and MDF will: (i) provide CRP with the final reports of the further studies, as stated in the Action Plan; (ii) monitor implementation of the actions on an on-going basis; (iii) and submit semi-annual progress reports to CRP at the end of June and December of each year. The reports to the CRP will detail, for each item, the latest status of the actions taken, in progress or to be taken, referencing the scheduled dates (including any updates) specified in the Action Plan. The objective of this semi-annual reporting is to assist the CRP in carrying out its monitoring and reporting to the ADB Board on the status of implementation of the Action Plan pursuant to paragraphs 192 – 194 of the AM Policy. The progress reports will be publicly disclosed on ADB's website. The CRP's monitoring reports will be publicly disclosed on ADB's website pursuant to paragraph 3 (viii) of Appendix 9 of the AM Policy.

D. Actions Taken and Update

7. As described in Section B, ADB and MDF have initiated activities that feed into the Action Plan to bring the project back into compliance. These activities are in the form of studies, surveys and researches including:

8. **Noise Impacts:** ADB has undertaken a study of the noise impacts of the project as required by the WHO noise standards reflected in the WB EHS Guidelines. As a part of this study, a comprehensive baseline of the ambient noise is established, followed by modelling for noise levels in the construction and operation stage of the project at various times in the future, and under various scenarios involving different mitigation methods. The report investigates four options through which compliance with the WHO standards reflected in the WB EHS Guidelines can be achieved, these are: (i) eight meter high noise wall and removal of five buildings (apartments 8, V, 12VG, 16A/B and hotel); (ii) nine meter high noise wall and removal of four buildings (apartments 8, V, 12VG and 16A/B); (iii) five meter noise wall, improved road surface, and removal of four buildings (apartments 8, V, 12VG and 16A/B); and (iv) five meter noise wall with noise tunnel. This study is expected to be completed by June 2017.

9. **Vibration Impacts:** MDF has initiated a vibration impacts study. Through this study the natural frequencies of the core and annexes (voluntary additions) of the buildings in the Ponichala area will be measured, the impacts of the vibration are then modelled for the core and annexes, if there are impacts, appropriate mitigation measures will be recommended. The study will include vibration modelling based on the changes in vibration impacts that may result from different noise mitigation scenarios and likely impacts and correspondent mitigation measures for the vibration affected buildings. The second draft will be ready in June 2017.

Attachment 1 3

10. **Targeted Consultations:** MDF has initiated a process of developing a comprehensive communications strategy for the project. A national communication specialist has been recruited to assist MDF to develop this strategy, which includes undertaking targeted consultations in the project area, with a focus on vulnerable and in particular vision impaired people. These consultations will include a combination of household surveys, focus group discussions, semi-structured interviews and open meetings and will be undertaken under the close supervision of ADB.

11. **River Ecological Impacts:** A river ecology screening and impact assessment study has been initiated to investigate the ecological sensitivity of the river to the project, and will assess the impacts and likely mitigation measures. Samples will be taken from the river and will be tested, examined and analyzed by experts involved in the study.

12. **Storm Water drainage:** The MDF through design engineer will revise the storm water drainage design to protect the river water in case of traffic accidents. Contingency plans will be prepared as a part of the site specific environmental management plan.

E. Next Steps

13. Implementation of the actions in Appendix 1 is as agreed between ADB and MRDI/MDF by the proposed target date.

APPENDIX 1 PROPOSED ACTION PLAN

Note: All scheduled dates (unless otherwise stated) are for the completion of the relevant action by the end of the specified month.

1	Action to address ADB's noncompliance in relation to CRP's findings on noise impacts²	Scheduled date
1.1	Noise Impacts Study: Establish noise baseline in Ponichala and model under different scenarios to establish compliance with WHO standards reflected in the WB EHS Guidelines.	April 2017 (completed)
1.2	Draft Noise Impact Study report reviewed by ADB and MDF and shared with CRP for review.	May 2017
1.3	Selection of a noise mitigation approach which will bring the Project into compliance with ADB's policies and requirements.	June 2017
1.4	Start implementation of mitigation option following the integrated approach.	August 2017
2	Action to address ADB's noncompliance in relation to CRP's findings on vibration impacts³	Scheduled date
2.1	Vibration Impacts Study: Measure the natural frequencies of the core and annexes of the buildings in the Ponichala. Model the impacts of the vibrations from the project and provide appropriate mitigation measures.	April 2017 (completed measurement of Natural Frequency)
2.2	Draft report with measured natural frequency reviewed by ADB and MDF and shared with CRP for review.	April 2017 (completed)
2.3	Second draft of the vibration report submitted to CRP for comments, including vibration impact assessments on the core and annexes, if annexes are significant, of the buildings under different noise mitigation scenarios.	June 2017
2.4	Selection of a vibration mitigation approach which will bring the Project into compliance with ADB's policies.	June 2017
2.5	Start implementation of mitigation option following the integrated approach.	August 2017
2.6	Operation of an effective monitoring system of vibration impacts during construction phase and inclusion of following in the contractual agreement with contractor: (i) Plan of location of vibration monitoring system (for structural assessment vibration of foundation, for impact on people in the flats);	Construction phase

² This corresponds with Findings A of the CRPs Report (pages 8 – 13).

³ This corresponds with Findings B of the CRPs Report (pages 13– 20).

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	<ul style="list-style-type: none"> (ii) Online analysis of vibration monitoring data (for structural assessment: DIN 4150-3 for impact on people DIN 4150-2); (iii) Definition of threshold values (early warning stage, exceedance) for an automatically generated message to a defined group of persons; (iv) Action plan in case of exceedance; and (v) Documentation and report of vibration monitoring. 	
2.7	Removal of loose parts from buildings subject to result of vibration impact study prior to beginning of construction work.	Prior to beginning of construction
2.8	Adequate securing of all annexes prior to construction work.	Prior to beginning of construction
3	Action to address ADB's noncompliance in relation to CRP's findings on impacts on vulnerable groups⁴	Scheduled date
3.1	Recruitment of a national communication consultant.	May 2017 (completed)
3.2	Prepare the methodology for targeted consultations with vulnerable people and groups.	May 2017
3.3	Conduct targeted consultations with vulnerable groups and people to assess impacts during (i) construction phase, and (ii) operations phase.	Jun 2017
3.4	Findings of the draft report to be reviewed by ADB and MDF and shared with CRP for review.	July 2017
3.5	The report findings and proposed measures will be translated in to local language and disseminated and discussed with affected people.	July to August - 2017
3.6	Implement identified mitigation measures following the integrated approach for protection of vulnerable people during (i) construction phase and (ii) operation phase.	Construction and operational phases
4	Action to address ADB's noncompliance in relation to CRP's findings on impacts on water and river ecology⁵	Scheduled date
4.1	River Ecological Impact: Establish baseline survey, conduct ecological screening and impact assessment study to investigate impacts of project construction and operation on the river, with particular attention paid to impacts on protected fish species, if detected.	April 2017
4.2	Draft report reviewed by ADB and MDF and shared with CRP for review.	June 2017
4.3	Translate summary of draft report into local language, disseminate and conduct consultations with local stakeholders.	
4.4	Implement mitigation measures, if required.	Construction and operational phases
4.5	Revise the design of the storm water drainage to protect the river water in case of traffic accidents. Contingency plans will be prepared as part	August 2017

⁴ This corresponds with Findings D of the CRPs Report (pages 21– 23).

⁵ This corresponds with Findings E of the CRPs Report (pages 23– 25).

6 Attachment 1

	of the site specific environmental management plan. The volume of storm water retention basin with oil separator, has to in the magnitude to store the content of one full tank volume of a truck.	
5	Action to address ADB's noncompliance in relation to CRP's findings on consultations⁶	Scheduled date
5.1	Communications specialist, directed by the project team, prepares a methodology for conducting additional meaningful and targeted consultations with different stakeholders (this action is done in parallel to item 3.2 above).	May 2017 onwards
5.2	Conduct consultations in accordance with actions specified in action items 1.3, 2.3, 3.3 and 4.3.	June 2017 (continuous thereafter)
5.3	Records on consultation conducted for action items 1.3, 2.3, 3.3 and 4.3 to be reviewed by ADB and MDF and shared with CRP for comments.	July 2017
5.4	Findings of further consultations to be shared with CRP.	As part of updates
6	Action to address ADB's noncompliance in relation to CRP's findings on environmental categorization of the Project⁷	Scheduled date
	To be determined after the completion of all studies.	

⁶ This corresponds with Findings F of the CRPs Report (pages 26– 28).

⁷ This corresponds with Findings F of the CRPs Report (pages 28– 30).

APPENDIX 2

SCHEDULE OF ACTIVITIES

Action	CRP Findings	March				April				May				June				July				August				September				October				November				December				
		W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4					
1 Recruitment of Consultant for noise modelling	Finding A																																									
2 Initial measurement of ambient noise levels and noise ambient noise modelling	Finding A																																									
3 Recruitment of consultant for vibration modelling	Finding B																																									
4 Initial measurement of measured natural frequency and to update the vibration modelling	Finding B																																									
5 Initial draft report with measured natural frequency reviewed by ADB and MCF and comments provided to update the vibration modelling. ADB submitted the initial draft to the CRP.	Finding B																																									
6 Recruitment of consultant for ecological screening	Finding E																																									
7 Recruitment of national communication expert	Finding D																																									
8 Preparation of communication strategy for meaningful and targeted consultation	Finding D & F																																									
9 Undertake special online mission to Georgia for preparation of action plan																																										
10 Signing MOU with Borrower																																										
11 Submission of draft action plan to CRP																																										
12 Submission of final Action Plan for Board submission																																										
13 Updated impact assessments on the buildings to be reviewed by ADB and MCF and shared with CRP.	Finding B																																									
14 The consultants to conduct an ecological baseline screening of the Mtskvari River.	Finding E																																									
15 Conduct targeted and meaningful consultations with the identified people and groups under action items 1.2, 2.3, 3.3 and 4.3 above	Finding D & F																																									
16 Submission of targeted and meaningful consultation report	Finding D & F																																									
17 ADB and MRCI select the best option for further action	Finding A & F																																									
18 Implementation of final option																																										
20 Operation of an effective monitoring system of vibration impacts action item 2.5																																										
21 Removal of loose parts from buildings action item 2.7																																										
22 Adequate securing of all accesses prior to construction work																																										
Source: Atter Development Bank Project Team																																										
Information flow																																										
Milestone date																																										

**APPENDIX 3
SUMMARY OF COST ESTIMATES FOR ACTION PLAN**

**Action Estimated Cost
(in US Dollars equivalent)**

Action	Estimated Cost (in US Dollars equivalent)
Noise impacts Study	\$50,000
Implementation of noise mitigation plan	To be determined based on the selected option.
Ambient vibration survey and dynamic identification and vibration model update	\$60,000
Implementation of vibration mitigation plan	Additional cost to be determined (Bill 12 of the civil works contract already includes straitening of voluntary additions)
Vibration monitoring	Already include in the civil works contract
Engagement communication expert to conduct targeted and meaningful consultations	\$35,000
River ecology screening and impact assessment	\$20,000
Environmental categorization of the Project	No additional cost
Engagement by ADB or MDF of technical support as required	\$300,000

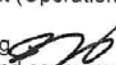
Asian Development Bank

Compliance
Review
Panel

Attachment 2

Memorandum
Compliance Review PanelCRP2017DT028
29 May 2017

To: Wencai Zhang
Vice President (Operations 1)

From: Dingding Tang 
Chair, CRP and concurrently Head, OCRP

Subject: **Draft Remedial Action Plan on L3063-GEO: Sustainable Urban Transport Investment Program – Tranche 3—CRP's Comments**

1. Thank you very much for your memo dated 19 May 2017 sharing the draft remedial actions with the Compliance Review Panel (CRP) on the above project and seeking its comments in accordance with paragraph 190 of the Accountability Mechanism Policy (AMP).
2. The detailed comments of the CRP on the remedial action plan and its Appendix 1 are provided in the attached matrix. Appendix 2 will need to be updated in light of these comments. Appendix 2 will need to include the additional action items outlined by the CRP for actions 2.6, 2.7, and 2.8. These will also extend the time frame as they will extend into the construction phase. Moreover, the consultation requirements listed by the CRP under action items 1.3, 2.3, 3.3, and 4.3 will need to be included in the list of actions in Appendix 2.

Attachment: Comments Matrix

cc: Chair, Board Compliance Review Committee; Director General, CWRD; Deputy Director General, CWRD; Deputy Director General, SDCC concurrently Chief Compliance Officer, SDCC; General Counsel, OGC; Country Director, GRM

MFF 0043: SUSTAINABLE URBAN TRANSPORT INVESTMENT PROGRAM (SUTIP)
Loan 3063 (SF)-GEO: SUTIP Tranche 3

CRP'S COMMENTS ON THE REMEDIAL ACTION PLAN

Proposed Remedial Actions by Management	CRP's Comments
<p>A. Introduction</p> <p>1. The Compliance Review Panel ("CRP") on 13 February 2017 submitted its final report ("CRP Report") for the above project ("Project"). The CRP found Asian Development Bank ("ADB") out of compliance with its operational policies and procedures in six aspects: (i) noise impacts, (ii) vibration impact, (iii) impacts on vulnerable groups, (iv) impacts on water and river ecology, (v) consultations, and (vi) environment categorization of the project. The report finds air quality impact compliant.</p> <p>2. This document outlines ADB Management's proposed remedial action plan ("Action Plan") to be submitted to ADB's Board for its consideration pursuant to paragraph 191 of the Accountability Mechanism Policy (2012) ("AM Policy"). In accordance with paragraph 190 of the AM Policy, the executing agency has agreed on 17 May 2017 to the remedial actions.</p> <p>3. The Action Plan is attached as Appendix 1 and includes the actions and timelines to bring the Project into compliance with ADB's relevant policies. While it is ADB's responsibility to take all the required measures to bring the Project back into compliance with ADB's policies, the action to implement such measures 'on the ground' will be undertaken by Municipal Development Fund of Georgia ("MDF"), the executing agency for the loan, unless otherwise indicated in the Action Plan. Implementation will be monitored by ADB.</p> <p>4. ADB acknowledges the ongoing cooperation of MDF in addressing the various issues which have arisen from ADB's noncompliance with its policies. This demonstrates Ministry of Regional Development and Infrastructure (MRDI) and MDF's strong commitment to ensure</p>	<p>This proposed remedial action needs to be submitted with CRP's comments to the Board for its review and consideration.</p> <p>The CRP is pleased to recognize the commitment of the ADB to conduct remedial actions to bring the project into compliance with ADB's requirements. As mitigation measures for vibration and noise impacts, for the protection of vulnerable people and ecological impacts will depend on outcomes of studies and consultations, the specific measures will be agreed upon with the CRP once studies and consultations have been completed.</p>

Proposed Remedial Actions by Management	CRP's Comments
<p>compliance with ADB's policies. Management is positive that, with the support of MRDI and MDF, ADB can implement the Action Plan effectively and within the required timeline.</p>	
<p>B. Approach and Methodology</p> <p>5. In order to bring the project back into compliance, and in response to the findings of the CRP report, ADB and MDF propose to undertake an integrated approach involving additional studies for noise impact, vibration impact, impact on the river ecology and targeted consultations at the community level with a particular focus on the vulnerable. This approach will be instrumental in identifying suitable solutions that are technically feasible, cost effective, and compliant with all relevant standards. Also, as required by ADB's Safeguard Policy Statement, consultations with communities must continue throughout the project, or if there are changes in the project. An Action Plan agreed with the government is in Appendix 1 and the schedule of actions proposed is presented in Appendix 2. ADB will share drafts of the additional studies with the CRP, as they become available to solicit CRP's feedback, prior to finalization of the results. A summary of cost estimates in relation to the actions is set out in Appendix 3.</p>	<p>To better understand the proposed "integrated" approach, the action plan should spell out what "integrated approach" means and what is the operational relevance of this approach for the remedial actions to be selected. The CRP assumes that what is referred to is that the option selected for noise mitigation also impacts the vibration mitigation actions and vice versa. Hence, the presentation needs to clarify the operational relevance of the "integrated approach".</p>
<p>C. Implementation Timelines</p> <p>6. The proposed Action Plan is to be implemented over a period of two (2) years, to be completed by June 2019. During this period, ADB and MDF will: (i) provide CRP with the final reports of the further studies, as stated in the Action Plan; (ii) monitor implementation of the actions on an on-going basis; (iii) and submit semi-annual progress reports to CRP at the end of June and December of each year. The reports to the CRP will detail, for each item, the latest status of the actions taken, in progress or to be taken, referencing the scheduled dates (including any updates) specified in the Action Plan. The objective of this semi-annual reporting is to assist the CRP in carrying out its monitoring and reporting to the ADB Board on the status of implementation of the Action Plan pursuant to paragraphs 192 – 194 of the AM Policy. The progress reports will be publicly disclosed on ADB's</p>	<p>(i) ADB needs to submit to CRP its semi-annual progress reports until all remedial actions have been completed up to 3 years. Remedial actions might extend beyond the 2-year framework laid out in the program as the CRP asks for inclusion of some measures which will take place when construction work commences (See action items 2.6, 2.7 and 2.8 in Appendix 1.)</p> <p>(ii) The CRP asks for submission of reports and comments prior to finalization and CRP review of mitigation option selected.</p>

Proposed Remedial Actions by Management	CRP's Comments
website. The CRP's monitoring reports will be publicly disclosed on ADB's website pursuant to paragraph 3 (viii) of Appendix 9 of the AM Policy.	
D. Actions Taken and Update	
7. As described in Section B, ADB and MDF have initiated activities that feed into the Action Plan to bring the project back into compliance. These activities are in the form of studies, surveys and researches including:	
8. Noise Impacts: ADB has undertaken a study of the noise impacts of the project as required by the WHO noise standards reflected in the WB EHS Guidelines. As a part of this study, a comprehensive baseline of the ambient noise is established, followed by modelling for noise levels in the construction and operation stage of the project at various times in the future, and under various scenarios involving different mitigation methods. The report investigates four options through which compliance with the WHO standards reflected in the WB EHS Guidelines can be achieved, these are: (i) eight meter high noise wall and removal of five buildings (apartments 8, V, 12VG, 16A/B and hotel); (ii) nine meter high noise wall and removal of four buildings (apartments 8, V, 12VG and 16A/B); (iii) five meter noise wall, improved road surface, and removal of four buildings (apartments 8, V, 12VG and 16A/B); and (iv) five meter noise wall with noise tunnel. This study is expected to be completed by June 2017.	The draft reports need to be submitted to the CRP for its review and comments before finalization and prior to selection of a mitigation option. At least a summary of the report needs to be translated into local language, disseminated, and consulted with stakeholders, especially the affected people. The final report should be disclosed to the public by posting it on ADB's website and MDF's project website, if possible.
9. Vibration Impacts: MDF has initiated a vibration impacts study. Through this study the natural frequencies of the core and voluntary additions of the buildings in the Ponichala area will be measured, the impacts of the vibration are then modelled, if there are impacts, appropriate mitigation measures will be recommended. The study will include vibration modelling based on the changes in vibration impacts that may result from different noise mitigation scenarios and likely impacts and correspondent mitigation measures for the vibration affected buildings. The second draft will be ready in June 2017.	(i) Vibration impacts need to be assessed on core structures and on annexes, if buildings have significant annexes. An assessment on core structures only is not sufficient. (ii) Draft study needs to be submitted to CRP for review and comments prior to finalization. (iii) Draft study needs to be disclosed and consulted with relevant stakeholders including, particularly, the affected people. Final report should be disclosed on ADB and MDF websites.
10. Targeted Consultations: MDF has initiated a process of developing	The communications strategy should be submitted

Proposed Remedial Actions by Management	CRP's Comments
a comprehensive communications strategy for the project. A national communication specialist has been recruited to assist MDF to develop this strategy, which includes undertaking targeted consultations in the project area, with a focus on vulnerable and in particular vision impaired people. These consultations will include a combination of household surveys, focus group discussions, semi- structured interviews and open meetings and will be undertaken under the close supervision of ADB.	to the CRP for review and comments prior to the commencement of consultations. Records need to be kept on consultations conducted and be available for monitoring by the CRP.
11. River Ecological Impacts: A river ecology screening and impact assessment study has been initiated to investigate the ecological sensitivity of the river to the project, and will assess the impacts and likely mitigation measures. Samples will be taken from the river and will be tested, examined and analyzed by experts involved in the study.	The report needs to be submitted to the CRP for review and comments prior to finalization. The final report should be disclosed at the ADB and MDF websites.
12. Storm Water drainage: The MDF through design engineer will revise the storm water drainage design to protect the river water in case of traffic accidents. Contingency plans will be prepared as a part of the site specific environmental management plan.	The design should be submitted to the CRP for review.
Next Steps	
13. Implementation of the actions in Appendix 1 is as agreed between ADB and MRDI/MDF by the proposed target date.	Noted.

APPENDIX 1 PROPOSED ACTION PLAN

Note: All scheduled dates (unless otherwise stated) are for the completion of the relevant action by the end of the specified month.

	Action item	Scheduled date	CRP's Comments
1	Action to address ADB's noncompliance in relation to CRP's findings on noise impacts ¹		
1.1	Noise Impacts Study: Establish noise baseline in Ponichala and model under different scenarios to establish compliance with WHO standards reflected in the WB EHS Guidelines.	April 2017 (completed)	Noted.
1.2	Draft Noise Impact Study report submitted for review	May 2017	Noise Impact study submitted to the CRP for review and comments prior to finalization.
1.3	Most feasible noise mitigation option selected following the integrated approach described in Section B .	June 2017	<p>The CRP is of the view that it should state: "Selection of a noise mitigation approach which will bring the Project into compliance with ADB's policies and requirements."</p> <p>Consultation with the CRP on the mitigation option selected for noise mitigation prior to finalization.</p> <p>Translate at least a summary of the report and proposed mitigation measures into local language, disseminate and consult with relevant stakeholders, including affected people, prior to finalization. Post final report on ADB and MDF websites.</p>

¹ This corresponds with Findings A of the CRP's Report (pages 8 – 13).

1.4	Start implementation of mitigation option.	August 2017	
2	Action to address ADB's noncompliance in relation to CRP's findings on vibration impacts²		
2.1	Vibration Impacts Study: Measure the natural frequencies of the core and voluntary additions of the buildings in the Ponichala. Model the impacts of the vibrations from the project and provide appropriate mitigation measures.	April 2017 (completed measurement of Natural Frequency)	Vibration impacts need to be modeled on both, core structures and annexes, if annexes are significant.
2.2	Draft report with measured natural frequency submitted for review.	April 2017 (completed)	Submission of draft report to the CRP for review and comments.
2.3	Second draft of the vibration report submitted, including vibration impact assessments on the buildings under different noise mitigation scenarios.	June 2017	(i) Draft vibration report to be submitted to CRP for review and comments prior to finalization. (ii) Vibration impacts need to be assessed on both, core building and annexes, if annexes are significant. (iii) Translate at least a summary of the report and proposed mitigation measures into local language, disseminate and consult with relevant stakeholders, including affected people, prior to finalization. Post final report on ADB and MDF websites.

² This corresponds with Findings B of the CRP's Report (pages 13 – 20).

2.4	Most feasible vibration mitigation option selected following the integrated approach (section B)	June 2017	CRP suggests wording: "Selection of vibration mitigation option to bring Project to compliance with ADB policies." Please clarify what is meant by the reference to "following integrated approach"?
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2.5	Start implementation of mitigation option.	<p>August 2017</p> <p>Construction phase</p> <p>Prior to beginning of construction</p> <p>Prior to beginning of construction</p>	<p>The CRP suggests addition of action items 2.6 to 2.8 below with corresponding proposed timeline (in the 3rd column of this matrix).</p> <p>2.6 Operation of an effective monitoring system of vibration impacts during construction phase and inclusion of this in the contractual agreement with contractor. This includes:</p> <ul style="list-style-type: none"> (i) plan of location of vibration monitoring system (for structural assessment vibration of foundation, for impact on people in the flats); (ii) online analysis of vibration monitoring data (for structural assessment: DIN 4150-3 for impact on people DIN 4150-2); (iii) definition of threshold values (early warning stage, exceedance) for an automatically generated message to a defined group of persons; (iv) action plan in case of exceedance; and (v) documentation and report of vibration monitoring <p>2.7 Removal of loose parts from buildings subject to result of vibration impacts study prior to beginning of construction work. See para. 37 of the CRP's final report on the compliance review of the Project where measures are outlined.</p> <p>2.8 Adequate securing of all annexes prior to construction work.</p>
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3 Action to address ADB's noncompliance in relation to CRP's findings on impacts on vulnerable groups ³			
3.1	Recruitment of a national communication consultant.	May 2017 (completed)	Noted.
3.2	Prepare the methodology for targeted consultations with vulnerable people and groups.	May 2017	Methodology for consultations needs to be submitted to the CRP for review and comments prior to commencement of consultations.
3.3	Conduct targeted consultations with the identified people and groups	Jun 2017	The text should read: "Conduct targeted consultations with vulnerable groups and people to assess impacts during (i) construction phase, and (ii) operations phase." The specification of both construction and operations phase is important as the impacts will be particularly strongly felt by vulnerable people during the construction phase.
3.4	Findings of the draft report to be reviewed by ADB and MDF and shared with CRP	July 2017	Noted.
3.5	Implementation targeted identified measures	August - December 2017	The CRP suggests replacing 3.5 with "The report findings and proposed measures should be translated into local language and disseminated and discussed with affected people." Further, the CRP suggests moving current 3.5 to 3.6 and revising it as follows: "Implement identified mitigation measures for protection of vulnerable people during (i) construction phase and (ii) operation phase."

³ This corresponds with Findings D of the CRP's Report (pages 21– 23).

4	Action to address ADB's noncompliance in relation to CRP's findings on impacts on water and river ecology ⁴		
4.1	River Ecological Impact: Conduct ecological screening and impact assessment study to investigate the ecological sensitivity of the river to the project, impacts of the project construction and operation; and recommended mitigation measures.	April 2017	Establish baseline survey and conduct ecological screening and impact assessment study to investigate impacts of project construction and operation on the river, with particular attention paid to impacts on protected fish species.
4.2	Draft report submitted for review	June 2017	Submit draft report to the CRP for review and comments. The CRP suggests adding the action items below. 4.3 Translate summary of draft report into local language, disseminate and conduct consultations with local stakeholders. 4.4 Implement mitigation measures, if required.

⁴ This corresponds with Findings E of the CRP's Report (pages 23–25).

4.3	Revise the design of the storm water drainage to protect the river water in case of traffic accidents. Contingency plans will be prepared as part of the site specific environmental management plan.	August 2017	This now becomes 4.5. Add following specification to current 4.3 (which will eventually become 4.5): "The volume of stormwater retention basin, with oil separator, has to be in the magnitude to store the content of one full tank volume of a truck."
5	Action to address ADB's noncompliance in relation to CRP's findings on consultations⁵		The CRP is of the view that the consultations should be conducted on the action items 1.3, 2.3, 3.3 and 4.3 and that meaningful consultations should be conducted on the specific studies and mitigation measures identified.
5.1	Communications specialist, directed by the project team, prepares a methodology for conducting additional meaningful and targeted consultations with different stakeholders (this action is done in parallel to item 3.2 above).	May 2017 onwards	Proposed methodology for conducting meaningful consultation for action items 1.3, 2.3, 3.3, and 4.3 (in the draft) needs to be reviewed and commented by the CRP before commencement of consultations.
5.2	Conduct consultations	June 2017 (continuous thereafter)	The CRP suggests to add: "in accordance with actions specified in action items 1.3, 2.3, 3.3, 4.3."
5.3	Findings of the draft report to be reviewed by ADB and MDF and shared with CRP.	July 2017	The CRP suggests the following wording: "Records on consultations conducted for action items 1.3, 2.3, 3.3, and 4.3 to be reviewed by ADB and MDF and shared with the CRP for comments."
5.4	Findings of further consultations to be shared with CRP.	As part of updates	Noted.

⁵ This corresponds with Findings F of the CRP's Report (pages 26–28).

6	Action to address ADB's noncompliance in relation to CRP's findings on environmental categorization of the Project⁶		
	To be determined after the completion of all studies.		Noted.

⁶ This corresponds with Findings F of the CRP's Report (pages 28–30).

ADB MANAGEMENT'S RESPONSE TO THE CRP'S COMMENTS ON THE REMEDIAL ACTION PLAN PROPOSED FINAL SOLUTION

L3063-GEO: Sustainable Urban Transport Investment Program – Tranche 3 Comments by the CRP on the proposed solution and specific measures to be included in the Remedial Action Plan

	CRP comment	Response
A.	Proposed Solution: The CRP is in agreement with the proposed solution (i.e., tunnel cum two noise walls cum speed restrictions to 80 km/hour) outlined in para. 8 of the attached Management memorandum provided that adequate consultations have been conducted with the affected people on (i) the noise mitigation study; (ii) the vibration study; and (iii) on the mitigation measures chosen. The RAP specifies that consultations need to be conducted and that records on consultations be reviewed by ADB and MDF and shared with CRP for comments (i.e., Action items 5.2 and 5.3). As the CRP has not received these records, the CRP does not have evidence on the consultations conducted and thus requests, that the records on consultations on action items 1.3, 2.3, and 4.3 be submitted to the CRP for review and comments.	Thank you. Both ADB and MDF held extensive consultations as per the plan with the communities and the civil societies. The consultations report was circulated to CRP on 18 December 2017. Detailed records of individual consultations are available in Georgian with MDF and will be provided before the end of February 2018. In addition, the records are being digitized by MDF and a link to view these will be shared with CRP once ready.
B.	Actions to be specified as Part of the Action Plan. The CRP will conduct its monitoring based on the Board approved RAP, complemented by the proposed solution. The CRP is of the view that specific measures outlined below need to be incorporated into the remedial action plan. They are follow-up measures which result from the studies and the solution selected. Generic provisions for such measures have already been provided for in the approved RAP. They thus do not constitute incremental measures.	Noted.
	(i) Action program for noise mitigation during construction. The CRP in its comments and compliance review report has emphasized the need for a noise mitigation program during construction as most residential buildings are in the immediate vicinity of the construction site. The CRP submitted its mitigation proposals as part of the review of the noise impact studies. Working hours should be restricted from Monday until Friday with work conducted only between 7 am – 7 pm. In addition, temporary noise barriers should be established in construction areas located near residential buildings. Noise mitigation measures adopted during construction need to be specified as part of action item 2.5 of the RAP.	Temporary noise barriers as recommended in the report will be installed during construction in areas located near residential buildings. Working hours specified in the contract will be updated in accordance with CRP recommendation.
	(ii) Noise monitoring program. The CRP is of the view that a noise monitoring program needs to be implemented to assess whether the noise mitigation measures presented in the proposed solution (i.e., tunnel cum noise barriers cum speed restrictions), is	Proposal is accepted and noise monitoring program will be implemented.

<p>effective in achieving the required noise standards. This view was expressed in the CRP comments submitted on 21 June 2017 which stated that the efficacy of the selected noise abatement option be monitored through a regular monitoring program for at least 2 to 3 years (with one set of sampling once a year), and if necessary, suitable additional/strengthening of the noise abatement measures.</p> <p>Preparation of a noise monitoring program, implemented during operations, needs to be incorporated into action item 2.5 of the RAP.</p>	
<p>(iii) Support program for vision impaired people during construction. The residential buildings affected by the proposed road have a total of 146 vulnerable households, including 75 households with vision impaired people. These people have been consulted in accordance with provisions of the RAP. The Management memorandum summarizes the consultations (paras.11-16) but does not propose actions on how vision impaired people can be supported during the construction period, when they will be heavily impacted by noise and vibration. Action item 3.6 of the RAP calls for the implementation of mitigation measures for vulnerable people during road construction and operation.</p> <p>The need for a social assistance program for vision impaired people during the construction period has been highlighted in the compliance review report (para. 56) and in the comments submitted by the CRP on 21 June 2017. The CRP requests that a program of mitigation measures for vision impaired people during construction, which incorporates adequate social assistance services to vision impaired people who are likely to lose their orientation during period of heavy noise and vibrations, be submitted to the CRP for review and comments, and subsequently implemented.</p> <p>Social service assistance measures should then be incorporated into action item 3.6 of the RAP.</p>	<p>Specific requests made by the vulnerable groups and others, including improved road safety in Ponichala including speed cameras, more traffic lights with sound signals, more functional underpasses, paved sidewalks and access roads, improved drainage, bus stops and public transports geared for the visually impaired and disabled, recreational area and parks in Ponichala, and noise barriers on the new road, will be implemented by the project.</p> <p>The vulnerable group will be supported with continued social monitoring and assistance during construction which will be led and coordinated by the MDF Communications Specialist. Under the program, the affected persons, particularly the vulnerable groups will be visited regularly. Specific additional measures to alleviate difficulties reported by residents will be identified and reported as part of project monitoring.</p>
<p>(iv) Issues raised during consultations with vulnerable people. Para. 17 of attached memorandum presents specific requests raised by people during consultations to improve road safety and access. They have also requested for suitable public transport system. Management should consult with MDF which of these specific requests should be incorporated into the design of the road project and specify the safety measures as well as access and public transport improvement measures adopted as</p>	<p>All of these specific requests will be addressed and incorporated into the project.</p>

	part of the measures under action item 3.6 of the RAP.	
	<p>(v) Removal and securing of loose building parts prior to construction. The RAP specifies that loose parts from buildings need to be removed to avoid injuries from parts falling during the construction (action item 2.7). The Management memorandum does not refer to this requirement. The requirement of contractors to remove loose parts from residential buildings and to undertake additional precautionary measures to avoid people being hurt by falling building pieces need to be incorporated into the contracts. Residential buildings are badly damaged by corrosion which over time leads to a decomposition of construction elements (see para. 40 of Compliance Review Report.). There is a possibility that semi-detached building parts come loose during the construction period. Para. 41 of the compliance review report thus states: "The danger of people being hurt can be averted by: (i) removing all loose parts outside of the building; (ii) fixing loose parts; (iii) repairing or changing problematic substructures; (iv) propping up problematic substructures; (v) barricading dangerous areas; (vi) removing problematic stores on the top of the building or the entire building, and (vi) communicating to the inhabitants of the building the dangers."</p> <p>ADB needs to do its due diligence to assure that appropriate removal of loose parts is adequately performed prior to construction. Possible injuries or fatalities which could occur during the construction period, pose a significant reputational risk to the ADB even if the cause of the harm would be the poor condition of the buildings and not the construction work. The CRP is of the view that utmost attention must be given to precautionary measures and adequate provisions have to be made in the contracts.</p>	<p>Due diligence of the existing consolidations will be conducted to assure that appropriate removal of loose parts is adequately performed prior to construction. This is in addition to reinforcement program of the voluntary additions (annexures).</p> <p>Proper signs and safety measures will be implemented by the contractor during the repairing process.</p>
	<p>(vi) Reinforcement of the annexes. The Management memorandum (para. 9) lists the need to reinforce annexes to prevent collapses during construction. Adequate securing of all annexes prior to construction work is included in action item 2.8 of the RAP. Residents have constructed numerous annexes to buildings, many of them large, in which residents live. Annexes have not been built in accordance with building standards and many of them are unstable. Possible collapses of these annexes during construction – even if not caused by vibration – could lead to injuries or fatalities and thus pose a reputational risk for ADB. The CRP is of the view that utmost attention has to be given to appropriately secure these annexes prior to construction.</p>	<p>Vibration studies, based on the actual measurements of the natural frequencies of the core and the voluntary additions (annexes) of the buildings conclude that they are within approved limits for residential buildings. All annexures will be strengthened before start of road construction.</p> <p>Project will ensure engineering options are adopted to adequately secure the smaller and larger annexes based on the specific conditions of each building prior to the construction.</p>

	<p>The Management memorandum refers to the engineering design laid out in the original study as the appropriate approach to secure annexes. The CRP is of the view that the engineering options laid out in the Initial Environmental Examination (IEE Volume 2) are adequate to secure the small annexes (such as balconies), but not the large annexes to the buildings where people reside. More comprehensive measures to secure these need to be incorporated in the contract of the construction contractor.</p>	
	<p>(vii) Monitoring of vibration impacts. The RAP (action item 2.6) states the requirement to monitor vibration impacts. The need to monitor vibration impacts is also recognized in the Management memorandum (para. 10). The CRP welcomes that vibration impacts will be monitored in all buildings concerned with participation of the residents. The CRP wishes to recall that, in addition to the monitoring approach laid out in para. 10 of the memorandum, the provisions stated in action item 2.6 of the RAP need to be incorporated into the contract.</p>	<p>The suggestions will be incorporated into the monitoring program and in the contract.</p>
	<p>(viii) River Ecological Impacts – Environmental Management Plan. The Management memorandum notes that the Mtkvari River is considered a natural habitat and to meet the requirements of ADB Safeguard Policy Statement, a site specific EMP needs to be prepared. Moreover, habitat restoration will be undertaken along the river banks. The CRP welcomes these provisions but notes that in the actions proposed (para. 22) Management only commits to the monitoring of these measures. The CRP requests that the draft site specific EMP be submitted to ADB and the CRP for review and comments and requests that this measure be included as a measure under action item 4.4 of the RAP.</p>	<p>The report concludes that impacts from the Project on the Mtkvari river ecosystem will be very minor. The site specific EMP will be updated to include a program for habitat restoration along the river banks to create additional riparian areas with connection to adjacent park lands. The updated EMP will be submitted for CRP's review as requested.</p>
	<p>(ix) Environmental categorization. The Management memorandum states (para. 23) that the "environmental impacts of the Project are confirmed as being within the footprint of the project, foreseeable, mitigable and reversible. Therefore, the environmental categorization of the project is not affected." Based on the environmental studies conducted, the CRP is of the view, that the Project will have significant environmental impacts and that some of these impacts will be irreversible. For example, the impacts on the hydrological and ecological environment of international rivers and the cutting of trees under the red list relating to biodiversity conservation, as well as the noise and vibration impacts to many vision impaired people (i.e., 75 individuals).</p>	<p>In the proposed remedial action plan, June 2017, management agreed to determine the project categorization after completion of additional studies recommended by CRP. In the case of noise impacts, the new studies showed that it was also possible to meet the WHO standards cited in the WB EHS guidelines. The vibration study performed on the 10 buildings and their annexes showed that the impacts will be lower than the thresholds assigned by the UNI 9916 / ISO, and the expected level of vibrations caused by the new road construction will not result in any danger or damages to the considered buildings or the annexes. Noise and</p>

	<p>Therefore, the CRP considers it necessary to upgrade the environmental category of the Project from B to A to strengthen the enforcement and monitoring of implementation of final solutions in order to ensure the effectiveness of proposed remedial measures and solutions.</p>	<p>vibration are within the international standards, which do not provide different standards for visually impaired people. The study of the river ecology concluded that the impact of the Project, as designed, on the river ecosystem was very minor and insignificant. The trees which will be cut are planted trees and not a part of a natural habitat. They will be removed after obtaining the permits both from Ministry of Environment (for red list trees) and Tbilisi Municipality (trees within municipality). Replanting program in IEE will mitigate the impact. The identified impacts will be managed through a customized site specific EMP and monitored semi-annually as originally envisaged in the IEE. Furthermore, CRP will undertake additional monitoring of all measures specified in the RAP. ADB therefore does not consider it justified or useful to recategorize the project.</p>
	<p>(x) Semi-annual Progress Reports. The CRP recalls that para. 6 of the RAP requires ADB Management to submit semi-annual progress reports to the CRP, "which will detail, for each item of the RAP, the latest status of the actions taken, in progress or to be taken, referencing the scheduled dates (including any updates) specified in the Action Plan." The Management Memorandum (para. 25) does not list this requirement.</p>	<p>Noted and will be reported accordingly.</p>
	<p>(xi) Consultations. The Memorandum describes the consultations conducted on the noise, vibration and ecological impact studies and the proposed solution (paras. 18-20). The CRP notes that the RAP (action item 5.3) requires that records on the consultation need to be reviewed by ADB and MDF and shared with the CRP for comments. The CRP has not received these records and thus request receipt of these consultation records. The CRP has received the report on consultations with vulnerable people and appreciates the extensive efforts made in the consultations with vulnerable people.</p>	<p>A comprehensive consultation process was implemented by the project. The consultations report was circulated to CRP on 18 December 2017. Detailed records of individual consultations are available in Georgian with MDF and will be provided before the end of February 2018. In addition, the records are being digitized by MDF and a link to view these will be shared with CRP once ready.</p>

REMEDIAL ACTION PLAN FINAL SOLUTION

L3063-GEO: SUSTAINABLE URBAN TRANSPORT INVESTMENT PROGRAM (SUTIP) TRANCHE 3 REMEDIAL ACTION PLAN FINAL SOLUTION¹

1. This document outlines the final remedial action plan ("Action Plan"), which is submitted, through the Compliance Review Panel (CRP), to the Board Compliance Review Committee (BCRC) of the Board of Directors for review. Asian Development Bank (ADB) and Municipal Development Fund of Georgia (MDF), the executing agency for the loan, will take into account the BCRC's and CRP's views from this review prior to the definitive inclusion of such actions in the remedial plan for implementation. The executing agency has agreed to the final remedial action plan on 12 December 2017.

2. The specific action items are determined following completion of all technical studies. Both ADB and MDF reviewed and assessed the results and alternative options revealed from the studies. The identified specific remedial actions are the most effective and efficient to bring the project back into compliance. The identified solutions and actions are detailed below.

A. Introduction

3. The CRP on 13 February 2017 submitted its final report (CRP Report) for the above project (Project). The CRP found ADB out of compliance with its operational policies and procedures in six aspects: (i) noise impacts, (ii) vibration impact, (iii) impacts on vulnerable groups, (iv) impacts on water and river ecology, (v) consultations, and (vi) environment categorization of the project. The report finds air quality impact compliant.

4. In accordance with paragraph 191 of the Accountability Mechanism Policy (2012) (AM Policy), the Remedial Action Plan was submitted to the Board of Directors on 7 June 2017 and a corrigendum to the action plan on 29 June 2017. The Board of Directors approved the proposed remedial action plan on 30 June 2017. As per paragraph 5 of the action plan, it requested the ADB to submit the final action plan, through CRP, to BCRC for review.

5. ADB acknowledges the continuous cooperation of MDF in addressing the various issues which have arisen from ADB's noncompliance with its policies. This demonstrates Ministry of Regional Development and Infrastructure of Georgia (MRDI) and MDF's strong commitment to ensure compliance with ADB's policies. Management is positive that, with the support of MRDI and MDF, the final remedial action plan will be implemented effectively and within the required timeline.

B. Actions Taken and Update

6. ADB and MDF initiated activities that feed into the Action Plan to bring the project back into compliance. The summary of the actions initiated, and current status is provided in Appendix 1. All studies are completed and submitted to CRP for review, and comments are publicly disclosed. The findings of the studies, surveys and research, and impact on the buildings are presented in Appendix 2 and summarized as follows:

7. **Noise Impacts:** The noise impact of the project was studied as required by the World Health Organization (WHO) noise standards reflected in the World Bank's Environmental,

¹ This Remedial Action Plan-Final Solutions include comments received from the CRP and BCRC.

Health, and Safety Guidelines (EHS Guidelines). As part of this study, a comprehensive baseline of the ambient noise was established, followed by modelling for noise levels in the construction and operation stages of the project at various times in the future, and under various scenarios involving different mitigation methods. For operation, the report suggested four options through which compliance with the WHO standards reflected in the EHS Guidelines can be achieved: (i) maximum of eight meter high noise wall (wall 1: 988m X 6 m and wall 2: 640m X 8m) and removal of five buildings (apartments 8, V, 12VG, 16A/B and hotel); (ii) maximum of nine meter high noise wall (wall 1: 1,120m X 6m, wall 2: 240m X 8m, and wall 3: 268m X 9m and removal of four buildings (apartments 8, V, 12VG and 16A/B); (iii) maximum of five meter noise wall (wall 1: 1,628m X 5m), improved road surface, and removal of four buildings (apartments 8, V, 12VG and 16A/B); and (iv) five meter noise wall (wall 1: 880m X 5m, and wall 2: 188m X 8m) with noise tunnel (length: 560m, width: 29.5m, and height: 5m). The report suggests during construction to provide temporary sound barriers in the areas of work.

8. **Action:** Following extensive consultations with the communities and the civil societies by both ADB and MDF, having a 5-meter noise wall with a noise tunnel was considered most efficient and effective in meeting the WHO noise standard and bringing the project back into compliance. This solution will only modify the already designed noise barrier in the existing contract (654.8 meters in length and height varied from 5 meters to 3 meters depending on the location) to one tunnel and noise walls. The tunnel will be 560m long, covering both carriageways and two noise walls, one 5-m high, 880 m long wall and the second 8-m high and 188 m long wall. The total area of the walls will be about 46% less than that of noise wall only option. As proposed originally, the speed in this section is limited to 80km/hour. The additional cost will be the modification of bill number 11 of current contract, with no involuntary resettlement, and no additional time to complete the works.

9. **Vibration Impacts:** MDF completed the vibration impacts study in two stages. Through the first study, measurement of the natural frequencies of the core and voluntary additions of the buildings in the Ponichala area was made. In the second study, vibration modelling was then completed based on the measured natural frequencies and vibration impacts that may result from construction of different noise mitigation measures. The report concludes that based on the analysis, vibration impacts are lower than the thresholds assigned by the UNI 9916 (Italian Criteria for the measurement of vibrations and the assessment of their effects on buildings) or International Standard Organization (ISO) 4866 for residential buildings and their annexes. The report recommends to: (i) instruct the contractor to strictly follow, with legal liability, the construction method and equipment list, and respect the boundaries of the construction provided in the contract; (ii) reinforce the annexes based on the engineering design of reinforcement works required in the original study and included as part of the contract; and (iii) conduct technical monitoring of all buildings with community participation.

10. **Actions:** ADB and MDF will continuously monitor the vibration impacts using electronic laser accelerometers during the construction phase with an action program that specifies procedure in case of exceedances of vibrations. The program will be implemented with participation of key stakeholders including the residents. As suggested in the original study and updated technical study, the safety measures to strengthen the annexes (voluntary additions) will be undertaken in all the buildings. The existing provisions and quantities in the contract will be modified to include all nine buildings to address this requirement. Safety instructions will be issued to all residents prior to reinforcement and strengthening of the annexes.

11. **Targeted consultations:** MDF and ADB completed the consultations with vulnerable residents in Ponichala, in an effort to explore and identify possible mitigation measures. This effort has been led and coordinated by a Communication Specialist (Georgian National) engaged by MDF, under the close supervision of ADB. The consultations methodology proposed consisted of: (i) individual household interviews; (ii) targeted focus group discussions; and (iii) open public consultations at locations close to the affected people. People were consulted on the anticipated impacts in relation to the construction and operation phases of the Project as well as on the challenges of their current day to day lives, and on potential mitigation measures that emerged through the additional studies. The consultations were delayed from initially anticipated time line due to delays in approval of the methodology and non-availability of residents due to the summer holidays.

12. **Individual household interviews:** A total of 95 visually impaired people in 75 households were identified, and an additional 71 households were identified belonging to other categories of vulnerability, namely (a) poor people, having under 65,000 points based on Government of Georgia social security scoring system (36 households); (b) internally displaced persons (IDPs) and refugees (8 households); (c) disabled and sick (9 households); (d) female led households (13 households); and (e) other mixed category (5 households). The visually impaired and other vulnerable households were identified through: (a) door to door survey of all units in 9 buildings; (b) the list of visually impaired people provided by the Union of Blind; (c) list of vulnerable people provided by the chairpersons of 9 buildings. The location and numbers by each building of these identified households are provided in Appendix 3. Only 19 number of visually impaired are facing the river or the proposed road. The balance people are either facing the old road or sidewalks.

13. **Individual household interviews** commenced in May 2017 and finished in September 2017. Although the target was to interview all visually impaired people, only 87% was covered by the interviews. Some visually impaired persons declined to participate in the process due to their ill health, absence from home, and other reasons. While the target for the poor households was 25%, the interviews covered 67%. Eighty-eight percent (88%) of IDPs were interviewed. Other groups of vulnerable households were covered 100% by interviews. Semi-structured interviews were used, with a set of questions used for guidance and to solicit points of view, while additional questions were asked based on specific responses provided.

14. **Focus group discussions:** Focus group discussions (FGD) with different categories of vulnerable people were organized in the Ponichala district during September 2017. In order to ensure easy access and comfortable atmosphere for the representatives of the vulnerable population, FGDs took place in the building of the Cultural Center of Union of Blind in the middle of the district. In total, 5 FGDs were organized with the following vulnerable categories: poor people (under 65,000 points), visually impaired (two FGDs), IDPs/refugees/disabled, and female led households. All FGDs were moderated by the communication specialist. ADB representatives acquainted the meeting participants with the preliminary outcomes of the individual household surveys, additional technical studies for noise and vibration, and study of the river ecology. Mitigation options recommended through these additional studies were discussed.

15. **During the FGDs with visually impaired people** participants were asked regarding the problems and challenges faced daily. Issues like poor condition of internal roads and sidewalks in the district, drainage system not in a proper condition, heavy traffic (outdated, overfilled busses) and the need for a functioning underpass and adding of several traffic lights with sound signal in this area were raised by participants. Regarding the proposed project, participants

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expressed varied opinions. Some people proposed that they be resettled, while others did not. Those who were against resettlement said that they were used to live in a friendly environment, acquainted with neighbors who provide assistance to each other when needed. These people felt that it would be difficult for them to live somewhere else. Participants discussed their concerns regarding the possible noise and vibrations from the new road and expressed fears that buildings may collapse. Expert representatives explained that electronic laser accelerometers will be installed in the named buildings in order to detect any unsafe fluctuations in vibration levels.

16. Overall, some residents from 9 buildings are willing to be relocated, mainly because of perceived noise and vibration concerns. However, peoples' position on resettlement varies significantly. Individual household interviews with 65 visually impaired residents from 9 buildings show a considerable number (46%) of visually impaired households expressing reluctance to be resettled, as they perceive the process to be onerous and stressful. Only 15% wanted unconditional resettlement, while 19% said that only cancelling the project entirely would be an acceptable outcome. Nine percent (9%) of respondents withheld their opinion.

17. **Actions:** People's demands of the project vary. Some group of vulnerable people request the proposed new road to be cancelled, while others expect the project to provide for improvements to people's quality of life, especially for the visually impaired and vulnerable. Specific requests include improved road safety in Ponichala including speed cameras, more traffic lights with sound signals, more functional underpasses, paved sidewalks and access roads, improved drainage, bus stops and public transports geared for the visually impaired and disabled, recreational area and parks in Ponichala, and noise barriers on the new road.

18. **Open public consultations:** MDF and ADB conducted a series of open public meetings with residents of all 9 buildings between 17 and 20 November 2017. Two public meetings were held with the people from 9 buildings and one meeting held with representatives of civil society organizations (CSOs). All technical studies were disclosed in advance. Full technical reports in English and summary reports in Georgian language were posted on MDF website on 10 November and 13 November 2017, respectively. The printed technical reports in both languages were shared with people ahead of the public meetings. The residents from all 9 buildings were invited to the public meetings in advance; those who were unavailable to join the meeting on 17 November 2017 were offered the opportunity to attend on 20 November 2017.

19. A total of 67 people participated in the three open public meetings - 39 attending on 17 November 2017 and 28 on the two meetings on 20 November 2017, respectively. CSOs that attended the public meeting include: Union of Blind, Friends of Earth/Green Movement, REC-Caucasus, and Green Alternative. Transportation was provided by MDF to take residents to the venue of the public meetings and bring them back to Ponichala.

20. During the public meetings, ADB and MDF presented key findings of all technical studies, including results of targeted consultations with the vulnerable people, and explained the proposed solutions to bring the project into full compliance with ADB policy (See Appendix 6 for all technical documents disclosed). The presentation was followed by extended discussions, where specific mitigation measures, monitoring requirements, and assurances were reviewed. The main concerns and questions raised by residents during both public meetings included: (i) exact distance of the proposed road and noise barriers/tunnel to the buildings; (ii) safety of the buildings and voluntary additions during the construction (e.g. use of heavy machinery,

construction methods, extent of the road intrusion into the river); (iii) design of noise barriers and tunnel (e.g. height of barriers/tunnel, amount of light that buildings receive); (iv) improvements envisaged under the project for the visually impaired and the other groups of vulnerable people in Ponichala; (v) cost of the noise barriers and tunnel versus relocation of 9 buildings; (vi) compensation for inconveniencing residents, such as new windows, air conditioners, other forms of entitlements; (vii) special considerations in the project design for the visually impaired and other vulnerable people; and (viii) reinforcement of voluntary additions and balconies. Questions and answers are included in the minutes of the meetings. The possibility of conducting a series of follow-up meetings to address specific concerns was offered to participants.

21. **River Ecological Impacts:** A river ecology screening and impact assessment study was completed to investigate the ecological sensitivity of the river to the Project, assess the magnitude of impacts, and propose likely mitigation measures. The study was undertaken by qualified national and international experts. The report concludes that impacts from the Project on the Mtkvari river ecosystem will be very minor. However, the study does conclude that the Mtkvari River while degraded, is still considered to be a natural habitat. Therefore, to meet the requirements of ADB SPS 2009, the site specific environmental management plan (EMP) will be prepared with additional mitigation measures based on the findings and recommendations of the ecology report. Furthermore, to mitigate the minor residual impact on the natural habitat, habitat restoration will be undertaken along the river banks to create additional riparian areas with connection to adjacent parklands.

22. **Action:** Once construction has started, ADB and MDF will closely monitor the project to ensure that mitigation as outlined in the EMP and the river ecology report is implemented. Monitoring will also focus on collection of data to confirm compliance with Project Standards and local legislation as laid out in the EMP. In addition, ADB and MDF will work closely with design engineers to identify areas suitable for riparian habitat creation which can be suitably integrated into the overall parkland area already designed for the project.

23. **Project Categorization:** Based on the above, the environmental impacts of the Project are confirmed as being within the footprint of the project, foreseeable, mitigable, and reversible. Therefore, the environmental categorization of the project is not affected.

C. Conclusion

24. Both ADB and MDF reviewed and assessed the results and alternative options revealed from the studies and conducted meaningful consultations to discuss these with the affected communities. The consensus was that the identified specific remedial actions are the most effective and efficient to bring the project back into compliance. The identified solutions will increase the project costs by about \$18.5 million. These costs will be financed through contract savings from the civil works and unallocated contingencies. The proposed solutions will not increase the construction time.

D. Implementation Timelines

25. The proposed Action Plan is to be implemented over a period of 3 years, to be completed by June 2020 (see Appendix 3 for details). During this period, ADB and MDF will provide CRP with the final reports of the further studies, as stated in the Remedial Action Plan.

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E. Next Steps

26. Implementation of the actions will start upon completion of review of the final solutions by the BCRC of the Board of Directors.

LIST OF PERSONS MET DURING THE MONITORING

The Compliance Review Panel (CRP) met with the following persons within and outside the Asian Development Bank (ADB) in carrying out its first annual monitoring mission for the Project. This list may not be exhaustive as it does not include persons who requested their identities to be kept confidential.

ADB Staff

1. Nicolas Dei Castelli, Urban Development Specialist (Transport)-Project Officer, (Urban Development and Water Division [CWUW], Central and West Asia Department [CWRD])
2. Cesar Llorens, Senior Urban Development Specialist, CWUW
3. Michael Beauchamp, Senior Social Development Specialist (Portfolio, Results, Safeguards and Gender Unit, [PSG-CWOD], CWRD)
4. Duncan Lang, Environment Specialist, PSG-CWOD
5. Mookiah Thiruchelvam, Transport Specialist-former Project Officer (Transport and Communications Division [CWTC], CWRD)
6. Yessim Elhan-Kayalar, Country Director, ADB Georgia Resident Mission, CWRD

Ministry of Regional Development and Infrastructure Roads Department of Georgia

1. Irakli Karseladze, First Deputy Minister, Chairman of the Development
2. Grigol Katsia, Deputy Minister

Municipal Development Fund of Georgia

1. Giorgi Shengelia, Executive Director
2. Juansher Burchuladze, First Deputy Executive Director
3. David Tabidze, Deputy Executive Director
4. Rezo Gigilashvili, Project Manager
5. Guja Kvantchilashvili, Head of Environmental and Resettlement Unit
6. Nino Nadashvili, Environment Specialist
7. David Arsenashvili, Resettlement Consultant
8. Nino Paatashvili, Communications Consultant

DOHWA Engineering Co., Ltd. (supervision consultant of MDF for this Project)

1. Sei Hoon Moon, Team Leader
2. Chong Song Park
3. David Kakhishvili
4. David Kezhenashvili
5. Paata Chankobadze

SEZA construction (construction consultant of MDF for this Project)

1. Sodik Karadogan
2. Abdullah Akbulut

Complainants and other project affected persons

1. Complainants and other project affected persons from Buildings 12 v/g led by Aniko Nijaradze
2. Complainants and other project affected persons Building 16 a/b led by Luka Melashvili)
3. Complainants from Building 28a
4. Several visually impaired affected persons led by Manana Panculaia

NGOs

1. Manana Kochladze, Chairwoman, Green Alternative
2. Irina Svanidze, Biodiversity Program Assistant, Green Alternative
3. Tamar Makharashvili, NGO 'PARSA'