

Environmental Monitoring Report

#2 Semestral Report
December 2014

GEO: Sustainable Urban Transport Investment Program – Tranche 2

Prepared by the Municipal Development Fund of Georgia for the Government of Georgia and the Asian Development Bank.

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GEORGIA: GEORGIAN SUSTAINABLE URBAN TRANSPORT INVESTMENT PROGRAM, Tranche 2

(Financed by the Asian Development Bank)

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ABBREVIATIONS

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

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1. PART I. INTRODUCTION

1.1 Preliminary information

Project background

Upgrading and improvement of local transport and transport-related infrastructure plays a significant role in the development of Georgia infrastructure. To this effect a number of important activities have been implemented and financed from the budget of Georgia and from other sources. Recently several significant programs, financed through state budget, loans and grants, have been implemented with this regard.

On 24 July, 2012 MFF - Sustainable Urban Transport Investment Program, Tranche 2 Loan and Project agreements were signed between Georgia and Asian Development Bank. MFF-Sustainable Urban Transport Investment Program – Tranche 2 (SUTIP T2) includes: (i) Urban Transport Infrastructure Improvement; (ii) Institutional Capacity Development and (iii) Project Management.

The program will provide efficient, reliable and affordable urban transport infrastructure and services, thereby increasing economic growth potential and competitiveness of urban communities, improving livelihoods of over 1.5 million people (approx. 35% of Georgian population). The project also will: (I) improve urban, environment and communities' access to economic opportunities and to public and social services; (II) promote efficient and sustainable urban transportation; and (III) generate income and employment opportunities.

The environment classification for tranche is Environmental Category B, as the subproject under SUTIP 2 was classified as category B which will not have significant irreversible or permanent negative environmental impacts during or after construction and required preparation of Initial Environmental Examination (IEE). The environmental categorization of subproject was conducted by using ADB's Safeguard Policy Statement (2009).

Project Area

Sustainable Urban Transport Investment program (SUTIP) tranche 2 includes the following sub project:

- **Modernization of Tbilisi-Rustavi Urban Road Link (sections 1 and 3)**

At present the Tbilisi – Rustavi road section is one of the busiest and over- trafficked arteries of the city as about 17,000 vehicles per day exceeding traffic capacity. To solve the problems above, the modernization of the Tbilisi-Rustavi road section was declared as the priority project by the Government of Georgia with the goal to upgrade it to a Category - I road with 4 to 6 lanes and 120 km/hr of design speed. Executing, implementing agency of this project is MDF.

The full length of the design road is 17.1k m (including Section 2, with length of 6, 5 km). Length for Section 1 and 3 is - 10, 6 km.

Section 1 : Tbilisi-Ponichala section envisaged in the design starts in Tbilisi in Gulia Street at PK 0+00, goes along the right embankment of the river Mtkvari up to PK 20+00 then joins Vakhtang Gorgasali street and ends at PK 40+00. Length of this section is 4.0 km.

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Section 3 : Ponichala-Rustavi section envisaged in the design starts 56 m before the km 14 of Tbilisi-Red Bridge road i.e. on km 13+944, PK 105+00 accordingly and ends 400 m before the entrance to Rustavi at km 20+550 PK 171+00 accordingly. Design road axis passes on the right shoulder of the existing road. Length of this section is 6.6 km. Design section Ponichala-Rustavi is entirely located in Gardabani district.

1.2 Construction activities and project progress during the reporting period

Construction Contractor of the project is Sinohydro Corporation Limited (China). Contract with Sinohydro Corporation Limited (China) was signed on March 10, 2014. In order to conduct construction supervision and provide project management and technical assistance to MDF, contract with Dohwa Engineering Co.Ltd was signed on January 20, 2012, on Procurement, Construction Management and Supervision of Tbilisi-Rustavi Section of Tbilisi-Red bridge (Azerbaijan Border) Road -SUTIP/C/QCBS-3.

During reporting period following work activities have been carried out by the Contractor:

- Excavation of RoW- PK33-PK40;
- Relocation of existing drainage channel- PK105-PK125;
- Relocation of water pipeline-section 3
- Installation of stability layer- PK 18.80-PK23;
- Installation of bridge-PK125.49;
- Installation of interchange-PK128.10
- Installation of embankment PK105-171;
- Installation of box culverts-PK12.20-PK16.80; PK105-PK171
- Cutting of red data list trees-PK32-PK33
- Installation of 2 - batching plants at the construction camp;
- Removal of top soil, loading and transportation for re-use- section 3;
- Pavement of concrete – PK105-PK170.80

Physical progress of construction works by the end of December is approximately 30 %.

1.3 Changes in project organization and environmental management team

The MDF has an overall responsibility for the Projects' implementation. Management of environmental issues is carried out by the MDF through Environmental and Resettlement Unit, established in October 2014, when the number of Environmental and Resettlement team members has been increased from 6 to 9 and currently consists of: Head of Unit, 3 environmental safeguards specialists, one safety specialist, one social safeguards specialist, 2 resettlement specialists and one ADB's individual consultant on resettlement issues, who also the member of Environmental and Resettlement Unit. Until October, Environmental and resettlement safeguards team was consisting of 3 environmental safeguards and 2 resettlement specialists, one of which was the ADB's national consultant on resettlement issues. Environmental and Social Safeguards team had a Team Leader who was an advisor to Executive Director of MDF on environmental and social safeguards issues.

The Environmental and Resettlement Unit of MDF is involved in addressing of environmental and social safeguard issues throughout the entire projects' cycles. Environmental Specialist (Nino Nadashvili) designated to supervise ADB projects, reviews the EIAs, EMPs, and SSEMPs of projects and carries out supervision of the performance based on approved EMPs, EIAs, and environmental standards in accordance with ADB "Safeguard Policy Statement" (2009) requirements' and acting Georgian Legislation.

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Environmental issues at Supervision Company DOHWA are managed by environmental specialist Paata Chankotadze, who is responsible for:

- Reviewing and approval of environmental documentation, submitted by contractor;
- Monitoring of construction activities;
- Relationship with contractor and employer;
- Support of contractor in obtaining of environmental permits and licenses;
- Correspondence with Employer, contractor and local authorities.

Contractor's HSE team consists of HSE manager Mr. Yan Ching Ling and environmental specialist Mr. Lasha Gorgiladze, who was hired in September, 2014. In period of June-August, 2014 the Contractor's environmental specialist was Mr. Nikoloz Sopadze.

HSE Manager is responsible for:

- Reviewing of documentation, prepared by environmental specialist;
- To establish a routine system of monitoring;
- To ensure that physical monitoring is undertaken properly;
- To review works schedules;
- To participate in progress meetings;
- Help to identify practical solutions to actual and potential problems;
- Use trends in monitoring data to predict/identify possible future problems;

Under responsibility of Environmental specialist of Construction Company is:

- To prepare SEMP's and other environmental documentation, mentioned in Contract and EIA;
- To provide daily environmental field supervision;
- To notify noncompliance and take relevant actions;
- To keep records: maintain site diary and checklists, complete files;
- Communicate with local community regarding works progress;
- Ensuring of receiving relevant permissions and licenses;

1.4 Relationships with contractors, owner, lender, etc

The MDF is the project executing, implementing and disbursing agency. MDF is responsible for general implementation of all safeguards tasks and guarantee that potential adverse environmental impacts arising from the Project's implementation are minimized by applying mitigation measures presented in the environmental impact assessment ("EIA") or Initial Environmental Examination (IEE), as applicable.

According to contract's safeguards issues, Construction Contractor should comply with all applicable national environmental laws and regulations, measures and requirements set forth in the IEE and EMP/ SEMP's. For managing environmental impacts, carrying out all of the monitoring and mitigation measures set for IEE and EMP/SEMP's documents Contractor should establish an effective operational system and submit adequate reports to the Supervision Company (DOHWA) on the carrying out of such measures. Construction Supervision Company is responsible for supervision of all

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environmental issues during project implementation. The number of tasks, to be implemented by Supervision Company Dowha, includes:

- (i) supervise and monitor construction of the road;
- (ii) monitor the project performance, benefits and ensure compliance with all social and environmental requirements;
- (iii) ensure that the construction contractor prepares the detailed site specific Environmental Management Plans;
- (iv) ensure that environmental requirements, road safety and monitoring are carried out in accordance with the recommendations of studies, plans, and analysis of the project, and in compliance with ADB safeguards policy and applicable laws of Georgia;
- (v) provide advices and a combination of on-the job and classroom training to improve MDF, Road Department and Tbilisi City's management capacity;
- (vi) ensure that the contractor prepares the site specific Environmental Management Plans (SEMPs) according to the framework EMP provided in the project EIA.
- (vi)i ensure that the EMP/SSEMPs are being implemented in the field at the construction site.

Construction Contractor, through its environmental specialist prepares monthly status reports on the EMP/SSEMPs implementation. Such reports must carry information on the main types of activities carried out within the reporting period, status of any clearances'/permits/licenses which are required for carrying out such activities, mitigation measures applied and any environmental issues emerged in relations with suppliers, local authorities, affected communities etc. Contractor's monthly status reports are submitted to the technical supervisor and MDF. However, Contractor's monthly reports are very poor quality and submitted with significant delays.

Technical supervisor prepares monthly reports on the status of EMP/SSEMPs implementation and environmental performance of the Contractor. These reports should be based on the contractor's reports and carry analysis of their contents. Technical supervisor must assess how accurate is the factual information provided in the contractor's reports, fill any gaps identified in them, and evaluate adequacy of mitigation measures applied by contractor. Technical supervisor must highlight any cases of incompliance with EMP/SSEMPs, inform on any acute issues brought up by contractor or revealed by supervisor himself, and propose corrective actions. However, Progress reports of implemented activities, are presented by Supervision Company Dohwa with significant delays, are not corresponding above mentioned requirements so far. Information provided at reports is general and not systematized. Reports do not include details on supervision activities and not summarize the results of weekly and/or monthly monitoring. Following Progress reports were submitted by Supervision Company: July report (N3) was submitted in September, August report (N4) – in October, September report (N5)-in November. Reports for October-December have not submitted yet.

During implementation of construction activities Engineer's and Contractor's environmental representatives conduct environmental meetings and site inspections on daily basis. In case of observation of significant non compliances Engineer fills non-conformity report forms and sends them officially to Contractor. Most important issues, which cannot be managed by HSE department, are subject of review during weekly meetings. In case of emergency, contractor officially asks support of Employer and Employer in the range of its competence refers to relevant ministries and local authorities.

Environmental issues arising from the construction activities should be immediately brought to the attention of the construction Supervision Company Dowha and through them to MDF's environmental safeguards team in order to coordinate efforts and ensure immediate mitigation of impacts, protect the environment and safeguard the health and welfare of the local communities.

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MDF ensures availability of all environmental information and facilitates environmental supervision of the projects. The MDF through its environmental specialist reports to the ADB every 6 months on the status of environmental compliance of construction works by EMRs.

2. PART II. ENVIRONMENTAL MONITORING

With reference to MFF 2655-GEO: Sustainable Urban Transport Investment Program – Tranche 2 (SUTIP T2) Environmental Assessment and Review Framework (EARF) is stated that an EMP will be a part of the overall project monitoring and supervision and will be implemented by the Contractor with oversight from the Supervision Consultant (the Engineer) and MDF.

EMP is an integral part of construction contracts. MDF requires the Construction and its Supervision Company to implement construction activities in accordance with the environmental management plans (EMP/SSEMPs).

Monitoring measures include construction site supervision, verification of permits, monitoring of compliance of the contractor performance and specific monitoring of environmental impacts like noise, dust, soil and water pollution and air emissions etc.

Based on the requirements' of EMP/SSEMPs, during implemented construction activities following environmental issues were monitored and managed by Supervising Company and Construction Company: top soil stripping; disposal of subsoil and top soil, construction of batching plants, installation of culverts, cutting of trees.

- **Top soil storage**

Top soil, removed from the Row was temporally stored along construction corridor of section 3. Stockpiles were protected from erosion, or any losses. At several places top soil was mixed with small branches and stumps. In November-December the topsoil, stored along construction corridor, was removed to the private land plot, based on verbal agreement with land owner. During disposal, some part of topsoil was mixed with subsoil. The Contractor has immediately been instructed to separate top soil from other materials and in future protect topsoil from damage and sign written agreement with land owner. Small part of topsoil was stored on the interchanges of section 3. The contractor was instructed to pay more attention to protection of top soil, because it will be needed during implementation of reinstatement activities.

- **Subsoil Disposal**

In June-August 2014, the Contractor did not have dumpsite at section 1 and was illegally disposing subsoil, excavated from PK35-40 on old landfill, located at PK 20. For section 3 the Contractor has signed agreement with owner of private land plot and was disposing spoil on abovementioned land plot. In spite of this the Contractor has illegally disposed some subsoil outside the construction corridor (section 3), without any permission. Contractor was instructed to immediately stop off illegal disposal of spoil. Illegal disposal of spoil was stopped, until receiving of official permission. In September 2014 Tbilisi City Hall has given permission to the Contractor for disposing of excavated material at PK 20. Since October 2014 the Contractor disposes excavated subsoil in compliance with SSEMP and Georgian legislation.

- **Borrow Pits**

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Contractor has provided license No1002016 for borrow pit. Treatment plan will be prepared not later, than 20.01.2015.

- Noise

Noise level during implementation of construction activities was in compliance with norms. During reporting period contractor has checked noise level at areas, close to settlement. Location and data are included in the table below. The next monitoring measurements will be conducted in every two months starting from February 2015 and results will be reflected in next EMRs.

According to data received in January 2015, the obtained results did not exceed the National Environmental Standard of Maximum Permissible Level of Noise during construction activities.

Location	Noise level, db			
	20.08.2014	17.10.2014	22.12.2014	Max. permissible level
PK320	67	71	73	80
PK105	58	69	75	
PK129	75	74	68	

2.1 Noncompliance notice and corrective actions

Identification of problematic issues and noncompliance notice during site inspections is the responsibility of Environmental Specialists of Construction and Supervision Consultant. During reporting period the number of site visits has been implemented by environmental specialists of Construction and Supervision Companies in order to check environmental compliance of construction works.

In case of any deviations of EMP and SSEMPs requirements corrective actions and mitigation measures are applied. All mitigation measures during pre- and construction phases of SPs are implemented by construction contractors according to EMP and SSEMPs.

Problematic issues observed during the site-visits conducted within reporting period and their current statuses are provided in the table below:

- Air pollution

No significant pollution was observed.

- Emission and Dust

During transportation of subsoil the Contractor uses open body tracks. Contractor was instructed several times to cover all tracks during transportation of loose materials. Contractor also was instructed for permanent watering of all construction sites without asphalt pavement during dry weather conditions.

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For both batching plants, garage and beam plant the Contractor has prepared *inventory of emissions of hazardous materials in to ambient air* and agreed calculated emissions with Ministry of environmental protection and natural resources.

- Impact on Flora and Fauna

No illegal damage of Red data list species was recorded during reporting period. 45 walnut trees were cut in construction corridor of section 1 based on permission from Tbilisi City Hall and Ministry of Environmental protection and natural resources. Branches of ordinary trees were damaged during construction of temporary road at PK105-130. Compensation plan (requirement of conditions of permit for cutting of red data list trees) have been prepared by the Contractor and submitted to MoE for approval. Compensation plans of both sections for ordinary trees will be prepared in January 2015.

- Grass Seeding

N/A at the moment. Seeding of grass will be carried out immediately after covering of slopes of embankment by topsoil.

- Cutting/Planting the Trees

Cutting of trees at section 1 has implemented in accordance with relevant rules and requirements. Red data trees were marked and cut only after obtaining relevant permission from MoE.¹

Panting of trees is planned to be implemented only after approval of compensation plans for red data list and ordinary trees.

- Asphalt Plant

Asphalt plant will be installed on the site. Installation of Asphalt mixing plant according to the Georgian law on Environmental Impact Permit (EIP) is subject to ecological expertise.

- Waste Management

Contractor has signed agreements with companies, responsible for managing of hazardous and non hazardous waste. Non hazardous waste is collecting on the territory of construction camp, in the special 1.5m³ covered containers and transporting to the municipal landfill twice per week. Hazardous waste is collecting in the containers, disposed in covered building. Most of hazardous waste is reusing (used oil is used for oiling of forms for beams, used electrical accumulators are sent to supplier). Detailed information regarding Contractors and dates and numbers of contracts is provided below:

For **Domestic waste** – LTD „Kenari”, Contract number: N GEO-TR-QT-12 01.07.2014;

For **Hazardous waste** - Jsc, „Sarini”, Contract number: N GEO-TR-QT-25 13.11.2014. „Sarini” has the environmental permit on waste management and hazardous waste storage issued by the MOE;

For **Sewage (waste)** - Davit Gozalishvili” Individual Entrepreneur, Contract number: N GEO-TR-QT-24 20.10.2014. „Davit Gozalishvili” has the permit on taking sewage by Regional sewerage system.

- Archaeology

No archaeological findings have been observed during reporting period.

¹ Letter for assistance was sent to Ministry of Environment by Contractor on 14. 07. 2014. Further activities have been carried out only after receiving of notification from MoE how to act in regards to red list trees;

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- Incidents, Accidents & Near Misses

No incidents have been recorded during the reporting period.

- Trainings

Environmental trainings covering waste management, pollution prevention, top soil protection and health-safety issues for Contractor's and Consultant's personnel has been conducted by environmental specialist Paata Chankotadze on 06.05.2014.

- Soil and Water Contamination (pollution prevention)

Significant spillages during reporting period have not been recorded. Contractor has not installed secondary containment containers under all oil barrels, diesel generators and containers with concrete additives. Contractor was strictly requested as by MDF Environmental Specialist as well as by Supervision Company to carry out corrective actions as soon as possible and ensure Installation of secondary containment containers under all devices, containing hazardous materials and liquids.

3. PART III: ENVIRONMENTAL MANAGEMENT

3.1 The environmental management system, site-specific environmental management plan (SEMP) and work plans

IEEs, including EMPs, are integral parts of the contracts and their implementation is mandatory for contractors. Environmental Management Plan (EMP) has been designed to avoid, reduce, or at least minimize the adverse environmental impacts that could result from the activities during the implementation and operation of the project.

MDF pays sizeable attention to Dohwa to strengthen its activities as Supervisor Company. Weekly/monthly meetings were held in regular base with both – top management and its environmental stuff. Number of notifications was sent to Dohwa requiring improvement of its supervision activities for enhancement of project environmental management.

SSEMPs for camp site, as well as for sections 1 and 3 have been prepared by contractor and endorsed by the engineer with conditions (on 28.05.2014). Updates have been implemented and SSEMPs for section 1 and 3 were approved on 15.07.2014 and SEMP for Camp site on 30.07.2014

Installation of Asphalt mixing plant according to the Georgian law on Environmental Impact Permit (EIP) is subject to ecological expertise. Contractor started preparation of the required documentations and procedures for obtaining the permission in July. Contractor has signed an agreement with environmental consulting company LTD "Eco Consulting Group" (Contract Number: GEO-TR-QT-22 01.07.2014) in order to prepare the documents for obtaining environmental permit.

Tree cutting activities (including red list species at section 1) envisaged by EIA have been performed by the contractor. With great efforts of MDF environmental team, documents of Inventory of trees were prepared by the contractor before starting tree cutting activities.

Compensation package for restoration of cut Red List trees at section 1 was prepared and submitted to MoE for approval in December. Preparation of restoration plans for ordinary trees, cut at Section 1 and Section 3, is under the process. Both restoration plans will be ready by end of January.

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Restoration plans for sections 1 and 3 will be prepared by the Contractor in accordance with EMP and will be agreed with all relevant authorities.

IEE for secondary roads of section 3 was prepared by DOHWA and submitted to MDF in the middle of September. It was reviewed by MDF environmental specialist. Presented document was a very poor quality and resented to Dohwa for correction with comments and remarks. MDF comments were reflected in IEE document by Dohwa's environmental specialist partially and not very carefully. However, document was sent to ADB for consideration in order not to cause significant delay of ongoing processes. ADB provided their comments and remarks to MDF, which were sent to Dohwa. Revised and amended document, with incorporated ADB comments, will be sent to ADB for final approval ("no-objection") in the middle of February.

Table below provides information on statuses of different management plans:

Status of Management Plans:

Management Plan	Status
SEMP for Construction camp	Approved
SEMP for construction corridor	Approved
Waste Management Plan	Approved
Emergency Response Management Plan	To be submitted; Deadline-20.01.2015
Pollution Prevention Management Plan	Approved
Community Liaison Management Plan	Approved
Cultural Heritage Management Plan	Approved
Reinstatement Management Plan	Approved
Layout plan (draft) of the quarries and borrow pits and a method statement on the proposed work technology (crushing technology, measures for the minimization of waste) and material transport	To be submitted; Deadline-20.01.2015

Table below provides information on environmental permits and licenses:

Environmental permits and licenses

Item	status	Comment
Inventory of trees within RoW	Done	
Permit for cutting of ordinary tree at section 1	Yes	Permission from Tbilisi City hall has been received;
Permit for cutting of red data trees at section 1	Yes	Permission has been received
Agreement for disposal of spoil	Yes	Agreement with private land owner for disposing of spoil at section 3 was signed; Licence from Tbilisi City hall for disposing of spoil on section 1 has been received
Agreement for disposal of topsoil	No	Based on verbal agreement contractor has transported top soil, stored along RoW to the private land plot at section 3

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Environmental permit for asphalt plant	No	Agreement with environmental consulting company has been signed. EIA for Asphalt plant and environmental permit will be received in March 2015
Inventory of emissions of hazardous substances in to ambient air from batching plant	Yes	Document has been prepared by subcontractor and approved by MoE. Inventory for second, constructing batching plant will be prepared not later, than 20.01.2015
Inventory of emissions of hazardous substances in to ambient air from beam plant and garage	No	Document has been prepared and submitted to the MoE for approval
License for borrow pit	Yes	Contractor has bought licensed borrow pit (license No1002016). Total volume of material is 136000 m ³ . The Contractor will prepare treatment plan for mentioned borrow pit not later, than 20.01.2015.
Agreement with ministry of economy for rental of land for installing of construction camp, asphalt and batching plants	Yes	Type of land plots are agricultural-it will be changed for receiving of construction permit
Disposal of domestic waste	Yes	Contract with subcontractor ("Kenari" Ltd) has been signed on 01.07.2014
Disposal of construction waste	No	Construction waste is temporarily storing on the territory of Construction Camp. It is proposed to dispose it together with spoil at the place, agreed with local Municipality
Hazardous waste	Yes	The Contractor has signed contracts with licensed company "Sarini", responsible for handling of hazardous waste.

3.2 Site Inspection and audits

Site supervision and inspections, as well as monitoring of compliance of construction activities are important aspects to ensure the proper implementation of EMP/SSEMP requirements. Environmental management team of Construction and Supervisor Companies carry out permanent supervision activities and monitoring of the project performance in regular base.

MDF pays sizeable attention to monitor environmental issues by conducting of regular meetings with Dohwa's and Sinohydro's management and environmental stuff. Environmental specialist of MDF conducted 20 site-visits in order to ensure that the Contractors' understand what is to be done to rectify and address any environmental issues raised during project implementation process. Number of notifications was sent to Dohwa requiring improvement of its supervision activities for enhancement of environmental management.

72 site visits were conducted by the environmental specialist of Supervisor Company during reporting period and 14 non-compliance notices have been issued by him. All non-compliances have been fixed by the contractor in required time.

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Environmental Specialist of Construction Company is on site three days a week and implementing inspections of construction activities in regular base. Inspection is carried out by Environmental Specialists in accordance of check-lists. Filled check-lists are available at camp site. 72 site visits were conducted by Environmental Specialist of Construction Company during reporting period.

On December 17, National Environmental Safeguards Consultant - K. Dgebuadze, conducted site visit with MDF environmental specialist Nino Nadashvili, under the Regional Technical Assistance Project - RETA 8663 (Sustainable Environmental Management of Projects in Central and West Asia). Purpose of the site-visit was revision of on-site compliance with the environmental management plan, identification project-specific environmental management capacity gaps, conducting initial exploration of corrective measures to address the capacity gaps.

Non-Compliance notices and corrective actions

Date of submission	Description of Non-Compliance	Area	Corrective action required including deadline	Performance Date of Corrective actions
22.07.2014	Disposal of excavated soil in Mtkvari river bed without permission	PK20	Immediately stop activity	Activity was stopped on 22.07.2014
23.07.2014	Disposal of all types of waste on the territory of construction camp without secondary containment devises	PK112	Provide relevant training for responsible personnel, improve waste management according waste management plan. Deadline- 25.07.2014	Waste was removed on 24.07.2014
23.07.2014	Disposal of hazardous materials (oil barrels, concrete additives, diesel generators) on the territory of construction camp without secondary containment devises	PK112	Provide relevant training for responsible personnel, improve hazardous materials handling management according pollution prevention management plan. Deadline- 28.07.2014	Oil barrels and diesel generators have been disposed in the drip trays on 01.08.2014; concrete additives are still disposed directly on ground
23.07.2014	Transportation of loose materials with open tracks	PK20-40; PK105-150	Immediately cover all tracks, transporting loose materials Deadline- 25.07.2014	Loose materials are still transporting with open body tracks
13.08.2014	Damage of trees, located outside the RoW during extent ion of existing road	PK125-135	Provide relevant training for responsible personnel; protect trees from damage	
20.08.2014	Damage of potable water pipe during excavation of the RoW	PK35	Immediately repair damaged water pipe; Deadline- 22.08.2014	Pipe has been repaired on 21.08.2014
08.09.2014	Mixing of topsoil with subsoil	PK112	Protect topsoil from damage; dispose	Top soil has been separated from

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			topsoil separately from subsoil; Deadline- 10.09.2014	subsoil on 10.09.2014
26.09.2014	Working without PPE	PK117	Equip all workers and subcontractors with proper PPE	
26.09.2014	Mixing of topsoil with gravel	PK132.80	Protect topsoil from damage; dispose topsoil separately from other materials; Deadline- 28.09.2014	Top soil has been separated from gravel on 27.09.2014
29.09.2014	During cutting of trees at PK32 the Contractor's HS representative was not on construction site	PK32	Attend HS specialist during implementation of all hazardous activities. Deadline-immediately	HS officer was attended to the activity on 29.09.2014
01.12.2014	Disposal of excavated soil in Mtkvari river bed	PK20	Mark dumpsite, store spoil according conditions of permission; Deadline- 05.12.2014	Activity was stopped on 01.12.2014; dump site has not been marked
01.12.2014	Due to implementation of construction activities with of existing road has been reduced	PK0.100-0.300	Install relevant traffic signs on construction site; Deadline- 02.12.2014	Relevant traffic signs was installed on 02.12.2014
01.12.2014	Burning of tires on construction site	01.12.2014	Protect construction site from entering of unauthorized people; Deadline- 10.12.2014	Construction site has not been protected from entering of unauthorized people
01.12.2014	Illegal disposal of spoil	PK128-130; PK125-127	Dispose spoil according SEMP; Deadline- 10.12.2014	Spoil was removed on licensed place on 05.12.2014

Contractor has been instructed to improve following environmental issues:

- Top soil protection-store top soil stockpiles in accordance with EMP; avoid mixture of top soil and sub soil;
- Disposal of spoil- prohibit illegal disposal of spoil;
- Improve dust control measures;
- Improve waste management issues on construction camp;
- Prepare and submit/re-submit to engineer management plans, mentioned in EIA and technical specifications of Contract;
- Providing restoration plans.

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Actions taken to reflect the findings of ADB mission in August 2014:

Monitoring activities carried out by MDF and Supervisor Company within the reporting period were closely linked with mission's findings that provides clear statement for further actions to be taken to improve environmental safeguards at project.

The progress was made with regard to the environmental issues flagged by ADB environmental specialist who visited Tbilisi-Rustavi road project on 6 August 2014. In particular, red ribbon marking for the park boundary on Section 3 has been installed. Site fencing and watering issues have been improved. Safety issues are regularly monitored and contractor is notified to improve it. The contractor has hired new specialists responsible for safety and environmental issues during implementation of construction activities.

Mission visited and reviewed (August 8, 2014) on-going construction works under the project at Section 1 and 3 and provided the following findings:

N	ADB Mission Notes	Status and actions taken
1.	<p>Section 3: The ROW has not encroached beyond the boundary of the park and tree cutting was completed within the ROW. The park boundary has currently marked by concrete pillars. The Mission suggested to make red ribbon marking for the whole 2-km length of the boundary to alert and prevent workers from any wrong doing and visibly safeguard the project activities. The Mission noted that the contractor did not get permission for tree cutting, although this was done in accordance with the approved EMP. The Mission was informed by MDF that it is in process of working with the local authorities on solutions including possible fines and plan for replanting.</p> <p>EA to inform ADB on the status of the fines as soon as the decision is made by respective authorities. EMP already considers the restoration for the trees which were cut. The marking for the whole 2-km length of the boundary will be done by 15 August 2014.</p>	<p>Red ribbon marking for whole length of the park boundary has been done on 15. 08.2014.</p> <p>Currently the issue of fines is under investigation. No decision has been made yet by respective authorities.</p>
2.	<p>Other issues such as topsoil preservation, restoration of the irrigation channel, campsite and processing plant are checked and found in compliance as stated in the June monthly progress report. However, the safety measures eg. traffic signage and site fencing need to be improved. Workers should have better Personal Protective Equipment (PPE), especially dust mask. No watering was observed.</p> <p>EA has already sent several notifications to the engineer asking to for traffic signage and fencing as well as PPE improvement and will again stress</p>	<p>Safety issues have been improved by the Contractor. Contractor has hired HS specialist responsible for safety issues during implementation of construction activities and traffic safety.</p> <p>MDF pays sizeable attention to monitor environmental issues by conducting of regular meetings with Dohwa's and Sinohydro's management and environmental stuff. Number of notifications was sent by EA to Dohwa requiring improvement of its supervision activities for enhancement of environmental management.</p>

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	<i>this issue to both Engineer and the Contractor. EA safeguards team will regularly monitor the issue and report back to ADB on the improvement status by next week.</i>	
3.	<p>Section 1. Tree cutting in the area, where 59 "Red book" trees identified, has been stopped. The trees are marked. Construction work not commenced on this section. Request for permission has been set by MDF to the Environment Ministry. Depending on the ministry decision, a restoration or replanting plan will be developed. This approach is correct.</p> <p><i>The status update will be reported in Dohwa's monthly monitoring reports. In case of delayed reporting from Dohwa, EA will follow up with the respective government agency to update ADB on the status.</i></p>	<p>Compensation package for restoration of cut Red List trees at section 1 was prepared and submitted to MoE for approval in December.</p> <p>Preparation of restoration plans for ordinary trees, cut at Section 1 and Section 3, is under the process. Both restoration plans will be ready by end of February.</p>
4.	<p><i>IEE for the secondary access road. It was advised that the IEE, a stand-alone report, should be prepared soon as a supplementary IEE. No major sensitive receptors were noted along this road. The Supplementary IEE to be submitted to ADB for NO by 15 September 2014.</i></p>	<p>IEE for secondary roads of section 3 was prepared by DOHWA and submitted to MDF in the middle of September. Presented document was a very poor quality and resented to Dohwa for correction twice with comments and remarks of MDF environmental specialist. However, MDF comments were reflected in IEE document by Dohwa's environmental specialist partially and not very carefully. Document was sent to ADB for consideration in order not to cause significant delay of ongoing processes. ADB provided their comments and remarks to MDF, which were sent to Dohwa. Revised and amended document, with incorporated ADB comments, will be sent to ADB for final approval ("no-objection") by the end of February.</p>

3.3 Consultation and Complaints

Grievance Redress Mechanism

Grievance redress procedures for the project aim to provide an effective and systematic mechanism in responding to queries, feedbacks and complaints from affected persons (AP), other key stakeholders and the general public. In order to provide a direct channel to the affected persons (APs) for approaching project authorities and have their grievance recorded and redressed in an appropriate time frame, Grievance Redress Mechanism was established with efforts of MDF. MDF facilitated the establishment of a Grievance Redress Committee (GRC) and Grievance Focal Points.

Persons or entities affected by the project have the right to file complaints and/or queries on any aspect of environmental non-compliance. Local communities are fully informed of their rights and of the procedures for addressing the complaints whether verbally or in written way, during consultations.

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In order to ensure that grievances and complaints are addressed in a timely and satisfactory manner and that all possible avenues are available to APs to air their grievances, Complaints Log books are established at construction camp site and MDF office, where complaints can be registered in special journal or electronic register (MS Excel or similar). The copy of complaints log journal with mobile numbers of relevant persons is placed at local Municipalities (Gardabani and Rustavi Gamgeoba) as well. A grievance register will be maintained at each of the locations above to record grievances and keep track of their status.

APs or other concerned individuals may visit, call or send a letter, fax or e-mail to any of the relevant persons to register their comments or complaints related to any problem raised because of environmental aspects of the project. Grievances will be logged into either at Complaints Log Book or an electronic register (MS Excel or similar) assigning compliant number with date of receipt. Complaints' will be investigated and each grievance will be assigned to the designated staff for resolution. Acknowledgement of grievance registration will be provided to complaining party within maximum 7 calendar days following the receipt of the grievance, about time in which the corrective action will be undertaken, in case if the raised problem is realistic. Abovementioned grievance mechanism does not limit the citizen's right to submit the case to the court of law just in the first stage of grievance process.

Efforts will be made to prevent and amicably resolve grievances rather than going through a legal redress process. This can be achieved through, ensuring full participation and consultation with the project affected persons, and establishing extensive communication and coordination between affected communities, EA, and relevant local governments (including Tbilisi municipality, Rustavi municipality and Gardabani rayon municipality (gameoba), as necessary).

None of complaints regarding environmental issues have been raised and registered at Complaints Log Book during reporting period.

Part IV. Environmental action plan for the next period

	Item	Action	Implementation period
1	Illegal disposal of excavated soil in Mtkvari river bed	Fencing of dump site according conditions of permission of Tbilisi City Hall. Prohibit disposal of spoil out of dump site borders	01.03.2015
2	Disposal of hazardous waste and containers with hazardous materials on the territory of construction camp without secondary containment devises	Provide drip trays for all containers with hazardous materials	25.02.2015
3	Transportation of loose materials with open tracks	Cover all tracks, transporting loose materials	15.02.2015
4	Emergency Response Management Plan	The plan will be prepared by the Contractor and submitted to the engineer for approval	25.02.2015
5	Compensation plan for ordinary trees	The plan will be prepared by the Contractor and submitted to the engineer for approval	30.02.2015
6	Measurement of noise level	Noise level will be checked every 2 months	

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3.4 Monitoring Data

Reference	Requirement		Action to date			Action required/comment
Material supply	Possession of official approval or valid operating license for supply of materials (asphalt, concrete, gravel)		"Inventory of emissions of hazardous materials in to ambient air for batching plant". Document is ready and has been approved by MoE.	1-st batching plant	Document has been approved by MoE	Contractor has bought licensed borrow pit and planning to buy two more licenses. The Contractor has signed agreement with environmental consulting company for preparation of Environmental Impact Assessment for asphalt plant, which will be installed at construction camp site.
				2-nd batching plant	Document will be prepared within 30 days and submitted to MoE	
				Beam plant and garage	Document has been prepared and submitted to MoE for approval	
Material transport according to the schedule and routes	Truck loads covered/wetted		In general not comply with EMP			All tracks should be covered during transportation of dry materials
Top-soil stripping stage	Top-soil storage Erosion control		Top soil is transporting from temporary storage area to the private land plot, based on verbal agreement. Sometimes top soil is mixing with subsoil			Written agreement with land owner should be signed; Top soil stockpiles should be protected from erosion and mixture with subsoil and other materials
Protection of population and workers	Limitation of	Noise level	In accordance with standards (the Contractor measures noise level twice per year)			Permanent measuring of noise level near settlement and near loud equipment for protection of local population and workers (PK 32.0, PK105-129)

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		Dust and Air pollution (solid particles, suspended solids, flying heavy metal particles)	Some non compliances have been observed: contractor's tracks were transporting materials with open bags	Follow pollution prevention management plan and EMP (Cover tracks, transporting dusty materials; timely watering of all unpaved roads, used by project cars et.c.)
		Vibration	In accordance with standards	Shorted working day for workers, using vibrated equipment
Waste management	Proper material and waste storage, handling, use Water and soil quality (suspended solids, oils, etc)	Most of waste management issues have been improved; Contract with the company, responsible for managing of hazardous waste has been signed		Separate storage of different types of waste; proper handling of each type of waste
Pollution prevention	Equipment maintenance and fuelling	Pollution prevention management needs improvement		All containers and barrels with hazardous substances, diesel generators, containers with concrete additives (in case if they have not safety certificate, or they are hazardous for environment) should be disposed on secondary containment containers. Contractor should train oil spill response team and provide oil product absorbents kit for them and oil absorbents for all workshops and fuelling stations (stationary and mobile one)
Impacts on archaeological sites and remnants; anthrax hazard	Protect potential archeological sites from damage	Non compliances have not been recorded		Provide relevant training for operators of excavators and foremen
Reinstatement of work sites		N/A		

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3.5 Photographs

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Construction camp Diesel generator is disposed without drip tray	Section 3, PK150 Mixing of topsoil and subsoil
	
Construction camp Diesel tanks are disposed without drip tray	Construction camp Concrete additives are disposed without drip trays
	
Construction camp Oil barrel is disposed without drip tray	Section3, PK130 Illegal disposal of spoil

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<p>Construction camp Diesel generator is disposed without drip tray</p>	<p>Construction camp Unsatisfactory waste management</p>
	
<p>Construction camp Oil barrel and concrete additives are disposed without drip trays</p>	<p>Construction camp Unsatisfactory waste management</p>
	
<p>Construction camp Unsatisfactory waste management</p>	<p>Section 3, PK130 Watering of the road</p>
	
<p>Section 1; PK20 Subsoil and waste, excavated from existing landfill is disposing in Mtkvari river bed</p>	<p>Section 1; PK20 Subsoil and waste, excavated from existing landfill is disposing in Mtkvari river bed</p>

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<p>PK35.00 Subsoil, excavated from RoW is transporting with open tracks</p>	<p>PK35.00 Subsoil, excavated from RoW is transporting with open tracks</p>
	
<p>Construction camp Used oil is stored in the covered building</p>	<p>Section 3; PK125-135 Branches of trees outside the RoW were damaged by heavy equipment</p>

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Section 3; PK132.80
Stored topsoil was mixed with gravel



Private land plot (PK112)
Mixing of topsoil and subsoil

Section 3; Private land plot
Stored topsoil was mixed with gravel and top soil



Section 1; PK32
Cutting of red data trees

