



Gurjaani streets (Gurjaani Municipality) Rehabilitation Sub-Project

Environmental and Social Screening and Environmental Management Plan

WORLD BANK FINANCED

**SECOND REGIONAL AND MUNICIPAL INFRASTRUCTURE DEVELOPMENT PROJECT
(RMIDP II)**

Tbilisi, Georgia

July 2014

Environmental Screening

Rehabilitation of the Baratashvili, Chavchavadze and Besiki streets in the town Gurjaani is planned within SP. Total length of the streets to be rehabilitated under this project is about 2.278 km.

The SP includes:

- Rehabilitation of the streets cover, arrangements of the sidewalks (2925m², total length 2.2 km), curbs (3859 m). Rehabilitation of the damaged bridge parapets over Akhtalistskali gorge on the Baratashvili Street;
- Rehabilitation of the underground passage on the Chavchavadze street;
- Cleaning of the existing storm water open channels along the Besiki Street (800 m) ;
- Installation of the sewerage network on Besiki Street (883 m) including manholes (32 unit).

(A) IMPACT IDENTIFICATION

<p>Has sub-project a tangible impact on the environment?</p>	<p>The project has a modest short term negative environmental impact while its long term impact is expected to be positive.</p> <p>The main impact will be during the construction phase, which includes works for laying various layers, movement and operation of heavy vehicles, supply of materials. The project is located in urban area with strongly modified environment. Therefore the impact is transitory and insignificant (noise, emissions, construction waste, temporary disturbance of traffic and access, etc.).</p>
<p>What are the significant beneficial and adverse environmental effects of sub-project?</p>	<p>The subproject has a long term positive impact on the environment through improving living and transportation conditions of the local population. It will decrease existing negative impacts on community, such as dust, emissions, vibration and noise.</p> <p>The expected negative environmental and social impacts are likely to be short term and typical for small to medium scale rehabilitation works in urban landscape: noise, dust, vibration, and emissions from the operation of construction machinery; generation of construction waste; disruption of traffic and pedestrian access.</p> <p>There is no central collector of the storm waters in Gurjaani. To minimize road crossing ponding and flooding risk, works for cleaning of existing storm waters channels along the Besiki street is planned within the SP to evacuate storm waters to the end of the street. At the end of Besiki Street, a concrete catchment with grates and an earth roadside ditch with the length of 400 m will be installed, from where the storm water</p>

	<p>will be finally discharged to the neighboring gorge.</p> <p>Storm water infrastructure will not be installed on the Baratashvili and Chavchavadze streets. From Baratashvili street storm waters flows by gravity to the Akhtalistskali gorge. Storm water from the Chachavadze street flows by gravity to the end of the street and finally will be discharged into the Vedzirula ravine located 20-30 m distance from the end of the Chavchavadze street.</p> <p>Sewage network to be installed on the Besiki street will serve local residents along the street, approximately 70 families. Sewage networks will be connected to the existing municipal sewage system. The long term impact of the improved sanitation will be reduction of water born diseases, which will be beneficial for the residents and guest of Gurjaani.</p> <p>Expanding coverage of sewage collection network will contribute to a medium to long term goal of discontinuing discharge of untreated sewage, because by the time of installing a sewage treatment facility at an outlet point, a greater portion of municipal sewage would be pooling into the main collector.</p>
<p>May the sub-project have any significant impact on the local communities and other affected people?</p>	<p>No new land take and resettlement are expected.</p> <p>The long term positive social impact will be beneficial (improvement of local population living conditions, better traffic safety conditions, improved convenience of travelling, and growth of tourist flow).</p> <p>Negative impacts are short term and limited to the construction site. They are related to the possible disturbance described above.</p>

(B) MITIGATION MEASURES

<p>Were there any alternatives to the sub-project design considered?</p>	<p>Given that the subproject envisages rehabilitation of the existing infrastructure, no alternatives have been considered.</p>
<p>What types of mitigation measures are proposed?</p>	<p>The expected negative impacts of the construction phase can be easily mitigated. The contractor will be responsible for the waste disposal at the permitted location, use the quarry materials from the licensed quarries only, prevent water and soil from pollution (fuel spills due to equipment failure, raw asphalt/concrete spills etc.), avoid disturbance of population (noise, dust, emissions) through proper work/supplies</p>

	scheduling, traffic management, good maintenance of the construction machinery, etc.
What lessons from the previous similar projects have been incorporated into the sub-project design?	MDF have wide experience of implementation of medium and large scale road and streets rehabilitation subprojects financed by various donor organizations. Based on lessons learned from previous similar projects, design envisages not only rehabilitation of road pavement but also rehabilitation of storm water drainage network, sidewalks, curbs, pedestrian passes which will increase traffic and pedestrians' safety and backing further maintenance of the street cover.
Have concerned communities been involved and have their interests and knowledge been adequately taken into consideration in sub-project preparation?	<p>The Project has been developed by the Municipality in consultation with the affected communities and as a response to the current situation.</p> <p>Small vendors along the street, as well as local population are informed about scheduled rehabilitation works and have no claim on related disturbances. MDF and local municipality will organize consultation meeting with local population before starting of rehabilitation works.</p>

(C) RANKING

The project has been classified as environmental Category B according to the World Bank safeguards (OP 4.01) and requires Completion of the Environmental Management Checklist for Small Construction and Rehabilitation Activities.

Social Screening

Social safeguards screening information		Yes	No
1	Is the information related to the affiliation, ownership and land use status of the sub-project site available and verifiable? (The screening cannot be completed until this is available)	✓	
2	Will the sub-project reduce people's access to their economic resources, such as land, pasture, water, public services, sites of common public use or other resources that they depend on?		✓
3	Will the sub-project result in resettlement of individuals or families or require the acquisition of land (public or private, temporarily or permanently) for its development?		✓
4	Will the sub-project result in the temporary or permanent loss of crops, fruit trees and Household infra-structure (such as ancillary facilities, fence, canal, granaries, outside toilets and kitchens, etc.)?		✓
If answer to any above question (except question 1) is "Yes", then OP/BP 4.12 Involuntary Resettlement is applicable and mitigation measures should follow this OP/BP 4.12 and the Resettlement Policy Framework			

PART A: GENERAL PROJECT AND SITE INFORMATION

INSTITUTIONAL & ADMINISTRATIVE			
Country	Georgia		
Project title	Regional and Municipal Infrastructure Development II		
Subproject title	Gurjaani streets rehabilitation		
Scope of site-specific activity	Rehabilitation of the Baratashvili, Chavchavadze and Besiki streets in the town Gurjaani is planned within SP. The SP includes: <ul style="list-style-type: none"> - Rehabilitation of the streets cover, arrangements of the sidewalks (2925m², total length 2.2 km), curbs (3859 m). Total length of the streets to be rehabilitated under this project is about 2.278 km; - Rehabilitation of the damaged bridge parapets over Akhtalistskali gorge on the Baratashvili Street; - Rehabilitation of the underground passage on the Chavchavadze street; - Cleaning of the existing storm water open channels along the BesikiStreet (800 m); - Installation of the sewerage network on Besiki street (883 m), including manholes (32 units). 		
Institutional arrangements (WB)	Task Team Leader: Ahmed Eiewida, Co-Task Team Leader: Xiaolan Wang	Safeguards Specialist: Darejan Kapanadze	
Implementation arrangements (Borrower)	Implementing entity: Municipal Development Fund of Georgia	Works supervisor: (tbd)	Works contractor: (tbd)
SITE DESCRIPTION			
Name of institution whose premises are to be rehabilitated	Gurjaani Municipality		
Address and site location of institution whose premises are to be rehabilitated	13, Noneshvili street, Gurjaani Tel: +(995 353) 22 00 06 E-mail: gurjaan_raioni@mail.ru The SP site is located in Eastern Georgia, Kakheti Region, in town Gurjaani. Distance from Tbilisi is 110 km.		
Who owns the land? Who uses the land (formal/informal)?	Municipal property		

<p>Description of physical and natural environment around the site</p>	<p>Gurjaani is a town in Georgia, located in the region of Kakheti and serving as the centre of the Gurjaani district. Gurjaani is situated in the Alazani Valley, 415 m above sea level, and 110 km east of the nation's capital Tbilisi. As of the 2002 census, its population was approximately 10,000.</p> <p>The streets to be rehabilitated are located in the urban area. The streets are bordering to the private houses from both sites. Warehouses are functioning on the Chavchavadze street. There are no public or cultural/ religious buildings along the streets.</p> <p>There is no central collector of the storm waters in Gurjaani. To minimize road crossing ponding and flooding risk, works for cleaning of existing storm waters channels on the Besiki street is planned within the SP to evacuate storm waters to the end of the street. At the end of Besiki Street, a concrete catchment with grates and an earth roadside ditch with the length of 400 m will be installed, from where the storm water will be finally discharged to the neighboring gorge.</p> <p>Storm water infrastructure will not be installed on the Baratashvili and Chavchavadze streets. From Baratashvili street storm waters flows by gravity to the Akhtalistskali gorge. In Akhtalistskali gorge, water actually flows year-round and it dries only during several weeks period in summer. Storm waters from the Chachavadze street flows by gravity to the end of the street and finally will be discharged into the Vedzirula ravine located 20-30 m distance from the end of the Chavchavadze street.</p> <p>Sewage network to be installed on the Besiki street will serve local residents along the street, approximately 70 families. Sewage networks will be connected to the existing municipal central collector from which waste water is discharged to the Akhtalistskali gorge. Water stream from the gorge finally flows into the river Alazani. Currently about 3000 inhabitants are connected to the Gurjaani central sewage system. Through connection of 70 additional households (with 3 members on average per each household) to the system under the project, its load will roughly increase by 7%.</p>
<p>Locations and distance for material sourcing, especially aggregates, water, stones?</p>	<p>Water will be available at the construction site from the municipal water supply system.</p> <p>Distance to the nearest licensed borrow pit is approximately 7 km.</p>
<p>LEGISLATION</p>	

<p>National & local legislation & permits that apply to project activity</p>	<p>SP has been classified as low risk Category B according to the WB policies and the ESMF.</p> <p>Gurjaani municipal authority approved the SP.</p> <p>Georgian legislation does not require any type of environmental review, approval, or permitting for the SP. Though according to the national regulatory system:</p> <ul style="list-style-type: none"> (i) construction materials must be obtained from licensed providers, (ii) if contractor wishes to open quarries or extract material from river bed (rather than purchasing these materials from other providers), then the contractor must obtain licenses for extraction, (iii) if contractor wishes to operate own asphalt or concrete plant (rather than purchasing these materials from other providers), then the contractor must obtain an environmental permit with an established ceiling of pollutant concentrations in emissions and technical report on inventory of atmospheric air pollution stationary source agreed with MoENRP. (iv) Permanent placement of the inert material (cut ground and sedimentary soil) generated in the course of earth works in a selected location must be approved by local (municipal) governing bodies in written; (v) Construction waste must be disposed on the nearest municipal landfill in accordance with written agreement with the Solid Waste Management Company of Georgia Ltd. under the Ministry of Regional Development and Infrastructure. <p>Copies of extraction licenses (if applicable), permits for operating asphalt/concrete plants (if applicable), and waste disposal permits will be attached to this EMP once the contractor is selected and mobilized to the work site.</p> <p>GOST and SNIP norms must be adhered.</p>
PUBLIC CONSULTATION	
<p>When / where the public consultation process will take /took place</p>	<p>EMP will be discussed with beneficiary community prior to the commencement of works.</p>
ATTACHMENTS	
<p>Attachment 1: Site plan and photos Attachment 2: Public consultation record (to be provided) Attachment 3: Waste disposal agreement (to be provided)</p>	

PART B: SAFEGUARDS INFORMATION

ENVIRONMENTAL /SOCIAL SCREENING			
	Activity/Issue	Status	Triggered Actions
Will the site activity include/involve any of the following?	A. Building rehabilitation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	See Section A below
	B. New construction	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section A below
	C. Individual wastewater treatment system	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section B below
	D. Historic building(s) and districts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section C below
	E. Acquisition of land ¹	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section D below
	F. Hazardous or toxic materials ²	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section E below
	G. Impacts on forests and/or protected areas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section F below
	H. Handling / management of medical waste	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section G below
	I. Traffic and Pedestrian Safety	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	See Section H below

¹ Land acquisitions includes displacement of people, change of livelihood encroachment on private property this is to land that is purchased/transferred and affects people who are living and/or squatters and/or operate a business (kiosks) on land that is being acquired.

² Toxic / hazardous material includes but is not limited to asbestos, toxic paints, noxious solvents, removal of lead paint, etc.

PART C: MITIGATION MEASURES

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
0. General Conditions	Notification and Worker Safety	<ul style="list-style-type: none"> (a) The local construction and environment inspectorates and communities have been notified of upcoming activities (b) The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works) (c) All legally required permits have been acquired for construction and/or rehabilitation (d) The Contractor formally agrees that all work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. (e) Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots) (f) Appropriate signposting of the sites will inform workers of key rules and regulations to follow.
A. General Rehabilitation and /or Construction Activities	Air Quality	<ul style="list-style-type: none"> (a) Demolition debris shall be kept in controlled area and sprayed with water mist to reduce debris dust (b) During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site (c) The surrounding environment (sidewalks, roads) shall be kept free of debris to minimize dust (d) There will be no open burning of construction / waste material at the site (e) There will be no excessive idling of construction vehicles at sites (f) Truck loads should be confinement and protected with lining.
	Noise	<ul style="list-style-type: none"> (a) Limit activities to daylight working hours; (b) During operations the engine covers of generators, air compressors and other powered mechanical equipment shall be closed, and equipment placed as far away from residential areas as possible (c) The machinery should move only along the preliminarily agreed route; (d) The maximum allowed speed should be restricted; (e) Proper technical control and maintenance practices of the machinery should be applied; (f) No-load operations of the vehicles and heavy machinery are not allowed. Proper mufflers will be used on machinery.
	Water Quality	<ul style="list-style-type: none"> (a) Contractor will be required to organize and cover material storage areas. The material storage sites should be protected from washing out during heavy rain falls and flooding through covering by impermeable materials. Appropriate erosion and sediment control measures will be established such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers; (b) <u>Works near the Akhalistskali gorge.</u> Contractor shall ensure proper handling of paints materials, oil and lubricants to avoid any spillage of them into the gorge/water. It is not advised to paint the metal railings with the sprayer. Storage of potentially polluting materials within 50 m of Akhtalistskali gorge will be prohibited. Materials used for road/bridge rehabilitation and waste should not be allowed to dump into the gorge. (c) Contractor will plan all excavations, topsoil and subsoil storage so as to reduce to a minimum any runoff; (d) Revision of vehicles will be required to ensure that there is no leakage of fuel and lubricating materials. All machinery will be maintained and operated such that all leaks and spills of materials will be minimised. Daily plant checks (Vehicle Maintenance Procedure) will be undertaken to ensure no leaks or other problems are apparent. Vehicle maintenance,

		<p>cleaning, degreasing etc will be undertaken in designated areas, of hard-standing, not over made ground. Maintenance points will not be located within 50m of any watercourse;</p> <p>(e) Lubricants, fuel and solvents should be stored and used for servicing machinery exclusively in the designated sites, with adequate lining of the ground and confinement of possible operation and emergency spills. Spill containment materials (sorbents, sand, sawing, chips etc.) should be available on construction site;</p> <p>(f) Wet cement and/or concrete will not be allowed to enter any watercourse, pond or ditch.</p>
	Waste management	<p>(a) Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities.</p> <p>(b) Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers.</p> <p>(c) Construction waste will be collected and disposed properly on the agreed location.</p> <p>(d) The records of waste disposal will be maintained as proof for proper management as designed.</p> <p>(e) Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)</p>
	Material supply	<p>a) Use existing plants, quarries or borrow pits that have appropriate official approval or valid operating license.</p> <p>b) Obtain licenses for any new quarries and/or borrowing areas if their operation is required;</p> <p>c) Reinstate used sections of quarries and/or borrowing areas as extraction proceeds on or properly close quarries if extraction completed and license expired;</p> <p>d) Haul materials in off peak traffic hours;</p> <p>e) Place speed regulating, diverting, and warning signs for traffic as appropriate.</p>
H Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activities	<p>(a) In compliance with national regulations the contractor will insure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to:</p> <ul style="list-style-type: none"> ▪ Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards ▪ Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes. ▪ Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement ▪ Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public. ▪ Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.

PART D: MONITORING PLAN

Activity	What (Is the parameter to be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuous?)	Why (Is the parameter being monitored?)	Who (Is responsible for monitoring?)
CONSTRUCTION PHASE						
Supply with construction materials	Purchase of construction materials from the officially registered suppliers	In the supplier's office or warehouse	Verification of documents	During conclusion of the supply contracts	To ensure technical reliability and safety of infrastructure	MDF, Construction supervisor
Transportation of construction materials and waste; Movement of construction machinery	Technical condition of vehicles and machinery; Confinement and protection of truck loads with lining; Respect of the established hours and routes of transportation	Construction site	Inspection	Unannounced inspections during work hours and beyond	Limit pollution of soil and air from emissions; Limit nuisance to local communities from noise and vibration; Minimize traffic disruption.	MDF, Construction supervisor, Traffic Police
Earthworks	Temporary storage of excavated material in the pre-defined and agreed upon locations; Backfilling of the excavated material and/or its disposal to the formally	Construction site	Inspection	In the course of earth works	Prevent pollution of the construction site and its surroundings with construction waste; Prevent damage	MDF, Construction supervisor

	<p>designated locations;</p> <p>In case of chance finds immediate suspension of works, notification of the Ministry of Culture and Monument Protection, and resumption of works exclusively upon formal consent of the Ministry.</p>				and loss of physical cultural resources	
Works on the Bridge	<p>Washing of concrete and asphalt trucks and other equipment prohibited in the proximity to water courses;</p> <p>Dumping of construction materials and/or waste into watercourses prohibited;</p> <p>No construction materials or waste stored temporarily or permanently within 50 m of riverbed</p>	Construction site (Bridge of Baratashvili street)	Inspection (visual observation)	During works (especially during precipitation)	Limit water pollution	MDF, Construction supervisor
Sourcing of inert material	<p>Purchase of material from the existing suppliers if feasible;</p> <p>Obtaining of extraction license by the works contract</p>	Borrowing areas	Inspection of documents Inspection of works	In the course of material extraction	<p>Limiting erosion of slopes and degradation of ecosystems and landscapes;</p> <p>Limiting erosion of</p>	MDF, Construction supervisor

	<p>and strict compliance with the license conditions;</p> <p>Terracing of the borrow area, backfilling to the exploited areas of the borrow site, and landscape harmonization;</p> <p>Excavation of river gravel and sand from outside of the water stream, arrangement of protective barriers of gravel between excavation area and the water stream, and no entry of machinery into the water stream.</p>				river banks, water pollution with suspended particles and disruption of aquatic life.	
Generation of construction waste	<p>Temporary storage of construction waste in especially allocated areas;</p> <p>Timely disposal of waste to the formally designated locations</p>	Construction site; Waste disposal site	Inspection	Periodically during construction and upon complaints	Prevent pollution of the construction site and nearby area with solid waste	MDF, Construction supervisor, Gurjaani Municipality
Traffic disruption and limitation of pedestrian access	<p>Installation of traffic limitation/diversion signage;</p> <p>Storage of construction materials</p>	At and around the construction site	Inspection	In the course of construction works	Prevent traffic accidents; Limit nuisance to local residents	MDF, Construction supervisor

	and temporary placement of construction waste in a way preventing congestion of access roads					
Workers' health and safety	Provision of uniforms and safety gear to workers; Informing of workers and personnel on the personal safety rules and instructions for operating machinery/equipment, and strict compliance with these rules/instructions	Construction site	Inspection	Unannounced inspections in the course of work	Limit occurrence of on-the-job accidents and emergencies	MDF, Construction supervisor
OPERATION PHASE						
Maintenance of rehabilitated roads	Installation of relevant signage for traffic safety; Demarcation of the sections of streets under repair; Disposal of asphalt and or other waste from the repair works to the designated landfill.	Rehabilitated sections of roads	Inspection	During maintenance works	Prevent road accidents and disruption of traffic	Gurjaani municipality

Pictures of the Besikistreet



Pictures of Baratasvilistreet



Pictures of bridge over the Akhtalistskali gorge



Pictures of Chavchavadzestreet



Attachment 2: Documentation on Public Consultation Process

Attachment 3: Waste Disposal Agreement