



**V. Tsodniskari-Tela-Pataragori road (Lagodekhi Municipality)  
Rehabilitation Sub-Project**

**Environmental and Social Screening  
and Environmental Management Plan**

**WORLD BANK FINANCED**

**SECOND REGIONAL AND MUNICIPAL INFRASTRUCTURE DEVELOPMENT PROJECT**

**Tbilisi, Georgia**

**August, 2015**

## Environmental Screening

The Subproject (SP) site is located in Lagodekhi municipality of Kakheti region, in Eastern Georgia. The distance from the capital Tbilisi is 150 km. SP envisages rehabilitation of motor road in villages Tela and Patara Gori in Tsodniskari community, Lagodekhi Municipality. The road section to be rehabilitated starts at the connection point of the villages Tsiplistskaro and Chaduniani and runs through vilages Tela and Patara Gori. One section of the road runs along the village Tela and ends at the Kartubani-Baisubani-Ninigori motor road, and second section connects to the village Patara Gori that finally joins to the Kartubani-Baisubani-Ninigori motor road as well. The total length of the road to be rehabilitated is 6,066 km.

The road sections to be rehabilitated under the SP were constructed decades ago without the renovation is under usage. Presently asphalt layers are damaged due to the rainwater, snow. The damaged road hinders normal traffic movement reduces traffic capacity of the road and contributes to increase of emission of toxic airs and environment pollution. The proposed SP was initiated by the municipality as a priority.

The SP includes the works as follows:

- Removal of the old damaged pavement;
- Dismantling of damaged pipes at the yard entrances and road intersections (including asbestos pipes d=200-400mm with total length of 477 m);
- Rehabilitation (and marking) of the road;
- Installation of concrete ditches - 9,348 m;
- Installation of road connections and yard entrances.

The SP implementation duration is 6 months.

### (A) IMPACT IDENTIFICATION

Has sub-project a tangible impact on the environment?	The subproject is expected to have a modest short-term negative environmental impact while its long-term impact is expected to be positive, related the improvement transportation conditions in the villeges Tela and Patara Gori and reduction of negative environmental impacts such as dust, emissions, vibration and noise from cars' movement.
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<p>What are the significant beneficial and adverse environmental effects of sub-project?</p>	<p>The SP is expected to have positive long-term environmental and social impacts from improving living and transportation conditions of the local population. It will decrease existing negative impacts on community and neighboring environment,</p> <p>The main environmental and social impact will be related to the construction phase, which includes works for removal of old damaged pavements, laying of various sand-gravel layers and asphalt-concrete pavements, movement and operation of heavy vehicles, supply of materials.</p> <p>The SP will be implemented in the urban area, with strongly transformed environment through the past anthropogenic impact. Therefore the impacts like noise, emissions, generation of construction and hazardous waste (asbestos containing pipes removed from the yard entrances and road intersections), temporary disturbance of traffic and road access related to the activities during construction phase are transitory and insignificant and will be easily mitigated through implementation of relevant mitigation measures included in the SP EMP.</p>
<p>May the sub-project have any significant impact on the local communities and other affected people?</p>	<p>The long-term positive social impact will be beneficial (improvement of local population living conditions). Project implementation will benefit the whole Lagodekhi Municipality and all social groups of neighboring municipalities, since there is Kabala fair located in the end of the road, which has lots of buyers/traders on Sundays. It will also decrease transportation distance and time for the community members, as the 20km road (alternative motor road used at the present) will decrease and turn into the 5 km one. SP will also lead to the reduction of fuel consumption and minimize expenses of locals. The project will positively affect health status of the population, (minimization of dust, emissions, vibration and noise), as conveyance will become safe, and car maintenance cost will decrease as well. It will also promote tourism and small business development and create temporary employment opportunities and revenues.</p>

	<p>During construction activities, there is a risk of damage of existing underground utilities (central gas supply, water supply, power supply systems and Internet cables) located at the road shoulders.</p> <p>No land take or other type of resettlement is expected.</p> <p>Negative impacts, related to the possible disturbance described above, are short term and limited to the construction site.</p>
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**(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, only alternatives of pavement typed have been discussed.</p> <p><b>Option II:</b> cement concrete pavement with a thickness of 18 cm. This option incurs higher capital costs than the asphalt concrete pavement; furthermore, in case of concrete road breaks, the whole cement concrete slab needs to be replaced. Capital Cost: 3 230 917.5 (USD 1 435 963)</p> <p>On the basis of the undertaken least cost analysis done by the MDF it was concluded that option 1 Complete Rehabilitation (using asphalt paving) is the best alternative as it entails the lowest financial and economic costs. So, implementation of the option 1 was recommended.</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 scheduling, traffic management, good maintenance of the construction machinery, etc.</p> <p>Removed asbestos containing pipes (total length - 477 m) must be disposed on the nearest municipal landfill in</p>

	accordance written agreement with MoENRP and the Solid Waste Management Company of Georgia Ltd. under the Ministry of Regional Development and Infrastructure.
What lessons from the previous similar projects have been incorporated into the sub-project design?	<p>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, connections, installation of relevant signage, which will increase traffic and pedestrians' safety and backing further maintenance of the street cover.</p> <p>To avoid damage of the existing underground utilities (central gas supply, water supply, power supply systems and Internet cables) the Planned activities and dates of construction works should be agreed with the operator companies in advance and they should provide the responsible persons for supervision of the earthworks on the territories where underground utilities are locate.</p>
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 Lagodekhy Municipality in consultation with the affected communities and as a response to the current situation.</p> <p>The local population is informed about scheduled rehabilitation works and have no claim on related disturbances. MDF and local municipality will organize consultation meeting with local population to inform them about EMP requirements and construction contractor obligations 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 <b>Resettlement Policy Framework</b>			

**PART A: GENERAL PROJECT AND SITE INFORMATION**

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<b>INSTITUTIONAL &amp; ADMINISTRATIVE</b>	
Country	Georgia
Project title	Regional and Municipal Infrastructure Development Project II
Subproject title	V. Tsodniskari-Tela-Pataragori road (Lagodekhi Municipality) Rehabilitation
Scope of site-specific activity	<p>The SP envisages rehabilitation of motor road of villages Tela and Patara Gori in Tsodniskari community, Lagodekhi Municipality. The road section to be rehabilitated starts at the connection point of the villages Tsiplistskaro and Chaduniani and runs through vilages Tela and Patara Gori. One section of the road runs along the village Tela and ends at the Kartubani-Baisubani-Ninigori motor road, and second section connects to the village Patara Gori that joins to the Kartubani-Baisubani-Ninigori motor road as well. The total length of the road to be rehabilitated is 6,066 km.</p> <p>The road sections to be rehabilitated under the SP were constructed decades ago without the renovation is under usage. Presently asphalt layers are damaged due to the rainwater, snow. The damaged road hinders normal traffic movement reduces traffic capacity of the road and contributes to increase of emission of toxic airs and environment pollution.</p> <p>The SP includes the works as follows:</p> <ul style="list-style-type: none"> <li>• Removal of the old damaged pavement;</li> <li>• Dismantling of damaged pipes at the yard entrances and road intersections (including asbestos pipes d=200-400mm with total length of 477 m)</li> <li>• Rehabilitation (and marking) of the road;</li> <li>• Installation of concrete ditches - 9,348 m;</li> <li>• Installation of road connections and yard entrances.</li> </ul> <p>The SP implementation duration is 6 months.</p>

Institutional arrangements (WB)	Task Team Leader: Xiaolan Wang		Safeguards Specialist: Darejan Kapanadze	
Implementation arrangements (Borrower)	Implementing entity: Municipal Development Fund of Georgia	Works supervisor: Consulting company Eptisa Servicios de Ingenieria S.L. Spain	Works contractor: (tbd)	
<b>SITE DESCRIPTION</b>				
Name of institution whose premises are to be rehabilitated	Lagodekhi Municipality			
Address and site location of institution whose premises are to be rehabilitated	<p>25, 26 May street, Lagodekhi, Georgia 2700 Tel: 0354222666; 0354223594; E-mail: <a href="mailto:Lag_gamgeoba@yahoo.com">Lag_gamgeoba@yahoo.com</a></p> <p>The SP site is located in Eastern Georgia, Kakheti Region, in Tsodniskari community and villages Tela and Patara Gori. Distance from Tbilisi is approximately 150 km and 11 km from town Lagodekhi</p>			
Who owns the land? Who uses the land (formal/informal)?	Right of way of the road sections to be rehabilitated are owned by the local Municipality.			
Description of physical and natural environment around the site	<p>The Subproject (SP) site is located in Lagodekhi municipality, Kakheti region, Eastern Georgia. Access to the site is possible via Tbilisi-Bakurtsikhe-Lagodekhi motor road. The distance from Tbilisi is approximately 150 km. The Total length of the road to be rehabilitated is 6.066 km. The road mainly runs along residential buildings and agricultural lands. The village is located at 380 m altitude above the sea level.</p> <p>The municipality borders with the Republic of Azerbaijan to the east, to the west -Kvareli municipality, to the north - the Dagestan Autonomous Republic and to the south, it borders to the Signaghi and Gurjaani municipalities. The completely Municipal area is 890, 2 km<sup>2</sup>. The 38 979 ha of the territory belongs to the agricultural land which is 44% of the total area. 41 162 ha area (46%) is occupied by the forests. Administrative Centre of Lagodekhi Municipality is town of Lagodekhi.</p> <p>Lagodekhi Municipality is characterized by moderately humid subtropical climate, with moderately cold winters and hot summers. The average annual temperature is 13 ° C. Annual precipitation varies from 650 mm to 1080 mm.</p> <p>Lagodekhi municipality is rich with surface and ground waters. The main hydrographical network is formed by Alazan River, which flows at the</p>			



	<p>borders of Gurjaani and Sighnaghi municipalities. Other important rivers in the municipality are Kabali, Matsimistskali, Lagodekhistskali, Aresi and Apeniskhevi.</p> <p>The community is located at 17 km distance from the Administrative Center (Lagodekhi). Eastern part of Tsodniskari community borders on Azerbaijan, western part – on Vardisubani Community, southern part – on Baisubani Community, northern part - on Ninigori Community. Agricultural lands cover 2395 ha area, crops - 1780 ha, perennial plants - 175 ha, pastures - 89 ha and forest resources - 678 ha area.</p> <p>The community is composed of 1401 households and 5298 inhabitants. Agricultural lands cover 2395 ha area, crops - 1780 ha, perennial plants - 175 ha, pastures - 89 ha and forest resources - 678 ha area. Community villages are electrified. Power is supplied on 24-hour basis. Two villages are not gasified. Internal roads of all community villages require repair. There are one first-aid post, three schools and three kindergartens in the community. There are the following facilities operating in the adjacent Kabala community located at 12 km distance from the Tsodniskari community: sand-gravel pits, 3 stone quarrying workshops, 2 asphalt plants. At 4 km distance from the community, there is a Sunday fair of agricultural and miscellaneous products; there are two wine factories as well. There is no cultural site in the community, which may contribute to migration of young people. Gender balance is upset, despite of the fact that major part of population is represented by females. Women operate small businesses, and are mostly engaged in educational activities. Agriculture is main source of livelihood for the community. Approximately 30% of the local population is socially vulnerable. There are no national minorities living in the community.</p>
<p>Locations and distance for material sourcing, especially aggregates, water, stones?</p>	<p>Water will be available at the construction site from the local water supply system.</p> <p>Distance to the nearest licensed borrow pit is approximately 10-15 km.</p> <p>Distance to the municipal waste landfill is 15 km.</p>
<p><b>LEGISLATION</b></p>	
<p>National &amp; local legislation &amp; 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>Lagodekhi 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> <p>(i) construction materials must be obtained from licensed providers,</p>

	<ul style="list-style-type: none"> <li>(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,</li> <li>(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.</li> <li>(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;</li> <li>(v) Removed asbestos pipes (d=200-400mm, total length - 477 m) must be disposed on the nearest municipal landfill in accordance written agreement with MoENRP and the Solid Waste Management Company of Georgia Ltd. under the Ministry of Regional Development and Infrastructure.</li> <li>(vi) 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.</li> </ul> <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>
<b>PUBLIC CONSULTATION</b>	
When / where the public consultation process will take /took place	EMP will be discussed with beneficiary community prior to the commencement of works.
<b>ATTACHMENTS</b>	
<p>Attachment 1: Site map</p> <p>Attachment 2: Photos of the road to be rehabilitated</p> <p>Attachment 3: The public consultation recording (should be provided)</p> <p>Attachment 4: Agreements regarding the disposal of waste and other permits/agreements (should be provided)</p>	

**PART B: SAFEGUARDS INFORMATION**

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

<sup>1</sup> 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.

<sup>2</sup> 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
<b>O. General Conditions</b>	Notification and Worker Safety	<ul style="list-style-type: none"> <li>(a) The local construction and environment inspectorates and communities have been notified of upcoming activities</li> <li>(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)</li> <li>(c) All legally required permits have been acquired for construction and/or rehabilitation</li> <li>(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.</li> <li>(e) Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots)</li> <li>(f) Appropriate signposting of the sites will inform workers of key rules and regulations to follow.</li> </ul>
<b>A. General Rehabilitation and /or Construction Activities</b>	Air Quality	<ul style="list-style-type: none"> <li>(a) Demolition debris shall be kept in controlled area and sprayed with water mist to reduce debris dust</li> <li>(b) During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site</li> <li>(c) The surrounding environment (sidewalks, roads) shall be kept free of debris to minimize dust</li> <li>(d) There will be no open burning of construction / waste material at the site</li> <li>(e) There will be no excessive idling of construction vehicles at sites</li> <li>(f) Truck loads should be confinement and protected with lining.</li> </ul>
	Noise	<ul style="list-style-type: none"> <li>(a) Limit activities to daylight working hours;</li> <li>(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</li> <li>(c) The machinery should move only along the preliminarily agreed route;</li> <li>(d) The maximum allowed speed should be restricted;</li> <li>(e) Proper technical control and maintenance practices of the machinery should be applied;</li> <li>(f) No-load operations of the vehicles and heavy machinery are not allowed. Proper mufflers will be used on machinery.</li> </ul>
	Water Quality	<ul style="list-style-type: none"> <li>(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;</li> <li>(b) Contractor will plan all excavations, topsoil and subsoil storage so as to reduce to a minimum any runoff;</li> <li>(c) 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, 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;</li> <li>(d) 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;</li> <li>(e) Wet cement and/or concrete will not be allowed to enter any watercourse, pond or ditch.</li> </ul>

	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>
<b>E. Toxic Materials</b>	Asbestos management	<p>a) asbestos located on the SP site shall be marked clearly as hazardous material;</p> <p>b) asbestos will be appropriately contained and sealed to minimize exposure;</p> <p>c) The asbestos prior to removal will be treated with a wetting agent to minimize asbestos dust;</p> <p>d) Asbestos will be handled and disposed by skilled &amp; experienced professionals equipped with special PPE;</p> <p>e) If asbestos material is stored temporarily, the waste should be securely enclosed inside closed containments and marked appropriately. Security measures will be taken against unauthorized removal from the site;</p> <p>f) The removed asbestos will not be reused;</p> <p>g) The asbestos will finally disposed on the nearest official landfill in accordance with written agreement with MoENRP and "Solid Waste Management Company of Georgia" Ltd.</p>
<b>H Traffic and Pedestrian Safety</b>	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"> <li>▪ Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards</li> <li>▪ 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.</li> <li>▪ Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement</li> <li>▪ Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public.</li> </ul> <p>Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.</p>

**PART D: MONITORING PLAN**

<b>Activity</b>	<b>What</b> (Is the parameter to be monitored?)	<b>Where</b> (Is the parameter to be monitored?)	<b>How</b> (Is the parameter to be monitored?)	<b>When</b> (Define the frequency / or continuous?)	<b>Why</b> (Is the parameter being monitored?)	<b>Who</b> (Is responsible for monitoring?)
<b>CONSTRUCTION PHASE</b>						
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 designated locations;  No underground utilities are effected/damaged	Construction site	Inspection	In the course of earth works	Prevent pollution of the construction site and its surroundings with construction waste;  Prevent damage of the underground utilities along the road.	MDF, Construction supervisor

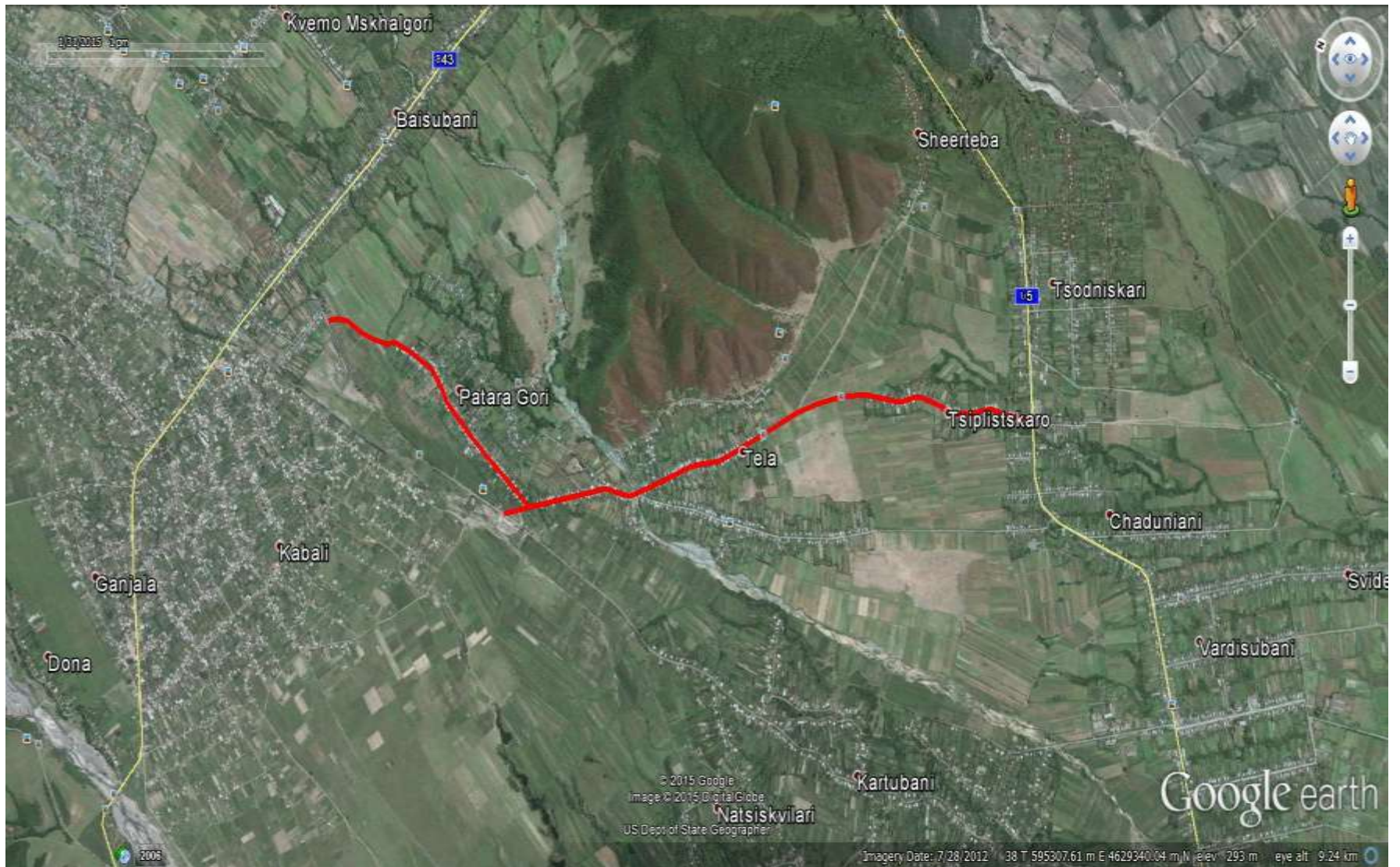
<b>Activity</b>	<b>What</b> (Is the parameter to be monitored?)	<b>Where</b> (Is the parameter to be monitored?)	<b>How</b> (Is the parameter to be monitored?)	<b>When</b> (Define the frequency / or continuous?)	<b>Why</b> (Is the parameter being monitored?)	<b>Who</b> (Is responsible for monitoring?)
	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.	Construction site	Inspection	In the course of earth works	Prevent damage and loss of physical cultural resources	
Sourcing of inert material	<p>Purchase of material from the existing suppliers if feasible;</p> <p>Obtaining of extraction license by the works contract 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>	Borrowing areas	<p>Inspection of documents</p> <p>Inspection of works</p>	In the course of material extraction	<p>Limiting erosion of slopes and degradation of ecosystems and landscapes;</p> <p>Limiting erosion of river banks, water pollution with suspended particles and disruption of aquatic life.</p>	MDF, Construction supervisor
Generation of construction waste	Temporary storage of construction waste in especially allocated areas;	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, Lagodekhi Municipality

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?)
	Timely disposal of waste to the formally designated locations					
Replacement of asbestos-containing pipes	<p>Asbestos contained pipes located on the SP site are appropriately taken out from the ground, marked clearly as hazardous material and temporarily placed on the permitted location;</p> <p>Asbestos containing waste is handled and disposed by skilled &amp; experienced professionals equipped with special PPE;</p> <p>Security measures are taken against unauthorized removal from the site;</p> <p>The asbestos containing waste is finally disposed in accordance with written agreement with MoENRP and the Solid Waste Management Company of Georgia Ltd.</p>	At construction site	<p>Inspection of documents</p> <p>Inspection of works</p>	In the course of demolition works	<p>Prevent pollution by toxic materials</p> <p>Protect workers' health</p>	MDF, Construction supervisor



<b>Activity</b>	<b>What</b> (Is the parameter to be monitored?)	<b>Where</b> (Is the parameter to be monitored?)	<b>How</b> (Is the parameter to be monitored?)	<b>When</b> (Define the frequency / or continuous?)	<b>Why</b> (Is the parameter being monitored?)	<b>Who</b> (Is responsible for monitoring?)
Traffic disruption and limitation of pedestrian access	Installation of traffic limitation/diversion signage;  Storage of construction materials and temporary placement of construction waste in a way preventing congestion of access roads	At and around the construction site	Inspection	In the course of construction works	Prevent traffic accidents; Limit nuisance to local residents	MDF, Construction supervisor
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
<b>OPERATION PHASE</b>						
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	Lagodekhi municipality

Attachment 1: Site map



Attachment 2: Photos of the road to be rehabilitated



Attachment 3: The public consultation recording (should be provided)

Attachment 4: Agreements regarding the disposal of waste and other permits/agreements (should be provided)

