



# **Rehabilitation of Road from village Greli to Sapara Monastery (Akhaltsikhe Municipality)**

## **Sub-Project Environmental and Social Screening and Environmental Management Plan**

**WORLD BANK FINANCED  
THIRD REGIONAL DEVELOPMENT PROJECT**

## Sub-Project description

The sub-project (SP) will rehabilitate an access road to Sapara Monastic Complex located in historical Meskheti, Akhaltsikhe region, about ten km south-east from city Akhalitsikhe, in the mountains. The Sapara Monastic Complex is subordinate to Akhaltsikhe and Tao-Klarjeti Eparchies. It is an effective complex.

The ensemble of Sapara Monastery consists of a group of historical monuments of different epochs. There are nine churches with the St. Saba Church being the central one. The oldest building of the Sapara ensemble is the Church dedicated to the Dormition of the Virgin, dated by the 10<sup>th</sup> century. Later, the St. Saba Church was built next to it at the brink of the XIII and XIV centuries. The belfry was built at the west side of the church at the same time. At the entrance, on the edge of the cliff, there is a small St. Stephan chapel, a single-nave building with no cupola. To the left, a cliff cape forms a wide platform. Here is located St. Saba's Church with other small churches surrounding it: the Dormition Church from the south, a small St. Dimitri chapel in the east; a small St. George Church and the St. John Chrysostom chapel in north-east. The Monastery complex also includes residential houses, palace, towers, monastic cells and different kinds of facilities. These premises are located at different heights of the mountain slope. The Sapara Monastery, once the residence of the grandees of Samtskhe, was a real fortress at one time. To the west, on top the Monastery, there are remnants of the old fortress survived.

The road, rehabilitation of which is planned within the SP, starts from village Greli, runs along agricultural holdings (croplands), bushed and forested slopes, and ends at the entrance of the Sapara Monastery. Total length of the road is 7222 m.

Major part of the road is rutted due to the runoff of surface waters on the pavement, these ruts are filled up with natural rubble. A complete new pavement is necessary to build all along the road section. Ditches are to be arranged along the full length of the road, which will protect the pavement from exposure to the surface water runoff.

The SP includes the works as follows:

- Constructing the gravel and asphalt-cement layers of the road pavement (L=7.2 km; width=4,5-5 m);
- Rehabilitating and installing storm water reinforced-concrete ditches 60X50 cm (702 m) and concrete pipes (D=1 m, 11 units);
- Arranging of the wall with gabion boxes (6m);
- Installing road furniture and marking: metal profiled road guards - 3,565 m; special profile concrete parapets - 22 units; road posts – 370 units; road signs – 61 units.

## Environmental Screening and Classification of SP

### (A) IMPACT IDENTIFICATION

<p>Has the subproject a tangible impact on the environment?</p>	<p>The SP has a modest negative environmental impact and is expected to have tangible long term positive impact on the social environment.</p>
<p>What are the significant beneficial and adverse environmental effects of the subproject?</p>	<p>There is no risk of impacts on historical value of the Sapara monastery because all civil works within the SP will be implemented outside of the Cultural Heritage (CH) site. However, as the SP is to be implemented near the CH site, there is higher than average likelihood of encountering chance-finds during excavation works.</p> <p>Road to be rehabilitated starts on village Grely territory within which two residential houses with yards are adjacent to the road. There are no other settlements along the road.</p> <p>The expected negative environmental and social impacts are likely to be short term and typical to medium scale rehabilitation works in modified landscape: noise, dust, vibration, and emissions from the operation of construction machinery; generation of construction waste; disruption of traffic and pedestrian access.</p> <p>As a result of civil works, approximately 10 441 m<sup>3</sup> excess material (cut soil) and organic waste (due to the cutting of bushes on the 1 100 m<sup>2</sup> territory) will be produced.</p> <p>Distance from the SP site to the nearest landfill is 5.3km. Transportation to the landfill is possible by passing through village Greli, Rustaveli street in the town of Akhaltsikhe, and village Chacharaki adjacent territory. Intense movement of heavy machinery will cause nuisance for local population and tourists.</p> <p>5 000m<sup>3</sup> sand-gravel and sand road shingle, also 40 000m<sup>3</sup> concrete and asphalt is required for SP implementation. Transportation of these materials also will cause nuisance for local population and tourists.</p>

	<p>For rehabilitation works, utilization of liquid hazardous material (bitumen) in the amount exceeding 33 ton is required. The bitumen will not be temporarily placed on the territory of the construction camp. In case of demand, bitumen will be supplied with special techniques and it will be used immediately after supply.</p> <p>Dismantling of damaged asbestos pipe with length of 4 m is planned, which requires special handling.</p> <p>After SP implementation, increased tourist flows may have indirect negative environmental impacts: waste generation, vandalism, etc.</p> <p>Rehabilitation of access road to Sapara monastery will improve touristic attraction. The increased tourist flows will have positive social impact through improvement of employment opportunities. SP implementation will create opportunity for new jobs for local population and increase their incomes.</p> <p>After SP implementation road operational and maintenance costs will be reduced; Safety for traffic flow movement will increased; emission of harmful gasses and fuel consumption will be reduced.</p>
<p>May the subproject have any significant impact on the local communities and other affected people?</p>	<p>No new land take is required.</p> <p>The long term social impact will be beneficial (growth of tourist flow, attraction of private sector investment in tourism infrastructure (hotels, restaurants, shopping, entertainment, etc.).</p>

**(B) MITIGATION MEASURES**

<p>Were there any alternatives to the sub-project design considered?</p>	<p>Given that the SP envisages rehabilitation of existing road, alternatives were not considered.</p>
<p>What types of mitigation measures are proposed?</p>	<p>The expected negative impacts of the construction phase can be easily mitigated by demarcation of the construction site, traffic management, good maintenance of the construction machinery, observance of the established working hours, and well organized disposal of waste to the formally agreed sites.</p> <p>Asbestos pipe will be demounted and disposed following to the procedures described in the EMP. Demolition works and proper disposal of the asbestos pipe will be strictly controlled by MDF. Training will be conducted for all personnel of the contractor who will have contact with hazardous materials and waste (especially the damaged asbestos pipe).</p> <p>Instead of transporting excess material through several settlements to the landfill, it may be disposed in an alternative location approved by local (municipal) governing bodies in written.</p> <p>In case chance find is encountered in the course of earth works, the contractor must immediately stop any physical activity on site and informs the MDF. The MDF promptly notifies the Ministry of Culture and Monument Protection, which takes over responsibility for the following course of action. Works may resume only upon receipt of written permission from the Ministry of Culture and Monument Protection.</p> <p>In operation phase proper management of generated solid waste and waste water should be ensured to reduce impact on the environment.</p>

<p>What lessons from the previous similar subprojects have been incorporated into the project design?</p>	<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 installation of storm water ditches which will backing further maintenance of the street cover.</p>
<p>Have concerned communities been involved and have their interests and knowledge been adequately taken into consideration in subproject preparation?</p>	<p>Draft EMP was disclosed on the MDF's web site. Announcement on the public consultation meeting was placed on public information board in the administration building of Akhaltsikhe municipality. On October 8, 2015 a public consultation meeting on the draft EMP was conducted in the administration building of Akhaltsikhe Municipality. Minutes of the public consultation meeting is attached with EMP.</p>

**(C) CATEGORIZATION AND CONCLUSION**

Conclusion of the environmental screening:

- 1. Subproject is declined
- 2. Subproject is accepted

Subproject preparation requires:

- 1. Completion of the Environmental Management Checklist For Small Construction and Rehabilitation Activities
- 2. Environmental Review, including development of Environmental Management Plan

## Social Screening and Cultural Resource Screening of SP

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)	X	
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?		X
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?		X
4	Will the 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)?		X
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>			
Cultural resources safeguard screening information		Yes	No
5	Will the project require excavation near any historical, archaeological or cultural heritage site?		X
If answer to question 5 is "Yes", then <b>OP/BP 4.11 Physical Cultural Resources</b> is applicable and possible chance finds must be handled in accordance with OP/BP and relevant procedures provided in the <b>Environmental and Social Management Framework</b> .			

## Environmental Management Plan

### PART A: GENERAL PROJECT AND SITE INFORMATION

<b>INSTITUTIONAL AND ADMINISTRATIVE</b>			
Country	Georgia		
Project title	Third Regional Development Project (RDP 3)		
Sub-Project title	Road from village Greli to Sapara Monastery (Akhaltzikhe Municipality) Rehabilitation		
Scope of site-specific activity	<p>The sub-project (SP) will rehabilitate the access road to Sapara Monastic Complex located in historical Meskheti, Akhaltsikhe region, about ten km south-east from city Akhalitsikhe. Total length of the road to be rehabilitated is 7222 m.</p> <p>The SP includes the works as follows:</p> <ul style="list-style-type: none"> <li>• Constructing the gravel and asphalt-cement layers of the road pavement (L=7.2 km; width=4,5-5 m);</li> <li>• Rehabilitating and installing storm water reinforced-concrete ditches 60X50 cm (702 m) and concrete pipes (D=1 m, 11 units);</li> <li>• Arranging of the walls with gabion boxes (6 m);</li> <li>• Installing of road furniture and marking: metal profiled road guards -3,565 m; special profile concrete parapets -22 units; road posts – 370 units; road signs – 149 units.</li> </ul>		
Institutional arrangements (WB)	<p>Task Team Leader: Zaruhi Tokhmakhian, Co-Task Team Leader: Ahmed Eiweida</p>	<p>Safeguards Specialist: Darejan Kapanadze, environment  Davit Jijelava, social</p>	
Implementation arrangements (Borrower)	<p>Implementing entity:  Municipal Development Fund of Georgia</p>	<p>Works supervisor:  JV of "Soosung Enginnering Co.Ltd." (Korea), "Voyants Solutions Pvt. Ltd." (India) SAMAN Corporation" (Korea) and "GZAMSHENPROJECT LTD" (Georgia)</p>	<p>Works contractor:  "Sagzao samsheneblo sammartvelo #1"</p>



<b>SITE DESCRIPTION</b>	
Name of institution whose premises are to be rehabilitated	The Road - Akhaltsikhe-Greli-Sapara Monastery - belongs to the national roads, managed by the Department of Roads of Georgia
Address and site location of institution whose premises are to be rehabilitated	12, Kazbegi avenue, 0160, Tbilisi, Tel: (995 32) 37-05-08 E-mail: info@georoad.ge
Who owns the land? Who uses the land (formal/informal)?	State property
Description of physical and natural environment around the site	<p>Road to be rehabilitated starts on village Grely territory and finished at the entrance of Sapari monastery complex. Total length of the road is 7222 m.</p> <p>Road to be rehabilitated starts on village Grely territory within which only two residential houses with yards are adjacent to the road. There are no other settlement along the road.</p> <p>First section of the road runs adjacent to agricultural lands; The middle section of the road runs xeric vegetation-covered slopes, while the last section of the road diverges from the forest (spruce, pine, deciduous species and bushes) covered slopes. Artificial pine plantations are grown on the slopes along the road as well.</p> <p>The average annual temperature in the region is 9.0°C, average temperature in January is 3,8°C, in August - 20.0C°, annual precipitation is 513 mm.</p> <p>According to geo-morphological zoning of Georgia the SP area belongs to Adjara- Trialeti fold system which is composed of Paleogene-Neogene pyroclastic and sub-argillite deposits, hard rock and half-rock and is located in sub-region of Akhaltsikhe depression.</p> <p>Hard rock within the limits of the sections area is represented by clay and limestone cemented sandstone and volcanogenic tuff-breccia as well as tuff-sandstone, tuffcemented breccia, porphyrites and basalt.</p>

	According to seismic standards p.n. 01.01.09- "Earthquake engineering" valid in Georgia, the study region belongs to 8 point zone of seismic activity.
Locations and distance formaterial sourcing, especially aggregates, water, stones?	Distance from design zone to the nearest landfill is 5.3km. Distance to the nearest licensed borrow pit is approximately 7-8 km.
<b>LEGISLATION</b>	
National and local legislation and permits that apply to project activity	<p>The SP has been classified as an Environmental Category "B" according to the World Bank policies and the ESMF.</p> <p>Georgian legislation does not require any type of environmental review, approval, or permitting for the SP.</p> <p>Though according to the national regulatory system:</p> <ol style="list-style-type: none"> <li>I. construction materials must be obtained from licensed providers;</li> <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 Ministry of Environment and Natural Resources Protection.</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. Dismantled asbestos pipe must be disposed on the nearest municipal landfill in accordance with regulation on ``Arrangement, operation, closure and Subsequent Maintenance of the Landfills`` (Governmental Decree # 421, August 11, 2015).</li> </ol> <p>The construction company LTD "Samsheneblo Sammartvelo # 1" has obtained the following:</p>

	<ol style="list-style-type: none"> <li>1. Environmental permit with an established ceiling of pollutant concentrations in emissions and technical report on inventory of atmospheric air pollution stationary source agreed with Ministry of Environment and Natural Resources Protection;</li> <li>2. Copy of the license for extraction of inert Materilas;</li> <li>3. Agreement between Akhaltsikhe Municipality and the construction company for disposal of construction waste and excess inert materials.</li> </ol> <p>GOST and SNIP norms must be adhered.</p>
<b>PUBLIC CONSULTATION</b>	
<p>When / where the public consultation process will take /took place</p>	<p>Draft EMP was disclosed on the MDF's web site. Announcement on the public consultation meeting was placed on public information board in the administration building of Akhaltsikhe municipality. On October 8, 2015 a public consultation meeting on the draft EMP was conducted in the administration building of Akhaltsikhe Municipality. Minutes of the public consultation meeting is tatched with EMP.</p>
<b>ATTACHMENTS</b>	
<p>Attachment 1: Site map and pictures  Attachment 2: Record on public consultation  Attachment 3: Copies of License, Permit, Contract and Agreement</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. Rehabilitation	<input checked="" type="checkbox"/> Yes [ ] No	See Section <b>A</b> below
	B. New construction	[ ] Yes <input checked="" type="checkbox"/> No	See Section <b>A</b> below
	C. Individual wastewater treatment system	[ ] Yes <input checked="" type="checkbox"/> No	See Section <b>B</b> below
	D. Historic building(s) and districts	[ ] Yes <input checked="" type="checkbox"/> No	See Section <b>C</b> below
	E. Acquisition of land <sup>1</sup>	[ ] Yes <input checked="" type="checkbox"/> No	See Section <b>D</b> below
	F. Hazardous or toxic materials <sup>2</sup>	[ ] Yes <input checked="" type="checkbox"/> No	See Section <b>E</b> below
	G. Impacts on forests and/or protected areas	[ ] Yes <input checked="" type="checkbox"/> No	See Section <b>F</b> below
	H. Handling / management of medical waste	[ ] Yes <input checked="" type="checkbox"/> No	See Section <b>G</b> below
	I. Traffic and Pedestrian Safety	<input checked="" type="checkbox"/> Yes [ ] 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>0. 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) The surrounding environment (sidewalks, roads) shall be kept free of debris to minimize dust</li> <li>(b) There will be no open burning of construction / waste material at the site</li> <li>(c) There will be no excessive idling of construction vehicles at sites</li> </ul>
	Noise	<ul style="list-style-type: none"> <li>(a) Construction noise will be limited to restricted times agreed to in the permit</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> </ul>
	Water Quality	<ul style="list-style-type: none"> <li>(a) The site will establish appropriate erosion and sediment control measures 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> </ul>
	Waste management	<ul style="list-style-type: none"> <li>(a) 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.</li> <li>(b) Construction waste will be collected and disposed on the nearest municipal landfill.</li> <li>(c) The records of waste disposal will be maintained as proof for proper management as designed.</li> <li>(d) Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)</li> </ul>
<b>E. Toxic Materials</b>	Asbestos management	<ul style="list-style-type: none"> <li>(a) If asbestos is located on the project site, it shall be marked clearly as hazardous material</li> <li>(b) When possible the asbestos will be appropriately contained and sealed to minimize exposure</li> <li>(c) The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust</li> <li>(d) Asbestos will be handled and disposed by skilled &amp; experienced professionals</li> <li>(e) If asbestos material is being stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately. Security measures will be taken against unauthorized removal from the site.</li> </ul>

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
	Toxic / hazardous waste management	<p>(f) The removed asbestos will not be reused</p> <p>(a) Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information</p> <p>(b) The containers of hazardous substances shall be placed in an leak-proof container to prevent spillage and leaching</p> <p>(c) The wastes shall be transported by specially licensed carriers and disposed in a licensed facility.</p> <p>(d) Paints with toxic ingredients or solvents or lead-based paints will not be used</p>
F. Affected forests, wetlands and/or protected areas	Protection of trees along the roads	<p>(a) Trees along the road must be protected from cutting or unintentional damage; Large trees shall be marked and cordoned off with fencing and their root system protected;</p> <p>(b) Movement of vehicles will strictly limit within traffic lane; Pockets for turning of vehicles should be arranged.</p> <p>(c) All workers will be strictly prohibited from, foraging, waste dump or other damaging activities to adjusted landscapes.</p> <p>(d) Any cut tree that is damaged or dies as a consequence of the construction shall be replaced by a suitably sized transplant at least 1:3 ratio to the approval of the MDF and National Forest Agency.</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"> <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> <li>▪ Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.</li> </ul>

**PART D: MONITORING PLAN**

<b>Activity</b>	<b>What (Is the parameter to be monitored?)</b>	<b>Where (Is the parameter to be monitored?)</b>	<b>How (Is the parameter to be monitored?)</b>	<b>When (Define the frequency / or continuous?)</b>	<b>Why (Is the parameter being monitored?)</b>	<b>Who (Is responsible for monitoring?)</b>
<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  Along transportation route  Near settlement areas.	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;	Construction site	Inspection	In the course of earth works	Prevent pollution of the construction site and its surroundings with construction waste; Prevent damage and loss of physical cultural resources	MDF, Construction supervisor

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?)
	<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> <p>Topsoil is striped before starting of the earthworks;</p> <p>Proper topsoil storage practice is applied; Temporary protective silt fencing is erected;</p> <p>Striped topsoil is used for reinstatement and landscaping.</p>			<p>Construction period: starting from topsoil stripping and ending with reinstatement</p>		
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>	Borrowing areas	<p>Inspection of documents 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 riverbanks, water pollution with</p>	MDF, Construction supervisor



<b>Activity</b>	<b>What (Is the parameter to be monitored?)</b>	<b>Where (Is the parameter to be monitored?)</b>	<b>How (Is the parameter to be monitored?)</b>	<b>When (Define the frequency / or continuous?)</b>	<b>Why (Is the parameter being monitored?)</b>	<b>Who (Is responsible for monitoring?)</b>
	<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>				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
Asbestos management	Asbestos located on the SP site is appropriately contained and marked	At construction site	Inspection of documents Inspection of works	In the course of demolition works	Prevent pollution by toxic materials  To protect workers' health	MDF, Construction supervisor

<b>Activity</b>	<b>What (Is the parameter to be monitored?)</b>	<b>Where (Is the parameter to be monitored?)</b>	<b>How (Is the parameter to be monitored?)</b>	<b>When (Define the frequency / or continuous?)</b>	<b>Why (Is the parameter being monitored?)</b>	<b>Who (Is responsible for monitoring?)</b>
	<p>clearly as hazardous material;</p> <p>Asbestos 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 dismantled asbestos pipes is disposed on official landfill.</p>					
Traffic disruption and limitation of pedestrian access	<p>Installation of traffic limitation/diversion signage;</p> <p>Storage of construction materials and temporary placement of construction waste in a way preventing congestion of access roads</p>	<p>Along construction route.</p> <p>Along materials and waste transportation route.</p>	Inspection	In the course of construction works	<p>Prevent traffic accidents;</p> <p>Limit nuisance to local residents</p>	MDF, Construction supervisor
Property storage of hasardous materials	Containers containing dangerous substances are placed on the	Hazardous materials storage area.	Inspection	Periodically during construction and upon complaints	Prevent pollution of the construction site and nearby area	MDF, Construction supervisor

<b>Activity</b>	<b>What (Is the parameter to be monitored?)</b>	<b>Where (Is the parameter to be monitored?)</b>	<b>How (Is the parameter to be monitored?)</b>	<b>When (Define the frequency / or continuous?)</b>	<b>Why (Is the parameter being monitored?)</b>	<b>Who (Is responsible for monitoring?)</b>
	second protective tank and be stored in closed containers					
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
Completion of construction	Rake or loosen all compacted ground surfaces  Ensure that waste and surplus materials are removed from site, or otherwise dealt with according to the wishes of landowners or local residents  Excavate any contaminated soil from fuel depots /	All construction and camp sites	Inspection	After completion of construction	Prevent pollution of the construction site and nearby area after project implementation	MDF, Construction supervisor

<b>Activity</b>	<b>What (Is the parameter to be monitored?)</b>	<b>Where (Is the parameter to be monitored?)</b>	<b>How (Is the parameter to be monitored?)</b>	<b>When (Define the frequency / or continuous?)</b>	<b>Why (Is the parameter being monitored?)</b>	<b>Who (Is responsible for monitoring?)</b>
	workshops, remove and reshape the area.					
<b>OPERATION PHASE</b>						
Maintenance of rehabilitated road	<p>Conduct regular monitoring and inventory of risks for erosion and drainage problems</p> <p>Conduct routine maintenance like grading, drain clearing, pothole patching and shoulder repairs.</p>	Entire road section	Inspection	As required	Prevent road accidents and disruption of traffic	Road Department
Pedestrian safety	<p>Install speed bump at selected places to slow down traffic at critical locations;</p> <p>Promote off-road let down stops;</p> <p>Enhance improvements in road signage and pavement markings.</p>	Entire road section	Inspection	As required	To enhance pedestrians safety following increased vehicle speed	Road Department

Attachment 1: Site Map and pictures















## Attachment 2: Record on public consultation

8 October, 2015

Akhaltzikhe Municipality, Georgia

### Sub -project of the Road rehabilitation from the village Ghreli to Sapara Monastery(Akhaltzikhe Municipality)

#### Minutes of Public Consultation Meeting of sub-project Environmental and Social impact Management Plan

On 8<sup>th</sup> of October 2015, a public consulting meeting of sub-project of the Road rehabilitation from the village Ghreli to Sapara Monastery Environmental and Social impact Management Plan was held in the governance office in Akhaltzikhe Municipality. The meeting aimed at keeping local population abreast of sub-project related planned activities, the expected negative impacts on the natural and social environment and the ways and means of preventing them.

Those present at the meeting:

Representatives of the governance Akhaltzikhe Municipality:

Natia Kurashvili, Jilda Uchidze, Gela Sudadze, Tsitsi eliosidze, Maia Kapanadze, Ia Dalalishvili, Alex Zedgenidze, Guram Melikidze Naira Samsonidze, Giorgi Diasamidze.

Representatives of the village Ghreli: Guram Nebadze, Giorgi Alavidze, Sudadze Dimitri, Sudadze Vladimir, Giorgi omaridze, Nebadze Nugzar, Sudadze Alexandre, Nebadze Jumberi ,Natenadze Amiran, Levan Zedgenidze, David Nebadze, Zaza Nebadze, Roini Nebadze, Giorgi Nebadze, Teimuraz Meliqidze, Mamuka Alavidze,Bidzina Nebadze,Levan ladze.

Representatives from Municipal Development Fund of Georgia:

Nino Patarashvili-Environmental Safeguard Specialist;

Ana Rukhadze-Environmental Safeguard Specialist;

Tamar Kardava - Beneficiary Relations Specialist.

The meeting was opened by Ana Rukhadze and she presented information about the sub-project objectives and activities envisaged under it.

She presented Social and Environmental Screening and environmental management plan prepared for the sub-project, shortly explained to the public about the social and environmental screening procedures applied for the WB funded SPs and environmental and social requirements of the presented SP. She discussed the activities planned under the SP and expected positive and adverse impacts on the existing environment which will be related to the implementation of this activities. There were also described the mitigation measures that should be carried out in the process of the project implementation in order to avoid or minimize the potential negative impacts.

Ana Rukhadze discussed the content and structure of the environmental management plan, needs for EMP implementation and criteria for the environmental monitoring during the sub-project implementation.

She noted that EMP forms an integral part of the contract made with the civil works contractor. The contractor is responsible for performance of mitigation measures envisaged under the EMP. At the end of the meeting, Ana Rukhadze informed the participants about the contact persons to be communicated by the population in case of existence of any complaints concerning environmental or social issues.

After the presentation, the audience was given a possibility to express their opinions and/or participate in Q&A session concerning presented issues, they posed the following question.

<b>Questions and remarks</b>	<b>Answers and comments</b>
What is the amount of the money allocated for the rehabilitation of the road?	Currently there is announced a tender to select a construction company, the MDF has evaluated the approximate cost of the project, but exact price of the project will be determined only after the tender. For the moment, we do not have authority to disclose estimated cost of the project.
Do movement and exploitation of the Heavy vehicles along the road to be rehabilitated, cause damage of the village access road that is in good conditions and its rehabilitation is not envisaged under the SP?	The contractor will have a responsibility to repair the damaged sections of access road in case of their damage.
Does the Sub-project includes illuminations of the village road?	No, arrangement of illumination along the road is not envisaged under the SP.

At the end of the meeting the audience expressed their positive attitude towards the Project and their hope that rehabilitation of this sub project will be finished soon.

Photo material and copy of meeting participants' registration list are hereby enclosed.

Minutes prepared by Ana Rukhadze, MDF Environmental Safety Specialist

8 October 2015

Photos:



List of Participants:

რეგიონული განვითარების მესამე პროექტი

გზის რეაბილიტაცია სოფელ ღრელიდან საფარას მონასტრამდე (ახალციხის მუნიციპალიტეტი)

ქვე-პროექტის ხუნებრივ და სოციალურ გარემოზე ზემოქმედების მართვის გეგმის საჯარო განხილვა

8 ოქტომბერი, 2015 წელი

შეხვედრაზე დასწრეთა რეგისტრაციის ფურცელი


	სახელი, გვარი	ორგანიზაცია	საკონტაქტო ინფორმაცია	ხელმოწერა
1.	ნათია ყურმაშვილი	ახ. მენ სატელევიზიო	591-44-97-78	ნ.ყურმაშვილი
2.	ბილა უჩიძე	ახალ მენ გეგმავთ	591-44-97-37	ბ. უჩიძე
3.	ველი სედიძე	საქართველოს სოფლის მეურნეობის სამსახური	524-44-11-43	ვ. სედიძე
4.	გუგუშვილი თეძე	უბეჭეველი	571255515	გ. გუგუშვილი
5.	ვიტორი უჩიძე ჩოგოშვილი	უბეჭეველი	571743948	ვ. უჩიძე
6.	სუბანი ჯიბუჩიძე	უბეჭეველი	551 21 43 59	ს. ჯიბუჩიძე

7.				
8.	Լաբարի գրքատեղի	Գրքատեղի	599 499 28	Գ. Կոչ
9.	ժամային արժեք	25-ամսական	591 449 706	Ժամ
10.	Երկրի Երկրաչափական	Ինժեներական	574 140 018	Երկր
11.	Լաբարի արժեքները	Կրկնաշրջան	599 537 440	Կրկն
	Երկրի Կրկնաշրջան	Կրկնաշրջան	598 099 754	Կրկն
12.	Երկրի Կրկնաշրջան	Կրկնաշրջան	592 989 869	Կրկն
13.	Երկրի Կրկնաշրջան	Կրկնաշրջան	598 911 04	Կրկն
14.	Երկրի Կրկնաշրջան	Կրկնաշրջան	591 449 759	Կրկն
15.	Երկրի Կրկնաշրջան	Կրկնաշրջան	591 448 773	Կրկն
16.	Երկրի Կրկնաշրջան	Կրկնաշրջան	591 449 774	Կրկն

17

17.	Հոգևոր Յուզմունք	Վր. Գրե-Պոլսեցի Գրե-Պոլսեցի	5 31-44-37-73	Վ. Գրե-Պոլսեցի
18.	Հայրենի Հայրենի	Վր. Գրե-Պոլսեցի Գրե-Պոլսեցի	591449292	Վ. Գրե-Պոլսեցի
19.	Յուզմունք Յուզմունք	Վր. Գրե-Պոլսեցի Գրե-Պոլսեցի	591449614	Վ. Գրե-Պոլսեցի
20.	Հայրենի Հայրենի	Վր. Գրե-Պոլսեցի Գրե-Պոլսեցի	591469217	Վ. Գրե-Պոլսեցի
21.	Հայրենի Հայրենի	Վր. Գրե-Պոլսեցի Գրե-Պոլսեցի	598 14 92 37	Վ. Գրե-Պոլսեցի
22.	Վր. Գրե-Պոլսեցի	Վր. Գրե-Պոլսեցի	579-45-02-58	Վ. Գրե-Պոլսեցի
23.	Վր. Գրե-Պոլսեցի	Վր. Գրե-Պոլսեցի	595 857523	Վ. Գրե-Պոլսեցի
24.				
25.	Հայրենի Հայրենի	Վր. Գրե-Պոլսեցի Գրե-Պոլսեցի	598-417-902 5986467-13	Վ. Գրե-Պոլսեցի Վ. Գրե-Պոլսեցի



<p> <del> <div data-bbox="441 219 598 300">ՊՈՐՏԱ</div> <div data-bbox="441 300 598 365">ԿՈՐԻՆՏ</div> <div data-bbox="441 365 598 422">ՄԱՅՅՈՒՆ</div> </del> </p>	<p> <del> <div data-bbox="640 219 808 300">ՍՄԱՅՐԻԿ</div> <div data-bbox="640 300 808 365">ԵՅՆԱԾԳ</div> <div data-bbox="640 365 808 422">ՈՍԿ</div> </del> </p>	<p> <del> <div data-bbox="955 219 1186 300">ԵՄՑ. ՄՈՒՆԵՐ</div> <div data-bbox="955 300 1186 365">ԵՄՑ ՄԻՅԵՐ</div> <div data-bbox="955 365 1186 422">ԵՄԵՐ. ՄԻՅՔԱՐ</div> </del> </p>	<p> <del> <div data-bbox="1270 235 1585 300">598-19-35-15</div> <div data-bbox="1270 300 1585 365">551-06-46-46</div> <div data-bbox="1270 365 1585 422">593-27 5390</div> </del> </p>	<p> <del> <div data-bbox="1606 251 1774 462">  </div> </del> </p>
---	---	--	--	--

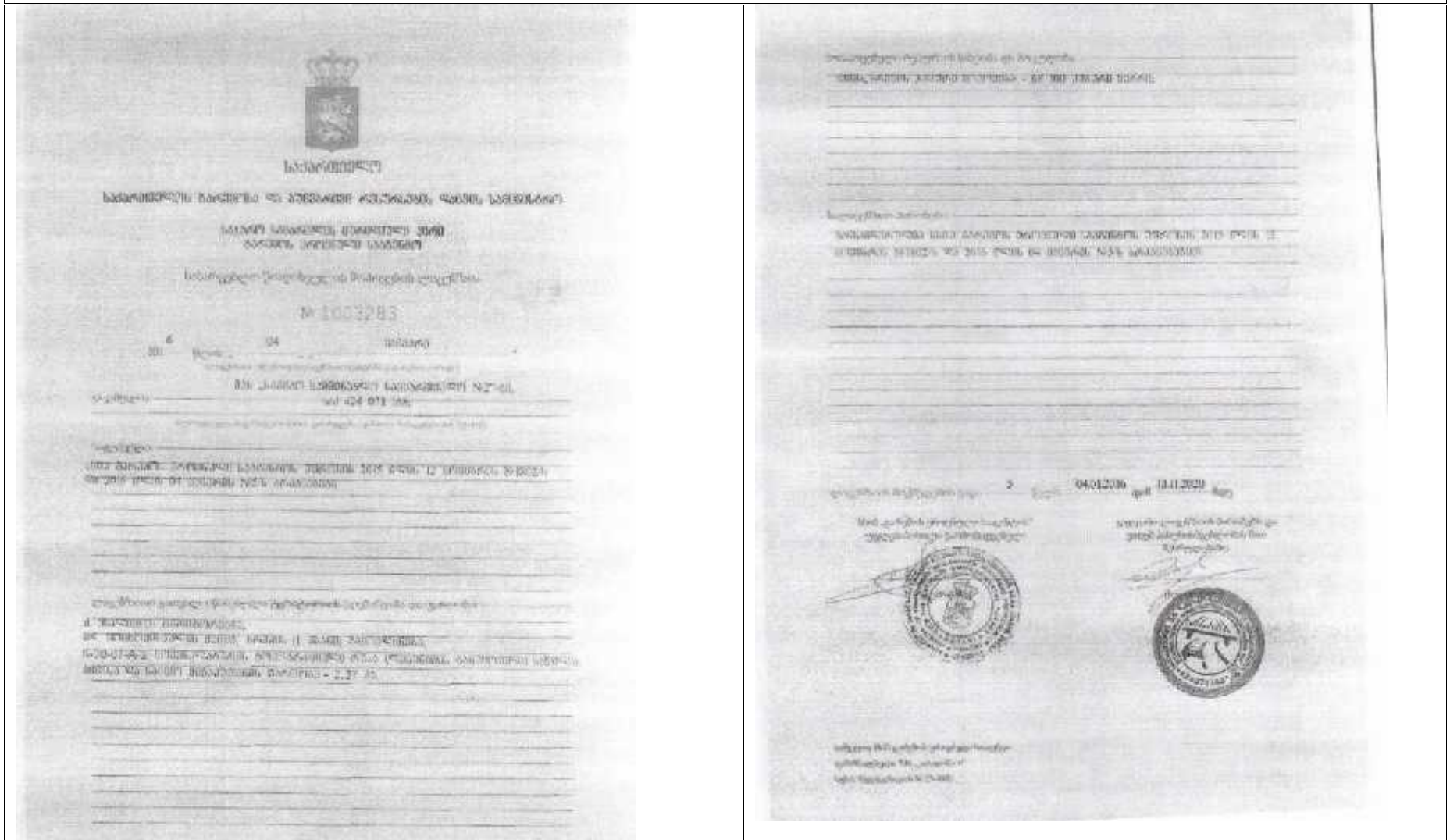
Attachment 3

Ceiling of pollutant concentrations in emissions and technical report on inventory of atmospheric air pollution stationary source agreed with Ministry of Environment and Natural Resources Protection;



**Copy of the license for extraction of inert Materials**

**Summary: Mineral Extraction license # 1003283, License Holder: LTD "Sagzao Samsheneblo Sammartvelo"** According to the license, the contractor can extract sand materials from the Potskhovi River. The validity period- 04.01.2016-13.11.2020, volume- 68 100 m<sup>3</sup>.





**Letter From the Supervision Company LTD “Gzamshenproekti”.**

According to the letter, the construction company “Sagzao Samsheneblo Sammartvelo #1” excess material was reused for arranging of roadbed.

