



Integrated Revitalization of Cultural Heritage Site of Ninotsminda Monastery Sub-Project

Environmental Review

**WORLD BANK FINANCED
REGIONAL DEVELOPMENT PROJECT**

Tbilisi, Georgia

September 2014

ABBREVIATIONS

WB	World Bank
MRDI	Ministry of Regional Development and Infrastructure
MDF	Municipal Development Fund
EMF	Environmental Management Framework
EMP	Environmental management plan
ER	Environmental Review
MoENRP	Ministry of Environment and Natural Resources Protection
MoCMP	Ministry of Culture and Monument Protection
RDP	Regional Development Project
CH	Cultural Heritage

Environmental Screening and Classification

The subproject (SP) envisages arrangement of the tourist infrastructure and water supply system for Ninotsminda Church (Cathedral). It is located in town Sagarejo, Kakheti region of Eastern Georgia, at 58 km distance from Tbilisi (rail). Access to the site is possible via Kakheti highway. Sagarejo has a city status since 1962, it is administrative center.

SP includes

Arrangement of the existing parking lot;

- Construction of the new covered parking area (for 4 cars);
- Construction of the retaining wall at a short distance away from the cadastral line of the adjacent dweller, on the land registered as a municipal property
- Arrangement of souvenir store with access for disabled (western side);
- Reconstruction of the public toilet building constructed under the previous project, for its transformation into the wine sampling cellar;
- Construction of a new public toilet;
- Vertical planning and landscaping of the territory (Arrangement of new greened space-square);
- Arrangement of lighting;
- Arrangement of Water supply system; (Arrangement of the borehole and laying pipes for its connection to the newly constructed public toilet and wine cellar);
- Arrangement of sewage system for toilets and its connection with existing biological waste water treatment unit.

(A) IMPACT IDENTIFICATION

Has the subproject a tangible impact on the environment?	The SP will have a modest negative environmental impact and is expected to have tangible long term positive impact on the social environment.
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<p>What are the significant beneficial and adverse environmental effects of the subproject?</p>	<p>The SP is expected to have positive long term environmental and social impact through improving the tourist infrastructure by reducing pollution related poor sanitation. The increased tourist flows will have positive social impact due to improving employment opportunities.</p> <p>Borehole drillings on the monastery and nearby areas and components of the water supply and sewage systems will be arranged on the non-forested areas. Therefore no trees will be cut. However damage of shrubs and grass vegetation is expected.</p> <p>The expected negative environmental and social impacts are likely to be minimal, short term and typical for small to medium scale rehabilitation/reconstruction works: noise, dust, vibration, and emissions from the operation of construction machinery; generation of construction waste; disruption of traffic and pedestrian access.</p> <p>Increased tourist flows may have indirect negative environmental impacts: waste generation, vandalism, etc.</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>May the subproject have any significant impact on the local communities and other affected people?</p>	<p>No new land take and involuntary resettlement are expected.</p> <p>The building (wine cellar) to be reconstructed under the new sub-project is bordering with the premises of the local dweller. Due to the fact that in course of the phase 1 works construction of the public toilet in front of his building induced discontent of the dweller, as a result of negotiations between the parties it was resolved that during the phase II works, the public toilet would be transformed into a wine sampling cellar and the dweller would be supplied with water from the wine cellar by means of 25mm diameter pipes. (see attached "Property owners signed approval and Cadastral Information")</p> <p>Currently the procedures are ongoing for land registration in the Municipal ownership.</p>

	<p>The long term social impact will be beneficial (improvement of local population living conditions and growth of tourist flow, attraction of private sector investment in tourism infrastructure).</p> <p>Negative impacts are short term and limited to the construction site. They are related to the possible disturbance described above.</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>
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(B) MITIGATION MEASURES

<p>Were there any alternatives to the sub-project design considered?</p>	<p>Alternatives for parking and other facilities have been considered and the optimal option selected.</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. Topsoil will be stripped, stored appropriately and used for reinstatement and landscaping. Impact on surface and/or underground water with high chlorine concentration (content) waste water that are expected to be formed in washing and disinfection process before launching operation of newly installed water pipes will be reduced by neutralization prior to release to the environment. Biological waste water treatment unit will be installed and maintained properly to avoid water pollution by newly arranged sewage system.</p>
<p>What lessons from the previous similar subprojects have been incorporated into the project design?</p>	<p>Mistakes, which hindered successful implementation of the previous SP were taken into consideration and properly improved, new SP was re-defined and brought into compliance with international standards.</p>

<p>Have concerned communities been involved and have their interests and knowledge been adequately taken into consideration in subproject preparation?</p>	<p>Sagarejo eparchy and population were informed about the upcoming plans of integrated revitalization of CH sites in a meeting held in Kakheti Governor's office in Telavi (03.02.2012) and generated positive reaction of the beneficiaries.</p> <p>SP specific EMP will be made available for Sagarejo municipality and population and will be discussed in a consultation meeting prior to the commencement of works.</p>
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(C) RANKING

Based on the screening outcomes,

- Subproject is classified as environmental Category
- A
 - B
 - C

Conclusion of the environmental screening:

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

If accepted, and based on risk assessment, 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 and Cultural Resource Screening of Subprojects

Social safeguards screening information		Yes	No
1	Is the information related to the affiliation and ownership status of the subproject site available and verifiable? (The screening cannot be completed without this)		✓
2	Will the project reduce other people's access to their economic resources, such as land, pasture, water, public services or other resources that they depend on?	✓	
3	Will the 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 project result in the temporary or permanent loss of crops, fruit trees and household infrastructure (such as 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			
Cultural resources safeguard screening information		Yes	No
5	Will the project require excavation near any historical, archaeological or cultural heritage site?	✓	
If answer to question 5 is "Yes", then OP/BP 4.11 Physical Cultural Resources is applicable and possible chance finds must be handled in accordance with OP/BP and relevant procedures provided in the Environmental Management Framework .			

* Currently the procedures required for land registration in the municipal ownership are ongoing, finally the registered land plots have formed 4 cadastral units, for speeding up the process, the MDF on its part has prepared cadastral drawings and delivered it to Sagarejo Municipality (see attached letters).

Environmental Review

1. Introduction

1.1. Background Information

Government of Georgia is implementing a Regional Development Project (RDP) in Kakheti with the support of the World Bank. A number of sub-projects (SPs) are being planned and financed from the loan proceeds of Present SP that envisages integrated revitalization of the existing infrastructure of CH Sites at Ninotsminda Monastery as well as construction works for arrangement of the tourist infrastructure is part of the RDP and shall be prepared, reviewed, approved, and implemented in agreement with the requirements of the Georgian legislation and the World Bank policies applicable to the RDP.

1.2. Institutional Framework

The Municipal Development Fund of Georgia (hereinafter: the MDF) is a legal entity of public law, the objective of which is to support strengthening institutional and financial capacity of local government units, investing financial resources in local infrastructure and services and improving on sustainable basis the primary economic and social services for the local population (communities). MDF is designated as an implementing entity for the RDP and is responsible for its day-to-day management, including application of the environmental and social safeguard policies.

MDF prepares and submits to the World Bank for approval the Subproject Appraisal Reports (SARs), with safeguards documents attached. These may include, as case may be, an Environmental Assessment (EA) along with an Environmental Management Plan (EMP), an EMP prepared using the Environmental Management Checklist for Small Construction and Rehabilitation Activities, and a Resettlement Action Plan (RAP).

Key Stakeholders

Grant Recipient/ Borrower:	Government of Georgia represented by the Ministry of Finance
Local Representation:	Municipality of Town Sagarejo
Sources of Funding/Financing:	World Bank (WB) and Municipal Government (MG)/Government of Georgia (GOG)
Implementing Agency:	Municipal Development Fund of Georgia (MDF)

Financial Arrangements

The estimated project cost of construction works for arrangement of the tourism infrastructure for cultural heritage monuments - in particular: arrangement of parking lots, reconstruction of souvenir shop, wine cellar toilets, access road, external and internal water supply and power supply systems amounts to GEL 447,473.49 (excluding VAT and per-diems). Total amount required for the whole of the

sub project, under which apart from the above mentioned activities is envisaged arrangement of the tourism infrastructure for cultural heritage monuments - in particular: arrangement of parking sites, visitor's center, toilets, access road, construction of monk cells, arrangement of farm, internal and external water supply system and arrangement of the sewage system for David Gareji Monastery Complex - amounts to GEL 1,437,399.32, including VAT and per-diems.

Implementation Structure

World Bank (WB) Loan Agreement with the Government of Georgia; Project Implementation Agreement between the Borrower (Georgia) and MDF for the project; Investment Financing Agreement (IFA) for funding of the Integrated Revitalization of Cultural Heritage Site in Ninotsminda Monastery between MDF and the Municipal Government (MG) of Sagarejo.

1.3. Legislation and Regulations

According to the law of Georgia on Permit on Environmental Impact (2008), the SP does not require conducting Environmental Impact Assessment and obtaining of Environmental Impact Permit .

The SP triggers the OP/BP 4.01 Environmental Assessment, OP/BP 4.11 Physical Cultural Resources safeguard policies and OP/BP 4.12 Involuntary Resettlement of the World Bank.

According to the above mentioned safeguard policies and the Environmental Management Framework adopted for RDP, the sub project has been classified as B(+) category and requires preparation of Environmental Review (ER) and environmental Management Plan (EMP). This ER and EMP have been prepared in compliance with recommendations of SECHSA and EMF

The SP is approved by the Local self-governing (LSG) body of the local Municipality (Sakrebulo).

2. Subproject Description

The SP site is located in Eastern Georgia, Kakheti Region, in Sagarejo municipality. The SP envisages arrangement of the tourist infrastructure and water supply system for Ninotsminda Monastery (Cathedral). In particular: arrangement of the existing parking lot; construction of a new covered parking area (for 4 cars); Construction of the stone retaining wall; arrangement of souvenir store with access for disabled (western side); Reconstruction of the public toilet building constructed under the previous project, for its transformation into the wine sampling cellar; construction of a new public toilet (adjacent to the new parking lot area); vertical planning and landscaping of the territory (arrangement of a new greened space-square); arrangement lighting; arrangement of water supply system (arrangement of the borehole and arrangement of sewerage system in vine cellar and connecting it with the existing biological waste water treatment unit in the territory of the CH site - Ninotsminda.

Arrangement of the existing parking lot initiated under the previous project will be completed in accordance with the initial design: namely, widening of the roadway towards the fortress wall in a way to allow both comfortable parking maneuver and relevant width of the driveway. The existing irregular pavement of the sidewalk will be improved, the curb line will be fully arranged by new precise layout

survey; new basalt blocks with concrete foundation; remaining parts of the existing sidewalk shall be repaired, the existing asphalt layer of the roadway consists of two types of paving: top layer of the existing part of the asphalt pavement shall be milled and repaved; the new portion of pavement will be arranged with two layers of asphalt-concrete;

Storm water evacuation will be superficial according to the existing slope of the terrain excluding banding of storm water along the curb line rim; arrangement of the near to flat colored concrete culvert (selection of specific fillers) smoothly connecting the roadway level with greening level of the grass lawn along full length of the fortress line;

The new covered parking lot (for 4 cars) will be built on the site, location of the new parking will be along the new retaining wall designed along the northern rim of the site.

The stone retaining wall will be built on the northern rim of the cadastral line of the design land plot

Souvenir store will be equipped with access ramp for disabled on its western side. The front gap between sidewalk and wooden structure, as well as wooden stairway from the east side, shall be built with turned limestone. Sidewalk will be fully reconstructed, namely rearranged into the long ramp leading from its eastern to western entrance with entrance ramp for disabled. In this section, the existing pavement of the sidewalk shall be fully removed or covered by new natural stone pavement. The roof of the store and adjacent house shall be partly reconstructed, in the way to exclude accumulation of the snow and penetration of the moisture into the buildings.

The existing building of the public toilet will be transformed into a wine cellar. Namely: Existing brick-like facing will be removed; the building will be faced with decorative stone facing on the lime mortar. The selected stones shall be average size stone fragments allowing for minimum thickness of the facing; Entrance stairs will be faced with specific stair facing ceramic profiles, similar to the store ceramic floor facing décor; on top of the cellar entrance, a canopy of wooden structure with ceramic tiling (similar to the cover of the souvenir store) will be arranged; existing steel door will be removed (to be used for operating room of the new water well); the entrance opening will be restructured in the special stylized way and a new glass door will be arranged, with a fixed glass transom; in front of the glass door, metal decorative double door grid will be installed; the existing reinforced concrete partition inside the building will be partly removed in a way to create one integrated space of the cellar; internal facing of the cellar will be fully removed; 2 openings for aluminum zenith skylight will be arranged in the flat roof of the cellar; the skylights will be used also for ventilation purposes, so the sash of the zenith skylight shall be movable; internal walls will be partly faced with brick and partly plastered and painted; ceiling will be plastered and painted; floor will be faced with ceramic decorative tiles (similar to entrance stair facing); Staff WC to be arranged using the already existing water and sewer piping; building will be provided with outdoor lighting; internal wiring will be rearranged; following an agreement reached with adjacent to wine cellar household, the separate water supply line $d=25$ mm will be arranged from the wine cellar water supply system which is connected to deep water supply well. Household line will be equipped with water meter.

New public toilet is designed along the southern part of the cadastral border. The gap between the adjacent site fence (concrete block wall, plastered and paint) is used as access ramp for disabled. The door opening of the a.m. fence shall be built and plastered. The toilet floor is lowered 0.75 m below

the paved part of the road in the way to allow storm water freely overflow towards the eastern part of the site.

In the central part of the new design site is located a new greened space, square, surrounded by 0.4 m high stone masonry wall, which will serve as a curb and also as storm water retaining wall - in the eastern part of the SP site. In new location there are two types of road paving of the existing and new sections of the road, which are similar to the old one.

Arranging of water supply system includes: borehole drillings in the monastery and nearby areas; construction of small-size buildings for 150 liter hermetic reservoir and for electrical panel for borehole management; laying of Water discharge pipes for water consumers, including Monastery; rehabilitation of sewerage collector and set-head of sewage treatment facilities.

To serve personnel and tourists, two-section public toilet will be located in the territory of the monastery complex, two toilet units and three washstands will be installed in each section. Supply of toilet with cold water will be performed from the yard water pipeline. The diameter of cold water pipe is $d=25$ mm. 2 units of water heaters for water heating are installed in each section of the public toilet, capacity 4.5l/sec 8.5 (kw/h). Installation of cold water pipes will be performed with polypropylene $d=25\div 20$ mm. PN10 pipes will be laid without foil, while hot water piping will be arranged with foiled pipes. They must be laid while preparing the floor,. Installation of sewage network must be performed with polypropylene or polyvinylchloride pipes and fittings, diameter $d=100\div 50$ mm. The sewage network must be installed below the floor plate; finally the sewerage system will be connected with the existing biological waste water treatment unit.

3. Baseline Environmental Conditions

Location and population

Sagarejo Municipality (historically known as “Gare Kakheti”) is located in the eastern part of Georgia. The municipality is bordered by the municipalities of Gurjaani, Gardabani and Tianteti from East, West and North correspondingly, whereas the south borderline is shared with Azerbaijan. The municipality center is Sagarejo, located 45 km eastwards from the Capital city of Tbilisi, 772 meter above the sea level. The municipality area is 1553.69 km². In Population – 59.8 thousand. The ethnicity of Sagarejo municipality population is diverse. It consists of Georgians, Azeri, Armenians, Russians, Ukrainians, Osetians, Greeks, Kists, etc.

Morphological, geological, tectonic and hydrogeological conditions

According to the tectonics, Kakheti region includes three large geotectonic blocks. Sagarejo municipality is located in eastern subsidence zone of Georgian lump (intermontane depression), which is presented by Outer Kakheti sub-zone within the limits of Kakheti. Low- and middle-mountainous Tsiv-Gombori ridge (1000-2000 m) of a common Caucasioni direction, which is a large young anticline developed on the substrate of Pliocene Molassa deposits. The given deposits are situated in an unconformity on the Cretaceous and Paleogene complex-folded flysch deposits. In the crest part of Tsiv-Gombori ridge and upper step of its northern slope, there are fragments of plain-wavy watersheds and denudation surfaces

surviving. Its surfaces are dissected by breakthrough gorges and all of them are characterized by occurrence of strong mudflow processes.

General assessment of hazardous geological processes

Southern part of Kakheti region, including Vashlovani protected area and David Gareji (planned protected landscape) are located within a 7 grade earthquake intensity , the central part comprising Dedoplistskaro and Sagarejo fall within an 8 grade area.

Areal and wind erosions are intense in Kakheti region. Dedoplistskaro region and southern territories of Sagarejo and Signagi regions are the regions with particularly intense areal and wind erosions. Thousands of hectares of agricultural plots of field in the named areas are badly damaged and are in fact excluded from the land fund due to the erosive processes.

Brief description of hydrographical network

The main river of the municipality is river Iori. Since construction of Sioni water reservoir on the river Iori, the river flow in the lower reaches has been totally regulated. The river Iori crosses the Iori slope from southern side.

Geo-botanical district of Iori upland comprises vast territory between rivers Kura-Alazani. It is stretched over 168 km to the south-east of Tbilisi till Azerbaijan border . The maximum width of the area is 55-60 km. Iori upland is bordered with Saguramo-Ialno and Gombori ridges to the north and Azerbaijan border and Eldari lowland from the south, east and north-east.

Hydrographic system of the district is fairly poor. Entire Iori upland is dissected with r. Iori, which has almost no tributaries within the district. Only small streams (Lotchiniskhevi, etc.) flow down the upland (slopes of the hills). Dry gorges are also present. They are filled in spring and the water reaches the mother river. Salt lakes (Kajiri, Ujarma, etc.) and salt springs are also present. Old troughs (Shiraki, Taribana, etc.) are filled with Quaternary sediments. Deep horizons contain significant supply of artesian water.

Climate

The district is characterized with dry continental climate, which alternates from sub-tropical to temperate along with change of the altitude. Annual temperature in Alazani and Iori gorges is 13-14° and 9-10° in the highest points of the upland. Annual precipitations within the district are fairly different; in the south-eastern part of the territory precipitations are just 200-300 mm and reach 400-500 mm volume in the north-eastern part, while the maximum falls in the northernmost part – 600-700 mm. The majority of the precipitations occur in May-June. Summer is very hot and droughty.

Soils

Soils of Iori upland are characterized with diverse composition. Black soils are most abundant. Their formation started long ago (after destruction of forests). Chestnut and solonchak-solonetz soils are widespread as well. Forest brown and different alternatives of transitional soils after forest destruction are observed.

Cultural Resources

There are many significant historical monuments in the territory of Sagarejo Municipality, such as: Davit Gareja Monastery, ancient city of Ujarma, Ninotsminda Convent, Khasmis Sameba (Holy Trinity Church of Sameba), Katsareti Monastery, Manavi, Chailuri, Khashmi and Patardzeuli Fortresses. All these monuments belong to 5th-18th centuries. Below are given brief summaries for the monuments of cultural heritage in the vicinity of sub-project sites.

Ninotsminda episcopacy cathedral functioned from the V century till 1811. Since 1811 the Russian colonist administration closed the cathedral and it stopped functioning. Ninotsminda episcopacy cathedral was restored in 2002. During medieval ages, Ninotsminda cathedral was the Georgian cultural center. The first book "Moktsevai Kartlisai" (Kartli christening) was written in Ninotsminda in IV century by Salome Ujarmeli and Perojavr Sivnieli.

4. Analysis of Potential Impacts

4.1. Construction Phase

4.1.1. Social Impacts

- **General set of social issues.** Significant social impact of construction activities, like change of local demographic structure, influx of new settlers, secondary development, job opportunities, and increase of AIDS risks is not envisaged.
- **Resettlement Issues.** Project does not imply private land acquisition and no impacts are envisaged on private or leased agricultural lands and private assets or businesses.
- **Positive impact related to Job opportunities for construction workers.** Limited and temporary during construction and limited during operation.
- **Health issues related to noise, emissions, vibration.** Limited and temporary.
- **Traffic Disruption.** Local traffic can be impacted limited and temporary by transport activities related to the project.
- **Safety and Access.** There will be reduced access to areas adjacent to rehabilitation and potential hazards to vehicles and pedestrians during rehabilitation downtime.

4.1.2. Impact on cultural heritage.

There are above ground monuments. Also archeological sites could not be excluded. The risk of impact on the aesthetic values and style of the monuments is high. Supervision during construction works is required. Accordingly, the risks of impacting the physical cultural property during construction works are marginal and related to noise, dust, vibration, and emissions from the operation of construction machinery.

In course of rehabilitation and construction activities and especially during soil excavation works, in case of observing any dubious object (chance find), rehabilitation works will be suspended and will restart only upon issuance of the permit by the National Agency for Cultural Heritage Preservation. Impact of the construction activities on the monastery life of monks will be limited and temporary.

4.1.3. Environmental Impacts

Improper handling, storage, use and disposal of construction materials and wastes could pose a risk of water and soil contamination at the construction site and storage site. Improper maintenance and fueling of equipment could also lead to the potential contamination of soil and to some extent – water (near the crossings of the unnamed seasonal stream). The later impact is less probable.

Soil Pollution

Potential pollutants from a project of this nature include the following (but is not limited to):

- Diesel fuel, lubrication oils and hydraulic fluids, antifreeze, etc. from construction vehicles and machinery;
- Miscellaneous pollutants (e.g. cement and concrete);
- Construction wastes (packaging, stones and gravel, cement and concrete residue, wood, etc.).

Water Pollution

Water pollution may result from a variety of sources, including the following:

- Spillages of fuel, oil or other hazardous substance, especially during refuelling;
- Releasing silty water from excavations;
- Silt suspended in runoff waters (“construction water”);
- Washing of vehicles or equipment;
- Exposure of contaminated land and groundwater;
- Impact on surface and/or underground water with high chlorine concentration (content) waste water that are expected to be formed in washing and disinfection process before launching operation of newly installed water pipes.

Spillages may travel quickly downhill to a watercourse or water body. Once in a watercourse, it can be difficult to contain the pollution which can then impact over a wide area downstream. It is therefore vital that prompt action is taken in the event of any potential water pollution incident.

Once the working width has been stripped of topsoil, the subsoil becomes exposed. During earthworks in a wet weather this may result in uncontrolled release of suspended solids from the work area.

Air Pollution and Noise

Potential impact of air pollution is minimal and related to operation of vehicles and heavy machinery at the construction site and during transportation of materials.

- Noise and vibration arising from heavy machinery and vehicles;
- Air emissions (from vehicles, bulldozers, excavators etc.);
- Dust (from vehicles);
- Fumes may be a concern linked to supply and transportation of materials.

Construction Related Wastes

Inert Construction Wastes

The following types of inert waste are anticipated to be produced from these activities:

- Natural materials (soil and rock);
- Contaminated soil with non-hazardous substance or objects;
- Inert materials generated due to the demolition of existing building.

Non Hazardous Construction Wastes

In summary the main non-hazardous construction wastes will include the following:

- Packaging materials;
- Metals (including scrap metal and wire) – negligible amount of metal waste is expected.

Hazardous Construction Wastes

Small quantities of the hazardous wastes will arise mainly from the vehicle maintenance activities. A number of hazardous wastes, which could be generated, include:

- liquid fuels;
- lubricants, hydraulic oils;
- chemicals, such as anti-freeze;
- contaminated soil;
- spillage control materials used to absorb oil and chemical spillages;
- machine/engine filter cartridges;
- oily rags, spent filters, contaminated soil, etc);
- Asbestos

Transport related impacts

- Noise & Vibration Impacts;
- Traffic congestion (nuisance);
- Air pollution;
- Mud on roads;
- Refuelling, maintenance and vehicle cleaning and related risks of soil and water contamination.

Topsoil losses due to topsoil stripping

- Topsoil washout due to improper storage and reinstatement;;
- Silt runoff to watercourses and water bodies;
- Exposure of contaminated land.

Flora, Fauna and Landscape

Potential impact on vegetation is minimal, although envisaged in the project design. The project does not envisage woodcutting or cutting of bushes.

Not a single fauna species found in the project area is protected by either the national legislation of Georgia or any other international agreements and treaties. Besides, the project site is not a wintering, feeding or migrating place for the mentioned species.

The project design does not envisage any substantial changes of landscape. The original relief will be reinstated.

4.2. Operation Phase

The light tourist infrastructure to be provided at the subproject sites will be transferred to the entity that owns the land, i.e. the National Agency for Cultural Heritage Preservation of Georgia. This entity will have overall responsibility for adequate operation and maintenance of the infrastructure.

Potential impact related to the operation of the provided light infrastructure would be the following:

- Increase of the number of tourists will result in the increased volume of waste and noise;
- The traffic will increase in adjacent area of CH sites, which will result in the increased level of local emissions and noise as well as traffic safety issues;
- Tours to sites of public worship may conflict with local traditions and/or religious beliefs;
- Shooting photos of wall paintings may result in damage due to photochemical reactions induced by flashing.

The potential risks of chlorination of the supplied water are related to disruption of chlorination process when:

- The leakages of liquid chlorine may occur and chlorine content in potable water exceeds the established threshold;
- The leakages of liquid chlorine on the territory of chlorination unit may endanger the personnel; and
- Interruption of chlorination process.

Positive social impact will be related to increasing the volume of touristic infrastructure that will have positive effect on the local population, in terms of employment.

5. Mitigation Measures

This Environmental Management Plan (EMP) has been prepared to ensure that negative environmental impacts associated with this project are minimized.

5.1. Construction Phase

The contractor is required:

1. To obtain construction materials only from licensed providers;
2. 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 inert material extraction;

3. If contractor wishes to operate its own asphalt 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;
4. If contractor wishes to operate own concrete plant (rather than purchasing these materials from other providers), then the contractor must prepare technical report on inventory of atmospheric air pollution stationary source and obtain endorsement of the Ministry of Environment and Natural Resources Protection (MoENRP);
5. Construction waste must be disposed on the Sagarejo municipal landfill in accordance with written agreement with the Solid Waste Management Company of Georgia Ltd. under the Ministry of Regional Development and Infrastructure. The records of waste disposal will be maintained as proof for proper management as designed.

Copies of extraction licenses (if applicable), agreed technical report on inventory of atmospheric air pollution for operating concrete plants (if applicable), and waste disposal agreement must be submitted to the MDF prior to the commencement of works.

GOST and SNIP norms must be adhered.

A number of restrictions and mitigation measures are to be taken into account during the construction process:

1. Application of the heavy machinery and equipment should be limited;
2. The machinery should move only along the preliminarily agreed route;
3. The maximum allowed speed will be restricted;
4. The frequency of movement of the machinery will be restricted;
5. Uncontrolled storage of hazardous wastes on the construction area is prohibited;
6. Any construction or municipal wastes produced during construction stage should be removed from the site area every day at the end of working hours;

In case chance find is encountered in the course of earth works, the contractor must immediately stop any physical activity on site and inform 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 be resumed only upon receipt of written permission from the Ministry of Culture and Monument Protection.

Noise

Noise is one of typical impacts related to the construction activities. Compliance with the environmental requirements is even more significant for the project area because it will involve transportation of heavy cargo with heavy vehicles and fairly intensive traffic in the direct proximity of the historical monuments of the greatest importance.

In case of absence of special measures and disregard to the restrictions the transport and devices could inflict serious damage.

The civil works contractor should adopt special measures to receive the appropriate construction permit and achieve agreement with all stakeholder organizations on cargo transportation.

The following measures will be implemented for noise suppression:

- The selected movement route for the heavy vehicles should be maximally distanced from historical monument;
- Allowed intensity of the vehicle traffic and speed should be determined;
- The import of the inert material shall be conducted from the licensed quarries nearby project area. The route of the transport movement during transportation of inert material and any other construction materials should be agreed upon with the appropriate regional services and overload with the trucks and violation of the allowed traffic intensity should not take place;
- The maximum speed should be restricted to the safety level during passage of the trucks in the proximity of the Ninotsminda Monastery;
- Proper technical control and maintenance practices of the machinery should be applied;
- Activities should be limited to daylight working hours;
- Idling of the vehicles and heavy machinery is not allowed. Proper mufflers will be used on machinery.

Pollution

Water/Soil Pollution. Specific mitigation measures should be implemented at the construction site for prevention of water and soil pollution:

- Prevent operation of vehicles in the watercourses;
- Revision of vehicles will be required to ensure that there is no leakage of fuel and lubricants. All machinery will be maintained and operated in the manner 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, and degreasing will be undertaken in designated areas of hard-standing, not over made ground. Maintenance points will not be located within 50m of any watercourse.
- 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.
- No fuel, lubricants and solvents storage or refuelling of vehicles or equipment will be allowed near the cultural heritage site.
- Contractor should 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.
- Wet cement and/or concrete will not be allowed to enter any watercourse, pond or ditch.
- Washing and disinfection of the newly laid pipelines and reservoirs

Upon completion of washing and disinfection of pipes and reservoirs, the disinfection solution will be neutralized by the contractor prior to release to the environment – to avoid damage to terrestrial or aquatic organisms. In case of disinfection via chlorination, this is achieved by application of a reducing agent, such as sodium bisulfate to achieve de-chlorination. The reducing agent, in turn, must be applied

by the contractor at the precise dosage to neutralize the disinfectant – but no more, since reducing agent residuals are also detrimental to aquatic ecosystems.

Releasing of neutralized water to the environment by the contractor will be agreed with the local municipality.

The disposal of excess soil and rock

- Allow local communities to utilise any excess rock, which may be left following reuse. Suitable access to the materials will be agreed with the local authorities in consultation with the community.
- Transport any remaining material, if required, for the permanent disposal to the location authorised in writing by local authorities. Disposal sites must meet the requirements for Inert Landfills by the MoE.

Waste Handling

All waste from the construction site will be disposed of in accordance with environmental regulations and at approved landfills.

Hazardous wastes - Hazardous wastes are expected as a result of vehicle operation and maintenance such as, oil from oil filters; oily rags and asbestos waste generated after roof dismantling, the nearest allowed landfill will be used as final disposal place of such kind of wastes, place and treatment procedures should be according to existing norms and has to be conclude an agreement with LTD “Solid waste company”. Small quantities of hazardous wastes will be generated as a result of vehicle operations and the maintenance activities,

- Written agreement with the licensed company should be obtained by contractor on the transportation, handling, disposal of hazardous waste prior to the works commencement;
- Temporary storage of all hazardous or toxic substances will be in safe containers labelled with details of composition, properties and handling information;
- The containers of hazardous substances shall be placed in a leak-proof container to prevent spillage and leaching; Paints with toxic ingredients or solvents or lead-based paints will not be used;
- Asbestos (from the house terrace what is roofed with asbestos);

Inert and non-Hazardous Construction Wastes and Municipal Waste

Written agreement with the "Solid Waste Management Company of Georgia" Ltd should be obtained by contractor on the disposal of construction waste at the nearest approved landfill prior to the works commencement.

Municipal waste may be generated in the storage area. Mainly this is rubbish, plastic or glass bottles, glasses, waste food, etc. and a stationary waste. Waste should be collected by the personnel specially assigned to the area. The waste placed in plastic containers should be disposed at the nearest landfill.

The personnel involved in the handling of hazardous and non-hazardous waste will undergo specific training **in waste handling and storage.**

Burning of waste on construction site is forbidden.

The records of waste disposal will be maintained as proof for proper management as designed.

Dust and emissions

All vehicles shall be maintained so that their emissions do not cause nuisance to workers or local people. Activities will be limited to daylight working hours to reduce impacts. All vehicles will be checked and repaired in case of need to eliminate increased level of noise due to damaged parts.

Regular maintenance of diesel engines will be undertaken to ensure that emissions are minimised, for example by cleaning fuel injectors. Routine maintenance will be to a high standard to ensure that vehicles are safe and that emissions and noise are minimised. All plant used on site will be regularly maintained so as to be in good working order at all times to minimise potentially polluting exhaust emissions.

Vehicle refuelling will be undertaken so as to avoid fugitive emissions of volatile organic compounds through the use of fuel nozzles and pumps and enclosed tanks (no open containers will be used to store fuel).

If deemed necessary, in dry conditions or where significant quantities of dust are being or are likely to be produced mitigation measures will be put in practice with the Construction Manager. Mitigation measures will include:

- Damping by using water bowsers with spray bars or other technical means;
- Sheeting of construction materials and storage piles; and
- Use of defined haulage routes and limitation of vehicle speed where required. Materials will be transported to site in off peak hours.
- Materials and waste will be covered/ wetted while transportation to reduce dust. The construction site will be watered as appropriate. Protective equipment will be provided to workers as necessary. All vehicles will be checked and repaired in case of need to eliminate increased emission due to damaged parts.
- During demolition works, destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures on-site;
- The surrounding environment (sidewalks, roads) shall be kept free of debris to minimize dust;
- There will be no open burning of construction / waste material at the site;
- There will be no excessive idling of construction vehicles at sites.

Subsoil Storage

The storage of subsoil in stockpiles, no more than 3m high with side slopes at a maximum angle of 60°, will take into consideration the following:

- Designated storage locations where the stockpiles will not be compacted by vehicle movements or contaminated by other materials; and
- Segregation from topsoil stockpiles.

Topsoil storage and reinstatement

Topsoil should be stripped before starting of earthworks.

The topsoil shall not be handled by construction contractor when the following conditions are observed:

- The topsoil is frozen;
- The site is experiencing persistent rainfall;
- The topsoil is saturated; or
- Handling will damage the structure of the topsoil.

Topsoil will be stored in stockpiles, maximum 2m high with side slopes at a maximum angle of 45°. The following shall also be taken into consideration:

- Designated storage locations will be used that prevent the stockpiles from being compacted by vehicle movements or contaminated by other materials;
- Topsoil will be segregated from subsoil stockpiles;
- No material will be stored where there is a potential for flooding;
- No storage at less than 25m from river/streams, subject to the site specific topography.

In the event that the stockpiles are subjected to significant erosion, the Contractor will be required to implement corrective actions, such as installing erosion matting over the stockpiles if further surface compaction and/or topsoil seeding fails. The Contractor shall protect the stockpiles from flooding and run-off by placing berms or equivalent around the outside where necessary.

Stored topsoil should be used for reinstatement and landscaping. Topsoil from the sites, which will not be reinstated to the initial conditions will be distributed carefully in the surrounding area.

Protection of adjacent landscapes and vegetation

Movement of vehicles will strictly limited within traffic lane; Pockets for turning of vehicles should be arranged; Trees and shrubs will be strictly protected from damage while installation of the water supply system. All workers will be strictly prohibited from foraging, waste dumping or other damaging activities to adjacent landscapes. Large trees in the vicinity of the construction activities shall be marked and cordoned off with fencing, their root system protected and any damage to trees avoided.

Mitigation measures for Site safe access

In compliance with national regulations the contractor will ensure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to:

- Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards;
- Alternativesafe pavement will be provided for visitors.
- Construction site and all trenches should be fenced and properly secured to prevent unauthorized access (especially of children);
- Appropriate lighting and well defined safety signs should be provided;
- Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement.

5.2. Operation Phase

For proper management of the **increased volume of waste** generated due to the increased number of visitors the following measures have to be implemented:

- **Containers should be placed.** The number and volume of containers to be placed in the tourists gathering centers depends on the following factors: the expected number of tourists; the area of the territory, existence of access roads. Based on the calculations, for the expected 300 tourists one 1.1 m³ capacity metal container should be placed. It should be taken into consideration that the distance between containers should not exceed 50m and at the same time the 1.1 m³ containers should be easily accessible by the respective vehicles and there should be space for maneuvering. If the abovementioned requirements cannot be met, a smaller size easily portable 0.24 m³ plastic containers should be used.
- **Imposing of penalty sanctions against littering of the site.** Placement of the containers will have no tangible result, if the penalty sanctions are not imposed and exercised. The more effectively the penalty mechanism is introduced, the more accelerated will be the pace of fulfillment of the set target.

The traffic will increase in adjacent area of CH sites, which will result in the increased level of local emissions and noise as well as traffic safety issues. The mitigation measures will include the following:

- Parking lots in Ninotsminda will be located in 8-10 m from monastery territory, on opposite side of access road that excludes any tangible negative impact on CH monument.
- The car parking area and lots are located so that cars and buses will be able to stop and maneuver uninterruptedly;
- Implementation of above mentioned recommendations and proper management services will reduce negative impacts caused by traffic jams resulting in increased volumes of emissions and noise on CH site.

Noise and shouting is forbidden at the monastery territory. Shooting photos should be limited to in monasteries and especially near the wall paintings. A dress code is applied at the monastery site. Restrictions are imposed by the patriarchate of Georgian Orthodox Church and monastery authorities. Women requested not to wear shorts or open t-shirts and to put on skirts and cover head with scarf, skirts and scarves will be provided at all entrances for free; and men are required not to cover heads with sport caps and not to wear shorts.

At the monastery, taking photos of monks without their permission is not allowed. There are some exceptions with prior agreement with monastery authorities.

6. Monitoring

MDF carries overall responsibility for monitoring of the implementation of the environmental mitigation measures. A consulting firm hired for supervision of works will supplement MDF's in-house capacity for tracking environmental and social compliance of works undertaken under this subproject. Field monitoring checklist will be filled out and photo material attached on monthly basis. Narrative reporting on the implementation of EMP will be provided on quarterly basis as part of the general progress reporting of MDF. MDF will also be expected to obtain from contractors and keep on file all permits, licenses, and agreement letters which contractors are

required to hold according to the Georgian law on extracting material, operating asphalt/concrete plants, disposing various types of waste, etc.

7. Costs of Implementation

Costs of implementing the proposed individual mitigation measures are negligible and difficult to single out from the costs of construction operations. Nonetheless, it is recommended that Bill of Quantities presented in the tender documentation carries a line item for the disposal of waste and excess materials. Other costs of adherence to good environmental practice and compliance with this EMP are expected to be integrated into the pricing of various construction activities.

8. Public Awareness

ER including EMP was publicly discussed with beneficiary community prior to the commencement of works. A public consultation meeting was held in the the public school of village Ninostminda, Sagrejo municipality, on September 21, 2015 (the minuted of meeting is attached – Attachement 7). The information regarding SP activities should is open and available for all stakeholders.

8. MONITORING MANAGEMENT PLAN

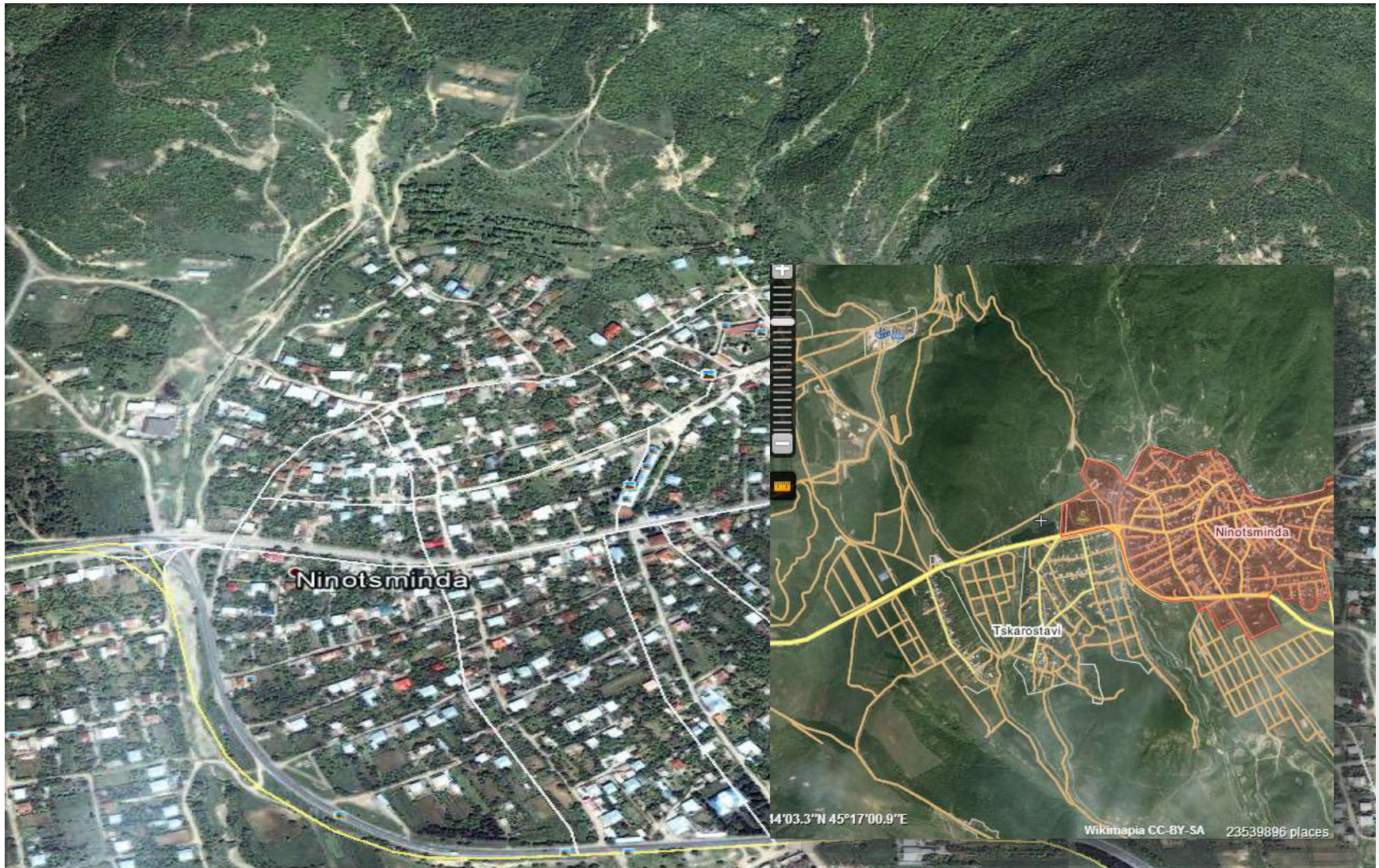
Activity	What (Is the parameter to be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuous?)	Why (Is the parameter being monitored?)	Who (Is responsible for monitoring?)
CONSTRUCTION PHASE						
Earth works	<p>Temporary storage of excavated material in the pre-defined and agreed upon locations;</p> <p>Backfilling of the excavated material and/or its disposal to the formally 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>	Construction site	Inspection	In the course of earth works	<p>Prevent pollution of the construction site and its surroundings with construction waste;</p> <p>Prevent damage and loss of physical cultural resources</p>	<p>MDF,</p> <p>Construction supervisor</p> <p>NACHP</p>
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	<p>MDF,</p> <p>Construction supervisor</p>
Transportation of construction materials and waste Movement of construction machinery	<p>Technical condition of vehicles and machinery</p> <p>Confinement and protection of truck loads with lining</p> <p>Respect of the established hours and routes of transportation</p>	Construction site	Inspection	Unannounced inspections during work hours and beyond	<p>Limit pollution of soil and air from emissions;</p> <p>Limit nuisance to local communities from noise and vibration;</p> <p>Minimize traffic disruption.</p>	<p>MDF,</p> <p>Construction supervisor,</p> <p>Traffic Police</p>

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?)
<i>Sourcing of inert material</i>	<p>Purchase of material from the existing suppliers if feasible;</p> <p>Obtaining extraction license by the works contractor 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
<i>Generation of construction waste</i>	<p>Temporary storage of construction waste in especially allocated areas;</p> <p>Timely disposal of waste to the formally designated locations</p>	<p>Construction site;</p> <p>Waste disposal site</p>	Inspection	Periodically during construction and upon complaints	Prevent pollution of the construction site and nearby area with solid waste	MDF, Construction supervisor
<i>Generation of hazardous waste</i>	<p>Temporary storage of construction waste in specially allocated areas;</p> <p>Waste should be collected and stored in compliance with the</p>	<p>Construction site;</p> <p>Permitted Waste disposal site</p>	Inspection	Periodically during construction and upon complaints	Prevent pollution of the construction site and nearby area with hazardous wastes	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?)
	rules, in covered and protected area, in special containers and/or plastic bags. Timely disposal of waste to the formally designated locations					
<i>Washing and disinfecting of the newly laid pipelines</i>	Neutralization of disinfecting solvent prior to release to the natural environment	End points of pipelines	Inspection	In course of pipeline washing by the time of completion of their installation	Prevent environmental damage due to release of concentrated disinfectant solvents	MDF, Construction supervisor
<i>Traffic disruption and limitation of pedestrian access</i>	Installation of traffic limitation/diversion signage; Storage of construction materials and temporary placement of construction waste in a way to prevent 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
<i>Workers' health and safety</i>	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						

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?)
<i>Management of the solid waste from the visitors' center</i>	Trash bins provided on site and arrangement in place for timely regular out-transporting of waste	Rehabilitated facilities	Inspection	During operation of facilities	Prevent littering of the site and area around it	Sagarejo municipality
<i>Servicing of water supply scheme and sewage treatment unit</i>	Water supply scheme does not leak and water supply uninterrupted Sewage treatment block operate smoothly	Rehabilitated facilities	Inspection	During operation of facilities	Prevent water loss and water logging of the site Prevent pollution of surface and ground water with untreated sewage	Sagarejo municipality
<i>Maintenance and operation of the monastery complex and the visitors' center</i>	No unauthorized construction and no informal land use in the vicinity of the historical site	Rehabilitated facilities	Inspection	During operation of facilities	Prevent loss of the historical and aesthetic values of the monument and surrounding area	Sagarejo municipality

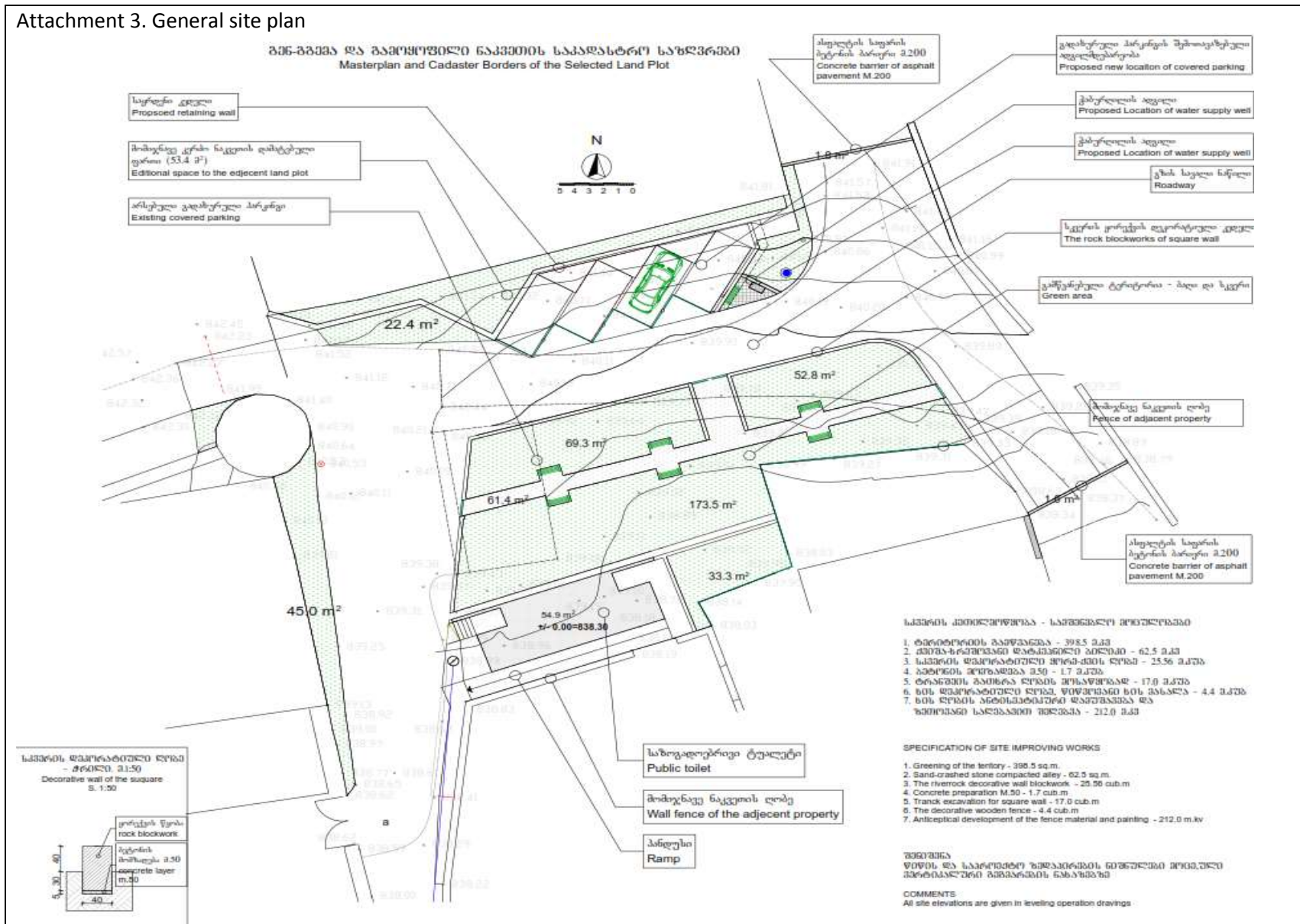
Attachment 1. Map of Ninotsminda



Attachment 2. Pictures



Attachment 3. General site plan



ნინოწმინდისა და საგარეჯოს
ჭთავარებისკოპოსოს ლუკა

28 აპრილი, 2014

მეუფე ლუკა,

ჩვენი, 2014 წლის 23 აპრილის შეხვედრისას მუნიციპალური განვითარების ფონდის წარმომადგენლის ბატონ დავით ჯინჭარაძის დასწრებით, განვიხილეთ სამონასტრო კომპლექსის მიმდებარე ტერიტორიაზე მიმდინარე საპროექტო სამუშაოები. აგრეთვე, საპროექტო დავალების ფარგლებში მოქცეული უშუალოდ კომპლექსში შემაჯავლი საცხოვრებელ შენობებთან დაკავშირებული სამშენებლო ღონისძიებები.

ჩვენი საპროექტო გადაწყვეტილების ძირითად შინაარსს შეადგენს კომპლექსის აღმოსავლეთით მდებარე მონასტრის ტერიტორიად დასახელებული ტერიტორიის რეკონსტრუქცია, რაც გულისხმობს:

- ❖ საპროექტო ტერიტორიის საკადასტრო ნაკვეთის განსაზღვრას და მის გადასვლას მონასტრის ლეგალურ ფლობელობაში (ამასთან დაკავშირებით ჩვენ მივიღეთ ადგილობრივი თვითმართვლობის წარმომადგენლის წინასწარი თანხმობა). აკვეტის საერთო ფართი 920.0 მ² ფარგლებშია;
- ❖ ნაკვეთის ჩრდილოეთ განაპირა კიდეზე, მომიჯნავე მოსახლის საკადასტრო საზღვრის პარალელურად კაპიტალური საყრდენი კედლის მშენებლობას. მშენებლობების პროცესში მომიჯნავეს ნაკვეთს მშენებლობა არ შეეხება, ხოლო მისი დამთავრების შემდეგ ეს კერძო ნაკვეთი გაფართოვდება დაახლოებით 50.0 მ²-ით.
- ❖ არსებული გადახურული პარკინგის დემონტაჟს და მის გადატანას ნაკვეთის ჩრდილოეთ განაპირა ახალ საყრდენ კიდეზე ახალი გადახურული ავტოფარეხის მოწყობას (თითოეულ სადგომს ექნება მსუბუქი და გამჭვირვალე ლითონის ჭიშკარი ცხოველებისგან დასაცავად);
- ❖ ახალი საკადასტრო ნაკვეთის საშრეთ კიდეზე, კერძო ნაკვეთის ღობის პარალელურად, საზოგადოებრივი ტუალებების დაპროექტებას;
- ❖ საპროექტო ტერიტორიაზე სასმელი წყლის ჭაბურღილის გაყვანას (არ შედის უშუალოდ ჩვენს დავალებაში, თუმცა ჩვენ განესაზღვრეთ მისი ადგილმდებარეობა);
- ❖ ახალი ნაკვეთის ზემოთ აღნიშნული პერიმეტრული მოშენების შედეგად მიიღება ცენტრალური გამწვანებული სივრცე, ხოლო მის ფარგლებში მოქცეული გზა მოასფალტდება.

მონასტრის ტერიტორიაზე არსებულ საცხოვრებელ შენობებს ჩაუტარდება შემდეგი მოდიფიკაცია:

- ❖ შეიცვლება შეთავსებული სახურავის მასალა, ხოლო სხვენის მინაბამის დათბუნება შეიცვლება სხვა მასალით, სანიტარული და თბოტექნიკური სტანდარტების გათვალისწინებით;
- ❖ ხის შიდა კონსტრუქციას ჩაუტარდება აუცილებელი გაძლიერება; საცხოვრებელი ოთახების კერის არსებული შიდა მოპირკეთება შეიცვლება ხის მასალით;
- ❖ ისტორიული საცხოვრებელი სახლის რამდენიმე წლის წინ მოწყობილი აივნის ამორტიზირებული მოაჯირები განახლდება;
- ❖ მონასტრის შიდა ეზოს ბილიკი მოიკირწყლება, ხოლო ეზო გამწვანდება;

შეუფე ლუკა, მაღლობას გიხდით ზ.ა. განხილვისას თქვენს მიერ გამოთქმული წინასწარი თანხმობისთვის საპროექტო გადაწყვეტილებებთან დაკავშირებით, რის შემდეგაც ჩვენ დავასრულეთ პროექტის ესკიზური სტადია, და შესაბამისად წერილს კურთავთ ნახაზებს, რომლებიც ასახავს ყველა ზემოთ აღნიშნულ საპროექტო გადაწყვეტილებას.

აღნიშნავთ, რომ პროექტების საწყის სტადიაზე ყველა ზემოთ აღნიშნული საპროექტო პრინციპი განხილულ და მიღებულ იქნა როგორც დამკვეთის, მუნიციპალური განვითარების ფონდის, აგრეთვე ეროვნული მემკვიდრეობის დაცვის სააგენტოს წარმომადგენლების მიერ.

თქვენი წერილობითი თანხმობა (წარმოდგენილი ალბომის პირველ გვერდზე რეზოლუციის სახით) დაგვეხმარება საპროექტო დოკუმენტაციის დროულ და სრული მოცულობით დასრულებაში. მაისი შუა რიცხვებში პროექტის საბოლოო ვარიანტი ჩვენს მიერ იქნება წარდგენილი დამკვეთისა და ყველა მონაწილე მხარისთვის საბოლოო შეთანხმების, კორექტირების და დამტკიცებისთვის.

პატივისცემით,



გიორგი შიხაშვილი
არქიტექტორი / ი.მ.

ნინოზმინ დას. ღ. 1
საგარეო ურთიერთობების
+ 575 51.



Translation

Ninotsminda and Sagarejo
Archbishop Luka
April 28, 2014

Your Grace,

During our meeting on April 23, 2014, attended by the representative of Municipal Development Foundation David Jincharadze, we have discussed the current engineering works at the territory adjoining the monastery complex, as well as construction activities related to the residential buildings which fell within the framework of the project specification.

The main content of our project specification is reconstruction of the territory, which is the territory of the monastery, located to the east of the complex, which implies:

- ☒ Determination of the cadastral plot of the project territory and its passage to the legal ownership of the monastery (in this regard we received preliminary consent of the representative of local self-governance). The total area of the plot is 920.0 m²;
- ☒ Construction of fundamental load bearing wall at the utmost north edge of the plot, parallel to the cadastral boarder of the adjoining resident. During the construction process the construction shall not affect the adjoining plot, and after its completion this private plot will widen by about 50.00 m².
- ☒ Dismantling of the existing covered garage and its removal. Arrangement of a new covered garage at the new load bearing wall in the north edge of the plot (each stand will have light and transparent steel gate for protection from animals);
- ☒ Construction of a public toilet in the north edge of the new cadastral plot, parallel to the fence of the private plot;
- ☒ Arrangement of a drinking water well at the territory (it is not our direct task, though we have determined its location);
- ☒ Above the new plot, as a result of perimeter additional building a central green space will be received, and its road will be covered with asphalt.

The existing residential buildings, located at the territory of the monastery will undergo the following modification:

- ☒ The material of the roof will be changed, and the fibered glass insulation of the attic will be replaced with other material, taking into account sanitary and heating-technical standards;
- ☒ The load bearing wood structure will be strengthened; the existing interior finishing of the roof of the rooms will be replaced by wood material;
- ☒ The damaged rails of the balcony, arranged in the historical building several years ago will be renewed;
- ☒ The path of the inner yard of the monastery will be paved, and the yard will be landscaped;

Your Grace Luka,

We would like to thank you for your preliminary consent while discussing the above-mentioned issues with regard to the project specifications, as a result of which we completed the design stage of the project, and accordingly attach the letter to the drawing, which reflects all above-mentioned project resolutions.

We would like to note, that at the initial stage of the projecting, all above-mentioned project principles were discussed and adopted by the customer, Municipal Development Foundation, as well as by the Agency for Protection of National Heritage.

Your written consent (in the form of resolution at the first page of the file) will assist to timely and fully complete the project documentation. In the middle of May we will submit the project to the customer and all participation parties for final agreement, corrections and approval.

Sincerely,
George
Shikhashvili/Architec/Ar
chbishop Luka of
Ninotsminda and
Sagarejo
Signature stamp

ნინოწმინდა, ძველთა ნ ასოცირებული ვიზიტორთა ინფრასტრუქტურის საპროექტო პროგრამის შეთანხმება ადგილობრივ მასხოვრებლებთან საპროექტო ტერიტორიის მომიჯნავე მაცხოვრებლები

8 ივნისი, 2014

ინფორმაცია პროექტის შესახებ

ჩვენი საპროექტო გადაწყვეტილების ძირითად შინაარსს შეადგენს კომპლექსის აღმოსავლეთით მდებარე მონასტრის ტერიტორიად დასახელებული ტერიტორიის რეკონსტრუქცია, რაც გულისხმობს:

- ❖ საპროექტო ტერიტორიის საკადასტრო ნაკვეთის განსაზღვრას და მის გადასვლას მონასტრის ლეგალურ ფლობელობაში (ამასთან დაკავშირებით ჩვენ მივიღეთ ადგილობრივი თვითმართველობის წარმომადგენლის წინასწარი თანხმობა). აკვეტის საერთო ფართი 920.0 მ² ფარგლებშია;
- ❖ ნაკვეთის ჩრდილოეთ განაპირა კიდეზე, მომიჯნავე მოსახლის საკადასტრო საზღვრის პარალელურად კაპიტალური საყრდენი კედლის მშენებლობას. მშენებლობის პროცესში მომიჯნავეს ნაკვეთს მშენებლობა არ შეეხება, ხოლო მისი დამთავრების შემდეგ ეს კერძო ნაკვეთი გაფართოვდება დაახლოებით 50.0 მ²-ით.
- ❖ არსებული გადახურული პარკინგის დემონტაჟს და მის გადატანას ნაკვეთის ჩრდილოეთ განაპირა ახალ საყრდენ კიდეზე ახალი გადახურული ავტოფარეხის მოწყობას (თითოეულ სადგომს ექნება მსუბუქი და გამჭვირვალე ლითონის ჭიმქარი ცხოველებისგან დასაცავად);
- ❖ ახალი საკადასტრო ნაკვეთის სამხრეთ კიდეზე, კერძო ნაკვეთის ღობის პარალელურად, საზოგადოებრივი ტუალეტის დაპროექტებას – მანძილი კედლიდან 1.5 მ;
- ❖ საკადასტრო ნაკვეთის საზღვრები ითვალისწინებს ტერიტორიაზე არსებულ ნაკვეთების საზღვრებს, მიუხედავად მათი სამოქალაქო რეესტრის მიერ რეგისტრაციისა. არსებული შემოღობილი ნაკვეთების გასწვრივ მოეწყობა ახალი დეკორატიული ხის ღობე.
- ❖ საპროექტო ტერიტორიაზე სასმელი წყლის ჭაბურღილის გაყვანას (არ შედის უშუალოდ ჩვენს დაქვემდებარებაში, თუმცა ჩვენ ვანუსაზღვრეთ მისი ადგილმდებარეობა);
- ❖ ახალი ნაკვეთის ზემოთ აღნიშნული პერიმეტრული მოშენების შედეგად მიიღება ცენტრალური გამწვანებული სივრცე, ხოლო მის ფარგლებში მოქცეული გზა მოასფალტდება.
- ❖ ადრე ამუშნებული საზოგადოებრივი ტუალეტი გადაკეთდება ღვინის სადევუსტაციო ხარდაფად.

აღნიშნაუთ, რომ პროექტირების საწყის სტადიაზე ყველა ზემოთ აღნიშნული საპროექტო პრინციპი განხილულ და მიღებულ იქნა როგორც დამკვეთის, მუნიციპალური განვითარების ფონდის, აგრეთვე ეროვნული მემკვიდრეობის დაცვის სააგენტოს წარმომადგენლების მიერ.

თქვენა წერილობითი თანხმობა - რეზოლუცია - დაგვეხმარება საპროექტო დოკუმენტაციის დროულ და სრული მოცულობით დასრულებაში.

კერძოდ შევთანხმდით შემდეგზე:

1. სოფ. ნინოწმინდა, ქ. №15, სახლი №12

მზია ჩარბოჭავაძე

- ძველის მხრიდან, ღვინის სარდაფის კედლის გასწვრივ, სახლში შესასვლელი ლითონის კარის წინ მოეწყობა დამატებითი ფოლადის დეკორატიული ჭიშკარი, რომელიც იქნება მოცხოვრებლის საკუთრებაში და რომლითაც გაკონტროლდება მოძრაობა კერძო შენობის გარშემო.
- სუვენიერების მაღაზიის და საცხოვრებელი სახლის სახურავები შესწორდება წყლის ხაიმედა გადაყვანის მიზნით;
- მოეწყობა წყალმომარაგება ღვინის სარდაფის ქსელიდან წყალმომარაგების მიზნით;
- დასრულდება კედლის დეკორატიული მოპირკეთება;
- სახლის ტერასაზე არსებული ასბესტო ცემენტის შოფერის სახურავი შეცვლება მულტი-კრამიტის სახურავით უკვე შესრულებული სხვენის ანალოგიურად (ფერი შეთანხმდება არქიტექტორთან)

მზია ჩარბოჭავაძე
თბილისი ვაჩ. მამიაძე

2. სოფ. ნინოწმინდა, ქ. №14, სახლი №2

ზაქარია ვრძელაშვილი

- დასრულდება კედლის დეკორატიული მოპირკეთება

თანხმება ვაჩ

ნინოწმინდა, ქუჩა №3, სახლი №16

3. აკაკი ამიხანაშვილი

- ამოშენდება და შეიღვება ჩრდილოეთის მხრიდან არსებული ლითონი ჭიშკარი
- ახალი საზოგადოებრივი ტუალეტი მოეწყობა კედლიდან მინიმუმ 1.5 მ
- უნდა შეიქმნას სახლის დასაცავი კედელი

ზაქარიას ვრძელაშვილი ვ. ვაჩ

ნინოწმინდა, ქუჩა № 11, სახლი № 33

4. ვიორჯი ტობეშაშვილი

- კუთვნილი ნავეთის სამხრეთიდან, საკადასტრო საზღვრის დაცვით, ამუშავდება რკინაბეტონის საფრენი კედელი;
- ხეობაში კედელსა და ნაკვეთს შორის შეივსება მიწით არსებულ ეზოს არსებულ დონემდე.

ვიორჯი ტობეშაშვილი
თანხმება ვაჩ. ვ. ვაჩ

აკაკი ამიხანაშვილი
თანხმება ვაჩ. ა. ამიხანაშვილი

ვიორჯი ტობეშაშვილი
არქიტექტორი / ი.მ.

Translation

Namely, we agreed on the following:

Village Ninotsminda street 15, house.12

Mzia Charbobashvili

- An additional steel decorative gate will be arranged in front of the metal entrance door, along the wall of the wine cellar, from the side of the monument, which will be in the property of the resident and by means of which the movement around the private building will be controlled.
- The roofs of the souvenir shop and the residential house will be adjusted with the purpose of transfer of water;
- Water supply with the hydrometer will be arranged from the network of wine cellar;
- Decorative finishing of the wall will be completed;
- The asbestos-cement slated roof existing at the terrace of the house will be replaced with metal shingle roof similar to already made cellar (the color will be agreed with the architect)

Village Ninotsminda street 14, house.12

Zakaria Grdzelashvili

- Decorative finishing of the wall will be completed

Ninotsminda, street #3, house #16

Akaki Amiranashvili

- The existing steel gate from the north side will be built on and plastered;
- A new public toilet will be arranged at a distance of minimum 1.5m from the wall

Ninotsminda, street # 11, house # 33

George Tobeshashvili

- A reinforced concrete load bearing wall will be constructed to the south of the plot, away from the cadastral boarder;
- The space between the wall and the plot will be filled up with the earth to the existing level of the existing yard.



George Shikhashvili
Architect/i.u.

Attachment 6 Letters to Sagarejo municipality

სამპარტეზელოს მუნიციპალიტეტის განვითარების ფონდი
MUNICIPAL DEVELOPMENT FUND OF GEORGIA



1533-გ-2-201405271129



N 1533-გ

27/05/2014

საგარეჯოს მუნიციპალიტეტის გამგებლის
მოვალეობის შემსრულებელს
ბატონ ბესიკ მარტიაშვილს

ბატონო ბესიკ,

გაცნობებთ, რომ სსიპ საქართველოს მუნიციპალური განვითარების ფონდს მსოფლიო ბანკის დაფინანსებით დაგეგმილი აქვს განახორციელოს საგარეჯოს მუნიციპალიტეტის, სოფელ წინწმინდაში დედათა მონასტრის მიმდებარედ ტურისტული ინფრასტრუქტურის მოწყობა. ზემოაღნიშნულთან დაკავშირებით გთხოვთ, შესაძლო მოკლე ვადაში, უზრუნველყოთ პროექტის განხორციელებისათვის საჭირო მიწის ნაკვეთის პირველადი რეგისტრაცია მუნიციპალურ საკუთრებად. ამასთან დანართის სახით გიგზავნით მიწის ნაკვეთის აზომვით ნახაზს ელ. ვერსიით.

დანართი: ორი ფურცელი, 1 (CD).

პატივისცემით,

გიორგი ხომშიშვილი

აღმასრულებელი დირექტორი

დირექცია

შ. შინგელიძის ქაღალ. №150
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საქართველოს მუნიციპალური განვითარების ფონდი
MUNICIPAL DEVELOPMENT FUND OF GEORGIA



2406-გ-2-201408271629



N 2406-გ

27/08/2014

საგარაჯოს მუნიციპალიტეტის გამგებელს
ბატონ გიორგი გზირიშვილს

ბატონო გიორგი,

გაცნობებთ, რომ სსიპ საქართველოს მუნიციპალური განვითარების ფონდს მსოფლიო ბანკის დაფინანსებით დაგეგმილი აქვს განახორციელოს საგარაჯოს მუნიციპალიტეტის, სოფელ წინწმინდაში, დედათა მონასტრის მიმდებარედ ტურისტული ინფრასტრუქტურის მოწყობა.

ზემოაღნიშნულთან დაკავშირებით გთხოვთ, შესაძლო მოკლე ვადაში, უზრუნველყოთ პროექტის განხორციელებისათვის საჭირო მიწის ნაკვეთის პირველადი რეგისტრაცია მუნიციპალურ საკუთრებად. ამასთან დანართის სახით გიგზავნით მიწის ნაკვეთის აზომვით ნახაზს ელ. ვერსიით.

დანართი: ორი ფურცელი, I (CD).

პატივისცემით,

თორნიკე თორაძე

აღმასრულებელი დირექტორის პირველი მოადგილის მოვალეობის შემსრულებელი

დირექცია

საქართველოს მუნიციპალური განვითარების ფონდი
MUNICIPAL DEVELOPMENT FUND OF GEORGIA



2776-გ-2-201410071347



N 2776-გ

07/10/2014

საგარეოს მუნიციპალიტეტის გამგებელს
ბატონ გიორგი გზირიშვილი

ბატონო გიორგი,

გაცნობებთ, რომ სსიპ - საქართველოს მუნიციპალური განვითარების ფონდს მსოფლიო ბანკის დაფინანსებით დაგეგმილი აქვს განახორციელოს საგარეოს მუნიციპალიტეტში, სოფელ უდაბნოში, დავთ გარეჯის მონასტრის და სოფელ ნინოწმინდაში, დედათა მონასტრის მიმდებარე ტურისტულ-ინფრასტრუქტურული შენობების მშენებლობა, ამავე პროექტის ფარგლებში გათვალისწინებულია შენობების ფუნქციონირებისათვის საჭირო წყალმომარაგება-კანალიზაციის სისტემის მოწყობა.

ზემოაღნიშნულთან დაკავშირებით გთხოვთ, შესაძლო მოკლე ვადაში, უზრუნველყოთ წყალმომარაგება-კანალიზაციის პროექტის განხორციელებისათვის საჭირო მიწის ნაკვეთების პირველადი რეგისტრაცია მუნიციპალურ საკუთრებად.

ამასთან დანართის სახით გიგზავნით მიწის ნაკვეთის აზომვით ნახაზებს ელ. ვერსიით.

დანართი: 8 ფურცელი, 4 (CD).

პატივისცემით,
თორნიკე თორაძე

აღმასრულებელი დირექტორის მოადგილე

დირექცია

Attachment 7 – Minutes of Public Consultation Meeting

September 21, 2015

Village Ninotsminda, Sagarejo municipality, Georgia

Regional Development Project

Integrated revitalization of CH sites in Ninotsminda and Davit-Gareja (Sagarejo Municipality) - Phase 2

Public Hearing of Social and Environmental Review and Social and Environmental Management Plan

In order to discuss the environmental documentation (Social and Environmental Review and Social and Environmental Management Plan) prepared for the SP “Integrated revitalization of CH sites in Ninotsminda and Davit-Gareja (Sagarejo Municipality) - Phase 2“, on September 21, 2015 a Public consultation meeting was held in the public school of village Ninostminda, Sagrejo 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:

The locals: Mzia Charbodashvili, Tsiuri Giunashvili, Zaqaria Grdzelashvili, Tamaz Okinashvili, Ivane Amirejibi, Akaki Amiranashvili.

Representatives of the Municipal Development Fund of Georgia:

Nino Patarashvili - Environmental Safety Specialist,

Tamar Kardava – Beneficiary Relations Specialist

Mari Khokhobashvili-Intern of Environmental and Resettlement unit (on social and gender issues)

Nino Patarashvili informed the audience about the purpose of the meeting, main goals of the Sub-project and the works planned under the SP. In the process of the meeting, she

conducted presentation of the Social and Environmental Review and Social and Environmental Management Plan prepared for the Sub-Project. She 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. There were discussed also the mitigation measures in order to minimize the potential negative impacts which may arise during the SP implementation process. She mentioned that according to the Georgian law on Environmental Impact Permit the SP does not require any kind of permits and agreements with the Ministry of Environment and Natural Resources and/or obtaining of Environmental Impact Permit. Due to the above-mentioned fact, and to ensure environmental and social safety of the SP MDF is responsible for implementation of all environmental and social procedures in accordance with the WB safeguard policies and Operations Manual prepared for the Regional Development Project.

Nino Patarashvili discussed the structure and content of Environmental Review including environmental management plan. She noted that EMP forms an integral part of the contract made with the civil works contractor. The last one is responsible for performance of mitigation measures envisaged under the EMP to protect social and natural environment. She also discussed the environmental monitoring criteria during SP implementation, relevant reporting procedures and responsibilities for the environmental supervision of the SP implementation process.

At the end of the meeting, N. Patarashvili 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. She mentioned that social engagement is very important to minimize the expected potential negative impacts and implement the project in compliance with the WB environmental and social safeguard policies, without important violations.

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.

Questions and remarks	Answers and comments
Residents of village Ninotsminda revealed some discontent related the construction works implemented during first phase of the SP, which caused damage of their houses. Due to this fact, they were interested in how the gaps will be remedied.	N. Patarashvili explained that it was better to send official letter to MDF for detailed information.

When will the project be launched?	The bidding is announced for the selection of the construction contractor, the identity of the contractor will be revealed in the nearest future. Afterwards, the contractor will be mobilized on the SP sites as soon as possible. An exact date is not yet known
Will the local population be employed?	According to the experience, received from the similar SPs, for the construction contractors prefer to employ locals except those specialists who have relevant qualifications and experience working with specific construction machinery.

At the end of the meeting the audience expressed their positive attitude towards the project and their hope that this sub project will be implemented successfully, in proper time and at the same time will support the development of tourism in the region.

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

Minutes prepared by Nino Patarashvili, MDF Environmental Safety Specialist.

September 21, 2015.

ფოტოები:



დამსწრეთა სია:

რეგიონული განვითარების პროექტი




ქვე-პროექტის - კულტურული მემკვიდრეობის ძეგლის ინფრასტრუქტურის აღდგენა და დამატებითი გარეუბრის სამონასტრო კომპლექსისა და ნინოწმინდაში

გარემოსდაცვითი და სოციალური მიმოხილვის დოკუმენტისა და გარემოს დაცვის მართვის გეგმის საჯარო განხილვა

21 სექტემბერი 2015 წელი

შეხვედრაზე დამსწრეთა რეგისტრაციის ფურცელი

	სახელი, გვარი	ორგანიზაცია/მოქალაქე	საკონტაქტო ინფორმაცია	ხელმოწერა
1.	ვალი ლემუცხაშვილი	მყრეთა-ქიტიცის გაგანა სოფ. ნინოწმინდა	599 25 10 65	პ. ლემუ
2.	თამაზ გახეცანიძე	ვანგელის ნიბონბედი სოფ. ნინოწმინდა	599 45 25 47	თ. ვანგ
3.	მწიან რეზონდამელი	სოფ. ნინოწმინდა მსხომხედი	599-70-41-47	მ. მწიან
4.	სოფი გოგინაძე	სოფ. ნინოწმინდა მსხომხედი	593-49-16-20.	ს. გოგინაძე
5.	ზაქარია გახეცანიძე	სოფ. ნინოწმინდა მსხომხედი	574-877-144	ზ. გახეცანიძე
6.	თ. მ. ში (კინიანი)	სოფ. ნინოწმინდა	557-40-85-66	თ. ში

7.	၇၃၂၅၇ ၂၃၇၇၃၅၇၃၇	၆၆၀၅ ၅၇၆၆၅၃၆၃	၅၅၇-၆၀-၀၇-၀၁	၇	
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