

# Rehabilitation of Abastumani Historical Wooden Houses

**Environmental Review** 

Third Regional Development Project Funded by the World Bank

> December 2017 Tbilisi

# **Description of Subproject**

The sub-project (SP) envisages urban regeneration of historical wooden houses in Abastumni. The SP site is located in Abastumani, Adigeni Municipality, Samtskhe-Javakheti region, on the south slope of the Meskheti mountain range, on valley of river Otskhe at distance of 28 km from Akhaltsikhe, 25 km from Adigeni, 1340 m above the sea level. Abastumani is a mountainclimatic resort, built in the 70s of XIX century.

The SP envisages rehabilitation of 17 residential houses located on Shota Rustaveli Street (#56, #58, #62, #64, #66, #68, #70, #72, #76, #78, #80, #84, #94, #96, #100, #102, and #104). These 17 buildings and premises are divided into 84 independent areas with 85 owners. Four areas of these 84 areas are owned by the state, while other 80 areas are privately owned. 2 out of 4 state-owned areas are the property of Adigeni Municipality and are at present abandoned and unusable for living. As for other two structures (#68, #84/86), owned by the State, they house libraries: (i) a children's' library and (ii) a public library. Two areas in the privately-owned buildings are the property of legal entities: one structure is owned by Abastumani Samufo Ltd., one structure is owned by General Partnership Ltd. At present, Abastumani Samufo Ltd. (# 62) does not use the structure owned by it. General Partnership Ltd. (#104) runs a pharmacy in the building. Almost half of the project-affected people (50.5%) live in settlement Abastumani, and 6.1% live in the nearby villages.

According the order No. 3/47, 22.03.2010 of the Ministry of Cultural Heritage and Monuments Protection, 14 houses out of the 17 houses to be rehabilitated (#56, #58, #62, #64, #66, #68, #70, #76, #78, #80, #84, #94, #100, and #104 - Order No. 3/47, 22.03.2010 of the Ministry of Cultural Heritage and Monuments Protection) represent cultural heritage monuments. SP design has already been agreed with the National Agency for Cultural Heritage Preservation of Georgia (NACHP). As the houses were not granted with the status of cultural heritage monument until 2010, their authentic face has been affected by numerous alterations and structural changes. Therefore, at the initial phase of preparing of the SP design, the Artistic-Stylistic Study, included the assessment of the current conditions, preserved original details and planning layout, analyzing of the existing archive materials (historical data, sketch drawings) was carried out.

In general, the SP envisages dismantling of old damaged roofs, wooden rooflines and constructions, doors and windows, damaged floors and ceilings of the balconies and stairs. During restoration works, the houses will be provided with the new tin roofs; wooden roofing structures will be partially replaced; and the damaged details of the wooden carved balconies of the houses will be replaced with similar ones.

After the completion of the rehabilitation works, contracts for maintenance of the rehabilitated property will be signed with the owners by the NACHP based on the Investment Financing Agreement between Municipal Development Fund of Georgia and the NACHP.

# **Environmental Screening and Classification**

## (A) IMPACT IDENTIFICATION

Has sub-project a tangible impact on the Environment?	The SP will have a significant and positive long-term impact on the natural and social environment; in particular, it will contribute to the improvement of living conditions of the local population and restoration and preservation of historic value of the buildings, which have the status of cultural heritage monuments. The expected negative environmental and social impact will be short-term and limited to the construction activities.
What are the significant beneficial and	The SP is expected to have positive long-term social
adverse Environmental effects of the	impact through improvement of living conditions of the
subproject?	houses. The SP will improve touristic attraction. The increased tourist flows will have positive social impact through improvement of employment opportunities and supporting the development of tourism-based economy and cultural heritage circuits in the Samtskhe -Javakheti region.
	As the SP is to be implemented on a CH site, there is
	higher than average likelihood of encountering chance- finds during excavation works.
	In case of chance finds during the earthworks, the contractor should immediately stop any kind of physical work at the area and should inform MDF. MDF will in turn inform the Ministry of Culture and Monument Protection of Georgia that takes the responsibility for future actions. Work resuming may be provided only based on the written permission from the Ministry.
	The expected negative environmental impacts are likely to be short term and typical to the medium scale construction and rehabilitation works implemented in the modified urban landscape, in particular: increased level of noise, dust, vibration and emissions from the operation of construction machinery, generation of construction, domestic and hazardous waste, increased traffic flow will result site access temporary obstruction and safety risks for pedestrians.
	Asbestos containing waste will be generated through demolition of roofing tiles (totally 550m <sup>2</sup> ).

May the sub-project have any significant	SP does not imply private land acquisition and no
impact on the local communities and	permanent impacts are envisaged on private or leased
other affected people?	agricultural lands and private assets or businesses.
	SP requires temporary replacement of the individuals or families, which will be related only to the rehabilitation works and after completion of the works, they will return to their place of residence. Abbreviated Resettlement Action Plan for the SP has been prepared and approved by WB.
	The long-term social impact of the SP will be beneficial.
	It will improve the living conditions of the local population, cost of the real estate will be increased and historical value of houses will be restored and retained. This will make the resort more interesting and attractive for tourists that contribute to the further development of tourism related infrastructure and private sector in the region, creation of additional employment opportunities and improvement of locals' social-economic conditions. During the SP implementation, employment opportunities for local population will be created. This positive impact will be short-term and temporary but it can partially improve, at least for a short time, the
	economic conditions of the locals. During rehabilitation works, the negative social impacts will be related to the same factors described above for the environmental impacts. These impacts will be short term and limited to the construction site.

## (B) MITIGATION MEASURES

Were there any alternatives to the sub- project design considered?	Due to fact that the SP envisages rehabilitation of the existing infrastructure and the buildings to be rehabilitated have the status of the immovable cultural heritage monuments, no significant alternative options have been discussed. In the course of preparing of the SP design, the Artistic-Stylistic Study, included the assessment of the current conditions, preserved original details and planning layout, analyze of existing the archive materials, historical data, sketch drawings) of these Residential Houses was carried out.
What types of mitigation measures are proposed?	The expected negative impacts of the construction phase can be 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.
	Hazardous (asbestos containing) waste must be removed, packaged, stored, and disposed to the nearest municipal landfill due to the relevant written agreement and in accordance with the technical regulations on special requirements for collection and processing of hazardous wastes (Resolution No145; 29.03.2016).
	The nearest landfill is located in village Chacharaki, Akhaltsikhe Municipality, 33 km distance from the SP site.
	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. 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. To avoid damage of the CH monuments, the restoration works should be carried out due to the permit issued by the Ministry of Culture and Monument Protection of Georgia.
	The proper management of solid waste generated during the exploitation phase will avoid expected negative environmental impacts and/or minimize it.

What lessons from the previous similar projects have been incorporated into the sub- project design?	MDF has vast experience in implementation of the medium and large-scale rehabilitation and construction works and urban regeneration projects implemented with the support of the donor organizations. Based experience, obtained during the implementation of the similar projects, the SP envisages not only restoration of the damaged parts of the building, but whole rehabilitation of the buildings including restoration of the walls in its original form, arrangement of new roofs, installation of doors and windows in the original form, arrangement of balconies and railings, rehabilitation of the floors.
Have concerned communities been involved and have their interests and knowledge been adequately taken into consideration in subproject preparation?	MDF has met with every house owner affected by sub- project at the initial stage and obtained written consent on the rehabilitation works to be undertaken. Owners were given opportunity to comment on the conceptual design and share their preferences. Feedback was incorporated into the final design. Local self-Government unit was also involved.
	On October 5, 2017, a public consultation meeting was held in the Public School of Abastumani to discuss the Abbreviated Resettlement Action Plan developed for this sub-project. On November 27, 2017, information meeting was held in Abastumani to discuss progress of the SP design and planning. Property owners and representatives of the local self-Government participated.
	MDF and local municipality will organize consultation meeting to discuss draft ER with local population before tendering of the urban regeneration works.

#### (D) CATEGORIZATION AND CONCLUSION

Based on the screening outcomes,

Subproject is classified as environmental Category	А	
	В	
	С	
Conclusion of the environmental screening:		
1. Subproject is declined		
2. Subproject is accepted		
If accepted, and based on risk assessment, subprojec	t prepa	ration requires:

Completion of the Environmental Management Checklist for Small Construction and Rehabilitation Activities

2. Environmental Review, including development of Environmental Management Plan

# **Social Screening**

	Social safeguards screening information	Yes	No		
1	Is the information related to the affiliation, ownership and land use status of the sub-project site available and verifiable? (The screening cannot be completed until this is available)	х			
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?		х		
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?	X1			
4	Will the project result in the temporary or permanent loss of crops, fruit trees and household infrastructure (such as ancillary facilities, fence, canal, granaries, outside toilets and kitchens, etc.)?		х		
Re	answer to any above question (except question 1) is "Yes", then <b>OP/BP 4.12</b> esettlement is applicable and mitigation measures should follow this OP/BP 4 esettlement Policy Framework				
	Cultural resources safeguard screening information	Yes	No		
5	Will the project require excavation near any historical, archaeological or cultural heritage site?	Х			
and	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 Management Framework</b>				

<sup>&</sup>lt;sup>1</sup> The sub-project requires a temporary replacement of the individuals or families, which will be related only to the rehabilitation works and after completion of the works, they will return to their place of residence. Abbreviated Resettlement Action Plan for the SP has been prepared and approved by WB.

# **Environmental Review and Environmental Management Plan**

## 1. Introduction

## 1.1. Background Information

The SP for Urban Regeneration of Abastumani will be implemented under Third Regional Development Project (RDP III) which covers Samtskhe-Javakheti and Mtskheta-Mtianeti regions. The main goal of the RDP III is to improve infrastructure services and institutional capacities in the mentioned regions through supporting of tourism based economic development. It is expected that from the indicated point of view the planned activities will bring direct benefit to the local population of the regions – by increasing of reliability of the public infrastructure, improving its availability and quality, increasing of private sector investments, and sales in places of renovated cultural heritage sites and towns (tourism related enterprises). In total, it is expected that income of the population will be increased and the living conditions will be improved.

The Government of Georgia referred to the World Bank with the request to fund the third regional development project and in 2015 obtained the WB financial support (60 million USD) for RDP III implementation. The total value of the project is75 million USD; among them, the Government of Georgia is providing 15 million USD.

The SP is a part of the RDP 3 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 3.

## **1.2.** Institutional Framework

MDF is a legal entity of public law, the objective of which activities is to support strengthening of institutional and financial capacity of local self-governing units, investing financial resources in local infrastructure and services and improving the primary economic and social services for the local population (communities) on the sustainable basis. MDF is designated as an implementing entity for the RDP III and is responsible for its day-to-day management, including application of the environmental and social safeguard policies, as this is obliged by the Environmental and Social Management Framework.

MDF prepares and submits to the World Bank for approval the SP design and bidding documentation, including SP Appraisal Reports (SARs) of SPs including environmental and social assessment documents, such as social and environmental screening, Environmental Review (ER) along with an Environmental Management Plan (EMP), or an EMP prepared using the Environmental Management Plan Checklist for Small Construction and Rehabilitation Activities.

In some cases, based on the SP characteristics, preparation of temporary Resettlement Action Plan (RAP) may be required. The responsibility for RAP implementation lies on MDF.

The Ministry of Culture and Monument Protection of Georgia and Legal Entity of Public Law "National Agency for Cultural Heritage Preservation of Georgia" acting under the Ministry are also involved in the project implementation processes, and play an important role in its accomplishment. The Ministry is responsible for inventory, protection, preservation and promotion of the material and immaterial cultural heritage, tangible and intangible cultural heritage monuments of movable and immovable character, patterns produced during each historical era using materials and means as a result of cultural and creative activities and folklore, historical, archaeological, ethnological, memorial, religious, esthetic, artistic, scientific, technical, technological and other cultural values. The National Agency for Cultural Heritage Preservation of Georgia has the right to issue the permit for execution of restoration works at the monuments of cultural heritage and supervise ongoing works.

## 2. Legislation and Regulations

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

Since the sub-project will be implemented under the third Regional Development Project supported by the World Bank, it is necessary to carry out survey of the existing natural and social environment of the SP site and its adjacent territory, as well as cultural resources, and the assess the expected impacts in compliance with WB Safeguards Policy. In particular, considering the following policies:

- OP/BP 4.01 Environmental Assessment
- OP/BP 4.11 Physical Cultural Resources
- OP/BP 4.12 Involuntary Resettlement

Taking into consideration the above-mentioned policy documents and Environmental and social Management Framework (ESMF) of RDP III, the screening of the expected impacts on natural and social environment and cultural resources was carried out. The screening classified the SP as a B (+) category that requires preparation of Environmental Review including environmental management plan.

Based on the SP characteristics and results of the SP social screening it was revealed that the dwelling houses (total number houses 17) to be rehabilitated within the project represent the private property. The sub-project requires a temporary replacement of the individuals or families, which will be related only to the rehabilitation works and after completion of the works, they will

return to their place of residence. Abbreviated Resettlement Action Plan for the SP has been prepared and approved by WB.

After the completion of the rehabilitation works contracts for maintenance of the rehabilitated property will be signed with the owners by the National Agency for Cultural Heritage Preservation of Georgia based on the Investment Financing Agreement between Municipal Development Fund of Georgia and National Agency for Cultural Heritage Preservation of Georgia.

## **Subproject Description**

The SP envisages rehabilitation of the historical houses in Abastumani. The rehabilitation of 17 residential houses (Rustaveli Street #56, #58, #62, #64, #66, #68, #70, #72, #76, #78, #80, #84, #94, #96, #100, #102, and #104) is planned within the SP. 14 out of the mentioned houses (#56, #58, #62, #64, #66, #68, #70, #76, #78, #80, #84, #94, #100, and #104) have the status of the cultural heritage monuments (Order No. #3/47; 22.03.2010 of the Ministry of Cultural Heritage, Monuments Protection and Sport). 14 houses out of the 16 houses to be rehabilitated (#56. #58. #62. #64. #66. #68. #70. #76. #78. #80. #84. #94. #100. #104 - Order No. 3/47, 22.03.2010 of the Ministry of Cultural Heritage monuments.

Most of these houses were built in XIX-XX centuries and represented country-cottages with wide balconies and wooden decorative ornaments. Later, the buildings were transformed into multidwelling houses, therefore authentic and original look of the houses have been changed, for example: in some cases, the balconies were altered as glazed logia and some building has ugly extension.

Nowadays, some houses require constructive reinforcement., including interior rehabilitation works, but in general the SP envisages dismantling of old damaged roofs, wooden rooflines and constructions, doors and windows, damaged floors and ceilings of the balconies and stairs.. As the most special elements of the houses are wooden balconies, within the SP, wooden decorative ornaments will be restored and the balconies will be returned to its original appearance.

The building represents a cultural heritage monument. The house # 56 is two-storied building with three blocks of flats and cellar. The building consists of three connected blocks constructed at various times. Therefore, today they are in different conditions. The front block of flats is



conditionally called an administrative block, middle block is intended for bedrooms and back block of flats represents the dining area. The blocks are connected to each other with glazed loggia. The SP envisages replacement of tin roof, timbering and roofing structures, doors and windows, arrangement of new electronic system, plastering and painting of the walls, arrangement of staircase for cellar. The building will be provided with three entrances; out of which one will be intended for disabled persons. These three entrances will be provided with gable

overhang above the door. Within the SP wooden elements of the façade, gable overhang above the doors, windows and doors will be painted with oil paint. Walls will be plastered and painted with emulsion paint. Interior rehabilitation works include repairing of wooden floor and arranging of a laminated flooring board, electric, sanitary and plumbing system. The whole perimeter of all three blocks will be surrounded concrete drainpipes. Backside of the dining block will be reinforced with concrete wall. Dark grey tin will be used as roofing material.

The house represents a cultural heritage monument, Russian classical style building, typical to the second half of the 19th century. It is two-storied building with balconies, mansard and basement,

which is filled with sand. Adjacent to the northern and western façade of the building, there are construction waste and soil ( $25 \text{ m}^3$ ) that should be removed from the sight.

The SP envisages replacement of masonry constructions, damaged floors and wooden planks of the roof with new ones; Repairing and reinforcement of the basement damaged walls; removal of the soil bulks from the cellar, damaged doors and windows will be changed, wooden



constructions, ornaments and curtains will be restored, arrangement of stairs, electric, innersewerage system, restoration its wooden elements. Overall perimeter of the building will be surrounded concrete drainpipes. Dark grey tin will be used as roofing material.

#### Building #62

The one-storied building is Russian classical architectural style house and typical to the second part of the 19th century. It represents a cultural heritage monument. The SP envisages replacement of



tin roof, timbering and roofing doors structures, and windows, arrangement of new wooden floor, railings and pillars of balcony, rehabilitations of the existing stone stairs, plastering and painting of the walls, rehabilitation and painting of the wooden door and installation glasses for porch, arrangement of new wall of the back façade, restoration of decorative wooden pieces. Overall perimeter of the building will be surrounded with concrete drainpipes; Dark grey tin will be used as roofing material.

The one-storied cultural heritage monument with a mansard is Russian classical architectural style building and typical to the second part of the 19th century. At the north side of the building there is an extension and at the south- wooden one-storied building. Nowadays, the building is in a poor

condition, the stairs to the mansard and roofing structure is totally damaged. The SP envisages replacement of tin roof, timbering and roofing structures, doors and windows, arrangement of new wooden floor, railings and pillars of balcony of southern extension, lining of the northern extension with natural stone, rehabilitations of the existing stone stairs, plastering and painting of the walls, installation of new wooden doors and windows, restoration and antiseptic treatment of decorative



wooden pieces. Dark grey tin will be used as roofing material.

Damaged details of the wooden staircase at the western side of the facade will be restored and painted. The damaged plastering will be removed from all the facades of the building, covered it with sand-cement mix, and painted.

## Building #66

The two-storied building represents a cultural heritage monument. It was built in Georgian modern architectural style. The house is not much damaged; it has balconies, two wooden and two stone staircases. The balcony of the ground floor is deformed and requires rehabilitation.



Within the SP, the following works are planned: rehabilitation of stone staircase with basalt stone, repairing of the wooden staircase steps, demolition of the existing roofing material and wooden structure, windows and doors, floor of the balcony, plastering and painting of the walls, replacement of balconies pillars, rehabilitation of balconies railings and restoration of decorative wooden items.

The building represents a cultural heritage monument and at the same time Russian classical-style architectural structure, typical for the second half of the 19th century. The one-stored building is the best example of stone architecture. The north and south façades of the building are much damaged and require restoration. At the northern façade, there must have been a wooden balcony, which was altered later as a room. At the western façade, there is a wooden balcony, which is in a poor condition. From the backside of the building, there is a small slope, which poses a threat to the house, thus the SP envisages construction of concrete wall to avoid falling of stone.



The rehabilitation works of the building include demolition of the existing roofing material and its wooden structure,, replacement of balconies pillars, rehabilitation of balcony railings and restoration of decorative wooden items, arrangement of new staircase with basalt, lining of the house with natural stone are planned.

The facades will be cleaned from the paint, restoration of damages created from the pulled stones that will be filled

with the similar stone and fully restored. The building will be returned to its original look.

## Building #70

The two-storied local stone building represents a cultural heritage monument and at the same time Russian classical-style architectural structure, typical for the second half of the 19th century. It has

glassed wooden extension from the front facade, with ornamented décor theme. Nowadays, the house and its foundation is in a good condition and require just restoration works.

The SP envisages demolition of the existing tin roof and its wooden structure, wooden windows and doors, amortized wooden covers of the front façade and wooden stairs. Within the SP, the following exterior restoration works are



planned: arrangement of new roof with dark grey tin, lining of socle with basalt, painting of wooden details of the facades with oily paint, arrangement of new basalt staircase instead of wooden one, rehabilitation and painting of metal stairs with anticorrosive paints, replacement of damaged decorative wooden pieces and column with identical ones.

The one storied stone building # 72 is Russian classical architectural style structure typical to the 19th century. The house has been provided with asbestos containing roofing materials. It seems



the house was altered several times. Under the presented SP the following works are planned: demolition of asbestos containing roofing, wooden amortized windows and doors, plastering of stone walls with sand and cement mortar, lining of socole and stairs with basalt tiles. installation of new wooden windows and doors, providing of staircase with metal railing and arrangement of new roof with dark grey tin.

#### Building #76

The two-storied building is a cultural heritage monument and at the same time, it represents Russian classical-style architectural structure, typical for the second half of the 19th century. Under

the SP, the following works will be carried out: demolition of the exiting tin roof, timbering and roofing structures, doors and windows, amortized floor of the balcony, arrangement of new roof with dark grey tin, plastering of the walls with sand-concrete mortar painting them with watercolor paint, lining of socole with basalt, painting balconies with oil paint, restoration of wooden decorative items, wooden railings of balcony and painting them, arrangement of stairs with basalt, installation of new wooden windows and doors. Deformed details of the balconies



will be repaired, damaged parts changed and restored its original appearance.

On the first floor of the northern facade, a new glass loggia, similar to the one on the second floor, will be installed, staircase and second floor balconies will be repaired, and damaged strengthened and fixed.



The one-storied building # 78 is also a cultural heritage monument, typical for the second half of the 19th century. Under the SP, the following works will be carried out: restoration of glazed logia, wooden decorative items, the existing stairs, construction of new balcony of the glazed loggia, demolition of exiting roof and arrangement of new one with dark grey tin, plastering of the walls with sand-concrete mortar and

painting them with watercolor paint, lining of socle with basalt, arrangement of new decorative wooden railings of balcony, painting of wooden covers and decorative pieces of the façade with oil paint, dismantling of the existing metal lattice of the door and windows.

On the street side facades, the wooden balconies will be rearranged entirely, its original look will be restored.

#### Building #80

The building represents a cultural heritage monument typical to the second half of the 19th century. The main building is two-storied construction, provided with wooden balcony and constructed with stone, from the one side of it there is later one-storied extension, which is roofed with asbestos

containing material. The SP envisages demolition of asbestos containing roofing material and the existing tin roof, amortized wooden floor, windows and ceiling of balcony, arrangement of new roof with dark grey tin, plastering of the façade with concrete and painting them with watercolor paint, rehabilitation and restoration of balconies and glazed loggia, installation of new windows and doors, restoration of wooden decorative pieces and painting them. The western side of the



building will be plastered and painted with emulsion paint of façade. Gable of balcony coming out to the street side will be renovated.

The second floor of wooden balcony will be restored and fortified with new columns.

Masonry of crushed stoned of southern and western facades will be renovated, and timbered gable of western façade will be filled and painted.

### Buildings #84-86

The houses are built in Russian classical architectural style typical to the second half of the 19th century. The two-storied stone building #84 represents a cultural heritage monument. It has two entrances, gable with decorative wooden pieces. The SP envisages replacement of front façade glazing, restoration of glazed loggia, arrangement of new roofing with dark grey tin, plastering of walls and painting them, restoration of decorative wooden pieces and rehabilitation of the existing staircases, installation of new windows and doors.

The building # 84 is connected to the building # 86 with later built extension. The storied building has glazed logia from the front façade, it is plastered and painted. Under the SP, the following works will be implemented: arrangement of a new roof with dark grey tin, plastering of the facades with san-concrete layer, installation of wooden windows and doors, rearrangement and restoration of wooden decorative items, arrangement and rehabilitation of the existing stairs.



The existing glass gallery and planked fronton from the street side of the building will restored, staircase be deformed rearranged, а construction of the balcony at the end of the northern façade will be strengthened. On the connecting part of these two houses, the metal stained glass will be dismantled and a glass gallery, similar to the house #86 will be arranged.

## Building #94

The two-storied building is a cultural heritage monument. The house is provided with wooden

balconies and glazed loggia that are much damaged requires strengthening. From the western facade of the building, there is also a wooden balcony and an extension. The SP envisages dismantling of amortized roof, windows, doors and floor; arrangement of new roof with dark grey tin; installation of new wooden windows and doors; plastering of facades with concrete, painting them, lining of socole with basalt; arrangement of new wooden floors and ceilings for balconies; rehabilitation of metal stairs and



arrangement of railing for them, restoration of decorative wooden pieces, lining of stairs with basalt.

Masonries of northern and southern facades will be renovated. Balcony of northern façade from the inner yard will be completely rearranged, its initial look will be restored.

## Building # 96

The building #96 represents a guesthouse and open terraced café. The SP envisages dismantling of amortized wooden gate and granite floor of terrace, painting and lining of wall with natural stone, arrangement of wooden decorative ornaments, wooden railings, shady for terrace, new wooden gate and railings for balcony.



## Building # 98

Within the SP, the following works are planned: dismantling of amortized tin roof, fronton and stairs, arrangement of a new roof with dark grey tin and a new wooden fronton, wooden pillars and railing for balcony, wooden shutter plastering and painting of front façade, lining of the front stairs with basalt, arrangement of wooden shutter and flowerbeds for windows.



Building #100

The one-stored house represents a cultural heritage monument. From the front façade, there is a

wooden glazed loggia, with decorative pillars and a wooden fronton, which requires rehabilitation. The building is roofed with asbestos containing material.

The SP envisages demolition of asbestos containing roofing materials, arrangement of a new roof with dark grey tin, plastering wall with sand-concrete mortar, restoration of wooden ornaments, lining of socle with basalt, arrangement of a new stairs with



basalt and wooden railings, restoration of glazed loggia, arrangement of new floor, ceiling for loggia and installation of new doors and windows, reconstruction of wooden extension. Balcony at the western façade will be restored and reinforced; damaged fragments will be replaced with new ones.

## **Building #102**

The two-storied building is built with natural stone. At the front façade, there is a wooden railing and a glazed loggia. Within the SP, the following works are planned: arrangement of new roof with dark grey tin, wooden baldachin above the entrance, plastering and painting walls, arrangement of stairs with basalt, restoration of wooden decorative ornaments, rehabilitation of the existing wooden stairs, windows and doors.





The one-storied building is a cultural heritage monument. Under the presented SP, the following works will be carried out: arrangement of new roof with dark grey tin, restoration of the existing gable window on the roof and its decorative elements, rehabilitation of the balconies, plastering and painting walls, arrangement of stairs with basalt, restoration of wooden decorative ornaments. installation of new windows and doors.

Excess earth will to be removed from northern façade. Damaged plastered layer present on all facades will be removed, plastered with sand and cement mortar.

#### 3. Baseline Environmental Conditions

The SP site is located in Abastumani, Adigeni Municipality, Samtskhe-Javakheti region, on the south slope of the Meskheti mountain range, on valley of Otskhe River at 28 km distance from Akhaltsikhe, 25 km from Adigeni, 1340 m above the sea level. The Otskhe River flows along the SP area. It is the left tributary of Kvabliani River. The almost vertically upward slops of the gorge are covered by coniferous forest, dominated by the pine, which is the indispensable treatment for human with lung diseases when blooming. There is a moderately dry mountain climate in Abastumani, where the humidity raises up to 50% only in summer. The average annual precipitation is 626 mm. The average annual temperature is 6.4-6.5 °C in January and 17.2 °C in July.

Abastumani is a mountain-climatic resort, built in the 70s of XIX century. In the 30s of the 19th century, the Scientific study of the thermal water has been carried out which showed that Abastumani thermal waters belong to the chlorine–sodium-sulfate-calcium containing

hyperthermic healing waters and are used for the treatment of rheumatic, gynecological, dermatological and nervous diseases, and for metabolic disorders and chronic ulcers as well. In Abastumani there are such important sights as: Abastumani Astrophysical Observatory, Abastumani Park of the 19th century, Church Akhali Zarzma (1899-1902), King Tamari's Fortress (IX-XI cc), Fortress of Melnisi (Middle Ages), Tamari's Bridge on Otskhe River (IX-XI centuries), Makhvilo Fortress (developed in medieval).

## 4. Potential Impacts

## 4.1. Construction Phase

## 4.1.1. Social Impacts

• General set of social issues. The impact of the SP on social environment will be positive, since the SP envisages the rehabilitation of damaged residential houses that will improve the living conditions of the local population. The growth of tourist flows in the region will facilitate tourism development of the region and improve the economic conditions of the locals.

The negative impact on the population will be minimal and related only to the rehabilitation works, as the civil activities may disrupt the coziness of the population. In some cases, the temporary relocation of the local population to the temporary accommodation may be required, only, if it is necessary for dwellers safety during the SP implementation.

- **Resettlement Issues.** SP does not imply private land acquisition and no permanent impacts are envisaged on private or leased agricultural lands and private assets or businesses. As, the project envisages rehabilitation and restoration of the private owned houses, according to the World Bank's OP/BP 4.12 Involuntary Resettlement the additional study should be carried out and if necessary, a temporary Resettlement Action Plan should be developed.
- Positive impact related to Job opportunities for construction workers. Job opportunities will be Limited and temporary during rehabilitation and limited during operation and maintenance of the urban infrastructure, and will improve socio-economic conditions of the workers.
- Health issues related to noise, emissions, and vibration. These impacts are related to the rehabilitation and renovation works which will be limited and temporary.
- **Traffic Disruption**. Local traffic can be impacted limited and temporary by transport activities related to the SP.
- Safety and Access. There will be no reduced access to areas adjacent to rehabilitation and no potential hazards to vehicles and pedestrians during rehabilitation downtime.

## 4.1.2. Impacts on the Physical Cultural Property

The SP envisages rehabilitation of 17 houses from which 14 have the status of the cultural heritage monuments (Order No. #3/47; 22.03.2010 of the Ministry of Cultural Heritage, Monuments Protection and Sport) and obviously, there is a damage risk in course of the rehabilitation / restoration works that in turn may result in losing historical value of the buildings. Therefore, prior to the rehabilitation-restoration works, the design documents have been agreed with to the LEPL "National Agency for Cultural Heritage Preservation of Georgia" under the Ministry of Cultural Heritage and Monument Protection of Georgia, which is authorized to issue a permit for implementation of works on the CH monuments.

As far as known, the subproject envisages the restoration of existing buildings and no large-scale earth works planned, and according to the data, the archaeological sites are not observed at the SP site. However, due to the historical background of the location, there is a risk of accidental archaeological findings, if rehabilitation works will require activities under the ground. If archeological objects or artefacts are discovered during earth works, the construction contractor is obliged to suspend the construction operations, informing the MDF and Ministry of Culture and Monument Protection about the chance finding and resume works only after respective permission is issued.

# 4.1.3. Environmental Impacts

## Soil Pollution

Potential pollutants from a SP of this nature include the following (this list is not exhaustive):

- 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.);
- Hazardous (asbestos containing) waste.

## Water Pollution

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

- Spillages of fuel, oil or other hazardous substance, especially during refueling;
- Releasing silt water from excavations;
- Silt suspended in runoff waters ("construction water");
- Washing of vehicles or equipment;
- Exposure of contaminated land and groundwater.

## 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);

## **Construction Related Wastes**

## Inert Construction Wastes

The following inert and non-hazardous wastes will be generated as a result of the dismantling of roof of the existing buildings extension and during the reinforcement of foundations of the houses.

## 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 containing roofing materials.

## Transport related impacts

The following impacts may have generated:

- Noise & Vibration Impacts;
- Traffic congestion (nuisance);
- Air pollution;
- Mud on roads;
- Refueling, 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.

## Vegetation and Landscape

The SP does not envisage woodcutting or cutting of bushes. In addition, the SP design does not envisage any activities which will interfere in the urban landscape or able to change it. SP will not lead to a significant change of the landscape.

# 4.2. Operation Phase

Potential impact related to the operation of the rehabilitated houses would be the following:

- Owners/users of the rehabilitated houses may wish to construct extensions to these buildings or undertake other modifications that have visual impact on the facades and/or compromise structural integrity of the houses;
- •
- Increase of the number of tourists will result in the increased volume of waste and noise;
- Traffic will increase in the central part of the settlement, which will result in the increased level of local emissions and noise as well as traffic safety issues;
- Positive social impact will be related to the increasing of the tourist infrastructure of the municipality that will have positive effect on the local population, in terms of employment.

Pursuant to Paragraph 1.7 of Article 1 of the IFA, the Ministry of Cultural and Monument Protection (MCMP) concludes a Monument Maintenance Contract with the owners/authorized users of real estate carrying status of a cultural monument. In accordance with Clause 28 of the Law of Georgia on Cultural Heritage, the Monument Owner (authorized user) shall submit the information on current condition of the Monument as per the form approved by the Ministry, and in particular in accordance with the Decree #05/80 (See the Annex) of November 3, 2015 of the Minister of Culture and Monument Protection of Georgia, within a 1 month period following receipt of the notification and execute the Monument Maintenance Contract in order to ensure protection of the monument from damage and destruction and to preserve historical-cultural values of the monument. Pursuant to the 28th Article of the Georgian Law on Cultural Heritage, the Monument Owner (authorized user) shall submit the information as per the form, approved by the Ministry, in particular by Decree #05/80 (See the Annex) dated November 3rd , 2015 by Minister of Culture and Monument Protection of Georgia, on current condition of the Monument within 1 month upon notification receiving and execute the Maintenance Contract for the Monument to provide protection of the monument from damage inflicting and destruction and historical-cultural values of the monument to be maintained (see attachment - letter from NACHP). In addition to the aforesaid, Clause 24 of the Law of Georgia on Cultural Heritage restricts carrying out any works at the monument, without obtaining the associated permit specified under the same law. (see attachment - letter from NACHP).

# 5. Environmental Management Plan

Based on the preliminary survey data of the existing natural and social environment as well as the cultural heritage and assessing the expected impacts on social and natural environment and cultural heritage, the relevant mitigation measures have been determined and Environmental Management Plan (EMP) have been developed that is the part of this ER. ER including EMP is integral part of the construction contract and implementation of EMP requirements is obligatory for contractor.

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 own asphalt (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 agree with the Ministry of Environment and Natural Resources Protection (MoENRP);
- 5. Construction waste must be disposed on the nearest municipal landfill in accordance with written agreement. The records of waste disposal will be maintained as proof for proper management as designed;
- 6. Hazardous (asbestos-containing) wastes should be removed, packaged, stored and finally disposed on the nearest municipal landfill, based on the written agreement and in accordance with the technical regulations on special requirements for collection and processing of hazardous wastes (Resolution No145; 29.03.2016);
- 7. If over 200 tons of non-hazardous waste or over 1000 tons of inert materials or 120 kg of hazardous waste is generated annually (calculation apply to a calendar year) as a result of contractor's general activities, they shall prepare and cause the Ministry of Environment and Natural Resources Protection of Georgia to approve the Waste Inventory and Waste Management Plan for the Company, appoint an environmental manager, and submit an information on his/her identity to the Ministry of Environment and Natural Resources Protection of Georgia in accordance with requirements of the Waste Code of Georgia.

Copies of extraction licenses/Environmental Impact Permits (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.

## ENVIRONMETAL MANAGEMENT PLAN

Activity	Expected Negative Impact	Mitigation Measure	Responsible for implementation
		PRE-CONSTRUCTION PHASE	
Obtaining of required permits/licenses and concluding agreements		<ul> <li>The following permits/licenses and agreements should be obtained by the works contractor and submitted to the MDF: <ul> <li>Agreement for disposal (stockpiling) of excessive soil</li> <li>licenses for inert material extraction</li> <li>Permits for production of such construction materials that belongs to the activity subject to ecological examination</li> <li>Technical report on inventory of atmospheric air pollution stationary source and agree with the Ministry of Environment and Natural Resources Protection (MoENRP)</li> <li>Agreement on household and construction waste disposal on the landfill in village Chacharaki.</li> </ul> </li> </ul>	MDF Construction contractor
Notification of the local community on upcoming activities	Hostile attitude of local communities and possible conflict leading to disruption of works. Inconvenience to local community from unexpected presence and activity of construction contractor	<ul> <li>Place informational banner on the construction site carrying contact information about MDF, as well as works supervisor company and local municipality administration.</li> <li>Make the banner from weather resistant material.</li> <li>Provide information in Georgian and English languages.</li> <li>Notify local community and other interested parties about the scope and timing of the upcoming works</li> </ul>	Construction contractor
Institutional arrangements for implementation of environmental mitigation measures	Poor environmental and social performance of construction contractor Occurrence of work-site trauma and other health damage due to poor understanding of health and safety rules by personnel	<ul> <li>Appointing a person responsible for protection of social and natural environment and ESMP implementation (environmental manager)</li> <li>Acquainting workers with ESMP and training them in social and environmental good practice, including health and safety rules</li> </ul>	Construction contractor
		CONSTRUCTION PHASE	1

Activity	Expected Negative Impact	Mitigation Measure	Responsible for implementation
<ul> <li>Construction works, including:</li> <li>Preparation of construction sites</li> <li>Earth works</li> <li>Installation of facilities</li> <li>Machinery operation</li> <li>Transportation operations</li> </ul>	Deterioration of ambient air	<ul> <li>All vehicles shall be maintained so that their emissions do not cause nuisance to workers or local population.</li> <li>All vehicles shall be checked and repaired in case of need to eliminate increased level of noise due to damaged parts;</li> <li>Regular maintenance of diesel engines shall be undertaken to ensure that emissions are minimized, for example by cleaning fuel injectors.</li> <li>All plant used on site shall be regularly maintained so as to be in good working order at all times to minimize potentially polluting exhaust emissions;</li> <li>Vehicle refueling shall 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 stored fuel);</li> <li>Materials and waste transported to/from the site shall be covered/ wetted down to reduce dust. The construction site shall be watered as appropriate. Protective equipment shall be provided to workers as necessary;</li> <li>During demolition works destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site;</li> <li>The surrounding environment (sidewalks, roads) shall be kept free of debris to minimize dust;</li> <li>construction materials and storage piles shall be covered;</li> <li>Stripped soil/ excavated ground shall be stockpiled properly;</li> <li>There shall be no excessive idling of construction vehicles at sites;</li> <li>The SP territory shall be reinstatement immediately after finalizing of construction works</li> </ul>	Construction contractor
	Distribution of noise and vibration	<ul> <li>The maximum speed shall be restricted in residential areas to the safety level during the pass of the trucks;</li> <li>Proper technical control and maintenance practices of the machinery shall be applied;</li> <li>Activities shall be limited to daylight working hours;</li> <li>No-load operations of the vehicles and heavy machinery are not allowed. Proper mufflers will be used on machinery;</li> <li>Ensure that machinery is in good technical condition.</li> </ul>	Construction contractor

Activity	Expected Negative Impact	Mitigation Measure	Responsible for implementation
	Damage of soil	<ul> <li>Demarcation of construction sites' boundaries and access roads before construction works are launched;</li> <li>Adherence to demarcated work site boundaries during operations;</li> <li>Stripping of topsoil from work sites (whenever possible) before starting of earthworks and stockpiling for subsequent reinstatement, in compliance with the Technical Regulations on Stripping, Stockpiling, Use and Reinstatement of Topsoil (2014);</li> <li>subsoil shall be stored in stockpiles, no more than 3m high with side slopes at a maximum angle of 60°;</li> <li>Subsoil shall be segregated from topsoil stockpiles.</li> </ul>	Construction contractor
	Water and soil pollution	<ul> <li>Provision of staff with toilets and bathrooms, and centralized discharge of generated wastewater in the sewer systems if possible or install temporary structures;</li> <li>Ensuring that machinery is well maintained;</li> <li>Refueling of machinery using respectively equipped refueling trucks, and using of drip trays during refueling operations;</li> <li>Refueling and maintenance of machinery only at a specially devoted site, where topsoil is tripped and grovel layer is arranged; lubricants, fuel and solvents shall be stored exclusively in the designated sites; No fuel, lubricants and solvents storage or re-fueling of vehicles or equipment will be allowed near the cultural heritage site;</li> <li>Ensuring that construction materials are appropriately stockpiled and stored in the specially designated and temporarily constructed storage facilities;</li> <li>Temporarily storage on site of all hazardous or toxic substances shall be in safe containers labeled with details of composition, properties and handling information; Spill containment materials (sorbents, sand, sawing, chips etc.) should be available on construction site;</li> <li>Ensure that all spills are cleaned up immediately, and contaminated soil is respectively disposed off;</li> <li>Wet cement and/or concrete will not be allowed to enter any watercourse, pond or ditch.</li> <li>Cleaning up of the entire SP territory from construction waste as soon as the construction works are finalized.</li> </ul>	Construction contractor

Activity	Expected Negative Impact	Mitigation Measure	Responsible for implementation
	Pollution of environment by solid and liquid wastes	<ul> <li>Burning of waste is prohibited;</li> <li>Paints with toxic ingredients or solvents or lead-based paints shall not be used;</li> <li>Different types of waste (construction, hazardous, household) shall be collected separately; special sites shall be designated for waste accumulation and pollution prevention measures shall be applied there;</li> <li>Construction inert waste and excess soil should be disposed on the nearest municipal landfill based on the written agreement;</li> <li>Temporarily storage of all hazardous or toxic substances shall be in safe containers labelled with details of composition, properties and handling information; Uncontrolled storage of hazardous wastes on the construction area is prohibited; the containers of hazardous substances shall be placed in a leak- proof container to prevent spillage and leaching; shall be handed over to a permitted waste management company, on a contractual basis;</li> <li>asbestos-containing waste should be removed, packaged, stored and finally disposed on the nearest municipal landfill, based on the written agreement and in accordance with the technical regulations on special requirements for collection and processing of hazardous wastes (Resolution No145; 29.03.2016</li> <li>Any construction or municipal wastes produced during construction stage should remove from the site area frequently;</li> <li>Maintenance a waste management logbook to record wastes generated on site and waste flow.</li> </ul>	Construction contractor
	Impact on traffic flow	<ul> <li>Impose speed limitation to the SP machinery;</li> <li>Ensure that SP machinery move using only pre-determined routes;</li> <li>The frequency of machinery movement shall be restricted.</li> </ul>	Construction contractor

Activity	Expected Negative Impact	Mitigation Measure	Responsible for implementation
	Health and safety risks for local community	<ul> <li>Construction site shall be properly secured and construction related traffic regulated. This includes but is not limited to: <ul> <li>Installation of the signposting, warning signs, barriers and traffic diversions: signs shall be clearly visible and the public warned of all potential hazards;</li> <li>Construction site and all trenches shall be fenced and properly secured to prevent unauthorized access (especially of children);</li> <li>Appropriate lighting should be provided;</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>Imposing of speed limitation to SP machinery</li> <li>Ensuring that SP machinery move using only pre-determined routes</li> </ul> </li> </ul>	Construction contractor
	Damage to private property	<ul> <li>Ensuring that machinery move using only pre-determined routes;</li> <li>Imposing of speed limitation to machinery;</li> <li>Permanent supervision of works to prevent damage to private property and ensure implementation of rehabilitation works due to designs;</li> <li>Incurred losses shall be fully compensated by the contractor.</li> </ul>	Construction contractor
	Conflicts with local population or other affects people	<ul> <li>Meeting with local population (if required)</li> <li>Reception and addressing of complaints/grievances</li> </ul>	Construction contractor
	Occupational health and safety risks	<ul> <li>Informing of the SP labor about potential health and safety risks, and instructing them regarding safety measures to be adhered (before launching construction works and during civil works)</li> <li>Ensuring that required personal protection equipment (e.g. helmets, gloves, etc.) is supplied and used by workers as appropriate</li> <li>Ensure safety of machinery operations</li> <li>Provision of safety signs for high risk zones</li> <li>Implementation of measures recommended for air protection and noise abatement</li> </ul>	Construction contractor
	Impact on cultural heritage	<ul> <li>Rehabilitation / restoration works of residential buildings having the status of CH monuments should be carried out on the basis of the permit issued by the LEPL "National Agency for Cultural Heritage Preservation of Georgia (NACHP)" and in compliance with the Law of Georgia on Cultural Heritage;</li> <li>Permanent suspension of construction operations and ensuring that these activities are met with the project approved by the NACHP;</li> </ul>	MDF, Construction Contractor NACHP

Activity	Expected Negative Impact	Mitigation Measure	Responsible for implementation
		<ul> <li>Cleaning up and reinstatement of the SP area immediately after the construction works are completed.</li> </ul>	
		OPERATION PHASE	
	Adding extensions or other works (e.g. pipes for stoves on the exterior wall) that are not appropriate for cultural heritage	<ul> <li>Prohibition of the property owners to carry out any activity based on sole discretion, without prior agreement with the NACHP;</li> <li>contracts for maintenance of the rehabilitated property will be signed with the owners by the NACHP;</li> </ul>	NACHP
Maintenance of the rehabilitated residential houses	Damage to residential houses having status of immovable monument of cultural heritage	<ul> <li>Protection<sup>2</sup> against damages the houses having status of the immovable CH monuments;</li> <li>Elimination of damages conditioned due to natural circumstances, in a timely manner;</li> <li>Management of waste generated during further rehabilitation works according to the applicable legislation;</li> <li>Prohibition of the property owners to carry out any activity based on sole discretion, without prior agreement with the NACHP.</li> </ul>	NACHP Adigeni Municipality
	Pollution of environment with solid waste and waste water	<ul> <li>Placement of trash bins on the SP site;</li> <li>Regular removal of household waste from the site to the landfill located in village Chacharaki, Akahltsikhe municipality;</li> <li>Burning of waste should not be practiced.</li> </ul>	Adigeni municipality

<sup>21</sup> 

<sup>&</sup>lt;sup>2</sup> Pursuant to the 28th Article of the Georgian Law "On Cultural Heritage", the Monument Owner (authorized user) shall submit the information as per the form, approved by the Ministry, in particular by Decree #05/80 (See the Annex) dated November 3rd , 2015 by Minister of Culture and Monument Protection of Georgia, on current condition of the Monument within 1 month upon notification receiving and execute the Maintenance Contract for the Monument to provide protection of the monument from damage inflicting and destruction and historical-cultural values of the monument to be maintained.

## 6. Public consultations

ER along with the ESMP will be open for the local population and will be discussed at a Consultation Meeting which will be held in Abastumani before starting of construction works. Information about the activities planned within the sub-project will be open and available for all stakeholders.

## 7. Monitoring

MDF carries overall responsibility for monitoring of the SP implementation including environmental compliance of the SP. A consulting company hired for supervision of works will supplements MDF's in-house capacity for tracking SP implementation and environmental and social compliance of works undertaken under this SP. Environmental monitoring of the SP shall be implemented according with plan given below.

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 monthly and 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 have according to the Georgian law for extracting material, operating asphalt/concrete plants, disposing various types of waste, etc.

## 8. Remedies for EMP Violation

MDF, as a client of construction works, will be responsible for enforcing compliance of contractor with the terms of the contract, including adherence to the EMP.

The contractor is obliged to carry out any of its activities pursuant to the Georgian Environmental Legislation in force, and in case if any noncompliance is revealed, the contractor shall be liable to cover at its own expense all damage liquidation costs.

## 9. Costs of Implementation

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

## **10. Grievance Redress Mechanism**

Grievance Redress committee will be established at the municipal level. If the grievance will not unsolved at the local level, it will be lodged to the MDF. As for grievance monitoring MDF registers all received compliances, comments and how the compliance was addressed. During public consultations, the local population will be informed about the grievance redress issues and received information about contact persons.

In addition, contractor is obliged to place informational banner on the construction site carrying contact information about contact persons of MDF, works Supervisor Company and local municipality administration. The banner will be made with weather resistant material and provide information in Georgian and English languages.

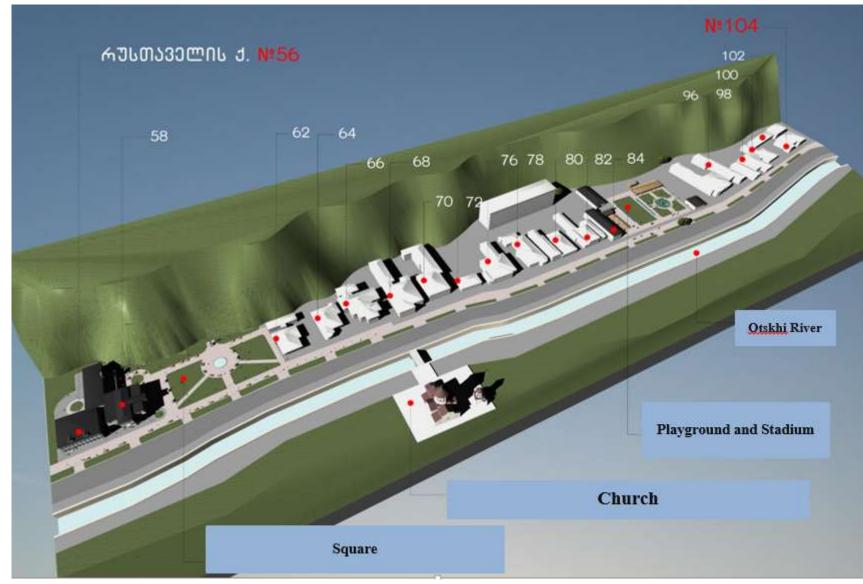
#### **ENVIRONMENTAL MONITORING PLAN**

Activity	What (Is the parameter to be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuous?)	Why (Is the parameter being monitored?)	Who (Is responsible for monitoring?)
		CONSTR	<b>CUCTION 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	Ensure technical reliability and safety of infrastructure	MDF, Construction supervisor
Transportation of construction materials and waste Movement of construction machinery	Vehicles and machinery are kept in standard technical condition; Truck loads are confined and protected with lining; Established hours and routes of transportation are respected	Construction site	Inspection	Unannounced inspections during work hours and beyond	Limit pollution of soil and air from emissions; Limit nuisance to local communities from noise and vibration; Minimize traffic disruption.	MDF, Construction supervisor, Traffic Police
Sourcing of inert material	<ul> <li>Purchase of material from the existing suppliers if feasible;</li> <li>Obtaining of extraction license by the works contract and strict compliance with the license conditions;</li> <li>Terracing of the borrow area, backfilling to the exploited areas of the borrow site, and landscape harmonization;</li> <li>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.</li> </ul>	Borrowing areas	Inspection of documents Inspection of works	In the course of material extraction	Limiting erosion of slopes and degradation of ecosystems and landscapes; Limiting erosion of river banks, water pollution with suspended particles and disruption of aquatic life.	MDF, Construction supervisor

Generation of construction waste	Temporary storage of construction waste in especially allocated areas; Timely disposal of waste to the	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
	formally designated locations					
Traffic disruption and limitation of pedestrian access	Installation of traffic limitation/diversion signage; Storage of construction materials and temporary placement of construction waste in a way	At and around the construction site	Inspection	In the course of construction works	Prevent traffic accidents; Limit nuisance to local residents	MDF, Construction supervisor
	preventing congestion of access roads					
Asbestos management	Asbestos located on the SP site is appropriately contained and marked clearly as hazardous material; Asbestos-containing materials are sprinkled with water while handling; Staff handling asbestos-containing materials wear full uniforms, protective masks and gorgles; Security measures are taken against unauthorized removal of asbestos-containing material from the site: waste is contained and marked clearly as hazardous material; Dismantled asbestos-containing pipes are immediitly disposed on the nearest landfill - in village Tagveti, Khashuri Municipality	At construction site	Inspection of documents Inspection of works	In the course of demolition works	Prevent pollution by toxic materials; Protect workers' health	MDF, Construction supervisor

Workers' health and safety	Provision of uniforms and safety gear to workers; Informing of workers and personnel on the personal safety rules and instructions for operating machinery/equipment, and strict compliance with these rules/instructions	Construction site	Inspection	Unannounced inspections in the course of work	Limit occurrence of on-the-job accidents and emergencies	MDF, Construction supervisor
		OPERA	TION PHASE			
Maintenance of rehabilitated Houses	Infrastructure is monitored regularly and damages detected in time Management of waste produced during maintenance of the rehabilitated infrastructure Management of household waste generated by residents of rehabilitated houses	Rehabilitated houses	Inspection	Recurrent	Prevent damage of the rehabilitated infrastructure Prevent pollution of the site with solid waste	NACHP Adigeni municipality
Uncontrolled/illegal construction of extensions to the rehabilitated houses and their transformation by owners	No illegal construction of extensions to rehabilitated houses and no other transformation of their facades occurs	Rehabilitated houses	Inspection	Recurrent	Prevent loss of historical and aesthetic value of rehabilitated houses	NACEP Adigeni Municipality

## Annex1. Map of SP area and pictures



# Order of the Ministry of Cultural Heritage, Monument Protection and Sport on the granting of immovable cultural heritage monuments status to the houses to be rehabilitated within the SP

საქართველოს კულტურის, ძეგლთა დაცვისა და სპორტის მინისტრის მინისტრის

2010 წლის 22 მარტი

პრძანეპა №3/47

ქ. თბილისი

#### კულტურული მემკვიდრეობის თვალსაზრისით ღირებული ობიექტებისათვის კულტურული მემკვიდრეობის უძრავი ძეგლის სტატუსის მინიჭების შესახებ

საქართველოს უმნიშვნელოვანეს ისტორიულ-კულტურულ ფასეულობათა სამართლებრივი დაცვის უზრუნველყოფის მიზნით, "კულტურული მემკვიდრეობის შესახებ" საქართველოს კანონის მე-15 მუხლის მე-3 პუნქტისა და კულტურული მემკვიდრეობის დაცვის საბჭოს გადაწყვეტილების საფუძველზე, აგრეთვე "საქართველოს ზოგადი ადმინისტრაციული კოდექსის" 51-ე, 52-ე, 53-ე, მუხლების შესაბამისად

### ვბრძანებ:

 მიენიჭოს კულტურული მემკვიღრეობის უძრავი ძეგლის სტატუსი ამ ბრძანების №1 დანართში მითითებულ ობიექტებს თანდართული (დანართი №2) სააღრიცხეო ბარათების შესაბამისად.

 დაუვალოს კულტურული მემკვიდრეობის სტრატეგიის, ორგანიზაციების კოორდინაციისა და ნებართვების დეპარტამენტს ამ ბრძანების ამოქმედებიდან 1 თვის ვადაში ბრძანების პირველ პუნქტში მითითებული ობიექტების მონაცემების სამინისტროს ინტერნეტგვერდზე ასახვა.

 ეთხოვოს კულტურული მემკვიდრეობის დაცეის საბჭოს წარმოადგინოს შესაბამისი დასკვნები დანართებში მითითებული ძეგლებისათვის კატეგორიის მინიჭების თაობაზე.

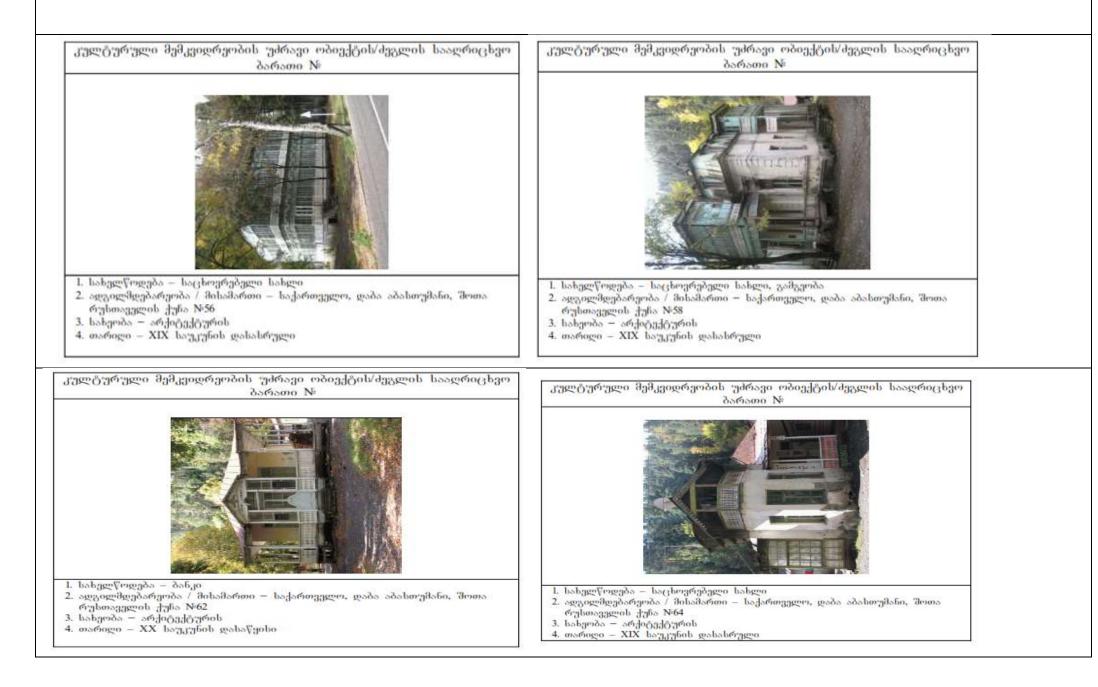
პრძანება ამოქმედდეს გამოქვეყნებისთანავე.

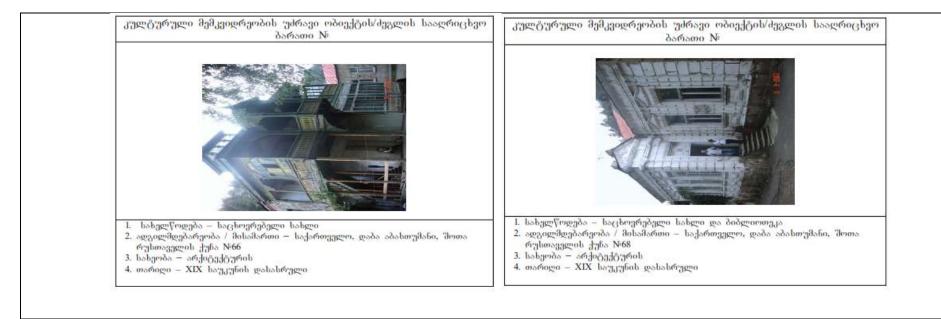
ბრძანება შეიძლება გასანივრდეს დაინტერესებული მხარის მიერ გაცნობიდან ერთი თვის ვადაში საქართველოს მთავრობაში (მისამართი: ქ. თბილისი, პავლე ინგოროყვას ქუნა № 7).

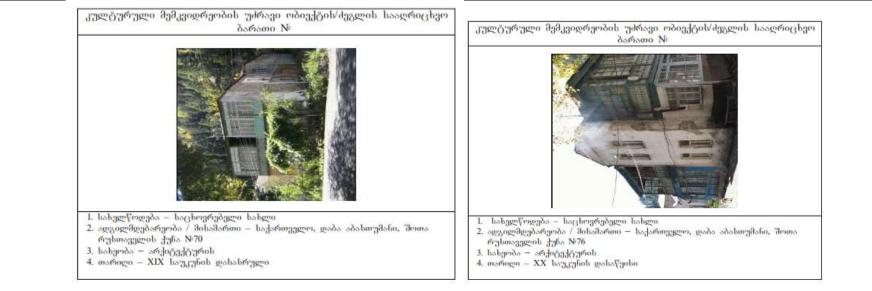
## მინისტრი

ნიკოლოზ რურუა

Registration form of the following cultural heritage monuments: # 56, #58, #62, #64, #66, #68, # 70, #76, #78, #80, #84, #94, # 100, # 104







კულტურული მემკვიდრეობის უძრავი ობიექტის/ძეგლის სააღრიცხვო	კულტურული მემკვიდრეობის უძრავი ობიექტის/ძეგლის სააღრიცხვო
ბარათი №	ბარათი №
<ul> <li>1. სახელწოფება – საცხოვრებელი სახლი</li> <li>2. აღვილმდებარელბა / მისამართი – საქართველო, დაბა აბახთუმანი, შოთა</li></ul>	<ul> <li>1. babgetfraggås - bagbergrigågen babgen</li> <li>2. segsogetlegdarigenda / Aubidariene - bagbergriggere, gada adabergilatio, ärnens</li></ul>
რუსთაველის ქუნა №78 <li>3. სახელბა – არქიტექტურის</li> <li>4. თარიდი – XX საუკუნის დასაწეისი</li>	rigbersgggend dytis N80 <li>3. babgeda - sedjergrigdigende gabafigete</li> <li>4. maringen - XX bargation gabafigete</li>
<ul> <li>1. სახვლწოდება - საცხოვრებელი სახლი</li> <li>2. ადგილმდებარეობა / მისამართი - საქართველო, დაბა აბასთუმანი, შოთა რუსთაველის ქუნა №84</li> <li>3. სახელბა - არქოტექტურის</li> <li>4. თარიდი - XX საუკუნის დასაწყისი</li> </ul>	<ul> <li>კულტურული მემკვიდრეობის უძრავი ობიექტის/ძეგლის სააღრიცხვო ბარათი №</li> <li>სახელწოდება – საცხოვრებელი სახლი</li> <li>segangalgodaრეობა / მისამართი – საქართველო, დაბა აბისთუმანი, შოთა რუსთველის ქუნა №84ა</li> <li>სახეობა – არქიტექტერის</li> <li>თარიღი – XX საუკუნის დასაწეისი</li> </ul>

<ul> <li>1. babggffrægaða - bagbergrögagne babgen</li> <li>2. aggaggdaggdarigenda / Babadarino - bajdaringgggen, gada aðabærgilaba, ilenaa</li></ul>	<ul> <li>კულტურული მემკვიდრეობის უძრავი ობიექტის/ძეგლის სააღრიცხვო</li></ul>
röybæragggend jybis N94 <li>3. babgreida - sröjangdjöjröndi</li> <li>4. maringen - XIX bajdjöndi gababröngen</li>	ბარათი № <li>Image: Image: Image</li>
<ul> <li>კულტურული მემკვიდრეობის უძრავი ობიექტის/ძეგლის სააღრიცხვო ბარათი №</li> <li>Image: Image: Image</li></ul>	



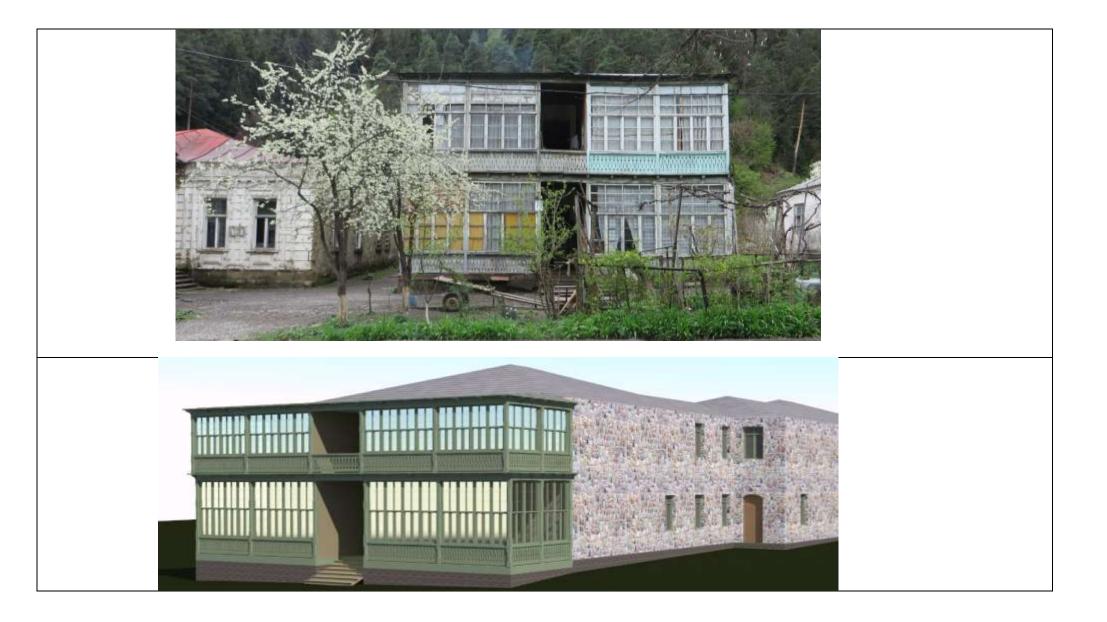






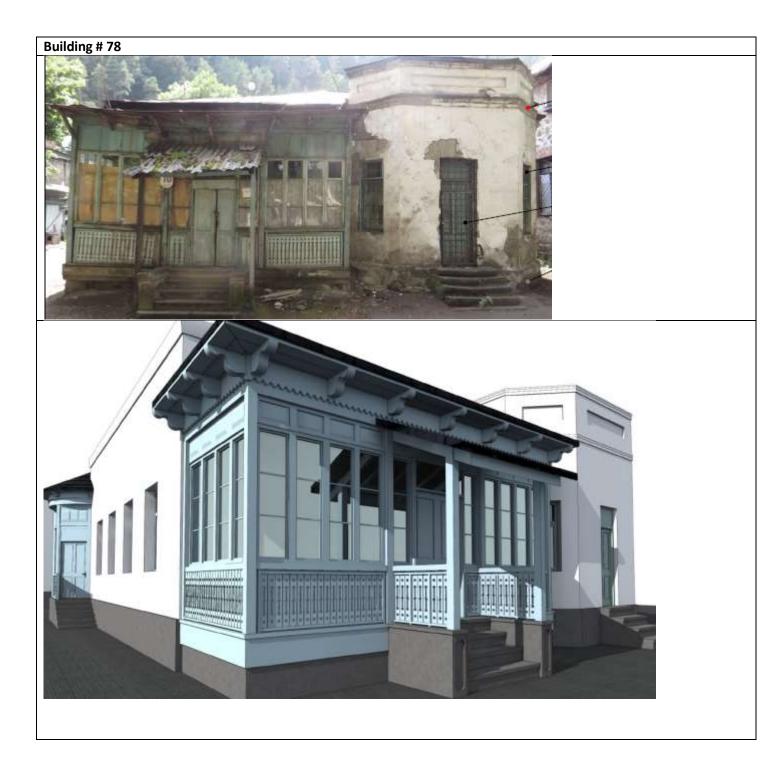




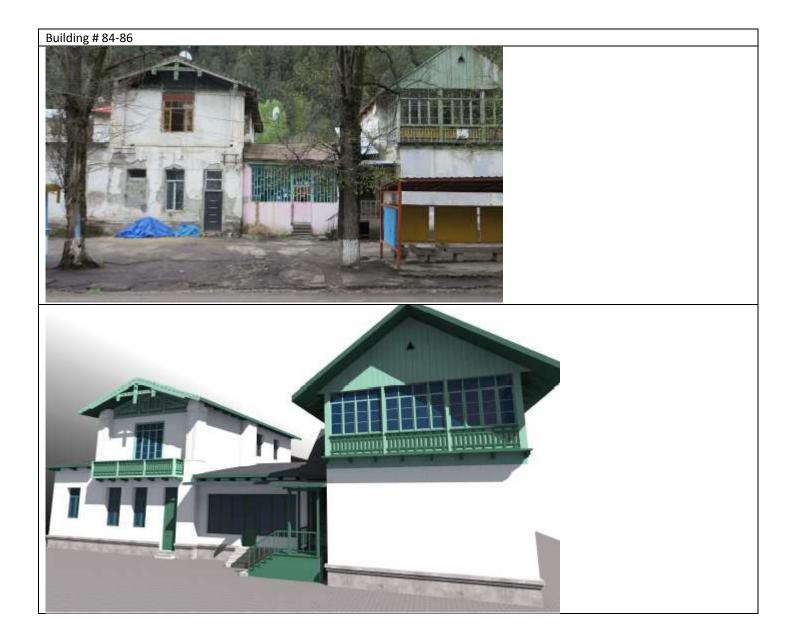


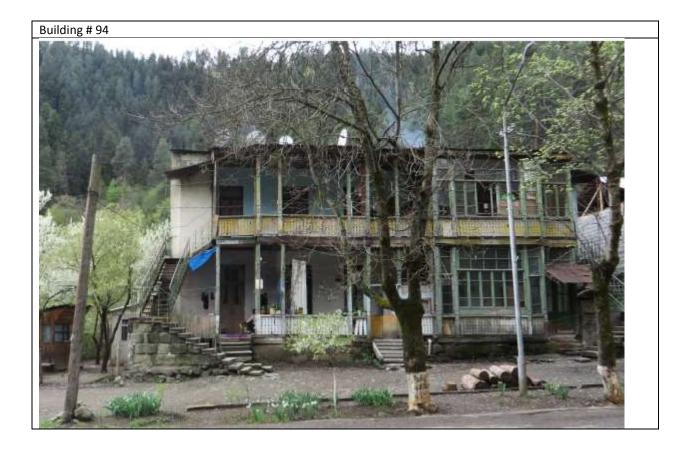














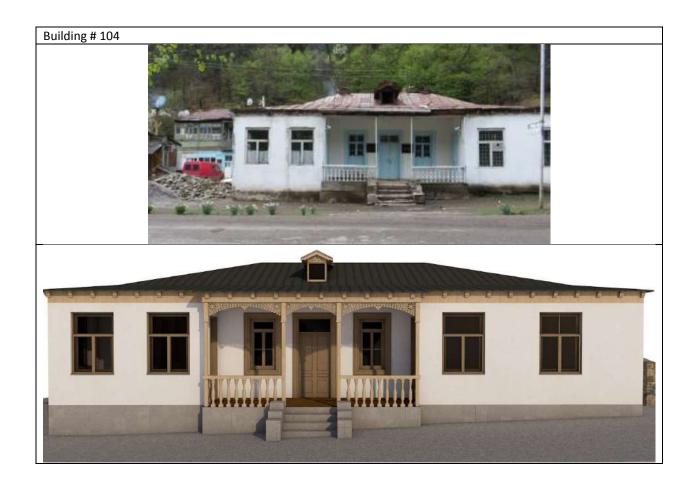












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	507	საქართველოს კულტურული მემკვიდრეობის დაცვის ეროვნული სააგენტო Georgian National Agency for Cultural Heritage Preservation
	<b>S</b>	
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1120	19/2130	05 / დეკემბერი / 2017 წ.
		საქართველოს მუნიციპალური განვითარების ფონდის აღმასრულებელ დირექტორს, ბატონ გალაქტიონ ბუაძეს
050	ონო გალაქ(	jono,
პრი დაკ ფარ	იექტის განხ სავშირებით, იგლებში გაც	1291009 წერილი, რომელიც ეხება აბასთუმნის ისტორიული ხის სახლების რეაბილიტაციის აორციელებასთან დაკავშირებით მსოფლიო ბანკის მიერ დასმულ მოთხოვნებს. აღნიშნულთან საქართველოს კულტურული მემკვიდრეობის დაცვის ეროვნული სააგენტო თავისი კოპეტენციის კნობებთ, შემდეგს:
の い の の の の の の の の の の の の の	ვინანსების ! პასუხისმგე ცენზიის გა( ათუმნის სა ღტურული	ასენებათ, 2017 წლის 31 ოქტომბერს ფონდსა და სააგენტოს შორის გაფორმდა საინვესტიციო ბელშეკრულება, აღნიშნული ხელშეკრულების მე-2 მუხლის, (სააგენტოს უფლებები, მოვალეობები ბლობა) 2.5, პუნქტი ითვალისწინებს სააგენტოს პასუხისმგებლობას ყველა იმ ნებართვასა ან/და კემაზე, რომელიც აუცილებელია ქვეპროექტის განსახორციელებლად, იმის გათვალისწინებით, რომ ანლების რეაბილიტაციის საპროექტო დოკუმენტაცია, უკვე მოწონებული და შეთანხმებულია მემკვიდრეობის დაცვის საპჭოს მიერ, სააგენტო გიდასტურებთ, რომ ახლადგამოვლენილი ებელი გარემოებების გარდა არ მოხდება უკვე შეთანხმებული პროექტების კორექტირებები;
შეს. პატ მუხ დამ ნეო ინფ ხეღ მეუ	აბამისად, ს რონობის ხე თლის თანა ბტკიცებულ მბრის N05/3 თრმაცია ( ღმეკრულებ. ლის ისტი	იჭტომბერს გაფორმებული საინვესტიციო დაფინანსების ხელშეკრულების 1 მუხლის 1.7. პუნქტის სააგენტო ვალდებულია უზრუნველყოს უმრავი ქონების მესაკუთრეებთან მეგლის მოვლა- ელშეკრულების გაფორმება. "კულტურული მეშკვიდრეობის შესახებ" საქართველოს კანონის 28-ე "ხმად, მეგლის მესაკუთრე (კანონიერი მოსარგებლე) ვალდებულია სამინისტროს მიერ ი ფორმის, კერმოდ საქართველოს კულტⴕურისა და მეგლთა დაცვის მინისტრის 2015 წლის 3 80 ბრმანების (იხ. დანართი) შესაბამისად, შეტყობინების მიღებიდან 1 თვის ვადაში წარმოადგინოს მეგლის არსებული მდგომარეობის შესახებ და გააფორმოს მეგლის მოვლა-პატრონობის ა, რომლითაც უზრუნველყოფილი იქნება მეგლის დაზიანებისა და განადგურებისაგან დაცვა და ორიულ-კულტურული დირებულების შენარჩუნება. წარმოგიდგენთ ზემოაღნიშნული ის ფორმას (იხ. დანართი).
აკრ დაე ჩატ რომ მეუ, ხოე და9	მალულია მ დგენილი შე არების სამ მლის გაცემი ლზე უნებაი ღო მეგლზე ბიანება ან	ელისა, "კულტურული მემკვიდრეობის შესახებ" საქართველოს კანონის 24-ე მუხლის თანახმად, ცეგლზე რაიმე სამუშაოების ჩატარება საქართველოს კანონმდებლობით, მათ შორის, ამ კანონით საბამისი ნებართვის გარეშე. ხოლო ამავე კანონის 47-ე მუხლის თანახმად, ძეგლზე სამუშაოების ართლებრივი საფუძველია "კულტურული მემკვიდრეობის ძეგლზე სამუშაოების ნებართვა", ის უფლებამოსილება მოცემულ შემთვევაში გააჩნია მხოლოდ ეროვნულ სააგენტოს. ამასთან, პირის რთვო სამუშოების განხორციელება იწევს ადმინისტრაციულ სამართლებრივ პასუხისმგებლობას, ე განზრან იმევარი ზემოქმედების მოხდენა, რის გამოც ძეგლს ემუქრება გამოუსწორებელი განადგენილი წესით.

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	e=A&SessValue=Yz1HeDJ7XV9UaxPWal8cZqbUOR92SDeRzfz
აქვე გაცნობებთ, რომ ეროვნული სააგენტო დაიწყებს სათანადო ქმე ხელშეკრულებების გაფორმების მიზნით.	დებების <b>მეგლის მესაკუთრეებთან შესაბამის</b> ი

დანართი: ბეგლის მოვლა-პატრონობის ხელშეკრულება დანართითურთ.

გენერალური დირექტორი

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ნიკოლოზ ანთიმე

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Letter

December 5, 2017

#09/2136

From: Georgian National Agency for Cultural Heritage Preservation To: Mr. Galaktion Buadze, Executive Director of the Municipal Development Fund of Georgia

Dear Mr. Buadze,

The CHA has reviewed your letter #3040g-2-201711291009 of November 29, 2017 referring to the World Bank requirements on implementation of Abastumani historical timber houses' rehabilitation project. In view of the above, the CHA, within the scope of its jurisdiction, would like to advice you of the following:

As you may be aware, on October 31, 2017, an Investment Financing Agreement (IFA) was executed between the MDF and the CHA. Paragraph 2.5 of Article 2 (rights, roles and responsibilities of the CHA) of the above referred Agreement provisions the CHA's responsibility for issuance of all permits and/or licenses required for sub- project implementation. Whereas, the design documentation for Abastumani timber houses' rehabilitation project is already approved and agreed upon by the CHA Board, the CHA hereby confirms that the previously approved designs cannot be subjected to adjustment unless any new unforeseen circumstances are revealed later on.

Pursuant to Paragraph 1.7 of Article 1 of the IFA, the CHA undertakes to enter into the Monument Maintenance Contract with the real estate owners. In accordance with Clause 28 of the Law of Georgia on Cultural Heritage, the Monument Owner (authorized user) shall submit the information on current condition of the Monument as per the form approved by the Ministry, and in particular in accordance with the Decree #05/80 (See the Annex) of November 3, 2015 of the Minister of Culture and Monument Protection of Georgia, within a 1 month period following receipt of the notification and execute the Monument Maintenance Contract in order to ensure protection of the monument from damage and destruction and to preserve historical-cultural values of the monument. Please, find attached the form of the above- mentioned contract (see annex).

In addition to the aforesaid, Clause 24 of the Law of Georgia on Cultural Heritage restricts carrying out any works at the monument, without obtaining the associated permit specified under the same law. While, as per Clause 47 of the same law, "Permit for Conducting Works at the Cultural Heritage Monument" serves as legal basis for undertaking works at the cultural heritage site, and under the given circumstances, this permit can be exclusively issued by the CHA. Besides, unpermitted works at the monument site may give rise to administrative amenability of the person involved and any kind of such intended impact on the monument, which may cause irreversible damage to or destruction of the monument will be considered as criminal act and be subjected to prosecution under the mandated rules of Georgian legislation

We would like to herewith notify you that the CHA will initiate the respective actions aimed at execution of the associated Contracts with the monument owners.

Annex: Monument Maintenance Contract with attachment.

Nikoloz Antidze, General Director