Sub-Project: Regional Development Project
Restoration of buildings and creating of tourism area in Village Dartlo (Phase 2)

Environmental Review

WORLD BANK FINANCED
REGIONAL DEVELOPMENT PROJECT

Tbilisi, Georgia
April 2015

ABBREVIATIONS

CH	**Cultural Heritage**
EIA	**Environmental Impact Assessment**
EMP	**Environmental Management Plan**
ER	**Environmental Review**
MDF	**Municipal Development Fund**
MoE	**Ministry of Environment and Natural Resources Protection**
MRDI	**Ministry of Regional Development and Infrastructure**
RDP	**Regional Development Project**
SECHSA	**Strategic Environmental, Cultural Heritage, and Social Assessment**
WB	**World Bank**

Environmental and Social Screening and Classification

Sub-project's (SP) goal is restoration of 34 houses in the historic village of Dartlo. This SP had been designed and the first attempt of its implementation took place earlier. The intention was to rehabilitate 74 buildings and a church, arrange foot paths, construct tourist infrastructure, and to provide the existing buildings with sewage system and power connections. However that SP was not fully implemented - only 34 houses underwent partial restoration and restoration of 9 more houses was designed. The idea of providing power and sewage systems was abandoned. Quality of restoration of the residential houses turned out substandard: some of the restored slate roofs failed, walls deformed, restored wooden balconies and windows didn't correspond to the standards of a CH monument.

A new SP was then prepared to complete the Project's interventions in Dartlo. Designs are in full agreement with the requirement of the National Agency of Monument Protection and the international standards of restoration and conservation of monuments.

The SP envisages rearranging of roofing for 34 houses, replacing wooden support rafters, arranging/restoring and reconstructing of balconies. Timber and slate stone will be used as a material.

(A) IMPACT IDENTIFICATION

Has the subproject a tangible impact on the environment?	The SP has tangible positive impact on social and CH environment
What are the significant beneficial and adverse environmental effects of the subproject?	The SP envisages rehabilitation of historical village Dartlo and will lead to the increased tourist flows, which will have positive social impact by improving employment opportunities. The SP will have positive impact on cultural heritage of Village Dartlo through restoration and conservation of CH monuments. The expected negative environmental and social impacts are likely to be minimal, short term and typical for small to medium scale rehabilitation/reconstruction works on CH sites: noise, dust, vibration, and emissions from the operation of construction machinery; generation of construction waste, and restriction of the real estate use by villagers during the construction season.

	Use of irrelevant construction techniques and materials may cause loss of the historical value of the individual buildings and the village in general, as well as damage its unique aesthetic features. Increased tourist flows may have indirect negative environmental impacts: waste generation, fires
Does the subproject have any significant potential impact on the local or affected communities?	No land take is expected. The SP is designed to exclude any permanent resettlement impact and physical relocation of affected households. In accordance with the Resettlement Action Plan, any relations with the owners of the existing structures and buildings will be regulated, during implementation of rehabilitation works the population will live in winter houses. The long term social impact: improvement of local population living conditions in summer season and growth of tourist flow. Most of the residential houses, buildings of warship, community buildings, and towers are currently unstable and under a high risk of structural damage. Vibration and upheaval by heavy equipment (bulldozer) may damage historical buildings.
What impact has the subproject on the human health?	No impact is likely at the construction phase, because the village is not used as a permanent residence and real estate owners are not expected to stay in Daratlo during rehabilitation works. Indirect impact of increased tourist flows could be an increase of sexually transmitted and other infectious diseases.

(B) MITIGATION MEASURES

What alternatives to the subproject design have been considered and what mitigation measures are proposed?	Given that the SP envisages rehabilitation of the existing infrastructure, there was an alternative option of providing potable water supply to the buildings, but it got discarded as the SP cannot provide entire system of water supply and waste

	water collection. Also, the risk of damaging historic buildings in case of leaks is tremendous.
What lessons from the previous similar subprojects have been incorporated into the project design?	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.
Have concerned communities been involved and have their interests and knowledge been adequately taken into consideration in subproject preparation?	Due to extreme weather conditions the owners of these houses live there only in summer. Population of Akhmeta Municipality and property owners of Dartlo village were informed about the upcoming plans of restoration / rehabilitation of houses and arranging them for tourists. SP idea generated positive reaction of the beneficiaries. Documentary permit was obtained on July 11, 2014 with the support (participation) of Akhmeta municipality. Public hearing of the Environmental Review (ER) including EMP prepared for the SP was held in village Zemo Alvani,of Akhmeta Municipality prior to the commencement of construction works on April 17, 2015.

(D) CATEGORIZATION AND CONCLUSION

Based on the screening outcomes,
subproject is classified as environmental Category

- A ☐
- B ☒
- C ☐

Conclusion of the environmental screening:

1. Sub-project is declined ☐
2. Subproject is accepted ☒

If accepted, and based on risk assessment, subproject preparation requires:

- ✓ Completion of the Environmental Management Checklist for Small Construction and Rehabilitation Activities ☐
- ✓ 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)	√	
2	Will the sub-project reduce people's access to their economic resources, such as land, pasture, water, public services, sites of common public use or other resources that they depend on?	√	
3	Will the sub-project result in resettlement of individuals or families or require the acquisition of land (public or private, temporarily or permanently) for its development?		√
4	Will the project result in the temporary or permanent loss of crops, fruit trees and household infra-structure (such as ancillary facilities, fence, canal, granaries, outside toilets and kitchens, etc.)?		√
If answer to any above question (except question 1) is "Yes", then OP/BP 4.12 Involuntary Resettlement is applicable and mitigation measures should follow this OP/BP 4.12 and the **Resettlement Policy Framework**			

ENVIRONMENTAL ASSESSMENT

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 proceeds of RDP.

Present SP aims at restoration and conservation of residential houses in a heritage village Dartlo. This SP has been under implementation previous year, however the design as well as the physical outcome of works undertaken turned out deficient. Design documents have been re-worked since then. The SP will fix shortcomings of works performed at the first stage, and will restore and conserve additional buildings according to new designs.

1.2. The Municipal Development Fund as Implementing Agency

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 Review (ER) 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).

1.3. Brief Information on Proposed Subproject

Current and future work plans: The planned village restoration includes conservation/restoration of historic buildings thus contributing to the preservation of the cultural heritage of Tusheti.

Works to be undertaken on the selected residential houses of Dartlo include:

1. Construction of walls using slate;
2. Installation of wooden windows and doors; arrangement of columns, trusses, beams, handrails, wall-plates;
3. Arrangement of roofing;

4. Installation of door and window butts and lock hangers, similar to old ones.

The corrected SP aims to improve stability and quality of conservation worksof the buildings rehabilitated in 2013 and carry out rehabilitation/reconstruction works that have not been covered by the previous SP (the restored wooden balconies and windows don't comply with the standards of cultural heritage monument, walls of some buildings curved due to improper state laying, slate house roof failed

- Dismantling of wrongly restored roofing; partial replacement of deformed wall segments;
- Removal of the existing doors and window frames with the purpose of reconstruction or replacement (if necessary);
- Replacement of boarded balcony railings with heart-shaped ones;
- Removal of ceiling boarding and other visible structures with the purpose of improving processing quality;
- Removal of wood structures and elements of roofing and replacement with the traditional ones with protrusion appropriate to slate tiles and roof slope;
- Restoration/strengthening and (if required) rearranging of the non-stabile walls;
- Arranging floors with wooden material or natural stone.

Key Stakeholders

Grant Recipient/ Borrower:	Government of Georgia represented by the Ministry of Finance
Local Representation:	Municipality of Akhmeta; the owners of buildings and structures
Sources of Funding/ Financing:	Word Bank (WB) and Municipal Government (MG)/Government of Georgia (GOG)
Implementing Agency:	MDF

Financial Arrangements

The estimated SP costs for restoration of buildings in village Dartlo are 1235669.45 GEL

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 the funding of the restoration of buildings and arrangement of tourist zone in Village Dartlo between MDF and the Akhmeta Municipal Government (MG) .

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.

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

According to the above mentioned safeguard policies, and the Environmental Management Framework (EMF) adopted for the RDP, the SP has been classified as B(+) category and requires preparation of Environmental Review (ER) and environmental Management Plan (EMP) as well as of a Resettlement Action Plan (RAP), in complains with recommendations of the Strategic Environmental, Cultural Heritage, and Social Assessment (SECHSA), EMF and the Resettlement Policy Framework (RPF).

The SP has been adopted by the local municipality Sakrebulo.

3. Subproject Description

The SP envisages rehabilitation of 34 buildings (reconstruction of not properly rehabilitated 22 buildings in 2013 and rehabilitation of 12 additional buildings.

The re-designed SP aims to improve the construction quality of buildings rehabilitated in 2013 and carry out rehabilitation works that have not been covered by the previous SP.

In particular:

- Dismantling of roofing (old and not proper restored); partial replacement of deformed wall segments;
- Removal of the existing doors and window frames with the purpose of reconstruction or replacement (if necessary);
- Replacement of boarded balcony railings with heart-shaped ones;
- Removal of ceiling boarding and other visible structures with the purpose of improving processing quality;
- Removal of wood structures and elements of roofing and replacement with the traditional ones with protrusion appropriate to slate tiles and roof slope;
- Restoration/strengthening and (if required) rearranging of the dangerous walls;
- Arranging floors with wooden material or natural stone.

The main volumes of construction works:

1	Arrangement of columns, trussing, beams, railings, rafter plates with unbanked coniferous round wood	120 m^3
2	Various type woodworks with sawed coniferous woods	90 m^3
3	Walling with shale extracted in the quarry	150 m^3
4	Arrangement of roof decking by using 3-5cm shale traditional for Tusheti Region (desired size 40-60 cm)	150/3700 m^3/m^2
5	Arrangement of waterproofing under the decking	7400 m^2
6	Installation of woven twig bed under the roof	3000 m^2

	decking	
7	Arrangement of insulation with ruberoid for the living area and attic inter-floor covering	1400 m^2
8	Plastering walls and thermal insulation for the attic with local clay soil	90 m^3
9	Fixing shale of the roof decking with D = 6 mm, 12 cm bolts, lead gasket and rustless iron collar	3000 pieces
10	Installation of 4 mm glass in the window sashes	50 m^2
11	Installation of butts on the doors (analogues of the old ones)	100 pairs
12	Installation of the door padlock fastener (analogue of the old one)	60 sets
13	Installation of butts on the windows and shutters (analogues of the old ones)	160 pairs
14	Installation of the window catches (analogues of the old ones)	100 pieces
15	Installation of the shutter padlock fastener (analogue of the old one)	50 pieces

The works may be executed within the ward construction season between June and October and this needs to be reflected in the term of a contract for the provision of works.

Approximate duration of the SP – 15 months from signing of the contract.

4. Baseline Environmental Conditions

Location and population

Akhmeta municipality is located in the north-east part of Georgia, bordered by Dagestani Republic and Telavi Municipality from the east, Sagarejo and Telavi Municipalities from the south, Dusheti and Tianeti Municiplaities from the west and Republic of Chechen-Ingush from the north.

The most of the municipality's territory is presented with a hilly relief. The slopes of Caucasian Mountains make up the Northern and the central part of the municipality. The municipality area is 2583 sq. km that is the 3.1% of the whole territory of Georgia.

Population of Kakheti and Akhmeta in 2001-2011.Thousand men (as of 1st January)[1]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Kakheti	**410,2**	**407,2**	**403,8**	**401,3**	**399,9**	**404,8**	**403,6**	**401,9**	**401,4**	**404,5**	**406,2**
Akhmeta municipality	59,8	59,2	58,7	58,3	58,4	58,8	58,8	58,7	59,0	59,4	59,8

[1]National Service of Statistics of Georgia

Tusheti is located on the northern slopes of the Greater Caucasus Mountains. The elevation of Tusheti from the sea level is 1650-4493 meters, the region occupies about 896 square kilometers of area and has the shape of an irregular pentahedral depression, with its southern-eastern axis reaching 40 km in length and 25 km in width. The climate is cold here and belongs to Apline Climatic Zone. Average annual temperature is 5°C (average temperature in July is about 13-15°C). Annual precipitation amounts to approximately 450-900 mm and the precipitation mainly falls as snow.

One of the beautiful villages in Tusheti is Dartlo (2300 meters above sea level). Village is located in Akhmeta region in Dusheti on the left bank of the river Didkhevi. The distance from Akhmeta to Dartlo is 102 km. No one lives permanently in the village.

This village, like whole Tusheti region, is remarkable for the extraordinary beauty of its alpine landscapes and represents greatest importance as a habitat of numerous rare and endemic animal and vegetative species.

Vegetation

The vegetation of Tusheti is characterized by a high level of endemism. 230 representatives of domestic flora are endemic to Caucasus (more than 20% of total amount of Caucasus endemic species) and 11 species are endemic to Georgia.

Among endemic species found in Tusheti Strict Nature Reserve and Tusheti National Park the following can be distinguished: Tushetian Monkshood*(Aconitum tuscheticum)*, Iberiaarberry *(Berberisiberica)*, bellflower*(Campanula)*, bearnuttree *(Corylusiberica)*, lily *(Pancratium)*, Tushetian. Dog-rose *(Rosa tuschetica)*, Tebulo's buttercup *(Ranunculus tebulosus), et al.* Some endemic species to Caucasus can be found here, such as: Black or Radde's birch *(Betula raddeana)*, Caucasian fritillaries*(Fritillaria caucasica)*, yellow Caucasian fritillaries *(Fritillaria lutea)*, Juliana Primrose *(Primula juliae)*, Caucasian rhododendron *(Rhododendron caucasicum)*, squill *(Scilla arborea), et al.*

Fauna

60 species of mammals, about 120 species of birds, 4 - of reptiles, 6 - of amphibians and 1 species of fish are widespread in Tusheti.

These weathered slopes of Caucasus and inaccessible cliffs are the homeland of the East Caucasian tur, chamois and Bezoar goat. Another Caucasian endemic species – the Caucasian Snowcock, is a neighbor of tur. One more beauty of nature – Caucasian Black grouse lives in the Caucasian rhododendron shrubs and birch groves.

Among large ungulate animals Roe deer can be often found in the forests of Tusheti and very rarely – Red deer. Wild boar regularly visits Tusheti from neighboring Dagesta

Brief description of hydrographical network

The town of Akhmeta is situated on the intersection of three rivers: the Alazani, the Ilto and the Orvili.

The rivers of Tusheti (Alazani, Ilto and Orvili) are rich in River trout *(Salmo trutta fario).* According to the present data, four species of reptiles are found in Tusheti, they are: Smooth snake *(Coronella austriaca), G*rass-snake (*Natrix natrix*), Dice snake(*Natrix tesselata)* and the Transcaucasian ratsnake (*Elaphe hohnackeri*), also there are found six species of amphibians: the Green Hoptoad (*Bufo viridis*), Caucasian Hoptoad (*Bufo verrucossimus*), Asia Minor frog (*Rana macronemis*), Common Tree-frog (*Hyla arborea*), Caucasian Mud-diver (*Peodytes caucasicus*) and a Pond frog (*Rana ridibunda*).
Every village of Tusheti is a historical monument in itself. There are monuments of cultural and economic value: summer dwellings and their adjacent territories in the gorges of Kvakhidistskali, Larovanistskali, upper stream of Gometsati's Alazani and Tsovatistskal

History and Culture

The first known information about Tusheti's history comes from the 3rd century BC, during the reign of King Parnavaz. Ptolemaos, a Greek geographer from the 2nd century AD, provided the first known written information about the tribes – known as the "Tus-Koi" - living in the Caucasus Mountains. According to artifacts found during the dig, the region was settled as early as the Bronze Age. Ruins from pre- and early Christian fortresses, burial mounds, cultural sites and homes were discovered here. Archeologists have also found burial mounds with jewelry, copper and ceramic dishes, weapons, horse decorations, and household and ritual items.

Some important facts from the reality of Tusheti past and present have to be taken into consideration:

A) Mixture of Orthodox Christian & Pagan believes:

During the 4th century AD, Tusheti was a hideout for mountainous pagans fighting against Christianization. According to local legend, the region has always been a safe haven for people on the run – either from enemies during war time or nobles during peace. By the 9th century the Tushi population converted to Christianity and had established close ties to the rest of Georgia, especially Kakheti. Although Tusheti had close contact with the other parts of Georgia, it developed differently. For example, during the medieval ages feudalism did not reach Tusheti. During long winter seasons the region was partly isolated. Several reasons determined the mixture of Christianity and rare elements of pagan customs in reality of Tusheti. Places of worship for the Tushi are known as "Icons and Crosses", where shrines for their protective deity were housed in stone structures. These sacred spaces are shaped like a square, with a small entrance from one side. Together with the sacred building, there are small huts for prayers, a cellar and a brewery. Sometimes the shrine is decorated with horns of deer and Caucasian goats. Each of the shrines is dedicated to a different deity. There are number of stories about the worshiping places of Tusheti. All of the worshiping places still have their own importance.

B) Some periods of development in Tusheti are still unknown, although it is a fact that for centuries the population was divided into clan-communities. This form of the social hierarchy was satisfactory for a people living without a central leader or government. However this type of leadership is only realistic if there are no conflicts in society, since public opinion is the only real form of influence and people depended on their neighbors to

keep their word and fulfill promises. In this society, all men had equal rights and freedoms. Preference was given to intelligence, experience, compassion, oratory skills and courage, with power being passed through the generations of clans gradually. The region has withstood many wars during their violent history but the people's spirit has never been broken. Still nowadays people respect fairness, honesty and integrity. These characteristic features should be taken into account while negotiating or discussing important issues to community. All initiators of all projects related to Tusheti have to avoid disintegration of community identity.

C) Architectural value / Dartlo Fortresses:

Dartlo's vernacular architecture in general and fortress-like residential buildings in particular represents special interest in terms of their unique and distinctive architectural forms. The vernacular architecture is completely preserved in architectural forms, materials, location and other necessary attributes.

Dartlo has fortresses and towers dating back to the Middle Ages. Due to constant war with the neighboring Caucasian tribes, these fortresses and can only be accessed by narrow paths.

Dartlo, Girevi, Chesho and Parsma towers are the most significant in terms of architecture. These are family or village towers, serving as important hideouts during enemy attacks.

Houses of the village are very close to each other, for self-defense. Entrance doors to the houses are low and inconvenient, but specially planned to make it difficult for the enemy to enter the house fighting. The rough and rugged terrain dictated how the settlers built their homes; houses were constructed using a dry layer of schist, without any basements.

First floor, used for housing cattle, is called "Bashte;" the second floor was used as a living space for the family and had a fireplace in the middle. This floor is called "the middle". The third floor is "Zedashua", also meant for the members of the family. The fourth floor is called "Cherkho", is a closed room with balconies built on the sides.

Along the outskirts of the villages, there used to be stone seats – "Saprindao" and "Sabcheo", where the village leaders would gather and discuss important issues concerning the village. Places in Dartlo that are highly important to keep untouched during constraction works: 1. "Sabcheo" of Dartlo, which is located nearby the village and consists of 12 stone chairs as a circle shape; 2. The vaults on a right bank of river. These vaults are some kind of memory for those who has gone during epidemics. 3. Towers & historical houses to be kept intact. Only conservation and slight rehabilitation is recommended. Savage and water-pipe system which is not typical for such old buildings, reconstraction of these buildings to guesthouses, will destroy this cultural heritage, especially when there is not clear way of management and maintenance of village Dartlo.

D) One of the treasures of Tusheti is the local cuisine, known for its diversity, environmentally clean products and talented chefs; in Tusheti both the men and the women prepare food. The population produces cheese from the milk of the local sheep, known throughout Georgia for its quality. It is 35.88% cream. Cuisine of Tusheti and unique cheese can be considered as one of the highlights supporting rural tourism development in Dartlo / Tusheti.

E) Folk Traditions

The people of Tusheti work very hard. For centuries they built towers and bridges, made beautiful rugs, nags - a decorated bag used while traveling by horse - and colored socks, and Nabadi coat and hats from felt. They also wrote poems and songs, which were passed from one generation to another.

During their migratory life in the 13-14 centuries, the people of Tusheti produced a "Tushi sheep" as a result of selection process, in full compliance with their rugged climate and terrain. These sheep are able to walk long distances and provide high quality wool, which is later processed and rugs and socks are made.

The population prides itself on its wool production, which is still done, by women, according to the old customs which produce little waste. The wool is used to make rugs that are famous throughout the country for their unique colors and designs. Women use natural dyes and the rugs are sewn in cross patterns, although various geometrical figures, animals and birds are also used. The wool is also used to make Tusheti hats, a wool cap that warriors traditionally wore under their helmets for further protection during battles. In families these hats were made by the women, while they were produced by workshops in the lowlands.

Sheep traditionally have played a major role in the Tusheti economy and most men work as shepherds. However there are also crops like barley and wheat. Handicraft production is valuable addition to community's income from tourists and visitors.

F) A significant part of life in Tusheti is dedicated to entertainment and recreation. By tradition, the year – and its holidays – are strictly managed according to a very unique calendar that dictates when people must work and when they can rest. According to a set calendar, which is calculated after Easter; the cycle of festivities begins in the villages 100 days after Easter. Just like their ancestors, locals hold celebrations, brew beer and prepare a lot of food. Celebrations in Tusheti start with a prayer, and then there is a horse-riding competition, where winners are given flags and sheep as a prize. Celebrations close with songs and dances accompanied by the accordion.

Celebrations of Tushi people are great festivals, combined with colorful rituals.
Tourists are always welcome to attend or participate in local festivals. These dynamic festivals often are key reasons for tourists to travel to Tusheti. But it should be special limits while constructing or developing new infrastructure to keep alive this "fragile land".

5. Analysis of Potential Impacts

5.1. Construction Phase

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 an increase of AIDS risks is not envisaged.
- **Resettlement Issues.** None of the families in the village of Dartlo stay in the village throughout the year. The village is a historical resort area for population of the nearest settlements and tourists. The owners of Dartlo houses visit the village only in summer,

however construction works may be undertaken also only in the summer season. The owners of houses provided consent for restricted access during the season within which the restoration works will be ongoing based on an agreed upon material compensation, which is part of the Resettlement Action Plan.

- **Positive impact related to Job opportunities for construction workers.** Limited and temporary.
- **Traffic Disruption**. There is no internal traffic in Dartlo. The main road leading to Tusheti and the local road to Dartlo may be impacted depending on the volumes of construction material to be delivered and the location from where it shall be delivered. The contractor will be responsible for the arrangements for keeping traffic disruption to the possible minimum. Due to complexity of landscape and challenging nature of driving through Tusheti, special attention shall be given to technical condition of all types of vehicles (trucks, construction machinery, etc.) to be used during works in Tusheti. Horses and such other transport might be required for the transportation of construction materials from carrier and highway to the site.
- **Safety and Access**. There will be reduced access to areas adjacent to rehabilitation and potential hazards to vehicles and pedestrians during rehabilitation downtime.
- **Impact on cultural heritage**. All residential houses, buildings of worship, community buildings and towers are under high risk of damage & break. There is a risk that shakes and upheaval by heavy equipment (bulldozer) will damage historical buildings.
- **During construction works visitation access will be restricted or suspended**. Limited and temporary.

Rehabilitation of Dartlo and development of tourist circuits is related to construction/rehabilitation of the tourist infrastructure in rural areas or within the natural landscapes adjacent to rural areas. The set of non-specific and specific impacts:

Possible specific impacts related:

- **Reconstruction/rehabilitation of houses** and change of facade architecture is related to involuntary intervention within private residential space. Improvement of the architectural features generally is perceived as positive impact increasing real estate value of affected buildings. However, in some particular cases, the attitude of the owners of apartments may be negative especially cases when private houses are affected. The owners may be reluctant to changing of traditional features of their house. Any case, consultations with the affected households is crucially important. At this stage the project does not envisage demolishing of any residential buildings. In case the detailed design will require dismantling of some buildings owned by private persons or entities, the WB Safeguard Policy on Involuntary Resettlement (OP/BP 4.12) will be triggered and relevant procedures should be applied.
- **Rehabilitation of residential houses** will have also a component of impact, which is of temporary character: disturbance of residents caused by dust, noise, limitations of access and increased safety risks. These temporary impacts require adequate mitigation, in certain cases – compensation and in all cases, - meaningful consultation with the affected households. Some of the affected households may choose to live in

temporary dwelling premises for the period of rehabilitation works (in a safe and undisturbed conditions) and in that case, compensation of their additional expenses related to the temporary change of residential place is required.

- **Conservation-restoration of historical buildings and monuments** by definition is aimed on preservation of cultural heritage. However, improper planning and design, misbalance between reconstruction/restoration and preservation/conservation strategies may lead to unacceptable changes of materials/features and diminishing of the cultural heritage value of the affected monument. All interventions during the conservation-restoration works should be in compliance with the requirements of the Georgian Law on Cultural Heritage and the designs should be approved by the **National Agency for Cultural Heritage Preservation.**

Non-specific[2] possible impacts related:

- Generation of construction waste;
- Noise, emissions and dust generation at the construction sites and material transportation routes;
- Safety on construction site;
- Traffic disruption;
- Damage of existing underground infrastructure and utilities;
- Construction run-off leading to soil/ water pollution
- Exploration of quarries for the needs of construction and finishing material supply
- Footprint on natural landscape in cases, where the new infrastructure is built
- Risks of soil and/or water contamination due to improper waste and hazardous material management, improper vehicle maintenance and fueling operations, fuel leakages etc.
- Damage to natural vegetation
- Disturbance of fauna
- Waste and pollution due to poor sanitation in workers camps
- Specific type of indirect impacts on cultural heritage is related to the cases when unsuitable facilities are constructed and operated near the historical monument, sacred sites, cemeteries, traditional recreational or leisure zone change the perception and “atmosphere” of monument or site, affect traditional way of life and habits of local community.

Construction activities within the historical/cultural zone are always associated with certain risks of physical damaging valuable historical or architectural buildings, monuments or archaeological sites. Excavations in close vicinity with the buildings, vibration related to vehicle operations and heavy equipment may lead to structural damages of historically valuable buildings. Excavations may damage archaeological artifacts. Because of village Dartlo is located nearby the River Didkhevi, indirect impacts on cultural heritage resources may be related to stimulation of erosion processes and changes of hydrological patterns (drainage patterns; local flooding, river bank erosion), as well as triggering local landslides in case of improper design of cuttings and slope benching etc.

[2] Note: under this item we consider only the impacts related to the civil works on infrastructure rehabilitation. Impacts on cultural heritage related to specific conservation/restoration activities focused directly on the monuments

Pollution Related Impacts

Improper handling, storage, use and disposal of construction materials and wastes could pose a risk of water/ 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 (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.)

Extremely small amount of hazardous wastes (e.g. waste oils, oily rags, spent filters, contaminated soil, etc.) constituting about 0.1% of total amount of the wastes.

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

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;

Non Hazardous Construction Wastes

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

- Timber (small amount of removed bushes).
- 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, includes:

- 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 (asbestos board was possibly used in roofing of any houses, that should be removed).

Transport related impacts

- Noise & Vibration Impacts
- Traffic congestion (nuisance)
- Air pollution
- 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.** Potential impact is minimal, because subproject will not require clearing of considerable areas from vegetation, or cutting trees. Given that slopes near Dartlo are prone to erosion, grass cover shall be spared during works to the extent possible. This would imply compact temporary placement of construction materials and waste at the work site, movement of vehicles strictly long the existing earth roads, and quick backfilling of earth upon laying of a water supply pipe.
- **Fauna.** As long as the works are to be carried out inside and in immediate proximity to the village, no direct impact on fauna is expected. One indirect impact may be disruption of animals from excessive noise from the work site, which may be mitigated by keeping machinery in good technical condition, minimizing the use of noisy technological processes, and respecting work hours. Another negative impact may come from pouching. Construction workers must be strictly forbidden from hunting.

- **Landscape.** The project design does not envisage any substantial changes of landscape. The preexisting relief will be reinstated. The only irreversible impact is limited to cutting of small amount of bushes during the headwork and pipeline construction.

5.2. Operation Related Impacts

- Increase of the number of tourists will result in the increased volume of waste;
- Activities such as tours of archaeological sites may conflict with local traditions and/or religious beliefs;
- Influx of tourists may stimulate illegal trade with movable archaeological remains and activities of remain searchers

6. Mitigation Measures

6.1. Construction Phase

General requirements:

The following works are planned for arrangement of the tourism infrastructure regarding monuments of cultural heritage conservation, restoration and restructuration activities are planned to preserve old buildings from further deterioration. Special tourist zone will be arranged for visitors.

Application of the heavy machinery and equipment is prohibited, especially before completion of strengthening works:

1. The machinery should move only along the preliminarily agreed route;
2. The maximum allowed speed will be restricted on the castle adjacent territory;
3. The frequency of movement of the machinery will be restricted;
4. The main works, in particular in the castle area, should be executed without application of the machinery (manually);
5. In the vicinity of the monuments territory, the marginally allowable rates of vibration, noise and emissions will be by 20% decreased of maximum admissible levels of atmospheric air pollution, vibration and noise;

Waste Management

1. Storage of hazardous wastes on the cultural heritage rehabilitation area will be prohibited;
2. Wastes (all kind of) temporary storage areas will be dedicated and permited by the Akhmeta Municipality and approved by Supervising Copany (STEGET);
3. Any construction or municipal wastes produced during rehabilitation stage should be removed from the vicinity of cultural heritage area and stored in dedicated area every day at the end of working hours;
4. Maximaly re-using of wastes (such as wooden, stone, metal) where it is possible;
5. Final transporting of wastes to the Telavi landfill area.

Noise-Related Impact

Noise is one of typical impacts related to the construction activities. The compliance with the environmental requirements is even more significant for the project area due to the considerations regarding the construction activities list to be implemented within the territory of historical monument area, because it will involve the 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.

Contractor construction organization should adopt special measures to receive the appropriate construction permit and achieve agreement with all stakeholder organizations both on cargo transportation.

Mitigation Measures

- The selected movement route of the heavy vehicles should be maximally distances from historical monuments. In exceptional cases the 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 rout of the transport movement during the transportation of inert material and any other construction material 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 the pass of the trucks in the proximity of the historical monuments;
- The contractor organization should develop and submit to the customer the risk factors, their mitigation measures and emergency situation action plan prior to the beginning of the works;
- In case of emergency the measures agreed with the customer should be implemented under the surveillance of the interested organizations and with due regard to their comments;

In case of encountering chance finds during earth works, activity at the work site must immediately cease and the Ministry of Culture and Monument Protection be informed in written.

Pollution Prevention Measures:

<u>Water/Soil Pollution</u>. Specific mitigation measures should be implemented at the construction site for prevention of water and soil pollution:
Prevent operation of vehicles in the watercourses (e.g. unnamed stream near crossing sites) and if there is no alternative, revision of vehicles will be required to ensure that there is no leakage of fuel and lubricating materials.
Contractors will ensure the proper handling of lubricants, fuel and solvents. Fuel and lubricant storage tanks will not be located within 50m of any watercourse, well or dry river bed (first of the entire dry gorge where the water main passes). All tanks will be placed in a bund of at least 110% of the tank's maximum capacity. If more than one tank is stored within the bund, the

system must be capable of storing 110% of the biggest container's capacity or 25% of their total capacity, whichever is greater. The bund will be impermeable (e.g. concrete-lined), without drainage points or other breaches. Accumulated rainwater in bunds will be pumped out of the bund to either drains or the ground if uncontaminated. In case of fuel spillage the spilled fuel should be recollected and contaminated bund treated by the absorbents: sawdust, sand or straw.

All fuel / hydrocarbon dispensing nozzles are to be of a drip control design and securely locked when not in use.

No fuel storage or refuelling of vehicles or equipment will be allowed within 50m of any watercourse, water body, well, dry gorge or within any designated wetland area or aquifer. Vehicles will not be left without supervision during refueling process. All refuelling operations on the working sites will use absorbent pads and/or straw to minimise spills, which will be put in place prior to the commencement of refuelling operations. Ground water and surface water pollution risk will be reduced or eliminated in case of immediate removal of polluted ground. Soiled ground and absorbents will be removed, stored and treated as hazardous waste. In case of significant spill aauthorized and responsible person will be informed, works will be stopped till the elimination of pollution risk Refuelling will always be carried out with the correct equipment (i.e. nozzles of the appropriate size), and only by suitably trained and experienced Refuelling Operators. Fuel supply equipments will be regularly revised to prevent leakage due to inappropriate condition of refueling equipments. Equipment and storages will be isolated and guarded to prevent pollution due to cases of stealing or vandalism..All mobile plant, including but not limited to cranes, compressors, generators, bulldozers, excavators etc. and storage tanks will be maintained and operated such that all leaks and spills of materials will be minimised. Daily plant checks (Vehicle Maintenance Procedure) will be undertaken to ensure no leaks or other problems are apparent. Vehicle maintenance, cleaning, degreasing etc will be undertaken in designated areas of hard-standing, not over made ground. Maintenance points will not be located within 50m of any watercourse, well or dry gorge. The storage of potentially polluting materials, refuelling and maintenance of mobile plant within 50m of all watercourses/water bodies, dry riverbeds and within designated wetlands and aquifers will be prohibited.

Erosion control measures will be applied during construction activities to prevent increased runoff into the watercourses.

Contractor will plan all excavations, topsoil and subsoil storage so as to reduce to a minimum any runoff. Contractors will be required to organize and cover material storage areas and to isolate wash down areas from watercourses by selecting areas that are not free draining into any watercourse.

Where any area of the spread is at risk from silt pollution washing off into a watercourse of water body, effective measures will be put in place to ensure that such pollution does not occur. Such measures may include:

• Use of silt fences
• Use of straw bales to deflect and filter water
• Use of a system of bunds and grips to prevent water from entering watercourses, etc.
• Use of holding/settling lagoons to store water running off the spread. It is intended to use natural

Settling rather than flocculants to facilitate sedimentation following which clean water can be disposed.

Wet cement and/or concrete will not be allowed to enter any watercourse, pond or ditch.

Where the aquifer is directly affected by the works (i.e. the excavation will be through permeable / water-bearing strata), the methodology employed will ensure that no

contamination can enter the aquifer. This may involve the use of impermeable layers being placed in the trench and/or the use of clay stanks (plugs) along the trench.

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.
• Distribute the excess rocks (less than $7m^3$) using it for improving the local unpaved road;
• Transport any further material, if required, to the nearest spoil disposal pit agreed with the local authorities. Spoil disposal pits used for final disposal must meet the requirements for Inert Landfills by the MoENRP.

Waste Handling

Standard types of construction waste will be generated during civil works in and nearby Dartlo village. 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”.

Mitigation Measures

All waste from the construction site will be disposed of in accordance with environmental regulations *(The Laws of Georgia on Environment Protection, Water, Air and Soil Protection, procedures regarding hazardous waste are regulated by the Law on “the transit and import of wastes into and out of the territory of Georgia.". This autumn the adoption of the Waste Management Code is planned, which fully covers all types of waste management related activities) and at approved landfills. Local authorities must take timely arrangements and provide detailed instructions to the contractor pertaining on-site collection and periodic out-transporting of construction waste from Dartlo to the Telavi landfill. Dumping of construction waste to gorges or other natural locations must be prevented through close monitoring of works. Provided that there are no specific hazardous waste disposal facilities in Georgia which could accept oil-polluted materials, used vehicle filters and tires, the national regulations allow disposing them at the municipal landfills. Opportunities for handing over the used automobile lubricants to licensed entities for specialized treatment become increasingly available throughout the country. Hazardous wastes will be disposed/utilized at the nearest permitted landfill in accordance with the relevant rules.

Burning of waste on any construction site is forbidden with the exception of stub and small branches from felled trees and bushes, which is better to be burned in order to avoid pest dissemination.

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 stored 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 arranged with the Construction Manager. Mitigation measures will include:

- Damping down using water bowers with spray bars or other technical means;;
- Sheeting of construction materials and storage piles; and
- Use of defined haulage routes and reductions in vehicle speed where required. Materials will be transported to site in off peak hours.
- Materials transported to site will be covered/ wetted down 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

Such measures will be used, in particular, where human or animal receptors lie within 300m of the ROW

6.2. Operational Phase

Increase of the number of tourists will result in the increased volume of waste.

Mitigation measures:

- Sanitary service of Akhmeta municipality shall workout schedule of waste out-transporting from Dasrtlo to the Akhmeta landfill, and strictly adhere to it. Burning of waste or burial of mixed waste containing plastic, metal, and other non-organic matter must be disallowed**.**
- Established penalty sanctions[3] against littering shall be enforced to discourage pollution. Placement of the containers will have no tangible result, if the penalty sanctions are not imposed and exercised. The effectively implementation of the penalty mechanisms will lead to accelerated achievement of the target.

[3] **"The General Administrative Code of Georgia" Articles 52, 82 and 142**

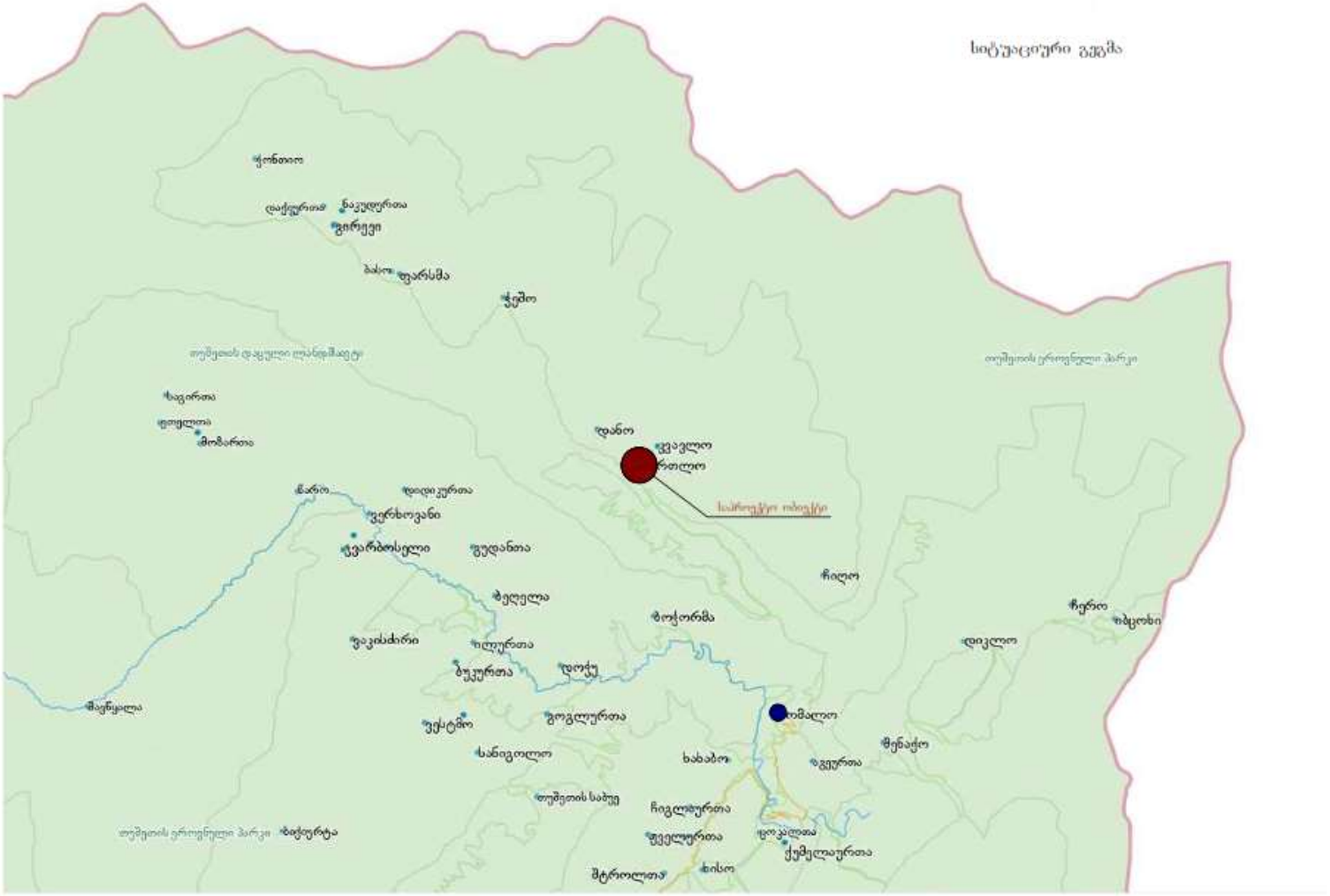
ENVIRONMENTAL MITIGATION AND MONITORING PLAN

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

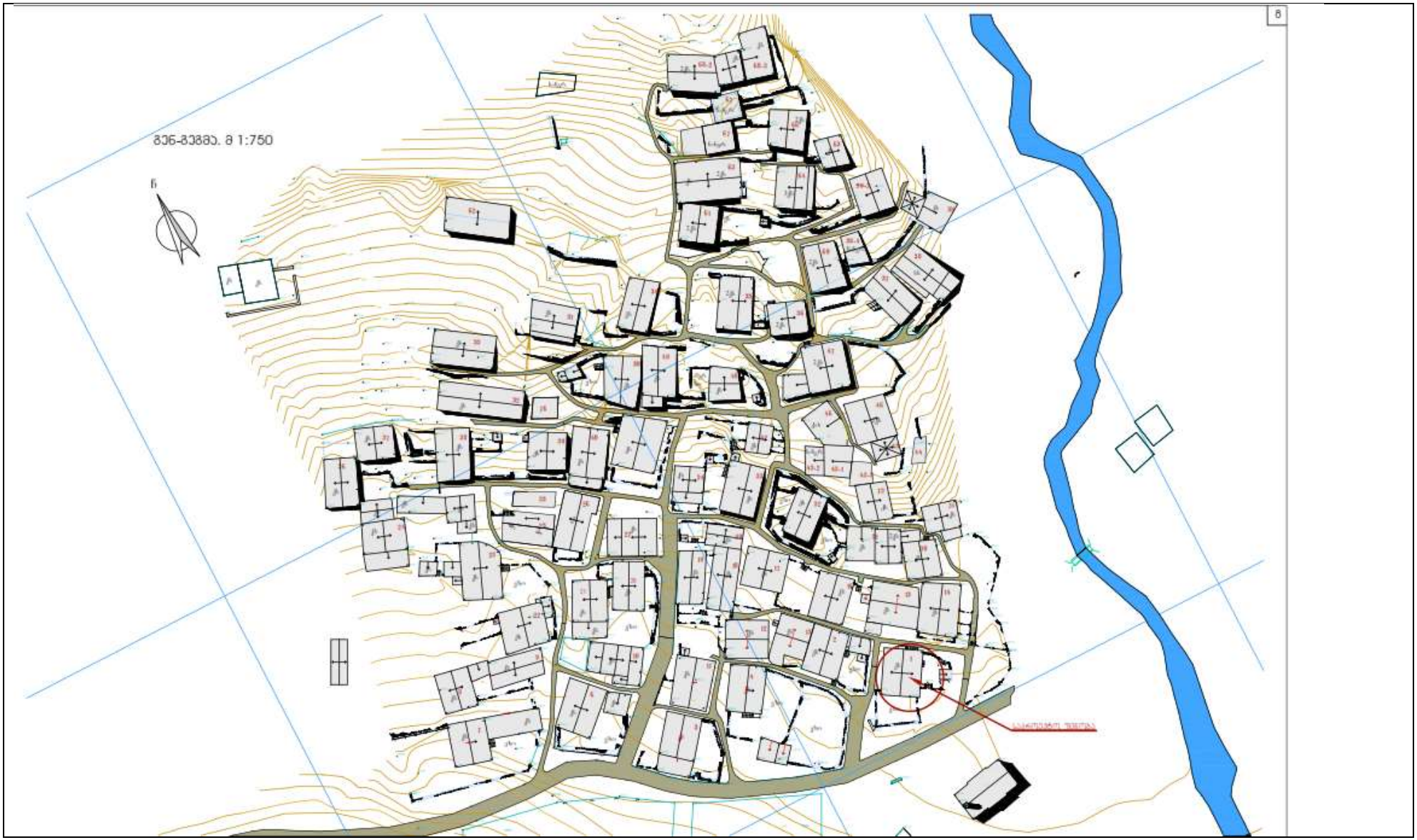
Activity	***What*** *(Is the parameter to be monitored?)*	***Where*** *(Is the parameter to be monitored?)*	***How*** *(Is the parameter to be monitored?)*	***When*** *(Define the frequency / or continuous?)*	***Why*** *(Is the parameter being monitored?)*	***Who*** *(Is responsible for monitoring?)*
Sourcing of inert material	Purchase of material from the existing suppliers if feasible; Obtaining of extraction license by the works contract and strict compliance with the license conditions; Terracing of the borrow area, backfilling to the exploited areas of the borrow site, and landscape harmonization; 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.	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 formally designated locations	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

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?)*
Workers' health and safety	Provision of uniforms and safety gear to workers; Informing of workers and personnel on the personal safety rules and instructions for operating machinery/equipment, and strict compliance with these rules/instructions	Construction site	Inspection	Unannounced inspections in the course of work	Limit occurrence of on-the-job accidents and emergencies	MDF, Construction supervisor
OPERATION PHASE						
Regular operation and maintenance of the site	Good technical condition of houses	village Dartlo	Inspection	Throughout operation of the sites	Prevent damage of CH site	Akhmeta municipality
Increase of the number of tourists	1. increased volume of waste; 2. increased Emissions and noise 3. Protection of CH site from vandalism and littering	village Dartlo	Inspection	Throughout operation of the sites	Prevent damage of CH site	Akhmeta municipality

Attachement 1: map



Attachement 2: General Plan



Attachement 3: Consent letter from Dartlo residents

ახმეტის მუნიციპალიტეტს

"-11-"ივლისი 2014

ჩვენ, ქვემოთ ხელისმომწერნი, ვანიჭებთ ახმეტის მუნიციპალიტეტს უფლებამოსილებას, რომ წარმოადგინოს ჩვენი ინტერესები სსიპ - საქართველოს მუნიციპალური განვითარების ფონდთან ურთიერთობაში, გააფორმოს საინვესტიციო დაფინანსების ხელშეკრულება სოფელ დართლოში მდებარე ჩვენს მფლობელობაში არსებული სახლების რეაბილიტაციის მიზნით და ხელი მოაწეროს სხვა თანმდევ აუცილებელ დოკუმენტაციას, მათ შორის - მიღება-ჩაბარების აქტ(ებ)ს.

აქვე გამოვხატავთ თანხმობას, შესაბამისი სარეაბილიტაციო სამუშაოების განხორციელებაზე, ჩვენთვის საჯაროდ წარმოდგენილი პროექტის, გარემოსდაცვითი შეფასების და მართვის გეგმის შესაბამისად.

#	გვარი, სახელი	პირადი ნომერი	სახლის პირობითი №	საკადასტრო # განცხადების #	პროექტის ფურცლების #	ტელეფონის ნომერი	ხელმოწერა
1	ცაცო ნავგურაიძე	08001018391	1 ✓	50.26.32.075 N 882012340762	24	551386 98	
2	ნოდარ ლეკაიძე	08001019745	5 ✓	50.26.32.056 N 882012321644	27	574-04-03 76	
3	ნინო ნავგურაიძე	08001003457	6 ✓	50.26.32.079 N 882012349368	21	568 4525 17.	
4	ალექსანდრე ლეკაიძე	08001003168	11 ✓	50.26.32.055 N 882012321664	20	551 333 303.	
5	ლუბომი ნავგურაიძე	20001037679	18 ✓	50.26.32.088 N 882012336361	18	593012394 8	

1

22 08 2014

6	მარგო ჭოლიკიძე	08001025336	19	50.26.32.068 N 882012338784	19	577101891 790507436	
7	გვანცა ქიქაიძე	01006009039	24-1, 24-2	50.26.32.087 N 882014242553	44		
8	დოდო გვრიტიშვილი	08001018035				579 15-06-86	
9	ირაკლი ქიქაიძე	08001010540					
10	ბესიკ ელანიძე	08001008069	30	50.26.32.049 N 882012321101	24	599 118993	
11	ვაჟა ლეკაიძე	08001028080	40	50.26.32.052 N 882013635089	29	551 331 304	
12	სულხან იდოიძე	08001001462	47	50.26.32.090 N 882012357001	31	557 98 12 30	
13	ქეთი გესლაიძე	08001029220	54	50.26.32.082 N 882012344511	30	598 00 61 44	
14	ბესიკ ელანიძე	08001008069	55	50.26.32.041 N 882012321092	31	595 303111	
15	ეკვთიმე ელანიძე	08001031116					
16	ბესიკ ელანიძე	08001008069	56	50.26.32.050 N 882012321102	24	599 118993	
17	მარინა შანქიშვილი	01032004432	59	50.26.32.019 N 882010649304	26		
18	ჯარჯი იდოიძე	08601039865	60	50.26.32.081 N 882012352337	16	551 198649	

2

19	სულხან ფარეულიძე	08001006675	73	50.26.32.053 N 882012322152	20	593 98 3880	
20	აკაკი ელანიძე	08001016762	31; 31-1	50.26.32.078 N 882012321678	23	593609638	
21	ცინარი ბიღოიძე	20001033559	32	50.26.32.063 N 882012337046	24	[illegible]	
22	გივი ნეკერაული	20001008783	53	50.26.32.065 N 882012340730	53	56864 3183	
23	ნინო ხახიძე	08001023307	14	50.26.32.051 N 882012321126	22	[illegible]	

Attachment 4: Pictures

Attachment 5: Minutes of Public Consultation Meeting

April 17, 2015
Village upper Alvani, Akhmeta Municipality, Georgia

Minutes of Public Consultation Meeting

Regional Development Project
Restoration of buildings and creating of tourism area in Village Dartlo (Phase 2)

Public hearing of Environmental and Social Review and Environmental Management Plan of the Subproject

Agenda:

- Introduction of Akhmeta municipality representative, assigned by the municipality Government for coordination with society Dartlo community regarding SP issues.
- Introduction of buildings' restoration projects to the village Dartlo community.
- Presentation of Environmental and Social Review and Environmental Management Plan of the Subproject.
- Discussion of Dartlo SP Resettlement Action Plan (RAP) implementation procedures.

On April 17of 2015 a public consultation was held in village Zemo Alvani, Akhmeta Municipality. The meeting aimed to inform Village Dartlo community about planned activities under SP "Restoration of buildings and creating of tourism area in Village Dartlo" and discussion of expected environmental and social impacts related to the SP implementation and measures to avoid or mitigate these impacts.
Those present at the meeting:
Representatives of the Akhmeta Municipality Governor's office:
Zaza Lagazidze - Representative o Akhmeta municipality government
Representatives of the local communities:
Vano Chabukaidze, Tristan Nekerchkheli, Tsinari Bigoidze, Zurabi Khvedegadze, Davit Tsadzikidze, Keti Geslaidze, Eteri Ashadze, Margo Cholikidze, Tamar Khachidze, Tsatso Navguraidze, Vazha Lekaidze, Giorgi Ramazashvili, Tariel Dekaidze, Aleksandzre Lekaidze, Sulkhan Phareulidze, Vazha Guzarauli, Lasha Nekerauli, Irakli Elanidze, Natela Nuguraidze, Sergo Meltsaidze, Gogi Gogotidze, Bidzina Lekaidze, Giorgi Phareulidze.

Representatives of the Municipal Development Fund of Georgia:

Nino Patarashvili – Environmental Safety Specialsit
Tamar Kardava – Beneficiary Relations Specialist
David Baindurashvili – Resettlement Specialist
Juna Shvelidze – Architect
Juansher Sikharulidze – Program Coordinator
Elguja Kvantchilashvili - Resettlement Specialist
David Bakhsoliani - Resettlement Specialist

The meeting was opened by Zaza Lagazidze. He introduced public himself and informed about his role within the SP. He explained that he is the representative of the Akhmeta Municipality government, which has been assigned as an intermediary among the village Dartlo society, Akhmeta municipality government and other stakeholder, under the SP. Then he presented his contact information to the public and explained, that he can be contacted for any SP related issues.

J. Sikharulidze informed public about aims of the meeting and briefed about the planned actives under the SP in village Dartlo. Then he introduced the Agenda of the meeting. He noted that project is implemented by MDFG with WB support and introduced representative of MDF to public.

Juna Shvelidze continued the meeting and discussed construction permit procedures required for rehabilitation works of 34 houses which are planned to be restored in 2015.

He presented information to the owners of village Dartlo houses regarding planned restoration works. Then he handed over the hard copies of buildings' projects to the property owners to get acquainted, and explained, GMDF gives them the time and opportunity for designs' review and expression of their ideas and requirements during one week.

Then Nino Patarashvili presented to the audience Natural and Social Environmental Review and environmental Management Plan prepared for the Sub-Project. She explained to the public social and environmental screening procedures applied for the WB funded SPs and environmental and social requirements of the presented SP. She discussed works planned under the Sub-project, social and environmental impacts expected as a result the SP activities and measures for mitigation or prevention of anticipated adverse impacts of the SP. she talked about procedures for EMP implementation, its implementation monitoring and reporting about environmental and social compliances; waste management issues as well. She briefly noted that EMP forms an integral part of the contract signed with the civil works contractor and that the contractor is responsible for performance of mitigation measures envisaged under the EMP and protection of social and natural environment. N. Patarashvili informed the participants about the contact persons to be communicated by the community in case of existence of any complaints concerning environmental or social issues.

Thereafter resettlement specialist - David Baindurashvili continued the presentation, who discussed the issues related to temporary resettlement, procedures of RAP implementation and issuance of compensations. The head of Construction Company was

requested to present the list of houses that will be affected in the current year. Company representative asked for reasonable time to provide MDF with the list.
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 questions:

Questions and remarks	**Answers and comments**
Will be given the employment opportunities to the local population?	In general, preference from construction companies is given to the locals to be hired for implementation of construction works. As houses in village Dartlo have specific architectural peculiarity and locals are more familiar with these specifics, the local population will have more opportunity of employment in case of having appropriate qualification. The specialists with the requisite knowledge and experience of operating the construction machinery will be employed from the construction company staff.
As you know the first design of the projects envisaged arrangement of bathrooms and WCs for the houses. There was arranged spaces for bathrooms and WCs inside some of the already rehabilitated houses. Please provide information that current designs include arrangement of such spaces, or demolition of already arranged spaces.	No arrangement of bathrooms and WCs for the houses are envisaged under the designs. As for the spaces that are already arranged within the previous restoration works, they will not be destroyed and the residents can use them as an additional storage area or due to their desire.
How compensations will be provided?	In compliance with RAP compensation envisages on time full amount payments for the houses to be restored under the SP in 2015-2016

At the end of meeting, the audience expressed their positive attitude towards the project and their hope that the rehabilitation project will be finished timely and it will promote development of tourism in the village and in the entire region.

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

Minutes prepared by Nino Patarashvili, MDF Environmental Safety Specialist.

April 17, 2015

Photos

List of Participants

რეგიონული განვითარების პროექტი

ქვე-პროექტის - შენობების რესტავრაცია და ტურისტული ზონის მოწყობა სოფ. დარიალოში

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

17 აპრილი 2015 წელი

შეხვედრაზე დამსწრეთა რეგისტრაციის ფურცელი

	სახელი, გვარი	ორგანიზაცია/მოქალაქე	საკონტაქტო ინფორმაცია	ხელმოწერა
1.	[illegible]	[illegible]	555003007	[illegible]
2.	[illegible]	[illegible]		[illegible]
3.	[illegible]	[illegible]		[illegible]
4.	[illegible]			[illegible]
5.	[illegible]	[illegible]		[illegible]
6.	[illegible]	[illegible]		[illegible]
7.	[illegible]	[illegible]	598-00-61-44	[illegible]

19.	[illegible]	[illegible]	593 859245	[illegible]
20.	[illegible]	[illegible]	599172146	[illegible]
21.	[illegible]	[illegible]	592 118536	[illegible]
22.	[illegible]	[illegible]	597970112 599293706	[illegible]
23.	[illegible]	[illegible]	597 112332	[illegible]
24.	[illegible]	[illegible]	599 007016	[illegible]
25.	[illegible]	[illegible]	551 158429	[illegible]
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27.				
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