



FONDI SHQIPTAR I ZHVILLIMIT
ALBANIAN DEVELOPMENT FUND

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

For the “Rehabilitation of Qafa e Pazarit quarter”

Town of Gjirokastra

January, 2018

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INTRODUCTION

This sub-project is an investment identified as part of the investments within the project for “Integrated Urban and Tourism Development in Albania”, funded by the World Bank Group. The project aims to play a critical role to pilot and demonstrate an innovative and integrated approach to implement regional development in line with the new National Territorial Development Strategy.

The subproject will finance the rehabilitation and restoration of cobblestone roads, squares, stairs, pavements, as well as the installation of a fire protection system, a sewage water and rainwater, lighting and communication network in the Qafa e Pazarit quarter, in the center of Gjirokastra town (Figure 1). The technical design for this intervention is prepared by DEA studio, finance by Albanian American Development Fund.



Figure 1: View of Qafa e Pazarit quarter

EXECUTIVE SUMMARY

The sub-project “Rehabilitation of Qafa e Pazarit quarter” is in the framework of the project “Integrated Urban and Tourism Development in Albania”, financed through a Loan Agreement (dated 13.12.2016) signed between IBRD (World Bank Group) and the Government of Albania.

The Albanian Development Fund is the implementing agency, the Ministry of Urban Development is the focal ministry, while partner ministries are: the Ministry of Culture, Ministry of Environment, Ministry of Economy and Tourism Development.

This subproject is located in a cultural protected site, therefore the technical design has been reviewed and approved by the Institute of Cultural Monuments (ICM) as well as ICOMOS (International Council on Monuments and Sites), with no specific conditions.

ICM, which has also consulted the intervention in the area with ICOMOS, recommends that high standards of interventions are maintained as presented in the project and that any substantial change in the project needs to be previously approved from the scientific council and the national council of restorations.

Particular attention is drawn to the need for a close cooperation with the Agency of Archeological Services, as the the work for the improvement of subterranean infrastructure might bring to unexpected archeological findings.

A framework agreement, an investment and a maintenance agreement will be signed between the ADF and the Municipality of Gjirokastra, the beneficiary.

According to World Bank principles, the PIUTD project falls within the category B projects. In regards to environmental and social impacts, this means:

- potential impacts less adverse & more limited, fewer, site-specific, likely reversible than category A projects
- Mitigation measures can be more easily designed/implemented,
- Project content triggers two Bank's Safeguard policies: OP 4.01 Environmental Assessment and OP.4.11 Physical Cultural Resources.
- Environmental and social impacts will be addressed through Environmental

The same applies to the subproject "Rehabilitation of Qafa e Pazarit Quarter"

BACKGROUND

Gjirokastra, in the Drinos river valley in southern Albania, features a series of outstanding two-story houses which were developed in the 17th century. The town also retains a bazaar, an 18th-century mosque and two churches of the same period. Gjirokastra is one of the most important urban centers in the south of Albania.

The city is located Northeast of the Mali i Gjere mountain, which is characterized by a not very dense vegetation (Figure 2,4), allowing the rainwater to run freely toward the city. The city itself is rich in small streams.



Figure 2: View of the mountain "Mali i Gjere" from the city

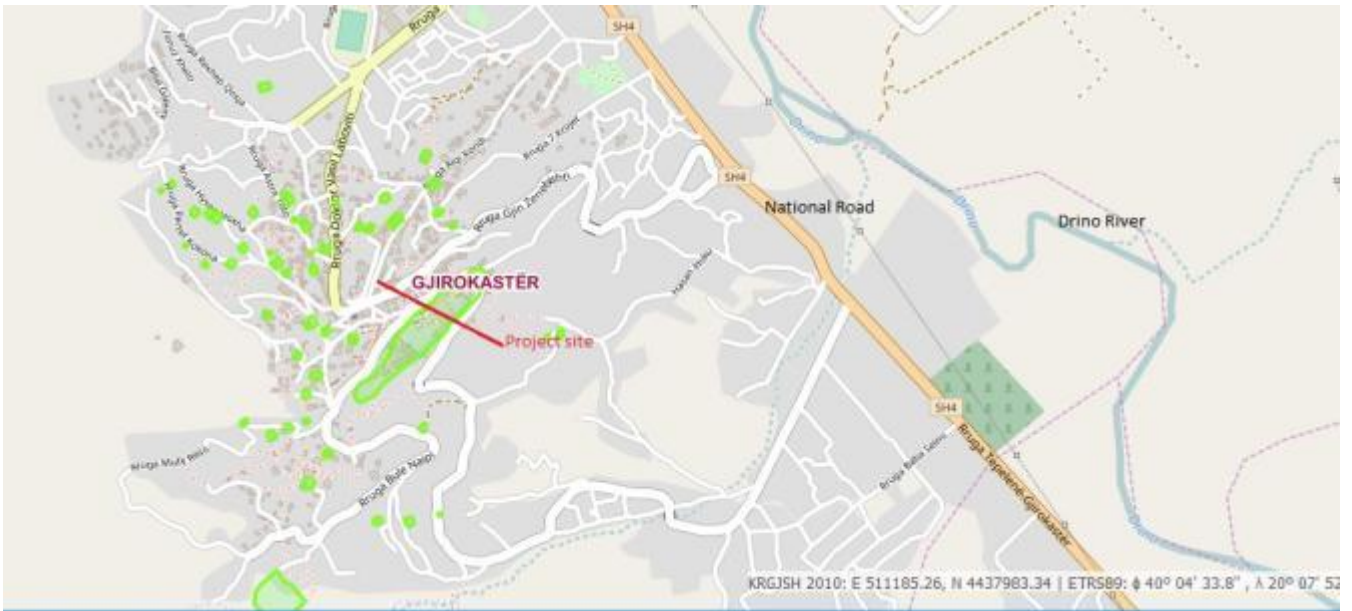


Figure 3: Satellite view of Qafa e Pazarit Quarter



Figure 4: Location of Gjirokastra City in the Albanian territory

The Gjirokastra Castle (Figure 5) is situated above the Qafa e Pazarit Quarter, South-Western side. Its first fortifications were built on the rocky cliff above the city during the 12th and 13th Centuries. Inherited from the communist regime, there is a long tunnel that penetrates the rock the castle is situated on, connecting the northern part of Gjirokaster with the south, which, if managed properly, can be a major tourist attraction.



Figure 5: View of the Gjirokastra castle

In addition, Gjirokastra has a large number of historic houses (Figure 6), most of which are available to visit or serve as bed & breakfasts.



Figure 6: Historic neighborhood in Gjirokastra

Gjirokastra Bazaar is created as a trade-craft complex built between the XVIII – XIX centuries with unique historical, architectural and urban values. It played and still plays an important socioeconomic role for the historical center of Gjirokastra city. Its position in the center of the city, the compositional extensions and architectonic – decorative aspects, give the complex a special significance regarding the types of Bazaars in Albania. The bazaar is a cultural protected monument and is located in the town of Gjirokastra, which was declared a world cultural heritage by UNESCO in July 2005.

The Bazaar has a radial design, which dates back to the XVII century, creating an organic connection between the inhabited areas. From the main road of the Bazaar, four new roads open, each of them serving as a connection with the residential areas.

The old bazaar is still the social and commercial center of the Old Town of Gjirokaster. Though the newer sections of the city have attracted many businesses and people, the bazaar and its surrounding homes dating from the 18th, 19th and early 20th centuries still manage to capture a bit of the bygone era of Gjirokaster life. Several of the houses are at various levels of restoration and are open to the public. Traditional houses include Cabej House, Kadare House, Topulli House, and Skenduli House. From the last century, the cobblestones and pavements in the Qafa e Pazarit quarter have undergone continuous changes and modifications. It is a fact that since years 1970-1980 they have not been restored, causing an average deterioration of the stones (Figure 7).



Figure 7: Current situation in some areas where project intervention will take place

In regards to the existing infrastructure, such as electrical and communication networks, waste water and rainwater systems, these are not up to date with the current touristic development in town and interventions to improve the capacity of such networks are necessary.

The project design, including the technical design of Qafa e Pazarit that will be funded by WBG, has been contracted by the Albanian-American Development Fund, with the Municipality of Gjirokaster as beneficiary. The design has been prepared by the company Dea Studio, in October-December 2016 and revised accordingly since then.

A plan design of the project layout is given in Figure 8.

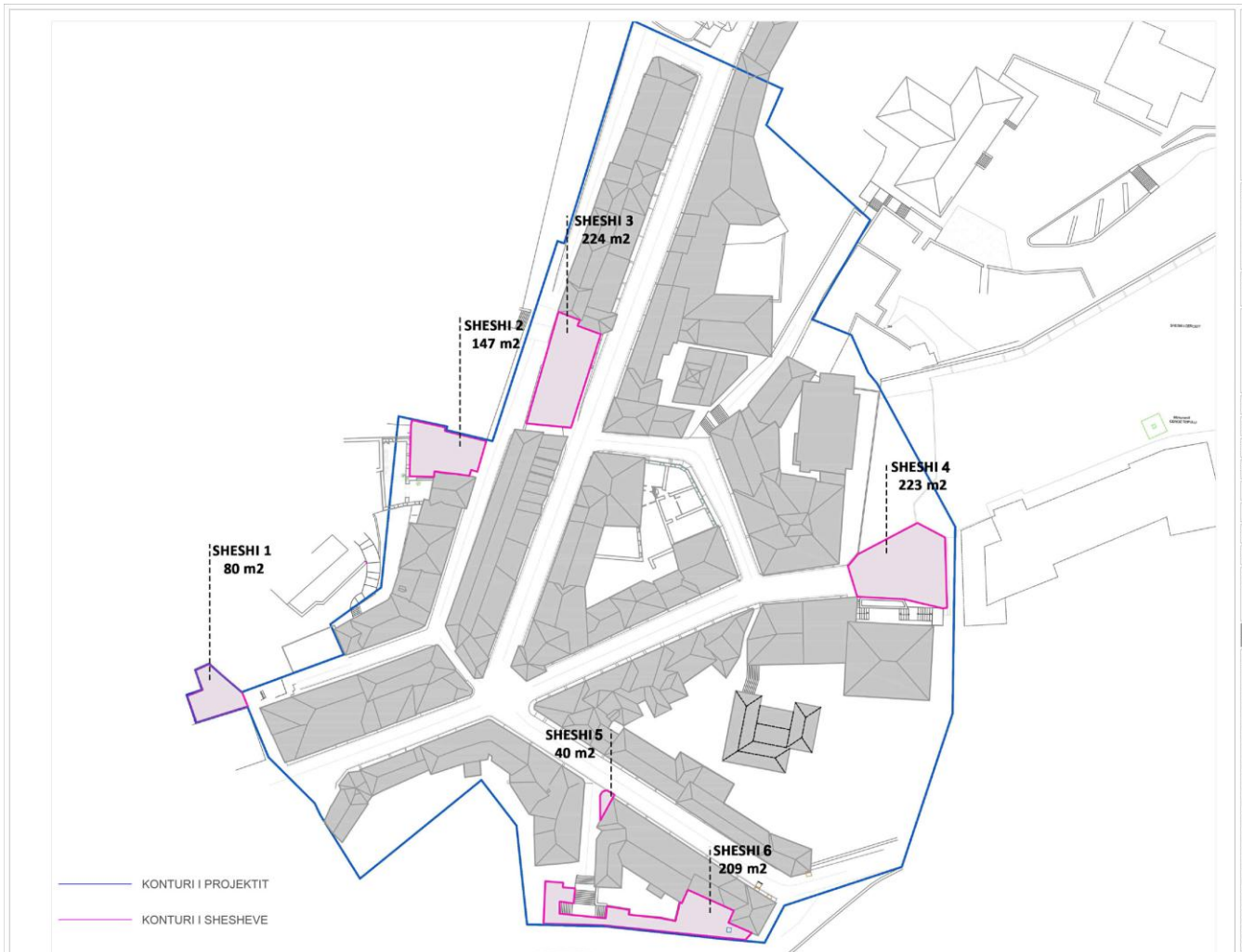


Figure 8: Project design plan

The intervention in the frame of this project consists in:

- Restoration of the existing cobblestone paths, walking pavements, squares and stairs,
- Rehabilitation of engineering networks:
 - Fire protection system
 - Water supply system
 - System for wastewater discharge
 - System for rainwater discharge
- Lighting network and communication infrastructure in the rehabilitated sections

The cobblestones used in the current paths and roads at Qafa e Pazarit quarter have been installed in '70s. The motives created by light grey tiles follow the characteristic motives used in traditional artisan carpets produced in the area. A few interventions, without a clear plan, have been done throughout this period, for restoration of degraded tiles and stones.

Water supply system

The project foresees the installation of water supply pipes on both sides of the roads, in the pavements. The pipes will supply each building with water from the main city supply system. Measuring units will be installed in each building. The connection points of the water supply system will be in the existing main pipe from the water deposits in the castle.

Fire protection system

The project foresees also the fire protection system in parallel with the water supply system, under the pavements. Hydrants are also foreseen to be placed in walls of each building.

System for waste water collection

The project foresees 5 collection points of discharge for waste waters, connected with pipes (Figure 18). 5 discharge collectors and new manholes in accordance with the terrain. The rainwater manholes will have dimensions of 70 x 40 and 100 cm deep. The main lines will be installed in the roads using HDPE pipes.

System for rainwater discharge

The main collectors of the rainwater discharge system will be placed under the road surface, parallel with the pipes for waste water discharge. Rainwater collecting manholes will be installed in the ditch line on both sides of the road. The rainwater collecting pipes will be connected to the town main collectors, where there is a large concrete manholes of 100 diameter.

Lighting and communication lines

The design foresees also the installation of electric panels, lines and cabins, as well as internet and telephone lines.

Rehabilitation of the squares

The project intervention consists also in the rehabilitation of the squares scattered around the project area. The intervention will be specific to each square. Numeration of the squares follows the numeration of the plan design (Figure 8).

Square 1: Planting of grass, cleaning up of waste, planting of trees, installation of new stairs and stone pavement (Figure 9). Total surface of the intervention in this square is 80 m².

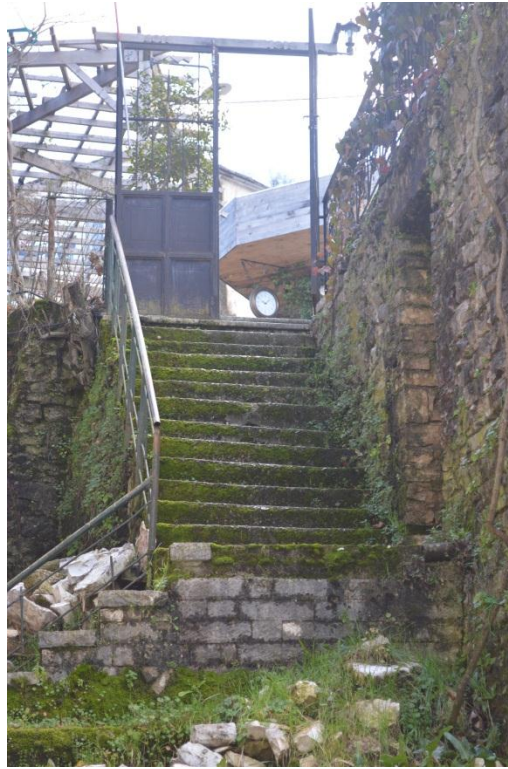
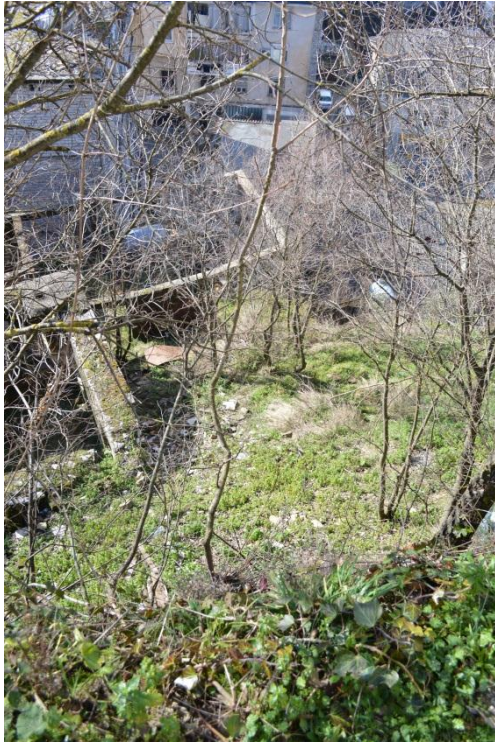


Figure 9: Existing situation at square 1

Square 2: Cleaning up and rehabilitation of the existing well, installation of bicycle parking lots, waste bins, benches, restoration of stairs, planting of trees and grass (Figure 10). Total surface of the intervention in this square is 147 m².



Figure 10: Existing situation at square 2

Square 3: This is a landmark. The 100 years old *Platanus* (plane) tree served as a gathering point of locals for decades (Figure 11). The intervention foresees planting of flowers around the tree, outer restoration of the wall that holds the tree, replacement of tiles and installation of trash bins. Total surface of the intervention in this square is 224 m².



Figure 11: Existing situation at square 3

Square 4: This square is situated at the beginning of the Qafa e Pazarit quarter, connecting it with the Cerciz Topulli square at the center of the city (Figure 12). The intervention consists in the installation of bicycle parking lots, wooden benches and bins, restoration of the road surface and cobblestones. Total surface of the intervention in this square is 223 m².



Figure 12: Existing situation at square 4

Square 5: This is a small square, containing a Magnolia tree (Figure 13). Intervention consists of the installation of a public water fountain, planting flowers around the magnolia tree and restoration of the retaining wall of the tree. Total surface of the intervention in this square is 40 m².



Figure 13: Existing situation at square 5

Square 6: This square is located at the road that goes to the castle (Figure 14). Intervention consists in planting of trees, replacement of tiles and installation of bins. Total surface of the intervention in this square is 209 m².



Figure 14: Existing situation at square 6

USAGE OF MATERIALS

Before the start of construction, the project foresees (in the bill of quantities), studies and analysis, to be approved by supervisor and ADF, of materials, in order to judge on the appropriateness of use for this project, such as: (i) analysis of sand and gravel to be used for construction; (ii) analysis of quarry materials found in the surrounding area in regards to stone quality.

The contractor, before the commencement of the works will engage a specialist of geology – chemistry and a specialist of mineralogy with the aim of identifying licensed quarries that can provide the required materials. The results they will provide are to be considered by the supervisor/ADF who will have to approve the contractors' decision for the quarry that will be used.

Environmental and social baseline information

Sub-Project location, terrain and landscape

The sub-project is located in the city of Gjirokastra. The existing environmental components of the project site are characteristic of an urban town with a Mediterranean climate. Gjirokaster is situated in the South of Albania, surrounded by mountains in the East and West. The terrain is diverse but mostly hilly. Gjirokastra is known to be “a city built in stone”. Gjirokastra was declared a world cultural heritage by UNESCO in July 2005.

Climate, Hydrology and Water Resources

Climate is typical hilly Mediterranean. Gjirokaster is situated in the Drino River Basin, with frequent rains reaching up to 2,000 mm /year. The basin is impacted by two rivers, Drino and Vjosa, with the latter being among the largest rivers in the Balkans. Drino is the largest branch originating from Vjosa river. In addition, as mentioned before, the city is rich in water resources due to frequent flows of streams from the surrounding mountains. Therefore, the installation of a rainwater discharge system to avoid flows has become a priority for the city and will be resolved through this project.

The existing wastewater discharge system operates through manholes in the city, which serve also as septic tanks. The main collection point for the wastewaters is situated near square 6, at the Cerciz Topulli square.

There are septic tanks installed at each building, which enable for a certain level of filtering of the water before it is joined with the main lines of the town.

Flora, Fauna and Natural Habitats

There are no endangered or protected species of flora and fauna at the subproject site, since it is a highly urbanised and inhabited area. However, there is a variety of species outside the city of Gjirokastra, but not near the project site.

No impact is foreseen on the trees in the works area. In two cases is foreseen that the wall surrounding the terrain where the trees are planted will be reconstructed, but no impact on the plants themselves is predicted.

The surroundings of the city are characterized by a diverse vegetation, classified into 4 phytoclimates, due to the diverse relief. Species vary from bushes to pines, oaks to medicinal plants in the mountain valleys. Drino river banks are rich in species like willows, hawthorn and wild fruit trees.

Various fauna species are also found outside the city, such as little mammals, as well as trout and other fish living in the Drino river.

Air quality

The project area is located in the center of the town, which is impacted by heavy traffic, causing an increased air pollution within the project site. Sources of air pollution in Gjirokaster include greenhouse gases released by vehicle engines. No heavy industries are located in the vicinity of the city.

Although there is a decrease of industrial air pollution from year 1990's (end of the communist regime in Albania) up to now, due to closing down of industries, there is an increase in vehicle emissions (consumption of fuels) due to increased number of vehicles and large number of old vehicles used.

There is no expected impact by the project on the traffic and as a result on the air quality so far.

However, if the area will be restricted to only pedestrians, and another option will be provided after the completion of works with regards to urban management within the town, this will be a positive impact of the project on air quality in the area.

Geology and Soils

The project is located in an urban area. The works will be concentrated on existing cobblestone roads. Gjirokastra is characterized by roads with very steep slopes. This will require the works contractor to implement extra measures regarding work materials, by placing warning signs and surrounding them with appropriate nets in order to prevent slippage.

Waste

Gjirokastra municipality has a non-sanitary landfill, located in the north-west of the town, easily accessible (1.6 km away), used for urban waste disposal (Figure 15).



Figure 15: Location of the existing landfill (red sign)

The non-sanitary landfill is also the Municipal dumping location for construction waste, but the contractor will remain in continuous communication with the Municipality for viable solutions of this issue. We hope that a large quantity of the material will be used for other purposes by the municipality or private citizens.

Analysis of Possible Environmental Impacts

The Rehabilitation of Qafa e Pazarit Quarter in Gjirokastra is not expected to cause significant environmental impacts and those impacts that are likely to occur, could be readily mitigated through good construction practices and adequate environmental mitigation measures, described in the Environmental Management (Mitigation and Monitoring) Plan below.

The environmental impacts associated with this project are presented during the preconstruction, construction phase as well as the operational phase.

Construction phase aspects:

Construction materials

The stones of the cobblestone roads will be registered and reused in the road at a rate of maximum 80%, as it is specified in the technical specifications. The cobblestone roads this quarter are in the shape of a fishback, meaning that the road is higher at the midline and lower at the sides, at a slope angle of 1.5 – 2 %. Dimensions of the stones to be used vary in thickness from 7.5 – 8 cm, with a depth of around 20 cm and a length around 20 cm, while the stones along the midline of the road are larger. Ditches are installed using cement. Sand will also be used. A specific condition is that the weather prior to placing the stones must have been dry for at least 20 days.

The stones and sand are expected to be gathered from existing nearby legal quarries, after in-depth analysis on the appropriateness of use.

The Assessment for defining the suitable quarries for material supply is foreseen within the contract, while it will remain a mandatory requirement for official approval or valid operating license and use of existing and licensed stones quarries;

No asphalt will be used during this rehabilitation project. Works will consist mainly in improvement of the existing cobblestone road and pavements through replacement of existing stones, replacement of lighting, improvement of the existing waste water and rainwater drainage system, installation of a fire protection system, lighting system, creation of some leisure squares, planting of trees, shrubs and flowers. No cutting of trees is foreseen.

Air quality and noise generation

Construction activities, including general construction and transport to and from the site may cause dust emissions, temporarily affecting the air quality in the area during the construction works.

Noise during construction will be caused as a result of loading and discharging of vehicles and material transport. Excavations for the installation of the drainage network will be made using machinery that will use specific cutting and excavating heads, designed to minimize vibrations and air pollution.

Cultural heritage

The aim of this intervention is to promote the cultural heritage through rehabilitation of existing infrastructure. The works related to this intervention will follow special actions and measures advised by the Ministry of Culture during the supervision by their side, given the cultural protection level of the city and are addressed in the technical design of this document. However, as it is foreseen in this ESMP, in case of chance find items, works will be stopped and responsible organizations will be notified immediately in line with national procedures. Construction works will not take place during the tourist season (June-August).

Geology and soils

Limited impacts on geology and soils are foreseen during this project.

The aim of the rehabilitation works is to strengthen the base of the road and furnishing with better materials.

Since the base of the roads is already established and works will consist in improvement of the road surface, the drainage water system, installation of lighting and fire protection system, temporary impacts on soil are identified, such as improper disposal of waste materials, improper material storage, management and usage, accidental spillage during connection of the existing sewage and drainage system to the new pipes.

Generation of construction waste

During the implementation of the works, since the stones of the pavement and roads will be replaced or restored, a certain amount of waste will be generated. The waste will be generated during works for site clearance, removal of inert materials and dirt, which will be deposited in cooperation and permission of the municipality. A more clear answer on this issue will be provided by the Contractors' Work plan, which in cooperation with the municipality, will need to address this issue in the context of the movement of the pedestrians and traffic.

This waste will have a negative visual impact and can have impact on soil, water and health if not managed or disposed off properly. Small amounts of hazardous waste will be generated from vehicles and machinery (oiled cloths, contaminated packaging) and possible by spillage of fuels and other hazardous liquids. Small amount of bio-waste will also be generated while clearing the squares.

Hydrology, surface and ground waters

The project also foresees installation of a drainage and waste water system underneath the cobblestone surface, on the sides of the road, as the only feasible alternative. This is an add-on to the existing outdated drainage system, to compensate for the growing community and tourism development. This system will serve for collecting rain and sewage water from the existing sewage system of the houses and businesses along the road, transferring them to the existing drainage and sewage system of the town, at the Cerciz Topulli square (Figure 16).



Figure 16: Location of the Cerciz Topulli square

The actual system uses manholes that collect domestic used waters in the town water drainage system. The water canalization system will be installed at the sides of the road, in the pavements. The project foresees to install 5 discharge collectors and new manholes in accordance with the terrain. The rainwater manholes will have dimensions of 70 x 40 and 100 cm deep. The main lines will be installed in the roads using HDPE pipes.

The collection point for the drainage and fire protection system will be the main town pipeline which originates from the water tanks near the castle.

The systems will discharge in separate manholes. The rainwater system, which is a new system, will discharge in Drino river, while the wastewaters will join the town system (Figure 17 and 18). The technical construction of the discharge systems and its' manholes will provide a basic separation like the one of solid waste, otherwise no other treatment was evaluated as necessary.






-  Main pipe for sewage waters
-  Secondary pipe for sewage waters
-  Square manhole for sewage waters

Figure 17: The layout of waste water discharge system



Figure 18: The layout of rainwater discharge system

No lasting environmental impacts are foreseen to occur on surface and underground waters, other than improvement of the actual situation and the avoidance of floods due to rainwater overflow. Short term adverse impacts can come from accidental spills or leakages of fuel or other stored or used hazardous liquids, improper waste management or soil erosion (causing turbidity to surrounding streams). Since the wastewater system is existent and will be rehabilitated, no alternatives for this system were considered.

Habitat and biodiversity

Due to the type of works to be implemented, no impacts are foreseen to occur on natural habitats and biodiversity. There are no protected flora species within the project area.

The new vegetation to be planted in the frame of this project consists of autochthonous vegetation species as follows:

Tree type	Amount
<i>Cercis siliquastrum</i>	7
<i>Tilia grandifolia</i>	4
<i>Genista tinctoria L</i>	44
<i>Buxus sempervirens</i>	56
<i>Jasminum officinale</i>	4
<i>Syringa vulgaris</i>	1
<i>Malva Abutilon</i>	32
<i>Rosa centifolia</i>	20
<i>Iris germanica</i>	20
<i>Iris germanica</i>	20
<i>Hydrangea macrophylla</i>	53

Local community and socio-economic impacts

During the construction phase, there will be impacts on social activities and small businesses situated along the interventions within the project. It is recommended that works do not take place during the highest tourist influx of the year, which is July-August in Gjirokastra.

Positive impacts are expected, including, but not limited to:

- Improvement of quality of life through better infrastructure (lighting, waste waters, communication lines, fire protection, etc.)
- Increase in aesthetical level (i.e. a prettier town), due to rehabilitation of pavements and roads
- More greenery through planting of a large number of trees and grass
- More attraction for tourists (the rehabilitated squares can be used as resting stops)

No expropriation or resettlement will occur during the implementation of this project, therefore no social impacts are foreseen in regards to private properties.

Works will take place in common ground and no private property will be impacted. Agreements with owners of nearby houses on temporary construction activities and necessary interventions will be made with the owners verbally or through written agreements with the municipality.

Operation phase aspects:

During the operation phase, minor environmental impacts are foreseen.

All impacts foreseen to occur during the operation phase, including extreme weather conditions and natural disasters, are detailed in the Environmental and Social Management Plan.

Priority mitigation measures for the “Restoration of Qafa e Pazarit Quarter in Gjirokastra”

In addition to the impacts identified in the ESMP table and detailed corresponding mitigation measures, below are highlighted the mitigation measures that are considered most important due to the specificities of this project and are result of the work performed for the preparation of this ESMP by the ADF specialist:

- Waste (recycling and disposal)

Since one of the main impacts of this project is the solid waste that is produced during the cleaning up of work sites and removal of stones that cannot be restored, it is crucial that before the construction phase, actions must be taken in cooperation with the Gjirokastra Municipality and other actors currently performing similar activities, or are in need of stone materials, as well as in cooperation of the Ministry of Culture, for recycling these materials. The remaining construction waste that cannot be recycled, will be disposed off in the nearest landfill, as assigned by Gjirokaster Municipality and licensed in line with the national legislation.

- Chance find items of cultural and historical interest
 - o According to the Albanian law, in case of any chance findings during excavation and general works, the works will cease immediately, the area will be secured and the relevant authorities will be informed within three days of said finds. The authorities will have fifteen days to respond and indicate what measures need to be taken to proceed with the works. Excavations during the construction phase will be supervised by archaeologists of the Institute of Cultural Monuments.

- Traffic management/ access of local community during construction activities
 - o Specific attention must be paid to the management of construction works in order to not disturb pedestrian pathways, especially for the local inhabitants and businesses. Measures include performance of works only on half of the road lengthwise and allowing free passage ways for locals at the other half of the road.
 - o In regards to construction materials, the contractor, due to the typical geographical formation of Gjirokastra town, has to take special measures in order to protect the citizens and community from slippage of materials such as stones, gravel, sand, and install specific signs, as well as protection with nets.

 - o In order to avoid impacts on local community, works must be implemented outside the tourism season, which is from July-August.

 - o The Drino river runs along the national road near Gjirokastra city and there must be paid special attention during construction activities to avoid solid waste dumping in Drino river (by accident or otherwise) or any other surface waters. Consistent monitoring by ADF, municipality and supervisor is necessary.

Implementation arrangement for ESMP

All mitigation measures listed in the ESMP table at the end of this document will be monitored during implementation of works.

The Albanian Development Fund will be the contracting authority for the implementation of this subproject, which will be funded by the World Bank. The responsibilities of ADF during implementation include, among others, the fulfillment of the criteria set out in the Environmental and Social Management Plan. The ADF unit consisting of dedicated environmental and social specialists will monitor the work site weekly and provide a check list for each site visit on the fulfillment of criteria as set out in the ESMP plan. The ADF environmental unit will prepare monthly environmental reports, tackling all problems noted during the site visits and providing recommendations and measures to be taken.

Construction works will be supervised by a licenced supervisor contracted by ADF, as well as by the Institute of Cultural Monuments and by the Municipality of Gjirokastra.

Since environmental and social safeguards instruments are considered an integral and important component during implementation of World Bank financed projects, monitoring and reporting will be performed, at least biannually.

ESMP Capacity building

The construction operator and/or supervisor must be fully aware of the ESMP provisions and trained regarding its implementation. The ADF staff will provide training on ESMP implementation and reporting, in line with the World Bank guidelines and the Environmental and Social Management Framework.

Reporting and monitoring

The supervising engineer/contractor will report on the implementation of the ESMP to the ADF monthly as well as on the implementation of works. The report must include a chapter on environmental performance, based on ESMP items. The content of the report will be agreed with ADF. In case of accident or negative impact on the environment (not predicted by the ESMP) the supervising engineer will report to ADF immediately.

The Institute of Cultural Monuments, through staff assigned for this purpose, with no extra cost on the project, as well as the Municipality of Gjirokastra, will closely monitor the work site during project implementation in line with national legislation requirements and address any issues considered important due to the site being a cultural site.

In addition, at the end of the works, the supervisor's report to ADF must contain an analysis sheet on the current situation of the nearby surface waters and the state of air quality.

The contractor, at the end of the works, must report with regards to the implementation of the criteria set out in the environmental permit. The report must be sent to ADF and to the National Environmental Agency.

Public information and disclosure

The right of the public to be informed is a mandatory process requested by the Aarhus convention, of which Albania is a signatory party. In line with World Bank Operational Guidelines on Stakeholder Engagement, stakeholder consultation should include:

- Identification of Impacts (negative, positive, cumulative, others)
- Improving project design
- Designing measures to enhance opportunities and mitigate adverse impact
- Improving Implementation, including institutional arrangements
- Changes during project implementation

Upon approval of project financing, the Municipality of Gjirokastra, in cooperation with the ADF, made available to the public the technical project for public review in September 20, 2017. The document was published in Municipal and ADF web pages and hard copies were also left for the public at the Gjirokastra Municipality premises.

The disclosure meeting for ESMP of Qafa e Pazarit was organized in Gjirokastra, on October 10, 2017m after official invitation letters were sent to relevant institutions and public notifications made. . Minutes of the consultation meeting can be found in Annex 1 of this document.

Part A: Environmental Mitigation Plan

A. Environnemental and Social Mitigation Plan

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
<u>Pre-construction</u>	<i>Cleaning up of the work site from inert materials, dirt. Cleaning up of pavements and stones using hand tools. Clearing up space for the installation of pipes.</i>	In consultation with the Municipality of Gjirokaster, provide an appropriate method for recycling construction materials and scrap metal materials.	NA	14,592	ADF/Municipality of Gjirokastra	Contractor	As provided in BOQ
<u>Pre-construction</u>	Disruption and loss of access to services	Preparation of Temporary Traffic Management Plan during works prior to start of construction			Contractor	Contractor	Contractor prepares a temporary Traffic Management Plan to be implemented during construction, based on the specific interventions planned
<u>Pre-Construction</u>	<i>Materials supplied from illegal or unauthorized sites may exert pressure on the natural resources</i>	Assessment of the sediments in Drino river is foreseen within the contract Assessment of geological formation in the surroundings is foreseen within the contract Assessment for defining the suitable quarries for material supply is foreseen within the contract use existing and licensed stones quarries; requirement for official approval or valid operating license	N	4,189	stone quarry	Contractor to obtain all permits	No asphalt will be used during the reconstruction activity Specific stones will be used according to the technical project. Materials from existing quarries will be assessed as appropriate.
<u>Construction</u>	<i>Dust generated during transport of stone or aggregate materials</i>	wet or covered truck load	NA	70/month	Construction Contractor	Construction Contractor	The measures to be taken for the minimization of the generated dust will be detailed as part of the requirements for the constructions' contract
<u>Construction</u>	<i>Dust generated during construction works</i>	water construction site and material storage sites as appropriate	NA	100/month	Construction Contractor	Construction Contractor	To be specified in bid documents.
<u>Construction</u>	<i>Air pollution and noise from machinery on site, transport and combustion on site</i>	Do not allow vehicles or machinery to idle on site Use attested and proper equipment No open burning or combustion of any sort allowed on site	Minimal	Minimal	Construction Contractor	Construction Contractor	

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
<u>Construction</u>	<i>Noise disturbance and vibrations</i> to humans and animals	<p>Check that noise emitted during rehabilitation of the pedestrian road does not exceed the national norms set out in regulations (85 dB for urban environment, outside)</p> <p>As the work will be performed mainly manually and will not involve use of any heavy machinery, no vibrations are expected.</p> <p>A survey on the current conditions of the houses and businesses will be performed by ADF prior to commencement of works.</p>	minimal	50/month	Construction Contractor	Construction Contractor	To be specified in bid documents.
<u>Construction</u>	<i>Traffic</i> that may create noise, vehicle exhaust, road congestion on and around the site	<p>Arrange for material transport at hours of minimum traffic. Use alternative routes to minimize traffic congestion with the approval of ADF staff. Works to be performed alternatively on half of the road length in order to allow pedestrians to pass</p>	NA	minimal	Construction Contractor: Transport manager and Truck operator	Construction Contractor: Transport manager and Truck operator	
<u>Construction</u>	<i>Traffic disruption</i> during construction activity	<p>Traffic management plan with appropriate measures to redirect traffic and is easy to follow; in cooperation with the local authorities, include traffic police</p> <p>The Municipality of Gjirokastra will provide the necessary assistance to the Contractor in preparing a viable working plan that will minimize impacts on the traffic and pedestrian movement and will serve for the preparation of a traffic management plan that will be approved by ADF/Supervisor. It will also provide the alternative routes.</p>	as specified in bidding documents	minimal	Construction Contractor	Construction Contractor	Measures to be included in the Traffic management Plan (Bid documents)

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
<u>Construction</u>	<i>Vehicle and pedestrian safety</i>	Appropriate lighting and well defined safety signs. Timely announcement in the media when construction will take place	as specified in bidding documents	minimal	Construction Contractor	Construction Contractor	
<u>Construction</u>	<i>Water and soil pollution from improper material storage, management and usage of construction machines</i>	organize and cover material storage areas; reuse soil for covering up the drainage system, isolate wash down areas of concrete and other equipment from watercourse by selecting areas for washing that are not free draining directly or indirectly into watercourse; Install leak control equipment Ensure proper waste management on site in order to prevent pollution Have a leak control mechanism in place and emergency interventions to control spills	as specified in bid documents	50 / month	Construction Contractor	Construction Contractor	It is recommended that stones and other materials that will be removed, to be reused and recycled at the advice of the Institute of Cultural Monuments and the municipality.
<u>Construction</u>	<i>Water and soil pollution from improper disposal of waste materials</i>	Dispose waste material at appropriate designated location protected from runoff, in cooperation with the municipality of Gjirokaster. For temporary, short storage of wastes, select an area on impermeable surface, away from any potential leaking into the watercourse. Collect and adequately manage all wastes in a timely manner, including dredged material that can only be disposed of at locations approved by the municipality	minimal	100/month 12,600 EUR are specified in the bid documents for material transport. Transport should be made conform environmental criteria.	Construction Contractor	Construction Contractor	Most of the waste generated can be recycled.

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
<u>Construction</u>	<i>Potential contamination of soil and water from improper maintenance and fueling of equipment</i>	proper handling of lubricants, fuel and solvents by secured storage; ensure proper loading of fuel and maintenance of equipment; collect all waste and dispose to permitted waste recovery facility. In the case of leakage the contaminated soil should be collected and as hazardous waste disposed by the contractor. The waste should be collected in separate containers by the contractor Have a leak control mechanism in place and emergency interventions to control spills	minimal	minimal	Construction Contractor	Construction Contractor	The municipality of Gjirokaster must provide a written permission for an appropriate waste disposal site before the construction works may commence
<u>Construction</u>	<i>Interruption of surface and underground drainage patterns during construction, creating of standing water.</i>	In line with approved design, maintain natural drainage pattern.	minimal	minimal	Construction Contractor	Construction Contractor	
<u>Construction</u>	<i>Workers health and occupational safety</i>	<i>provide workers with safety instructions and protective equipment (glasses, masks, helmets, boots, et ; safe organization of bypassing traffic; medical kit present at the site</i>		minimal	Construction Contractor	Construction Contractor	
<u>Construction</u>	<i>Impacts on vegetation, trees, meadows, etc.</i>	<i>The clearing of vegetation shall be kept to a minimum and no trees will be affected, with replacement planting planned and conducted, and shall be done in coordination with the measures for protection of habitats and river banks.</i>	NA	According to the national environmental regulations, for 1 tree that is cut, 3 must be planted	Construction Contractor; Forestry Directorate,		In square 1 some clearing of vegetation is required, which will be replaced by grass, decorative flowers and 3 trees as per the technical design.

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
<u>Construction</u>	<i>Chance finds items of cultural/historical interest.</i>	In case of any chance finds during excavation and general works, the works will cease immediately, the area will be secured and the relevant authorities will be informed within three days of said finds. The authorities will have fifteen days to respond and indicate what measures need to be taken to proceed with the works.	NA	In case of chance finds, the project owner will pay for all required investigations	Construction Contractor, ADF, municipality of Gjirokastra		Albanian legislation details necessary actions in case of chance find items.
<u>Operation / Maintenance</u>	<i>Noise disturbance to local population and workers caused by regular and scheduled maintenance works on the road, the lighting system and the panoramic point.</i>	Limit activities to daylight working hours (as agreed with local authorities.)	Minimal minimal	minimal minimal	Maintenance Contractor/LGU	Maintenance Contractor/LGU	to be specified in maintenance contract documents-Technical Specifications for realization of maintenance works, in cooperation with the Institute of Cultural Monuments. It is recommended that maintenance works by authorities in charge, as decided in cooperation with the ICM, to commence after the heavy rain period.
<u>Operation / Maintenance</u>	<i>Damage caused by extreme weather conditions and natural disasters</i>	The municipality of Gjirokastra must make available an emergency management plan as part of maintenance measures, prior to taking over the finalized works.	Minimal	Minimal	LGU	LGU	
<u>Operation / Maintenance</u>	<i>Management of waste due to increased number of waste bins</i>	The municipality of Gjirokastra must plan accordingly the coverage of service for waste management upon signing the maintenance agreement	Minimal	Minimal	LGU	LGU	

Part B: Environmental and Social Monitoring Plan

Phase	What activity/impact is to be monitored?	Where will be monitored?	How is to be monitored/type of monitoring equipment	When is to be monitored? (frequency of measurement or continuous)	Why is the parameter to be monitored? (optional)	Indicators	Cost		Institutional responsibility	
							Install	Operate	Install	Operate
Pre-Construction	possession of official approval or valid operating license for stone quarries and other material supply subjects in accordance with assessment studies	on location of stone quarry	inspection of all necessary documents	before work begins	to ensure sustainable use of materials	possession of official approval or valid operating license	NA	NA	Quarry Operator	Quarry Operator
Construction	Covering or wetting down transported materials that can generate dust, such as stone, sand or gravel	job site – each vehicle	supervision	continuously	ensure minimal disruption to air quality	Covered truck load Report from the supervising engineer	NA	minimal	ADF	Supervision Contractor Supervision Contractor
Construction	Congestion on site, disruptions to traffic patterns, complaints on traffic management	On the site	Visual supervision	regularly by supervision	To ensure minimal disruptions to the local traffic	Number of complaints received		minimal	a) ADF	Supervision Contractor
Construction	Damage to soil structure, landslides and slips, embankments	job site	supervision	unannounced inspections during work, after heavy raining	To ensure minimal impacts on soil	land slips, erosion, damaged embankments	NA	minimal	ADF	minimal
Construction	Noise disturbance to human and animal population, and workers on site	job site; nearest homes	noise meter and analyzer, inspection	once for each machine and equipment when works start and on complaint	b- assure compliance of performance with environment, health and	Nr of grievances recorded	minimal	minimal	ADF	Supervision Contractor
Construction	Air pollution parameters of dust, particulate matter	At and near job site	Sampling by authorized company as part of the supervisor's report	Upon complaint	To ensure no excessive emissions during works	Nr of grievances recorded, reports of REA	minimal	100/mont h	ADF	Supervision Contractor
Construction	water and soil quality (suspended solids, oil and grease)	At and near job site (upstream and downstream)	Sampling by authorized company as part of the supervisor's report	Upon complaint or spill/leak into the river	To ensure no excessive emissions during works	Nr of grievances recorded, reports of REA	minimal	100/mont h	ADF	Supervision Contractor
Construction	Safety signage in place	At and near job site	Visually by supervisor	Regularly	To ensure clear posting of safety signs	Number of signs	minimal	ADF	Supervision Contractor	minimal

Construction	Disposal of waste materials at authorized site	On site for timely collection and disposal on final disposal site	Through official designation of the LGU, visually and also by checking documentation i.e. waste manifests	Before start of works and regularly	To ensure proper waste management	Designation from municipality, amounts of waste removed	minimal	ADF	Supervision Contractor	minimal
Construction / Workers safety	Protective equipment (glasses, masks, helmets, boots, et ; organization of bypassing traffic.	job site	inspection	unannounced inspections during work		number of on-job accidents recorded	NA	minimal	Supervision , ADF	Supervision Contractor
Construction/ Destruction of crops, trees meadows etc	loss of/impact on vegetation	job site	Supervision, photographic reports	during material delivery and construction		Reports of frequent visits on site by the Env. Expert	NA NA	minimal minimal	Supervision Contractor, ADF	
Construction/ Chance find items	<i>Cultural properties</i>	Job site	Expert visits from Institute for Cultural Monuments, regular supervision	continuous		Catalogue of items found, including photographic and textual documentation	Should be part of the regularly scheduled activities	minimal	Supervision Contractor, ADF, ICM	Supervision Contractor, Cultural Directorate, ADF
Operation Vehicle and pedestrian safety when there is no construction activity	visibility and appropriateness	at and near job site	observation	once per week in the evening		Number of warning signs installed, number of accidents recorded	minimal	minimal	LGU	maintenacne Contractor
Increase of domestic solid waste due to increased number of visitors to the site	Aesthetics	At or near job site	visits on site and communication with local authorities	Once per every two days by the LGU for maintenance reasons	For aesthetical reasons	Lack of waste on the ground, empty waste bins	Should be part of the regularly scheduled activities by the LGU		LGU	LGU

Annex 1: Minutes of public disclosure of ESMP for Qafa e Pazarit Quarter in Gjirokastra

On 10 October 2017, in the premises of the cultural center Musine Kokalari in Gjirokastra was held the public consultation for the project “Rehabilitation of Qafa e Pazarit Quarter in Gjirokastra”. The consultation apart from offering another possibility for citizens to share concerns, ideas and opinions about the project aimed to present them with the Management Plan for Environmental and Social issues. The meeting was attended by citizens, representatives of businesses operating in the area, local institutions such as the Regional Directorate for Culture Monuments, representatives from NGOs operating in the field of conservation and restoration of cultural assets of the area, Municipality, firefighters, prefecture, the agency of the protected areas, etc.

The mayor of Gjirokastra Mrs. Zamira Rami opened the meeting with a welcome for the participants. She placed the project in the context of the efforts being made by different actors, Municipality included, for cultivating the touristic potential of Gjirokastra and making use of it to increase the quality of life and economic sustainability of the community. Mrs. Rami expressed municipality’s support and engagement for the implementation of the project, while in the same time invited the citizens for an increased interest and participation in debating and implementing this and other interventions that are to take place in Gjirokaster.

Representative of the designer, DEA Studio, made a presentation of the foreseen interventions enlisting the major actions and also the approach chosen so that the national regulations and UNESCOs guidelines are strictly considered and respected. The designer also presented components such as the underground network, measures to respect the environment, the community, etc.

ADF’s Environmental and Social Unit presented the Environmental and Social Management Plan, stressing the need for cooperation of all the involved actors for an efficient and smooth implementation of the project. Presenting World Bank requirements for the PIUTD, and classified as a Category B project and what it means, was also part of this presentation.

This presentation was followed by lively discussions that had the contributions from citizens and representatives of institutions. Organized thematically these discussions evolved around:

1. Concerns regarding the rehabilitation of the cobblestone roads.

These concerns include: i) the provision of the specialists, ii) the percentage of existing cobblestones to be reused, iii) the possible delays of implementation work due to the above mentioned issues.

These concerns were voiced by representatives of the business community and also from specialists of the Prefecture. The unsuccessful experience of cobblestone rehabilitation in Varoshi’s road (not from the PIUTD project) was mentioned. These comments were answered by Ing. Pavli Miço of ADF, who underlined the need to abide the requirements for interventions in cultural heritage.

Ing. Miço stressed that the dedication and professionalism that will be devoted to this project area guarant that bad experiences will not be replicated. He explained that the problematic regarding the layers under the stone will be addressed by a careful selection of the appropriate materials and techniques while regarding the expertise for cobblestone construction a careful selection of the construction firm will be performed during the tendering process. He underlined that the project will advance with caution and tests will be performed before grand scale interventions in site.

2. Regarding the squares and other interventions above the ground, the partakers required: i) the inclusion in the intervention area of few other squares, ii) lighting of the roads.

DEA Studio answered these comments in cooperation with Mr. Vangjel Muço, vice mayor of Municipality of Gjirokastra. They made clear the boundaries of the intervention area under this project. Mr. Muço explained that this is the 1st investment project being implemented in the framework of PIUTD, other investments projects will continue based on a very elaborated process. Under this project, it is foreseen to place in the underground infrastructure the lighting/electrical system/cables of the

bazaar area and a few lighting spots are foreseen to be installed. The lighting fixture of the roads is in process of implementation by the investment of AADF.

3. Another group of comments underlined the complexities of the underground network and the need for close cooperation with other actors that are involved, like the entrepreneurs and their increasing needs in the light of an increasing number of visitors, the water supply and sewage system company, Electricity provider OSHE (Albanian Energy Operator), making space for possible technological advancements that might need to be addressed in the future like optical fibers etc. Increased attention was also required for possible pollution that the sewage system might have on underground water as an increasing number of wells is being reopened in the area mainly for aesthetic purposes. The representative of the firefighters was especially vocal in this group of comments while referring to other interventions in the city that were done with taking in reference the need for the adaptability of the equipment used by them and the technology used for hydrants.

Mr. Miço, the designer, Mr. Kadaifçiu from ADF and Mr. Muço, were all involved in answering these comments underlining that most of the raised issues has been considered while developing the project, also in cooperation with other actors (KfW) and as mentioned above, this has to be followed by a very careful process of implementation of the works.

