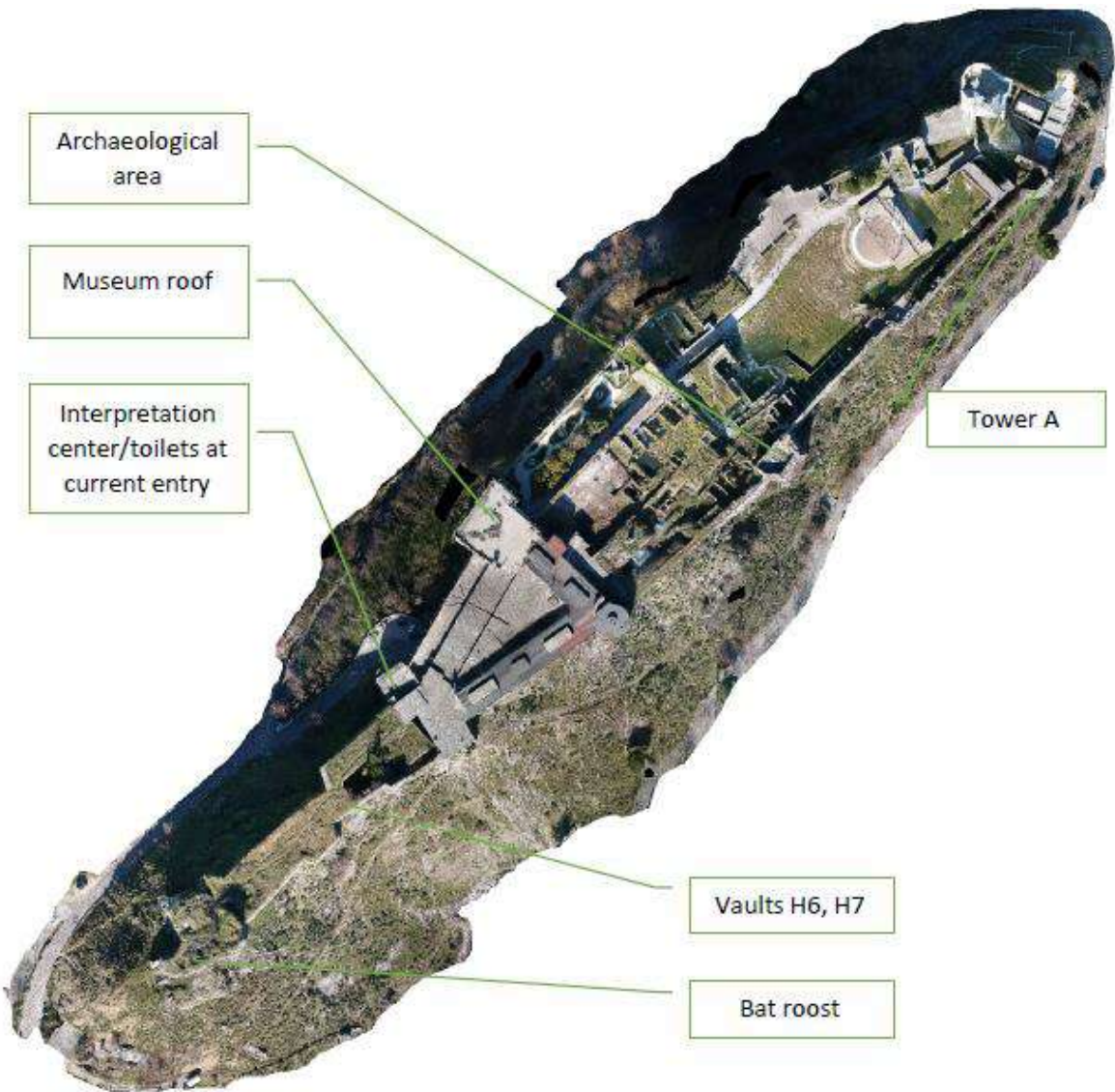


ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN



“IDENTIFICATION, DESIGN OR PRIORITIZED MEASURES TO ADDRESS SAFETY CONCERNS AND PREVENT LOSS OF HERITAGE STRUCTURES IN THE CASTLE OF GJIROKASTRA”

PROJECT DESCRIPTION:

Gjirokastra, and its castle, is a unique place. This castle sits above the town on an elongated geological formation with steep sides, which naturally form a defensive barrier. It was here, understandably, that a series of defenses were built over hundreds of years, taking advantage of the natural geology to protect the population. Today, it is an impressive structure from below, looming over the town and valley with its sheer masonry walls, towers, and ramparts. From within, the views are sweeping, taking in the entire town, valley, and mountains beyond. Its position commands the valley from west to east and north to south.

The castle of Gjirokastra has been a constantly evolving structure, first primarily for the defense of the town, then regional military control, and later for imprisonment. The castle's final stage of evolution, as a cultural place, is woefully incomplete. Attempts have been made through the conversion of the prison into a museum, the construction of an infrequently used amphitheater, and lately, the installation of limited didactic panels for tourists. The castle, with all its phases, is not without its problems. Issues with the underlying complex and often unstable geology have caused numerous structural complications. The various and varied construction stages have also caused structural problems, and resident and visitor safety is a concern.

A recent effort, the Project for Integrated Urban and Tourism Development (PIUTD), has been funded by the World Bank to support the Government of Albania in developing the economy while improving living conditions. Previous elements of this project have addressed urban upgrading, street improvements, pedestrian trails, museums, and lighting. This project is to specifically address the fortifications given their significance, prominence as an attraction, and current poor condition. The Ministry of Culture and the Municipality of Gjirokastra, have explicitly requested support given the emergency situation and stability of the castle.

A vision for the future of the castle, its uses, visitation, and conservation is sorely needed. This current project, understandably, is focused on the short-term emergency structural and geological interventions required for stabilization. But, this scope is insufficient without an exploration of how residents and visitors view and wish to use the castle.

Main elements of this proposal are:

- Structural stabilization of rock and bastion
- Opening sections in the south section of the castle

- Installing infra-red cameras and portable screen for viewing and understanding life of bats
- Restoring roof over Museum and prison
- Establishing new ticket office including accessible toilettes and small interpretation center
- Conservation of number of spaces which then can be utilized for new functions
- Fencing off instable and unexcavated archeological sections
- Additional archeological excavations in one section

Given the current state of condition, this project is primarily focused on the short term, but there must also be the pursuit of medium-term objectives to support longer-term goals, which in turn are used to pursue the vision. Such a management plan can organize efforts, identify risks, schedule projects, and, importantly, seek additional sources of sustainable funding for continued conservation and maintenance. A monument visited and used will become a placed loved and thus preserved.

This project is to specifically address the fortifications given their significance, prominence as an attraction, and current poor condition. The Ministry of Culture and the Municipality of Gjirokastra, have explicitly requested support given the emergency situation and stability of the castle.

Because of the adverse effects that these new developments (the project) might have into the Environment, based on EU and national legislation, the project should undergo the Environmental and Social Impact Assessment (ESIA) which is a tool used to identify the social and economic impacts of a project prior to decision-making.

ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING

The purpose of the Environmental and Social Management Plan (ESMP) is to ensure that social and environmental impacts, risks and liabilities identified are effectively managed during the construction, operation and closure of the proposed project. The ESMP specifies the mitigation, adaptation, prevention and management measures to which the Proponent is committed and shows how the Project will mobilize organizational capacity and resources to account for the factors evaluated in order to implement the compiled measures. The ESMP also shows how mitigation and management measures will be scheduled.

The key objectives of the ESMP are:

- To outline mitigation measures against the possible degradation of the areas;
- To enhance positive aspects brought by the project;
- To ensure that the programme will comply with relevant environmental legislation of Albania and other requirements throughout its pre-construction, construction, operation and decommissioning phases;
- To identify roles and responsibilities and the cost involved;
- To propose mechanisms for monitoring compliance; and
- To provide adequate channels of input for the different stakeholders throughout the project activity.

Table 1. Environmental Management Plan

Areas/ aspects of the environment	Proposed mitigation measures	Objective	Competent institution	Timetable	Costs for implementatio n
BIODIVERSITY-PLANT SPECIES					
<i>Pre-construction and construction</i>					
	<ul style="list-style-type: none"> ◆ Develop a pre-construction survey prior to the commencement of construction works ◆ Vegetation clearing shall be limited to areas where it is absolutely necessary; • Demarcate work areas clearly for construction workers to ensure that the disruption of vegetation does not occur outside of designated areas; 	Protection of biodiversity, i.e. plant species with conservation significance and increasing the green areas	Independent expert engaged by the contractor of construction work	Construction	The cost of the measures will be included in the construction costs
	<ul style="list-style-type: none"> ◆ Protection of all existing trees and ground coverings, or other types of protection necessary to prevent damage to existing elements not indicated to be removed, and any elements on adjoining properties or adjacent to the project. This includes the Aqueduct, surrounding wall, fountain and especially the historic olive trees or any other element not indicated within the scope. • Protect other vegetation indicated to remain in place against cutting, breaking, or skinning of roots, skinning and 	Protection of biodiversity, i.e. plant species with conservation significance and increasing the green areas	Independent expert engaged by the contractor of construction work	Construction	The cost of the measures will be included in the construction costs

	bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line.				
Vegetation and Flora	<ul style="list-style-type: none"> • Application of the hack-and-squirt technique for control of large trees that cannot be managed with basal applications. This method of application is advantageous because it is highly selective and injury to surrounding • Provide temporary fences, barricades or guards as required to protect trees and vegetation to be left standing. species is not common. • Before any works begins the permission and observation of the Conservation Architect is required and an inspection must be conducted. • Site clearing should only be undertaken by suitably experienced and qualified persons using all appropriate personal protective equipment and the correct tools and machinery to the approval of the Conservation Architect and in accordance with any prevailing local or national laws or standards/codes of practice 	Protection of biodiversity, i.e. plant species with conservation significance and increasing the green areas	Independent expert engaged by the contractor of construction work	Construction	The cost of the measures will be included in the construction costs
BIODIVERSITY-ANIMAL SPECIES					

Construction					
Biodiversity-animal species	<p>Due to the presence of the Bat colonies (<i>Myotis myotis</i>) appropriate measurements are recommended.</p> <ul style="list-style-type: none"> Conserving and opening limited sections H6-7 (without disturbing the bats) while allow visitors to explore this other aspect of the castle. 	Protection of animal species	Design team	Pre-construction	Costs for preparation of project documentation
	<ul style="list-style-type: none"> Installing infra-red cameras and portable screen for viewing and understanding life of bats 	Bats protection	Design team	Construction	Construction and operating cost
Operation					
Bat Colonies	<ul style="list-style-type: none"> Implementation of biomonitoring of bats during spring season and during hipernacula 	Determining the need for taking additional measures for the protection of bats	Contractor	Construction	Construction and operating cost
GEOLOGY AND GEOMORPHOLOGY					
Pre-construction and construction					
Geology	<ul style="list-style-type: none"> When the exposure to heavy falling rock exists and especially during slopes stabilization works, a protection system must be previously installed. A dynamic rockfall barriers installed below the works area is to be used. At least HE140 beams (driven or anchored) each 4 m is to be used. 	Protection of Geological stability and soil	Contractor	Pre-construction	Included in the construction costs

	<ul style="list-style-type: none"> Installation should only be undertaken by suitably experienced and qualified persons using all appropriate personal protective equipment and the correct tools and machinery to the approval of the Conservation Architect and in accordance with any prevailing local or national laws or standards/codes of practice. 				
	<ul style="list-style-type: none"> Application of good construction practice and stabilization of steep slopes of the castle 	Soil protection (geology and geomorphology), prevention of the emergence of contemporary geological processes	Contractor/ Supervisor	Continuously during the construction phase, as well as in the operational phase if there is a need for additional stabilization of the slopes	Construction and operational costs
Geo- and cultural heritage	<ul style="list-style-type: none"> Application of good construction and operational practice, as well as continuous maintenance of the area, in order to maximize the "masking" of completed construction interventions in the area. 	Protection of the landscape and heritage in accordance with the legal regulations and strategic documents for nature protection.	Contractor/ Supervisor	Continuously During the construction and operation	Construction and Operational costs
Soil	<ul style="list-style-type: none"> Negative impacts on soil erosion will be mitigated by proper landscaping, replanting or reforestation and specific erosion control measures. 	Protection of Geological stability and soil	Contractor	Pre-construction	Included in the construction costs

	<ul style="list-style-type: none"> • Proper soil management (separation of top and sub soils etc.) during soil stripping will ensure appropriate restoration standards are achieved. Proper waste management practices including of hazardous materials and pollution prevention measures will avoid and minimize soil contamination. 				
HYDROLOGY AND SURFACE WATERS					
<i>Pre-construction and construction</i>					
Hydrology and surface waters	<ul style="list-style-type: none"> • Designing a system for collecting and disposing of water from the inner parts of the Castle and along all slopes and roads is a high priority. • While all the water cannot be completely controlled an overall strategy and pragmatic interventions will significantly reduce the negative impacts of water. 	Protection of hydrological network and hydrogeology of the area	Contractor/ Supervision controlled by competent inspection authorities	Continuously during the construction phase	Included in the construction costs
<i>Operation</i>					
Hydrology and surface waters	Regular control and maintenance of the drainage and stormwater systems (channels, culverts, etc.), as well as the application of good operational practice	Protection of waters and other media and areas of the environment, as well as protection of the structures of the castle	Municipality	Continuously during the operational phase	Operating costs
AIR QUALITY					
<i>Construction</i>					

Air quality	<ul style="list-style-type: none"> • Regular watering of access roads and work sites to reduce dust emissions • Vehicles and machinery engines should always be switched off when not in use • Vehicles and equipment should be well maintained to minimize unnecessary emissions and leaks 	Protection of ambient air and fulfillment of legal obligations	Contractor	Construction	Costs are included in construction costs
Air quality	<ul style="list-style-type: none"> • Emergency response plans will be in place to mitigate any accidental event. ◆ Adequate materials and product storage and handling practices should be followed to reduce uncontrolled releases. ◆ Use, to the extent possible, of inert materials produced from excavations, to avoid transportation of aggregates from distant-off points. 	Protection of ambient air and fulfillment of legal obligations	Contractor	Construction	Costs are included in construction costs
Air quality	<ul style="list-style-type: none"> ◆ Project planning preparation so that soil materials from excavations are taken within the shortest possible period of time at embankments positions. ◆ The stored quantities of inert materials for the needs of the project should be limited to necessary and where possible be covered ◆ All materials with the potential to lead to dust emissions shall be transported in sheeted trucks 	Protection of ambient air and sensitive receptors	Contractor/ Supervision	Continuously during the construction phase, at sensitive locations	Costs are included in construction costs

NOISE AND VIBRATION					
Construction					
Noise and Vibration	<ul style="list-style-type: none"> • Construction activities should be carried out only during the day to minimize noise levels to the visitors of the Castle • Contractor will be careful when selecting equipment to avoid use of old or damaged machinery with high level of noise emissions. • Contractor will ensure that equipment is properly serviced and efficient. • When possible, contractors will cordon off construction site with noise absorbing materials, for example, plywood rather than iron sheets. 	Protection of sensitive receptors and fulfillment of legal obligations	Contractor	Pre-construction	The cost of the measures that will emerge from the Plan will be included in the construction costs
	<ul style="list-style-type: none"> • Construction workers will be aware of the sensitive nature of workplaces they are operating in and advised to limit verbal noise or other forms of noise. • The contractor shall ensure that noise levels emanating from machinery, vehicles and noisy construction activities are kept at a minimum for the safety, health and protection of Castle visitors. • Noise and vibration will be minimized at the project site and surrounding areas through sensitization of construction truck drivers to switch off vehicle engines while offloading materials. 	Protection of sensitive receptors and fulfillment of legal obligations	Contractor	Pre-construction	The cost of the measures that will emerge from the Plan will be included in the construction costs

	<ul style="list-style-type: none"> All generators will be insulated or placed in enclosures to minimize disrupting ambient noise and vibration levels 				
WASTE					
Construction					
Solid Waste	<ul style="list-style-type: none"> Preparation of the Waste Management Program in the construction phase. 	Fulfillment of the legal obligations for waste management and protection of the environment and the health of the population	Contractor	Pre-construction	Included in the construction costs
	<ul style="list-style-type: none"> Signing agreements with authorized companies for collection, transport and treatment of waste and handing over of waste 	Fulfillment of the legal obligations for waste management	Municipality of Gjirokaster/ Contractor	Pre-construction and construction	The price will depend on the offers of the authorized waste handlers
	<ul style="list-style-type: none"> Engagement of waste manager expert, which will ensure full implementation of the Program in accordance with the legal obligations 	Fulfillment of the legal obligations for waste management and protection of the media and areas of the environment.	Contractor/Subcontractor/Supervision	Pre-construction and construction	The price will depend on the offer of the waste manager
Operation					

Waste	Placing containers with different colors for disposing of different waste streams,	Protection of the media and areas of the environment and the health of the population	Municipality of Gjirokaster	Operation	Depends on the capacity of the containers
	Signing agreements with authorized companies for collection, transport and treatment of waste and handing over of waste	Fulfillment of the legal obligations for waste management and protection of the media and areas of the environment and the health of the population	Municipality of Gjirokaster	Operation	The price will depend on the offers of the authorized waste handlers
	Preparation of Waste Management Program in accordance Law on Waste Management.	Fulfillment of the legal obligations for waste management and protection of the media and areas of the environment and the health of the population	Municipality of Gjirokaster	Operation	The cost of the measures arising from the Program will be included in the operating costs

Table 2. Social Management Plan

Social Impact/Area/ Issue	Mitigation Measures	Objective	Competent Institution	Timetable	Cost of Implementation
Contract mobilization	<ul style="list-style-type: none"> ◆ The contractor or bidder should become familiar with these documents and contact the ADF office or CHwB / Proskene should there be any questions, concerns, or discrepancies. ◆ The contractor or bidder should visit the site to become familiar with the unique situations present at the Castle before placing a bid or beginning work on the project. 	Fullfiling the requirements for contract mobilization and preparation for contract signing	ADF	Pre-construction	Operating costs of the company
	<ul style="list-style-type: none"> ◆ The contractor should obtain all the necessary permissions to conduct the work outlined in Technical Specification and Drawings. ◆ No work shall commence until these permissions are obtained and a copy submitted to ADF. ◆ If the permissions have a time requirement this must also be respected and if reapplication is required, this is also the contractor's responsibility. 	Fullfiling the requirements for contract mobilization and preparation for contract signing	ADF	Pre-construction	Operating costs of the company

Social Impact/Area/ Issue	Mitigation Measures	Objective	Competent Institution	Timetable	Cost of Implementation
Organization of labour	<ul style="list-style-type: none"> • The investor (ADF), as well as the contractor, are obliged to follow the national regulations for safety and health at the workplace • A company code of conduct shall be prepared for employees of a company to inform the employees of the company's expectations. • Codes of Conduct or Codes of Behaviour will be considered as guidelines to prevent certain specific types of behaviour (e.g. conflict of interest, self-dealing, bribery, and inappropriate action). 	<ul style="list-style-type: none"> ♦ Employee information to prevent certain specific types of behaviour 	ADF	Pre-construction	Operating costs of the company
	<ul style="list-style-type: none"> • The code of conduct shall be developed based on the following key points: <ul style="list-style-type: none"> • Loyalty (following codes of conducts, commitment to work, commitment to environmental and social, health and safety measures) • Prohibited behaviours like gambling, drunkenness, and irregular and immoral habits. • This environment and social incidents response toolkit (ESIRT) will be used in case such incidents occur during the implementation of the project. 	<ul style="list-style-type: none"> ♦ Employee information to prevent certain specific types of behaviour 	ADF	Pre-construction	Operating costs of the company

Social Impact/Area/ Issue	Mitigation Measures	Objective	Competent Institution	Timetable	Cost of Implementation
Vehicular access and parking	<ul style="list-style-type: none"> • The north gate can also be an access point, but no trucks ARE PERMITTED UP this narrow entry. • The access to the south of the site could serve as an alternative access point, BUT only under special permission from the Conservation Architects; • Prior to construction activities, the Contractor will install all signs, barriers and control devices needed to ensure the safe use of the road by traffic and pedestrians, as required by the traffic control plan 	Provide access for vehicles	ADF/ Contractor	Construction	Operating costs of the company
Access to Facilities, Controls and Utilities	<ul style="list-style-type: none"> ◆ Contractor to generate utility management plan • Contractor to minimize damage to public utilities 	Provide temporary storage facilities	ADF/ Contractor	Pre-construction	Operating costs of the company
Visual characteristic	<ul style="list-style-type: none"> • Revitalization / rehabilitation of disturbed locations (areas) should be carried out immediately after the completion of the construction work at the specific locations and in accordance with the project documentation prepared for this purpose 	Protection of the visual characteristics of the landscape	Contractor/Supervision controlled by competent inspection authorities	Continuously during the construction phase	Included in the construction costs

Social Impact/Area/ Issue	Mitigation Measures	Objective	Competent Institution	Timetable	Cost of Implementation
Occupational Health and Safety	<ul style="list-style-type: none"> The developer must implement the Occupational Safety and Health Management System (OHSMS). Occupational Safety and Health Plan (OSHP) of temporary and mobile construction sites with implemented grievance mechanism for workers, as well as a statement of safety with risk assessment for construction site workplaces 	Minimizing the negative risks to the health and safety of workers, as well as the society	ADF Contractor	Pre-construction. Construction	Operating costs of the company
Occupational Health and Safety	<ul style="list-style-type: none"> Proper training of employees for using, servicing and integrity of PPE (personal protection equipment). Use of anti-fall devices. 	Minimizing the risks to the safety and health of workers	Contractor	Construction	Operating costs of the company
Occupational Health and Safety	<ul style="list-style-type: none"> Training and licensing of industrial vehicle operators for safe handling of specialized vehicles such as forklifts, including safe (un)loading, load limits, and regular control of their health, in accordance with the Law. 	Minimizing the risks to the safety and health of workers	Contractor	Construction	Operating costs of the company

Social Impact/Area/ Issue	Mitigation Measures	Objective	Competent Institution	Timetable	Cost of Implementation
Occupational Health and Safety	<ul style="list-style-type: none"> • Appropriate training on the use, servicing and integrity of PPE (Personal Protective Equipment). • Appropriate use of scales and scaffolds must be left to trained employees. • Use of anti-fall devices, including a safety belt and rope movement limiter, to prevent access to potential points at risk of collapse, or anti-fall protection devices that are fully fastened to the body used in conjunction with shock absorption wires or devices for self-pulling and blocking of an inert fall, attached to a fixed stopping point or horizontal "safety lines". • Prevention from falling and implementing protective measures is required when the worker is exposed to danger of falling over two meters in a working machine, in water or other liquids, in dangerous substances or through an opening in the working surface. <ul style="list-style-type: none"> • Must comply with local labor legislation and EU directives on Occupational safety and health, as well as the • use of personal protective equipment 89/654 / EEC, 89/656 / EEC, 89/686 / EEC and 2009/104 / EC the Law 	Minimizing the risks to the safety and health of workers	Contractor	Construction	Operating costs of the company
Occupational Health and Safety	<ul style="list-style-type: none"> • Provide special training for workers for handling flammable materials and protection and fire prevention. 	Minimizing the risks to the safety and health of workers	Contractor	Construction	Operating costs of the company

Social Impact/Area/ Issue	Mitigation Measures	Objective	Competent Institution	Timetable	Cost of Implementation
Occupational Health and Safety	<ul style="list-style-type: none"> Proper training of employees for using, servicing and integrity of PPE (personal protection equipment). Use of anti-fall devices. 	Minimizing the risks to the safety and health of workers	Contractor	Construction	Operating costs of the company
Occupational Health and Safety	<ul style="list-style-type: none"> The use of specially designed machines that eliminate the danger of a trap (when workers are nearby or work with rotating and moving equipment), as well as ensuring that the limbs are secured from danger of injury under normal operating conditions. 	Minimizing the risks to the safety and health of workers	Contractor	Construction	Operating costs of the company
Occupational Health and Safety	<ul style="list-style-type: none"> Training and licensing of industrial vehicle operators for safe handling of specialized vehicles such as forklifts, including safe (un)loading, load limits, and regular control of their health, in accordance with the Law. 	Minimizing the risks to the safety and health of workers	Contractor	Construction	Operating costs of the company
Community Health and Safety	<ul style="list-style-type: none"> Install a temporary dynamic rockfall barriers installed below the works area is to be used 	Minimizing the risks to the safety and health of local residents	Contractor	Construction	Operating costs of the company
Community Health and Safety	<ul style="list-style-type: none"> Provide, with the Municipality, a temporary dwelling location (a month at most) to the residents of the houses that are below the Tower A, during the main construction activities on the Tower. Provide 24/7 physical security for houses whose residents will be accommodated in other dwelling objects during civil works on the Tower A. 	Minimizing the risks to the safety and health of local residents	Contractor	Construction	Operating costs of the company

Social Impact/Area/ Issue	Mitigation Measures	Objective	Competent Institution	Timetable	Cost of Implementation
Community Health and Safety	<ul style="list-style-type: none"> Prepare Traffic Management Plan during construction phase in cooperation with relevant local authorities and disclose it at the ADF and Municipality's websites. 	Reducing the harmful consequences to the local population	Contractor	Construction	Operating costs of the company
Community Safety and Health	<ul style="list-style-type: none"> Public availability of the timeframes of construction activities, especially for each Sub-projects, to reduce the impact that stems from the lack of availability of desired destinations. Engaging an appropriate % of the workforce for this project from the entire project area, with a special advantage given to the applicants from the rural populated areas of the project area. 	Informed local community	Contractor	Construction	Operating costs of the company
Stakeholder Engagement	<ul style="list-style-type: none"> A communication and information channel must be established between the contractor and the local authorities and the affected communities, at the very beginning of the construction phase. It should be maintained until the very completion of the construction activities. Regularly disseminate information to the public and affected parts of the city about the working schedule that affects free movement of people and stocks. 	Reducing the harmful consequences to the local population	Contractor	Construction	Operating costs of the company
Stakeholder Engagement	<ul style="list-style-type: none"> Disclose and make accessible to the public the Stakeholder Engagement Plan for this Sub-project. 	Informed local community	ADF and the Municipality of Gjirokastra	Construction	Operating costs of the company
Stakeholder	<ul style="list-style-type: none"> Prepare and conduct Awareness Raising campaign for the traffic safety in the parts of the 	Reducing the harmful	Contractor	Construction	Operating costs

Social Impact/Area/ Issue	Mitigation Measures	Objective	Competent Institution	Timetable	Cost of Implementation
Engagement	city that will experience traffic change due to the project activities. Main focus should be set on children.	consequences to the local population			of the company
Cultural Heritage	<ul style="list-style-type: none"> Workers should undergo basic training on the procedure for a randomly discovered archaeological site. 	Minimizing the possibility of damage to archaeological/ cultural sites and objects	Contractor	Construction	Operating costs of the company
Cultural Heritage	<ul style="list-style-type: none"> Engage at least 1 Archeologist, for the whole period of Constrcution Phase, and who shall be supporting civil engineers and team leaders on site during excavating activities, and who will maintain daily communication with the relevant local institutions responsible for protection of cultural heritage 	Minimizing the possibility of damage to archaeological/ cultural sites and objects	Contractor	Construction	Operating costs of the company

Social Impact/Area/ Issue	Mitigation Measures	Objective	Competent Institution	Timetable	Cost of Implementation
Cultural Heritage	<ul style="list-style-type: none"> ◆ In the event of the accidental discovery of new artifacts and archaeological sites; works will be stopped and will only be resumed after the site has been archaeological discharged by authorized archaeologists. ◆ The proposed intervention should be compiled in accordance with the Albanian laws on Cultural Heritage, World Bank OP 4.11 and International charters (i.e. UNSECO) and will follow all the procedures of approvals and monitoring of the works as foreseen in the laws. ◆ To avoid the risk to any undiscovered archaeological assets being damaged during the implementation of the works large excavation works will be forbidden. 	Protection of cultural and archaeological heritage	ADF	Pre-construction	<p>Operating costs of the company</p> <p>Additional costs related to resettlement, not known at this stage</p>

Table 3. Monitoring Plan

Phase	What (Parameter will be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuity?)	Why (Is the parameter being monitored?)	Cost (If not included in project budget)	Who (Is responsible for monitoring?)
Pre-construction phase	All required permits are obtained before works start.	At Gjirokaster municipality	Inspection of all required documents	Before works start	To ensure the legal aspects of the rehabilitation activities	-	Contractor; Supervisor of the construction works; Construction inspector; Contract Manager
	Public and relevant institutions are notified	Contractor's premises	Inspection of all necessary documents	Before works start	To ensure public awareness	-	Contractor; Supervisor of the construction works
	Accessibility and implementation of SEP	On site/ Internet /Municipality	Visual check	Prior commencement of construction works	Informed citizens	-	ADF
	Safety measures for workers, employees and visitors	On site	Visual checks and reporting	Before works start	To prevent health and safety risks – mechanical injuries and to provide safe access and mobility	-	Contractor, Supervisor of the construction works

Construction Phase	Provision of uniforms and protective gear to the contractor's personnel and enforcement of their use by contractor; Consistency	All areas	<ul style="list-style-type: none"> - Observations during normal activities - Inspections - Monthly reports and incident reports 	Continuous or as necessary	Verify implementation of mitigation measures		Supervision Consultant
	Soil	On Site/ Gjirokastra castle	Measurement level of soil erosion	Continuous or as necessary	To ensure slope stability		Contractor, Supervisor of the construction works
	Damage to geology and soil structure, landslides and slips, embankments.	work site	supervision	unannounced inspections during work, after heavy raining; regularly before and during earth works on a particular section	To ensure minimal impacts on soil		Contractor, Supervisor of the construction works
	Waste management	On site	Waste is separately collected and disposed in line with the national regulation;	Continuously, i.e. during operation	Required by series of regulation on waste	Part of the regular operation costs	Contractor, Supervisor of the construction works REA
	Collection, transport and final disposal of	At and around the site	Waste accompanying documentation	Daily level after the collection and	Do not leave the solid waste on the construction	-	Contractor, Supervisor of the

	the solid waste		that is submitted to REA in which type and quantities of the waste are identified	transportation of the solid waste	site and to avoid negative impact to the local environment and the local inhabitants' health		construction works.
	Sanitary water collection	On site; standard parameters	Visual observation; use of kit tests; samples when required by competent authorities	Based on which authorized company is called for cleaning	To prevent accidents	Part of the regular contractor cost	Supervising engineer costs, Inspection
	Provision of uniforms and protective gear to the contractor's personnel and enforcement of their use by contractor; Consistency with the rules of exploitation of the construction equipment and usage of private safety means	At and around the site	Monitoring on the level of noise dB (with suitable equipment) in two points in eastern and western part	Upon complaint or inspection finding	To determine whether the level of noise is above or below the permissible level of noise	-	Contractor, Supervisor of the construction works, Accredited company for measuring the level of provided by the contractor;
	Air pollution parameters of dust, particulate matter	Particulate matters, dust at the site	Visual observation; measuring air quality (PM10) in the case of	Continuous on a daily basis, however special attention should be put	To keep the dust level at minimum to protect health and prevent	Contractor bears full cost, usually is not identified as	Site supervising engineer, Municipality

			complains	during transport of material and excavation works	irritations and to keep visibility for safety purposes	separate category in bill of costs	
Flora and fauna	On site/ Gjirokastra Castle	Surveys, visual observation	Spot checks	Verify surveys are identifying species of concern, mature trees, natural habitat			Contractor E&S manager & specialists
Bat species/colonies	On site	job site	In the course of construction works	during material delivery and construction			Contractor, environmental specialists
Site restoration	Construction sites	Inspections	When construction ends at that site	To verify restoration			Contractor E&S personnel
Vibration	Sensitive receptors	Vibration meter recording for 24hrs (follow testing equipment specifications for use)	Weekly, for a full day (24h period)	Construction activities can create vibration (damage, property, disturb fauna...)	To be covered by the contractor		Contractor
Landscape restoration	On site/ Gjirokastra Castle	Visual observation	Continuously, for entire period of construction	To protect the area planted with greenery.			Contractor E&S manager & specialists
Implementation of SEP -	Office	Document check	Semi-annual	Ensure all grievances are	-		ADF

	Grievance Register				properly addressed		
	Implementation of Employment Plan	Office	Document check	Annual	Engaging the available local workforce		ADF
	Implementation of OHSP	Office and on site	Document and visual check	Semi-annual	Protection of workers health and safety		ADF
	Implementation of Awareness Raising campaign	On site	Document and visual check. Survey	Semi-annual	Protection of resident's health and safety	n/a	ADF
	PPE use by the workers	On site	Visual check	Semi-annual	Protection of workers health and safety		Contractor, Supervisor of the construction works, ADF
	Signed Code of Conduct	Office	Document check	Semi-annual	Informed workers on the rights and responsibilities		ADF
	Implementation of Traffic Management Plan	On site	Visual checks and reporting	Semi-annual	Safe Practices	n/a	ADF
	Safe traffic flow	On site	Visual checks and reporting	During equipment delivery and works along the road	To ensure coordinated traffic flow	-	Contractor, Supervisor of the construction works
	Work safety	On site	Visual checks and reporting; Unannounced inspections during work	Unannounced controls during work	To prevent health and safety risks – mechanical injures and to	-	Contractor, Supervisor of the construction works,

					provide safe access and mobility		Contract Manager
	Site is well organized: fences, warnings, sign postage in place, as needed.	On site	Inspection	Unannounced controls during work	To prevent accidents	-	Contractor, Supervisor of the construction works, Contract Manager
	Installation of Rockfall barriers	On site	Visual inspection	Quarterly	To prevent accidents	n/a	ADF
	Hindered of pedestrian access	At and around the construction site	Inspection		Prevent traffic accidents; Limit nuisance to local residents		ADF
	Engagement of at least 1 Archaeologist	At the office	Visual inspection	Semi-annual	Prevent loss of cultural heritage	n/a	ADF
	Cultural heritage	On site visual assessment	Visual observation and potential complains from the public	Daily checking the status of houses in the project area	To prevent degradation of Gjirokastra Castle as an important cultural heritage site	Part of the supervising engineer and contractor cost	Supervising site engineer. Municipality, Inspection, RDNH
	Architectural artifacts/Cultural heritage	On site visual assessment	Full supervision by site supervising engineer during works; daily supervision of cultural heritage expert.	During excavation works for foundations	To prevent degradation of potential archeologically important artifacts	Part of the supervising engineer and contractor cost	Supervising site engineer. Municipality, Inspection

	Stakeholder grievance register	Records office	Review of register	Weekly	Verify grievances are being recorded and resolved		Contractor HR manager and PM
	Grievance handling and resolution	Work sites and records office	Interviews of managers responsible for resolution and with complaining workers	Before monthly progress meeting	Verify grievances are being addressed properly	-	Contractor, supervisors
	Worker grievance register	Work sites and records office	Review of register	Weekly	Verify grievances are being recorded and resolved	-	Contractor
	Information sharing and Grievance redress	Construction site and/or nearby	In person, by mail, phone or other means (with records) Evidence of GRM	Prior to beginning of construction works (min 2 weeks)	Minimize nuisance to local population, give opportunity for questions and feedback		Information available on accessible place
		Construction site. Nearby settlement and buildings	Evidence of GRM information available on accessible place Evidence of grievance log and timely response/resolution of feedback and complaints	Throughout the duration of the sub-project	Ensure that questions and grievances are addressed in a timely manner		Evidence of grievance log and timely response/resolution of feedback and complaints
	Disruption of Public Utilities	On site and on roads	Visual observation and potential complains from	Daily checking the water pipelines, waste-water	To prevent public utilities disruption	Part of the regular contractor costs	Supervising engineer costs, Inspection, Consultants

			the public	sewage, other cables			
Operational Phase	Waste management	On site	Visual report from supervision.	Control after completion of the activity.	To make sure the wasted material is treated properly based on the respective law	-	Contractor, Supervisor of the construction works

5. ESMP COST ESTIMATION

5.1. Cost for mitigation measures by ADF

Expenditure for implementing ESMP includes the main financial resources, covering the preparation of mitigations plan as well as the implementation measures. The expenses of preparation of mitigations plans have been included into the expenditure of ADF.

Table 4. Cost for mitigation measures by ADF

No.	Item	Costs (EUR)	Timeframe
1	Occupational Health and Safety Plan	1500	Once. Prior to commence
2	Grievance Mechanism for Workers	500	Once. Prior to commence
3	Stakeholder Engagement Plan (SEP) + Project's Grievance Mechanism (PGM)	2000	Once. Prior to commence
	Total	4.000	

4.2. Cost for mitigation measures by contractor

Expenditure for implementing ESMP includes the main financial resources, covering the environmental monitoring expenses and expenses for implementing the mitigation measures. The expenses of implementing the mitigation measures have been included into the expenditure for implementing construction subprojects on environmental protection works and measures.

Table 5. Cost for mitigation measures by contractor

No.	Item	Costs (EUR)	Timeframe
1	Occupational Health and Safety Plan	1500	Once. Prior to commence
2	Grievance Mechanism for Workers	500	Once. Prior to commence
3	Traffic Management Plan (TMP)	1500	Once. Prior to commence
4	Chance Find Procedure (CFP)	1000	Once. Prior to commence
5	Waste and Hazardous Material Management Plan (WHMMP)	1000	Once. Prior to commence
6	Accommodation for residents living in houses below Tower A (1 month) along with 24/7 monitoring of residents' homes	2000	Once. Prior to commence
7	Awareness Raising Campaign	2000	Once.
	TOTAL	9.500	

4.3. Cost for training and capacity building

Estimated cost for training program on environmental monitoring management capacity is presented in the following table:

Table 6. Cost for capacity building training

Training content	Trainee	Type of training/ Capacity building	COST (EUR)
Proper training of employees for using, servicing and integrity of PPE (personal protection equipment).	Construction supervision consultant; construction engineers, site construction field manager, workers, etc	1 full day training	1.000
Implementation of mitigation measures	Construction supervision consultant; construction engineers, site construction field manager, etc	2 full day training	2.000
Environmental monitoring and reporting	ADF/PMU: Staff in charge of environmental issues; environmental	1 full day training	1.000
Traffic safety	Capacity building (informative leaflet and other promotional materials)	Public	1.000
TOTAL			5.000 EUR

4.4. Costs for environmental monitoring program

According to the unit price of environmental monitoring in the city, the

estimated cost for environmental quality monitoring of “**Identification, design or prioritized measures to address safety concerns and prevent loss of heritage structures in the castle of Gjirokastra**” project is Stated in the Table below:

Table 7. Cost for samples and analysis during construction phase

No.	Item	Costs (EUR)	Timeframe
1	Labor Management Procedure (LMP) – Preconstruction phase	200	1 year
2	Grievance Redress Mechanism (GRM)	300	1 year/ biannually
3	Stakeholder Engagement Plan (SEP)	500	biannually
4	Occupational Health and Safety Plan	600	quarterly
5	Grievance Mechanism for Workers	300	quarterly
6	Code of Conduct for workers	800	biannually
7	Emergency Preparedness and Response Plan	500	biannually
8	Traffic Management Plan (TMP)	500	biannually
9	Chance Find Procedure (CFP)	500	biannually
10	Labor Management Procedure (LMP) – Construction phase	1100	quarterly
11	Disseminating information to local communities -	300	
12	Dust Suppression Management Plan (DSMP)	400	
13	Waste and Hazardous Material Management Plan (WHMMP) - construction phase, per iteration	250	
14	Biodiversity Action plan (BAP) - preconstruction phase	500	
15	Land Scape Management Plan (LSMP) - construction phase	250	
16	Environmental and Social Management System (ESMS)- during construction and preconstruction	3000	
	Total for ESMP Implementation:	10.000 EUR	

4.5. Total cost for the ESMP implementation

The following table provides a cost estimate for the implementation of environmental management plan (ESMP). The cost of ESMP implementation will include (i) the costs of implementing mitigation measures by the contractor, (ii) the cost of safety management for the ADF/PMU (iii) the costs of environmental quality monitoring, and (v) costs of environmental capacity building, including both technical assistance in implementing safety policies and training programs. The costs of implementing mitigation measures during construction will be a part of the value of construction contracts. The costs of the PMU operations relating to ESMP are allocated from the subproject management budget of the PMU, including safety training programs, and basic allowances to participants in the monitoring programs. After the subproject has been completed, the costs of environmental monitoring of constructed works will be taken from the operation and maintenance budget of the city (as if). It should be noted that the involvement of the community in the process of ESMP implementation is completely voluntary participation for the benefit of own community and households. Therefore, communities partaking in monitoring the ESMP will not get paid.

Table 8. Cost for ESMP implementation

	Content	Cost (EUR)
1	Cost for mitigation measures by ADF	4.000
2	Cost for mitigation measures by contractor	5.500
3	Cost for capacity building training	5.000
4	Cost for Environmental quality monitoring	10.000
	Total I (1+2+3+4)	24.500

	Contingency (10%)	2.500
	TOTAL COST FOR ESMP IMPLEMENTATION	27.000