



GOVERNMENT OF MONTENEGRO

MINISTRY OF SUSTAINABLE DEVELOPMENT AND TOURISM
MINISTRY OF CULTURE

MAIN DESIGN FOR THE REHABILITATION OF THE BESAC FORTIFICATION

OPEN PLAN
CONSULTING
International Public Procurement

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ENVIRONMENTAL MANAGEMENT PLAN



1. Description of the proposed project.

The Besac Fortress – or “the town of Besac” as the people usually call it – is located on the hill which rises from Virsko polje and Kruseva bara, right above the Virpazar community, at the altitude of approximately 50 m. The fortress can be reached by the Vir-Ostros road, along the north-western lake’s shores, and then a gravel path running for approximately 200 m.

From the observation posts and towers of the fortress, one can get a complete view of the surrounding area, from Virsko polje on the north-west and the Skadar Lake on the north-east.

The Besac hill is a limestone massif that stands above the Virsko polje as a cliff. On that natural hill, the fortress is enclosed by external defensive walls having the shape of an irregular triangle in direction north-south. The surface occupied is approximately 1,200 m². By the gate on south side one reaches the inner land where the main buildings - the rectangular fortification with circular towers, the military barrack and the remnants of supporting buildings along the southern wall – are located. The buildings are well connected among them through cobble paved paths at various levels. Because it is abandoned and neglected for many years, the Fortress is a ruin nowadays. All the walls and the buildings are built of stone from the local quarry, using a similar technique. Building is characterized by dressed stone blocks dipped into lime mortar, arranged into relatively regular horizontal lines, with rough joints. Later, subsequent interventions resulted in plastered facades of the buildings inside the walls.

Around the fortress there is a predominant cypress forest. The area of the fortress is rich in the self-grown vegetation of weed.

The historic sources about the fortress are very limited. Having in mind the interesting position, and based on the construction technique, it can be assumed that the building with the circular towers is the oldest one, created in the medieval Zeta period (first half of the 15th century.) Starting from the fall of Donja Zeta, in 1478, the fortress was used throughout the period of the Turkish presence in this region. It had an important role in the system of fortifications in the zone of lake fortifications – Besac, Lesendro and Zabljak. In the Montenegrin wars in late 17th and early 18th century, Besac fell.

With the liberation from the Turks, all the fortresses lost their main function, to control the movement of people, goods and trade in this strategically very important crossroads, but they were still occasionally used.

Between the two World Wars, the fortification was adapted to serve the needs of a police station. It was modernized and plastered, and the space around it was adjusted to the new needs.

During the Italian occupation, in 1941-1943, the fortification was transformed into a prison. After the liberation, it was abandoned and since then, no intervention has been undertaken to protect and/or revitalize it.

The Besac fortress is recorded in the *Central Register of Cultural Monuments of Montenegro* (Decision no. 1,217 dated 27 November 1957), as a monument of culture of category III.

The Besac fortress is owned by the Municipality of Bar, and it is located within the Skadar Lake National Park, established in 1983.

The Besac fortress has been object of a Preliminary Technical Assessment (PTA) conducted in the framework of the EC/Council of Europe Joint Programme on the Integrated Rehabilitation Project Plan/Survey on the Architectural and Archaeological Heritage (IRPP/SAAH), and it was adopted by the Ministry of Culture, Sports and Media of Montenegro on 4th February 2009. Such a PTA estimated various kinds of value for the Besac fortress, such as:

- *a unique cultural landscape*; the hill with the Besac fortress, represents one of the most important elements of a unique landscape composed by the Skadar lake with Kruseva bara

and Virsko polje, with its exceptional and diverse nature, in synthesis with cultural resources created as a response to specific natural, social and historic conditions;

- *historic and military engineering architectural value*; by its origin rooted on the Medieval Zeta period (early 15th century), thus being the compound a characteristic example of the successive creation of the fortification – defense architecture;
- *exceptional ambiance and aesthetic values*; the hill with fortress dominates the Virsko polje and the Skadar lake, thus providing for very attractive views of Virpazar and especially of the Skadar lake, from the east side of the Godinje bay;

Virpazar together with the National Park Skadar Lake, based on its natural and cultural resources, has a great **tourism** potential. An important element for the tourism valorization of the Fortress is its position, i.e. easy access and serviceability – the **crossing point of the roads** from the north-south direction (Podgorica-Bar) and east-west (Cetinje-Skadar). Besides, the vicinity of Virpazar and Vranjina, the two main touristic points on the Skadar Lake are important. Virpazar is one of the biggest communities on the Montenegrin side of the lake, with the biggest tourist offer and infrastructure, with the pier used by the ships as a starting point for the lake cruises. As the other islands on the southern side of the lake are further away from Virpazar, Vranjina hosts the Visitors' Center of the National Parks of Montenegro, and a pier used by cruise ships.

As the organization of organic food fairs is becoming more and more interesting, and the territory of the Crmnica region is the most productive center of producers of the autochthonous wine type “Vranac”, honey, cheese, smoked fish – carp and bleak, and other products, the Virpazar community, together with the Besac Fortress could have a significant *economic potential*. Production of organic food, in combination with the tourist offer of this region represents an important resource.

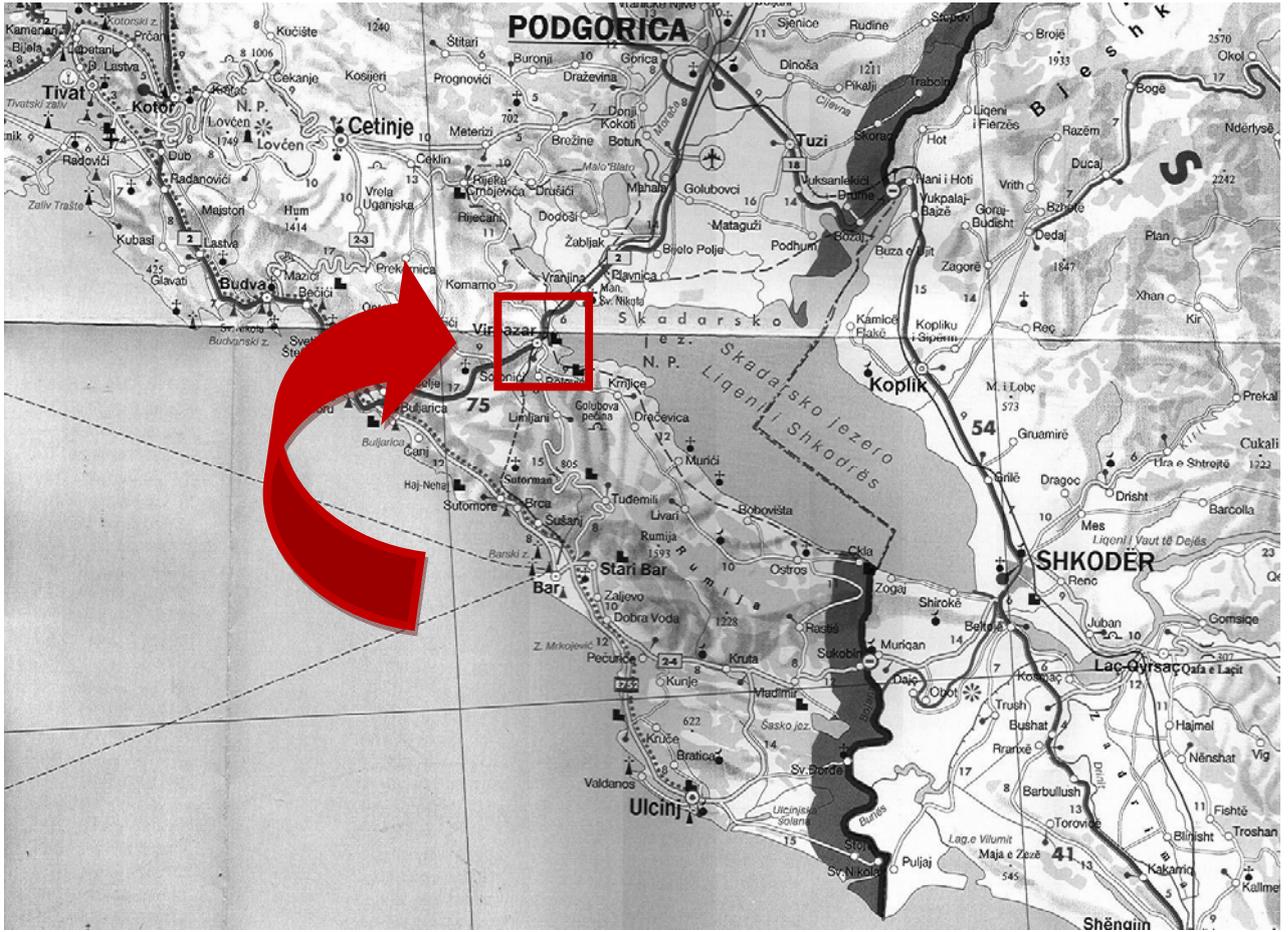
The idea to restore the Besac fortress with the before mentioned aims has been inserted within the project “ALBANIA/MONTENEGRO LAKE SKADAR-SHKODER INTEGRATED ECOSYSTEM MANAGEMENT” funded by the World Bank. Among the components foreseen, the #2 “Promoting Sustainable Use of Lake Skadar-Shkoder”, allocates funds for the design of the rehabilitation / revitalization of the Besac Fortification. Further, once the design will be completed and approved, it will be submitted to the EC Delegation to Montenegro, which already provided funds for actual rehabilitation, for tendering of conservation and civil works, in accordance with the design. The implementation Agency is the Ministry of Tourism and Environmental Protection of the Republic of Montenegro.

The aim of the design is the rehabilitation of the architectural heritage in support of sustainable development, in this case – protection of the cultural resource with new purpose “touristic-hospitality point for excursions and fair activities of the local population”.

The preliminary intention is to reconstruct the existing buildings, with the possibility to introduce new ones, in support of the infrastructure necessities, e.g. along the southern wall, where the supporting facilities were located before, or outside the external, defensive wall, along the southern side.

The legal ground for design is contained in provision of the Law on Spatial Development and Construction of Structures (*Official Gazette of Montenegro*, No. 51/08) and the Law on Protection of Monuments of Culture (*Official Gazette of the Republic of Montenegro*, No. 47/91.)

Further design guidelines are provided by planning documentation of the state (Spatial plan for the special purpose area of the National Park Skadar Lake) and local authorities (Plan for development of the small community of Virpazar).





2. Description of the Environment (baseline conditions).

The Besac Fortress dominates the north-western shores of the Skadar Lake, and it can be considered fully deeped and rooted within its environmental characteristics. The *Lake Skadar* is the largest lake in the Balkan Peninsula, and is on the border between Montenegro and Albania in the Southern part of the Dinaric Alps. Its surface, 6 m above sea level, can vary between 370 km² and 530 km² (with a volume that varies from 1.7 km³ in dry periods to 4.0 km³ during wet periods), of which 2/3 is in Montenegro. The lake is a cryptodepression⁽¹⁾, filled by the river *Morača* and drained into the Adriatic Sea by the 41 km long *Bojana* river, which forms the international border on its lower half.

The Montenegrin part of the lake and its surrounding area were declared a national park in 1983, while the Albanian part has been designated as a Managed Nature Reserve. It is one of the largest bird reserves in Europe, having 270 bird species, and it is also abundant in fish. In 1996 it was included in the *Ramsar list of wetlands of international importance*.

The lake's complex freshwater ecosystem, associated wetlands, floodplains, and karstic features provide valuable environmental benefits to surrounding communities (e.g. fisheries, drinking water, recreation), and contribute to national and regional economic and cultural assets. However, these same characteristics also contribute to lake ecosystem fragility, that can be resumed as follows:

- the water quality is generally good, but if the economic revitalization and growth in the lake basin is not managed in an environmentally sustainable way, the quality could deteriorate;
- the remaining pollution "hotspots" such as industrial facilities⁽²⁾, untreated wastewater from tributary cities and villages, and runoff of agrochemicals and nutrients, have transboundary implications;
- the population of fish, that is the most significant natural resource in terms of contribution to local economies and employment, is declining and is threatened by over-exploitation and habitat degradation.

3. Legislative, Regulatory Considerations and Institutional arrangements.

As far as regards the general National Legislation in the field of environment quality, the main following legislative *corpus*, driving the National Policy in the sector, has to be mentioned.

CONSTITUTIONAL PROVISIONS AND DECLARATION

Declaration on Ecological State of Montenegro RoMOG³ no.39/91

REGULATIONS RELATED TO ENVIRONMENTAL PROTECTION

i. General regulations

- Law on Environment RoMOG no. 48/08
- Law on Strategic Environmental Impact Assessment RoMOG no. 80/05

¹Definition from Wiktionary (<http://en.wiktionary.org>): "The portion of a lake which lies below sea level".

² Improperly stored waste at the *Kombinat Aluminijuma Podgorica* (KAP) aluminum plant has been identified as the highest priority industrial threat to the lake, specifically as a source of heavy metals, PCBs, and other toxic pollutants. These pollutants emanate from a large, unlined, uncovered dump site containing a mixture of non-hazardous and hazardous wastes that have been accumulating since the early 1970s.

³ RoMOG = Republic of Montenegro Official Gazette.

- Law on Environmental Impact Assessment RoMOG no. 80/05
 - Law on Waste Management RoMOG no. 78/08
 - The Law on Chemicals RoMOG no. 11/07
 - Decree on assessment of impact of interventions affecting environment RoMOG no. 14/97
 - Instruction on the contents of the elaborate of assessment of the impact of interventions affecting environment RoMOG no. 21/97
 - Decree on protection from noise RoMOG no. 24/95
 - Law on inspection control RoMOG no. 50/92
- ii. Protection of nature*
- Law on Protection of Nature RoMOG no. 51/08
 - Law on National Parks RoMOG no. 56/09
 - Decree on protection of rare, thinned, endemic and endangered plant and animal species RoMOG no. 56/06
 - Ministry ordinance on the types and criteria for determining the types habitat, manner of making maps of habitat, way of monitoring and the threat of habitat content of annual reports, measures of protection and preservation habitat types RoMOG no. 80/08
 - Regulations on closer the content and manner of keeping the register of protected areas RoMOG no. 79/09 of 12.4.09
 - Regulation on detailed conditions to be met by control of the protected area RoMOG no. 35/10
 - Regulation on the contents of near-annual program of monitoring the state of conservation of nature and the conditions to be met by a legal entity that monitors RoMOG no. 35/10
 - Regulation on the manner of making and risk assessment for the introduction of foreign species of wild plants, animals and fungi RoMOG no. 46/10 of 6.8.10
 - Regulation on detailed conditions to be met by legal or Fig. MNE no. 46/10 of 6.8.10

physical person to store the seized protected wild species of plants, animals and fungi

iii. Strategical documents:

- National strategy of sustainable development 2007
- National strategy of biodiversity with action plan for 2010-2015.

iv. Spatial development and construction

- Law of Spatial planning and construction of facilities RoMOG no. 51/08
- Decision on commencement of the development of the Spatial plan of special purpose areas for National Park "Skadar Lake" RoMOG no. 47/92

Further guidelines, mainly for the design, are provided by planning documentation of the state (Spatial plan for the special purpose area of the National Park Skadar Lake) and local authorities (Plan for development of the small community of Virpazar).

Furthermore, in 2003 the Ministries of Environment of Albania and Montenegro signed a Memorandum of Understanding (MoU)⁴, calling for joint cooperation and management on environmental issues about the lake area. In December 2007, a detailed Bilateral Agreement⁵ was signed as the legal instrument for joint cooperation for protection and management of the lake. Further on, a joint (bilateral) Strategic Action Plan (SAP)⁶ was prepared, establishing a long-term vision for lake management and sustainable development, including:

- (i) strengthen legal and institutional framework for environmental protection, sustainable natural resource management, and trans-boundary cooperation and exchange;
- (ii) reduce and prevent lake water pollution; and
- (iii) establish effective systems for sustainable management of natural and cultural resources, including fisheries; and promote joint sustainable tourism development.

Based on what above, on 2008 the World Bank has approved the project "*Albania/Montenegro Lake Skadar-Shkoder Integrated Ecosystem Management*" (Project ID: P084605) that sees, as implementing agency in Montenegro, the Ministry of Tourism and Environmental Protection. The design for the restoration of the Besac Fortress is enlisted as one of the activities foreseen by that project.

As far as regards directly the Besac Fortress, as already stated above, it is recorded in the *Central Register of Cultural Monuments of Montenegro* (Decision no. 1,217 dated 27 November 1957), as a monument of culture of category III.

4. Determination of the Potential Impacts of the Proposed Project.

⁴ Memorandum of Understanding for Cooperation in the Field of Environment Protection and Sustainable Development Principle Between the Ministry of Environment of the Republic of Albania and the Ministry of Environment Protection and Physical Planning of the Republic of Montenegro.

⁵ Agreement Between the Government of the Republic of Montenegro and the Council of Ministers of the Republic of Albania for the Protection and Sustainable Development of the Lake of Shkodra (Skadar) and its Watershed.

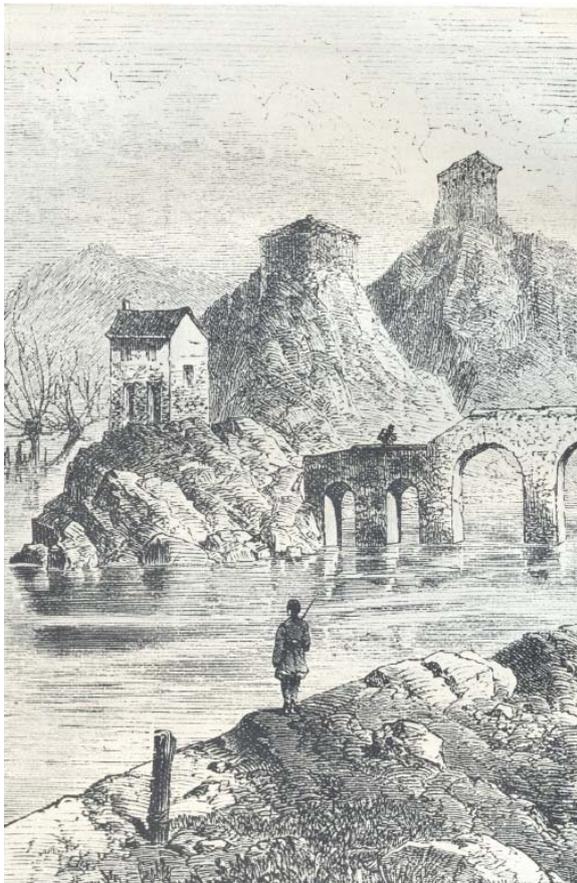
⁶ Available on Government of Albania, Government of Montenegro, and GEF/International Waters websites.

As far as regards the rehabilitation works within the compound, the *Technical Report* and the connected drawings provide a clear description of the works foreseen and their on-ground impact. Furthermore, the technical report contains a list of annexes explaining some significant pillars for the management both of the works and the site after them, such as:

- the *Technical Specifications* (annex #1), that contain indications regarding the correct use of materials and their processing, significant also in terms of environmental impact (i.e. herbicide to be used for weed removal; chemical cleaning; typology and use of water repellents);
- the *Guidelines for Drafting the Health and Safety Plan* (annex #2) to be submitted by the Contractor who will carry out the restoration works, defining a series of obligations to be taken into account during the restoration works, including also a risk assessment and detail site logistics and plant locations;

We estimate that the works for the restoration will have a minor impact of the on-site and surrounding environment; particularly, it is estimated that the works will produce no impact on the ecological network of the Skadar Lake, being it enough distant by the Besac fortress.

As far as regards the final visual impact, we estimate that at the end of the works the Besac fortification will almost regain its traditional image as a castle overlooking the Skadar Lake, as it can be seen by some traditional postcards (see the images below.)



Consequently, the wider scenery will recover an important landmark that in the past composed its basic landscape. Obviously, it means that the actual visual impact will be modified, but we consider – and the Client, too – that the reference point is the traditional image, and not the actual conditions of a traditional compound in ruins.

5. Development of a Mitigation and Monitoring Plan.

We have shared with the Client to produce, at the present stage of the long process for the restoration of the Besac fortress, the *Guidelines for Drafting the Health and Safety Plan* (annex #2 to the *Technical Report*). Such a document is meant to address the Contractor who will be detected for carrying out the works needed to restore the Besac fortification in drafting, together with a Program of Works and the Construction Management Plan, a detailed Method Statement including a risk assessment and detail site logistics and plant locations. Such a document will serve to ensure to reach the positive benefits expected by the designed final stage of the Besac fortress, at the same time preventing undue or reasonably avoidable adverse impacts on the environment of the construction and the connected operations.

The *Guidelines for Drafting the Health and Safety Plan* face the relevant aspects possibly arising by the construction works that could affect the surrounding environment (i.e. how to manage the produced construction waste, the disposal of hazardous waste and the sanitary waste; how to minimize the production of dust and the flow of wash-down facilities; how to manage noise and vibrations, etc.).

In practice, we consider that such *Guidelines* provide the essential tools for ensuring that the mitigation of possible negative impacts is carried out effectively during the construction phase. As shared with the Client, and following the actual construction practice in Montenegro, the above mentioned Method Statement will be further deepened by the Contractor who will carry out the restoration works.

6. Institutional Arrangements for EMP and Strengthening.

The above mentioned *Guidelines for Drafting the Health and Safety Plan*, and the further Method Statement to be produced by the Contractor, describe steps and procedures of the construction process and, consequently, the management of the environmental issues connected to that process.

As already shared by the Client with the international institutions before the present assignment, the construction phase will be carried out with EU funds and, consequently, through the procurement rules stated by that institution. According to that, a local/international provider will be selected for the construction phase, under the responsibility of the Ministry of Local Development and Tourism, and the Ministry of Culture. Consequently, that Ministries will provide sufficient and local staff with adequate skills enabling them to supervise the implementation of all the process to mitigate and monitor the environmental issues, to analyze the data collected, to produce the needed report for adequate information.