

PRELIMINARY ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

“Revitalization of the “Naim Frashëri” Promenade, Sarandë



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1 Introduction

This ESIA report was prepared based on the technical and specific documentation for the project, Spatial Development Plan for Sarandë Municipality. The report was prepared in full accordance with the Spatial Development Plan for Sarandë Municipality and the law nr. 10440 dated 7.7.2011 “on Environmental Impact Assessment”, amended by law nr. 12/2015 (hereinafter National EIA Law).

This ESIA report analyses the project environmental aspects of the proposed investment, and takes into consideration associated impacts and risks, that the propositions offered by the project might pose to the environment. A specific importance has been given to the recommendations and the measures for prevention or reduction of possible adverse impacts on the environment, and also for the improvement of environmental conditions within the territory impacted by the proposed project.

The preparation of this ESIA report took into consideration all the requirements and provisions of the National EIA Law and the respective bylaws. This ESIA is also guided by Project ESMF and meets requirements of the WB Safeguard policies, in particular OP/BP 4.01 Environmental Assessment.

The report itself sets the recommendations and mitigation measures in order to ensure that environmental impacts caused by the proposed project will be acceptable and in compliance with the applied standards by the Ministry of Tourism and Environment and the World Bank.

1.1 Purpose

The proposed investment deals with the renovation of the Naim Frashëri promenade at a length of 1.2 km. This will lead to improved urban infrastructure, it will enhance tourism assets, and through the process strengthen institutional capacity to support tourism-related local economic development in Sarandë.

The main purpose of EIA is to inform decision makers and public of the likely impacts of a proposal before a decision is made. EIA provides an opportunity to identify key issues and inform the stakeholders early in the life of a proposal so that potentially adverse impacts can be addressed before final approval decisions are made.

The study aims to:

- *Minimize the environmental impact through the soil protection, noise control, quality protection of air and water, preservation of natural beauty offered by the landscape and its surrounding ecosystems;*
- *Protect and rehabilitate the natural environment ensuring the sustainable continuity of the biological environment comprising flora and fauna in the environments surrounding of the area taken into consideration;*
- *Protect the cultural heritage and promote sustainable development, helping on the local infrastructure development being one of the key elements to the development itself.*

The study presents screening of environmental aspects of the project, assessment of potential impacts and risks and based on the assessment tailor adequate response that would avoid, minimize or mitigate adverse effects of planned project activities.

The document provides an executive summary of the data including Project technical description, legal and strategic framework, applicable environmental standards, the main environmental / background information, potential adverse impacts for the physical environment, ecological and socio-economic ones in the project area, avoidance and mitigation measures, monitoring, etc.

1.2 Methodology

In order to complete the ESIA study for this project, a range of information has been collected from public institutions, studies conducted, and different reports prepared by experts.

The main sources of public information were: Saranda municipality, Ministry of Tourism and Environment, NEA and the Regional Environmental Office, National Agency of Natural Resources, Albanian Geological Survey, Ministry of Agriculture, INSTAT, Vjosa river basin agency, National Agency for Territory, etc.

2 Legal framework and ESIA

The Law on Environmental Protection of 1993 set the framework for various processes and activities in the field environmental protection in Albania. It also introduced EIA into legislation and provided basic provisions for it. The Law empowered the National Environmental Agency to specify those activities that are subject to assessment.

From 2002 onwards, the national environmental legislation underwent significant changes. The recent drafting of national environmental legislation has been defined by the approximation of EU legislation on the environment. In this process, the EIA legislation was also further developed. The Law on the Environment Protection was revised in 2002. In 2003, an EIA Law was issued that determined which activities have to undergo EIA and also defined the procedures for EIA. In the following years, more detailed legislation related to EIA has been issued and the Laws further amended. The newly adopted EIA legislation also aims to transpose the EU Acquis.

Key legislation includes:

- a) Law nr. 10 431, date 2011, “On Environmental Protection”;
- b) Law nr. 10 440 date 2011, “On Environmental Impact Assessment”;
- c) Law nr. 91/2013, date 2013, “On Strategic Environmental Assessment”;
- d) Law nr. 10 448, date 2011, “On Environmental Permits”;
- e) Decision of the Council of Ministers 686 - 2015, “On Approval of Rules, Responsibilities And Deadlines for Development of Environmental Impact Assessment (EIA) Procedure And Environmental Declaration”
- f) Decision of the Council of Ministers 247 -2014, “On defining the rules, requirements and procedures for informing and including the public in the environmental decision making”.

2.1 ESIA

EIA in Albania is directly integrated in the environmental permitting process. The EIA procedure is considered as part of the development consent procedure. The application for environmental permits marks the beginning of the EIA process.

The EIA Law defines the type and scale of the projects that require an EIA before implementation. The law defines two levels of EIA for projects (1) preliminary EIA and (2) profound EIA.

- Preliminary EIA. This is for projects that may have smaller potential impacts. They include projects listed in Appendix 2 of the Law on EIA (see annex 3).

- Profound EIA. This is for projects with significant potential impacts, as listed in Appendix 1 of the Law and also those projects listed in Appendix 2 which the NEA considers will have a significant impact on the environment (including activities that are to be implemented in a protected area). The profound EIA procedure also includes: public debate and consultations with relevant authorities (see annex 4).

According to the EIA Law, Rehabilitation of Saranda promenade requires only preliminary EIA, as the Urban development projects, are listed in Appendix 2 of EIA Law under the 10. Infrastructure projects.

National Environmental Agency is a central government authority, under the authority of the Minister of Environment, for the EIA consent, whereas the Local Government Territorial Adjustment Council (for the small-scale projects), and the National Council for the Territorial Adjustment of the Republic of Albania (for the large-scale projects) are the competent authorities for granting the development consent.

2.2 The main laws related to environmental protection and assessment

Table 1 National legal framework for environmental protection

Environmental Protection	<p>Law nr.10431 dt 9.6.2011 "On environmental protection"</p> <p>Law Nr. 10 448, dt. 14.7.2011 "On Environmental Permits"</p> <p>DCM nr. 1189 dt 18.11.2009 "on rules and procedures for the drafting of the national monitoring programme for environment"</p> <p>DCM nr.47 dt 29.1.2014 "on definition of rules for the organization and functioning of the NEA and its respective regional agencies"</p> <p>DCM nr. 46 dt 29.1.2014 "on the establishment of the State Inspectorate for environment and forestry"</p> <p>DCM nr. 611 dt 17.9.2014 "on adoption of the national action plan for the implementation of the SEE Strategy 2014-2020"</p> <p>DCM nr. 686, date 29.07.2015 "on adoption of rules, responsibilities and timelines for the procedures of EIA"</p> <p>DCM nr. 687 dt 29.04 2015 "on adoption of rules for maintenance, update and publishing of statistics on waste, formats to be delivered from NEA to local authorities on the quantity of the used oils.</p>
Water Resources	<p>Law nr 111/2012 "On integrated water resources management"</p> <p>Law nr. 9155 dt 24.7.2003 "On wastewater treatment"</p> <p>Law nr. 30/2013 amending Law nr. 8905 dt 6.6.2002 "On protection of marine environment from pollution and damage"</p> <p>DCM nr. 273 dt 7.5.2004 "On adoption of the National strategy on water"</p> <p>DCM nr. 342 dt 9.5.2016 "On adoption of territorial and hydrographic boundaries for the river basin in Albania, together with the centre of their respective river basin council"</p> <p>DCM nr. 662 dt 21.9.2016 "On adoption of tariffs for water resources use and liquid discharges"</p> <p>DCM nr 386 dt 6.5.2015 "on establishment and mode of organization of the state inspectorate for water"</p> <p>DCM nr. 246 dt 30.4.2014 "on definition of environmental quality norms for surface waters"</p> <p>DCM nr. 267 dt 7.5.2014 "on adoption of the list on priority substances in the aquatic environment"</p> <p>DNWC nr. 3 dt 17.2.2015 "on proposing the draft decision for urban wastewater treatment"</p> <p>DNWC nr 4 dt 17.2.2015 "on Content, development and implementation of the national strategy for water, river basin management plans and flood risk management plans"</p> <p>DNWC nr 3 dated 13.12.2017 "on adopting the national strategy on integrated water resources management"</p>
Soil and Agriculture	<p>Law nr. 24/ 2017 on "Administration of irrigation and drainage"</p> <p>DCM nr. 410 dt 27.6.2012 "on definition of rules and procedures for changing the categories of soil resources"</p> <p>DCM nr. 283 dt 1.4.2015 "on definition of types, rules, criteria and procedures for construction of objects for production, protection and use of agricultural products, the agricultural land"</p>

Air Quality	<p>Law nr. 162/2014 "on protection of air quality"</p> <p>DCM nr. 594 dt 10.9.2014 "on adoption of national strategy for air quality"</p> <p>DCM nr. 352 dt 29.4.2015 "on evaluation of the air quality and the requirements for specific pollutants related to it"</p>
Biodiversity and Nature Protection	<p>Law Nr 68/2014 amending the law nr. 9587, dt 20.07.2006, "on protection of biodiversity";</p> <p>Law Nr. 10 006, date 23.10.2008 "on protection of flora and wild fauna";</p> <p>Law Nr. 41/2013 amending the law nr. 10006, date 23.10.2008 "on protection of wild fauna";</p> <p>DCM Nr.84, date 27.01.2009 "on defining criteria for establishing the network of inventorization and monitoring of biodiversity";</p> <p>Law Nr. 61/2016 "on declaring the moratorium of hunting for Albania".</p>
Forestry	<p>Law Nr 48/2016 amending the law Nr. 9385, date 04.05.2005 "on forestry, amended";</p> <p>Law Nr 49/2016 amending the law Nr. 9693, date 19.03.2007 "on pasture fund";</p> <p>DCM Nr.436, date 8.6.2016 amending the DCM Nr.1374, date 10.10.2008 "on definition of rules and procedures, to be followed for removal, increasing and change of destination for the pasture fund";</p> <p>DCM Nr. 215, date 16.03.2016 "on establishment of task-force 'green guard'";</p> <p>DCM Nr. 433, date 08.06.2016 "for the transfer to the ownership of forestry and pasture according to the lists of inventories, under the Ministry of Environment";</p>
Waste Management	<p>Law Nr 156/2013 amending the law Nr. 10463, date 22.09.2011 "on the integrated waste management";</p> <p>Law Nr. 8094, date 21.03.1996 "on public removal of waste";</p> <p>Law Nr. 10448, date 14.07.2011 "on environmental licensing";</p> <p>Law 139/2015 "on self-governance of local authorities";</p> <p>DCM Nr. 333, date 26.01.2011 "on administration of dumpsites for urban waste";</p> <p>Law Nr. 34/2013 amending the law Nr.9115, date 24.07.2003 "on treatment of wastewater;</p> <p>DCM Nr. 798, date 29.09.2010 "on adoption of regulation for the administration of hospital waste";</p> <p>DCM Nr. 178, date 06.03.2012 "on waste incineration";</p> <p>DCM Nr. 452, date 11.07.2012 "on waste landfills";</p> <p>DCM Nr. 418, date 25.06.2014 "on separate collection of waste at source";</p> <p>DCM Nr. 608, date 17.09.2014 "on definition of measures needed for collection and treatment of bio waste, criteria and timelines for their reduction";</p> <p>Minister's Order Nr. 1738, date 12.03.2015 "on criteria for study the rehabilitation of dumpsites for urban waste, landfill construction or treatment plants construction for solid waste";</p> <p>DCM Nr. 575, date 24.06.2015 "on adoption of requirement for solid waste management;</p> <p>DCM Nr. 843, date 14.10.2015 "for the closure of old industrial mining enterprises and the establishment of the centre for collection and treatment of chemical waste"</p> <p>Law Nr 39/2013 amending the law Nr. 9774, date 12.07.2007 "on evaluation and administration of noise";</p>
Noise	<p>DCM Nr. 587, date 07.07.2010 "on monitoring and controlling the noise level in urban and touristic areas".</p>
Climate Change	<p>Law Nr. 9334, date 16.12.2004 "on becoming a party of the Republic of Albania to the Kyoto protocol under the Convention to Climate Change";</p> <p>Law Nr.10448, date 14.07.2011 "on environmental permitting" (Directive 2008/1/EU).</p>

Public services	<p>Law Nr 45/2013 amending the law Nr. 7643 date 02.12.1992 “on public health and sanitation state inspectorate, changed;</p> <p>Law Nr.9915, date 12.5.2008 amending the law Nr. 8102 /1999 “on the regulatory framework for water supply network and wastewater treatment”;</p> <p>Law Nr 34/2013 amending the law Nr. 9115, date 24.07.2003 “on environmental treatment of wastewater”;</p> <p>Law Nr. 37/2016 amending the law Nr. 10081, date 23.2.2009 “on permitting, authorizations and licensing of the Republic of Albania”;</p> <p>DCM Nr. 145 date 26.02.1998 “on adoption of the regulation of hygiene and sanitation for controlling the drinking water quality, projection, construction and supervision of water supply systems”;</p> <p>Law Nr.9860, date 21.1.2008 amending the law Nr.8518, date 30.07.1999 “on irrigation and drainage”;</p> <p>DCM 1340/2009 “on adoption of regulation for water supply and sewerage in the service area”;</p> <p>Law Nr 45/2013 amending the law Nr. 10138 date 11.05.2009 “on public health”;</p> <p>DCM nr. 379 dt 25.5.2016 "on adoption of regulation for the drinking water quality"</p>
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2.3 Cultural heritage legislation

Law 9048 (“Cultural Heritage Act”) of 2003 (amended by Law No. 9592, dated 27.07.2006; Law No. 9882, dated 28.02.2008) is the primary legal framework governing the management of tangible and intangible cultural heritage in Albania. Law 9048 represents the first effort to extend legal protection to material within the field of intangible cultural heritage. Its contents include: Categories of Albanian cultural heritage to be protected (i.e. tangible, intangible, movable, immovable); Definitions and examples of tangible and intangible heritage; Responsibilities of relevant institutions and government bodies; Penalties for those who damage cultural heritage; and Mitigation procedures. Article 4 lists the tangible, immovable values that are to be protected, which include, but are not limited to: Archaeological sites; Historic structures (including places of worship); Historic towns and neighborhoods; Cemeteries and graves; and Historic landscapes.

According to the law, projects need approval from National Archaeological Council for the works near monument and if anything, unusual will be found during the earth works and excavation process, the contractor has to stop immediately the works, urgently inform the local authorities, the Archaeological Service Agency, Institute of Cultural Monuments and also the Ministry of Culture. They will send archaeologists and field specialists in order to check and evaluate the supposed archaeological objects and the works will restart only after the official permit is given by the Institute of Cultural Monuments.

Albania also respects the international obligations provided under international conventions and agreements ratified by Albania in the framework of cultural heritage.

Law no. 9490, dated 13.03.2006 "On the Ratification of the Convention for the Safeguarding of the Intangible Cultural Heritage", Paris 2003, 2006

Law nr.9806, dated 17.09.2007 On the Ratification of the European Convention "On Protection of the Archaeological Heritage" 2007

Law No. 10 027, dated 11.12.2008 "On accession of the Republic of Albania to the Convention on the Protection of Underwater Cultural Heritage", Paris 2001, 2008

2.4 Permits necessary for Saranda Promenade

According to Albanian legislation this project requires:

1. Approval of preliminary EIA, EIA statement or environmental consent
2. Construction Permit according to Law no.107/2014, "On planning and development of the territory";
3. Approval from National Archaeological Council according to Law no. 9048, dated 07.04.2003, "On Culture Heritage".

3 Project description

3.1 Saranda and current state of its promenade

Saranda is a place in the most southern part of Albania with around 37.000 inhabitants. It is bordered with Vlora to the north, Delvina and Gjirokastër to the east and with Greece to the south of Ionian Sea. It lies between the hills that descend and reach the Ionian Sea.



In respect to the number of visitors during summer tourist season, the population raises to around 250.000. Rapid demographic and urban expansion have given to the city of Saranda the opportunity to build a considerable number of accommodation structures, transforming the city into one of the most important touristic sites in the country. Saranda Promenade is currently heart of cities tourism although not fully pedestrian zone. The promenade is regularly used by both residents and tourists However, it is an aging infrastructure and the last maintenance works took place about 40 years ago. The retaining wall of the promenade are eroded and pose potential risk of collapse, while previous repair works, and materials have not met the required quality standards, resulting in damages that post serious risk to pedestrians and tourists. The facades of buildings alongside the promenade have lacked a unified style and are constructed in different architectural designs and of various materials such as inappropriate plasters, stone-slabs, ceramic tiles, plastered walls, different colors of facade paintings. Alongside the promenade, in various parts, cable lines, advertising boards and labels, shop lights and stores, air conditioners are installed creating an inappropriate visual image.

3.2 Rehabilitation of Saranda promenade

The project foresees the introduction of a new organizational concept within the existing promenade.

The existing promenade has a width of 6-15 m while the new project foresees to enlarge the width to 6-25m width across the center coast of the city, from the start point near the asphalted road to Butrint Hotel, up to the proximity of the Saranda Port. Multifunctional public spaces equipped with information points and all kiosks will be set along the promenade, and facades and urban fixtures will be unified.

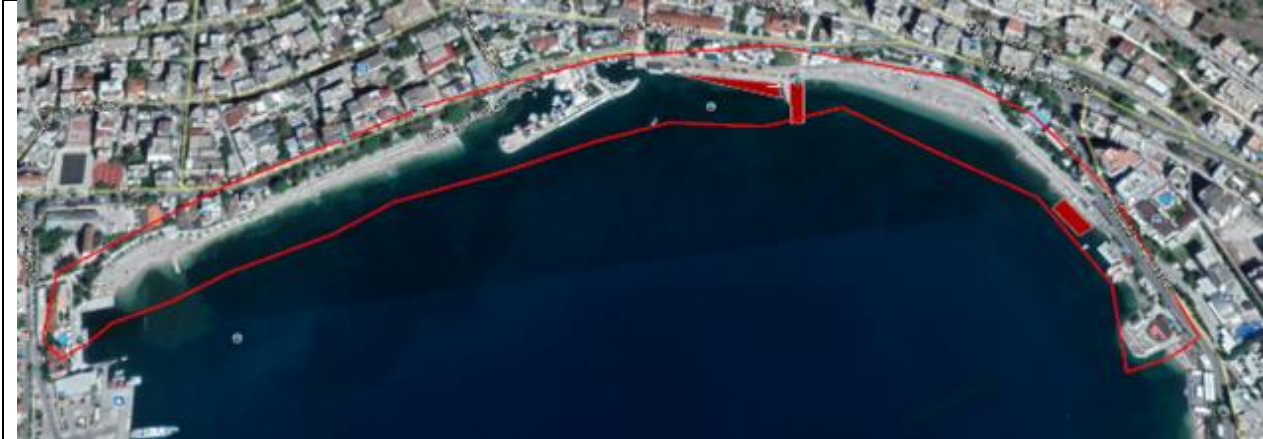


Figure 3 Area of intervention (red line) and planned extensions into the sea (red area)

The rehabilitation of the promenade includes:

- a) Replacement of existing surface cover - pavement
- b) Vegetation planting
 - a. Planting of new trees
 - b. Removal of current trees
 - c. Installation of irrigation / watering system
- c) Upgrade of lighting
- d) Installation / upgrade of underground infrastructure
- e) Upgrade of existing swimming pool
- f) Extension of promenade with marine works
 - a. The Panorama Balcony
 - b. The central square Pier
- g) Restoration of façades
- h) Remodeling of kiosks

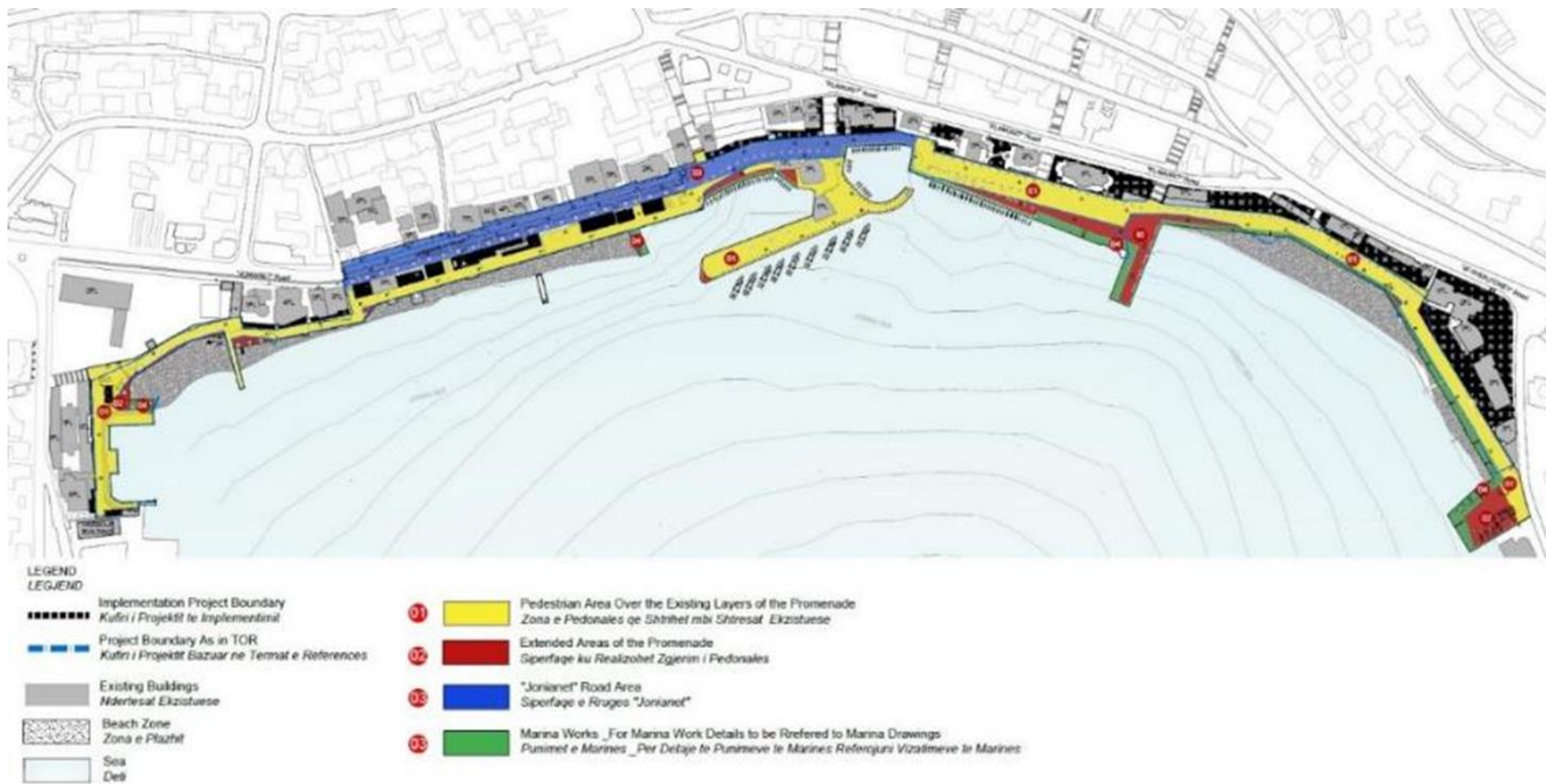


Figure 4 Planned interventions on Saranda promenade (yellow, pedestrian area, red, extended area. Blue road area; marine works)

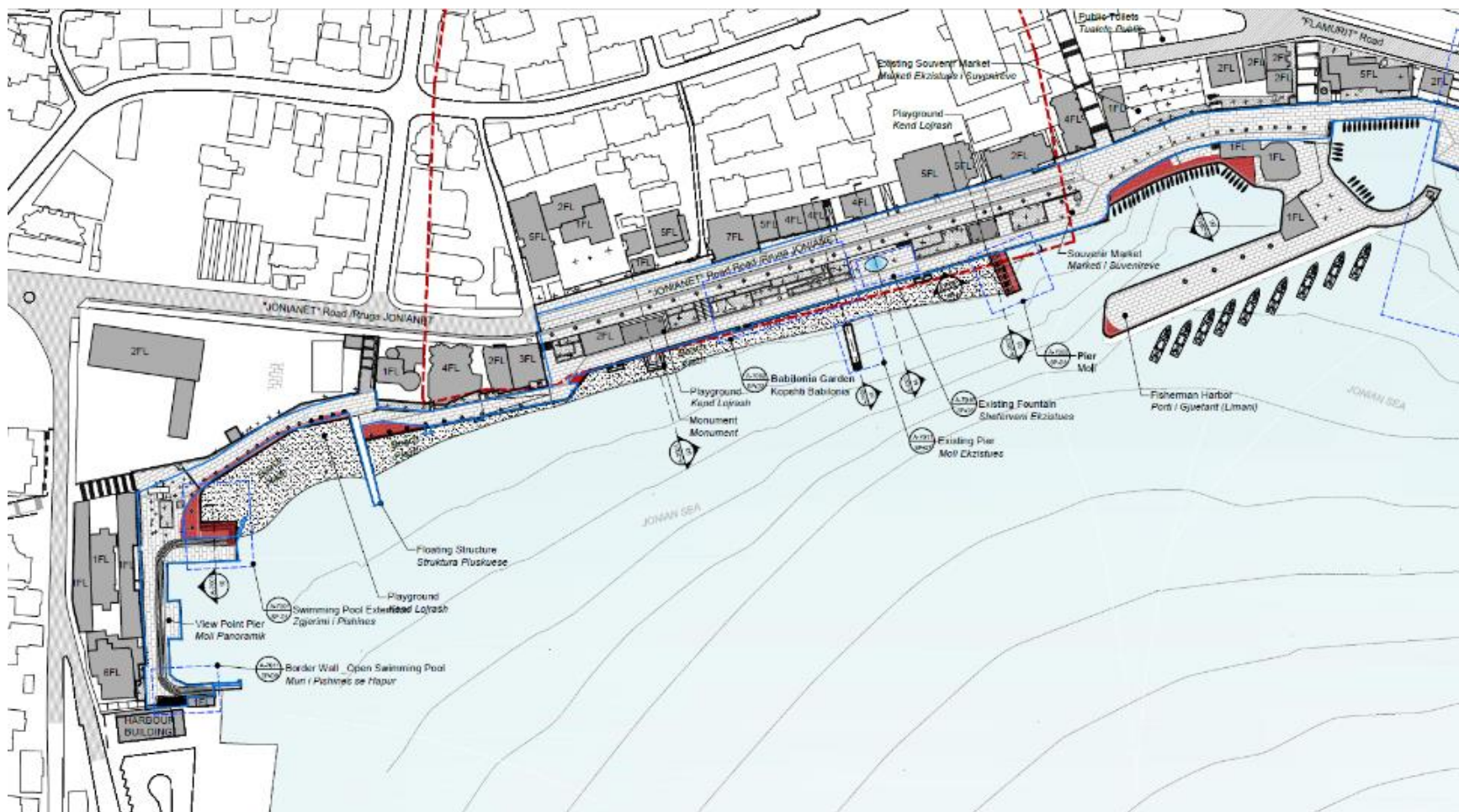


Figure 5 Layout map of Promenade intervention A

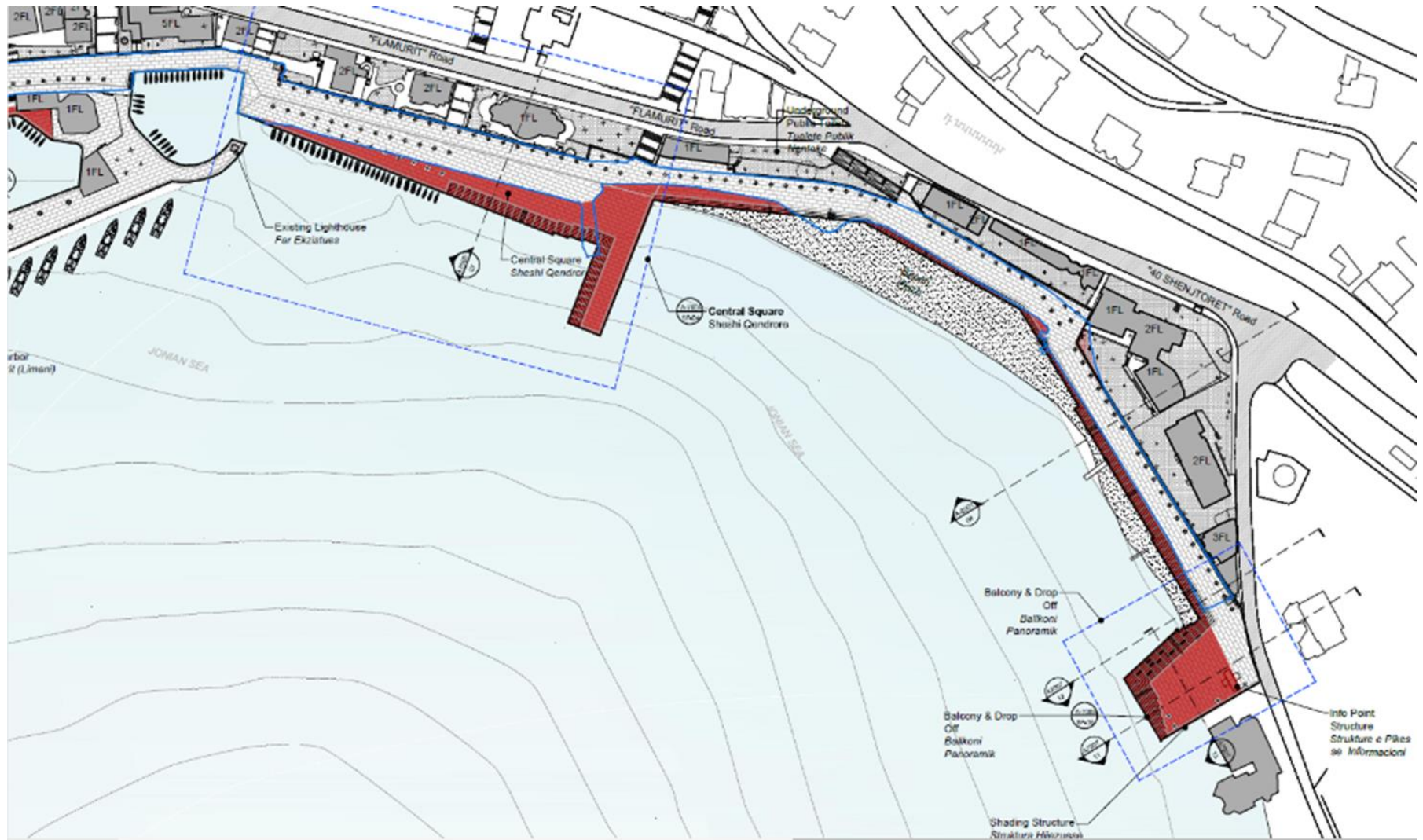



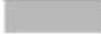

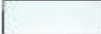









Figure 6 Layout map of promenade intervention B

LEGJEND

	Implementation Project Boundary <i>Kufiri i Projektit te Implementimit</i>
	Project Boundary As in TOR <i>Kufiri i Projektit Bazuar ne Termat e References</i>
	Castle Wall <i>Muret e Kalase</i>
	Existing Buildings <i>Ndertesa Ekzistuese</i>
	Beach Zone <i>Zona e Plazhit</i>
	Sea <i>Deti</i>
	Saranda Stone Tiles <i>Shttrim me Pllaka Guri nga Saranda</i>

	Wood Chips <i>Ashkia Druri</i>
	Water Feature <i>Element Ujor</i>
	Green Surface <i>Siperfaqe e Gjelberuar</i>
	Extension <i>Zgjerime</i>
	Special Detail <i>Detaj Special</i>
	Section <i>Prerja</i>

3.2.1 Replacement of existing surface cover – pavement

Promenade surface will be paved with local natural stone in 3 color tones, natural and typical for Saranda (white, beige, rose), their surface sawn and bushed hammered (low relief level), with a flat- anti slippery surface; while the square border near the beach and the sea will be paved with prefabricated artificial stone tiles. The color of prefabricated artificial stone tiles will be light beige. The construction of the substrate will be made with gravel 0-31.50mm (d=100 mm) or gravel from 0-50mm (d=150mm). The current pavement (asphalt and old stone) will be removed.

3.2.2 Upgrade of lighting

The upgrade will include interventions on a) road lighting poles, b) pillars with asymmetric lights, c) ground spots placed around the trees perimeter, green vases in the vicinity of the castle gates, without interfering with the actual monument (Entrance Gate) d) woody spots placed on pillars, and e) linear lighting at the entrance of the Promenade.

3.2.3 Vegetation planting

The project foresees the planting of trees and bushes that are adapt to the characteristic climate of Saranda, as per the table below. The umbrella pine trees of species *Pinus pinea* has had great success along the nearby coastal towns, such as Vlora, Himara, Dhermi. Washingtonian palms, bukconvile, lavender, rosemary bushes are also species that grow well and usually encountered in Saranda town. Majority of planned species are either native species, or those that have also been growing for decades in the Promenade and Saranda area, for decoration purposes.

Table 2 Vegetation to be planted

Tree: Supply & Planting of decorative tree "Pinus Pinea" Height of tree= 15 m, Tree crown to start at the middle of the height of the trunc	pc	121
Tree: Supply & Planting of decorative tree "Washingtonia Filifera" Height of tree= ≥ 8 m	pc	22
Tree: Supply & Planting of Banana Tree "Musa Paradisiaca" Height of tree= 4-5 m	pc	14
Tree Supply & Planting of Yucca Gloriosa - Small Tree, Height of tree ≥ 4 m	pc	20
Bush: FV Bukonvile (h=5m)	pc	4
Bush: Vines, Hedera Helic (h=3m)	pc	4
Bush: Lavandula Angustifolia	pc	55
Bush: Cystus Scoparium	pc	65
Bush: Myrtus Communis	pc	60
Bush: Rosmarinus Officinalis	pc	40

Some of the trees although not native grow in Saranda for decades. Cultivation of banana trees (*Musa paradisiaca*) for decoration purposes is successfully done throughout the years due to the ecological characteristics in the area (average yearly temperatures, winds and warm days/cold days ratio). *Yucca gloriosa* is widely distributed in Albania for decoration purposes and will survive well in Saranda. Both these species are not autochthonous but have been successfully cultivated for decades in Saranda. None of the species is included in the nominated list of invasive species for Albania. All the other species specified (Pines, Washingtonia Palm) are very common trees planted and well growing in the region. The Washingtonia Palm is widely used to replace the Date Palm, which is dying of a bug disease throughout the whole Mediterranean region. The design specifies exactly the position of each tree and that the technical specifications are only specifying the requested size for planting each tree. After planting, measures will be taken such as: adding humus and organic soil, sufficient watering of the roots, adding gravel in the hole and planting near other trees for protection from wind.

3.2.3.1 Relocation of existing trees

The project also foresees the relocation of the existing trees of different trunk dimensions, such as:

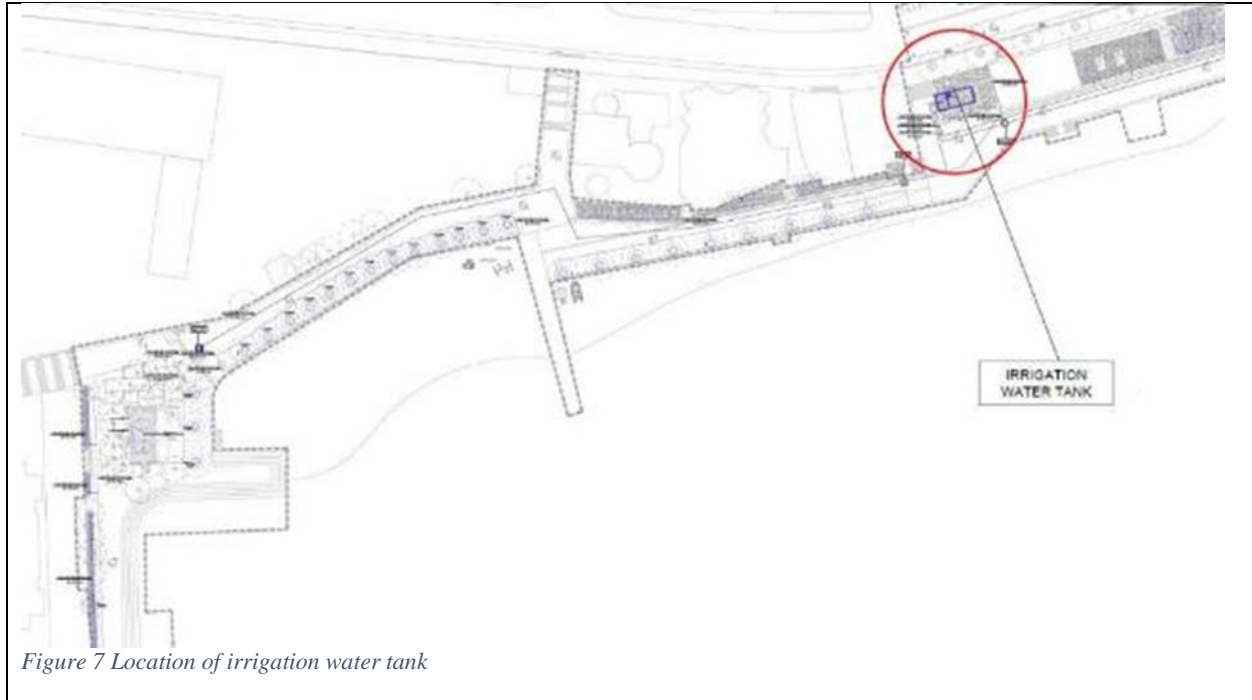
- a) 15 pieces of trees at trunk perimeter of 45-70 cm
- b) 30 pieces of trees and bushes at a trunk perimeter of 21-40 cm
- c) Removal of 3 dead palm trees along the promenade

There are no rare, sensitive or protected plant species and these trees may be replanted outside the promenade area because the project foreseen to unify the view by the distribution of trees in specific areas in the promenade and the trees that will be removed are not compatible with the trees foreseen in project design.

The replanting of the existing trees will be performed using specific equipment that do not damage the roots and will occur during the non-vegetative season. A replanting plan will be prepared by a competent plant expert. The Plan will focus on conserving biodiversity and minimizing risk of alien species introduction. Plan will be prepared prior to the construction works commencement.

3.2.3.2 Irrigation for the plants

The project also foresees two types of the irrigation systems for the plants, one with static pop-up irrigators and the other one will be drip irrigation (micro-irrigation) system for new trees. One water tank will be constructed for the water need of irrigation network that will guaranty irrigation in any moment for the greenery of the promenade. The water tank volume is foreseen 22 m³ and it is located near the middle of the promenade (Figure 7)



3.2.4 Installation / upgrade of underground infrastructure

Underground infrastructure for the promenade lighting, water irrigation as well as draining of the promenade will be constructed. The existing wastewater pipes may be replaced and/or rehabilitated. Replacement of existing pipes will be done on a case-by-case basis, during the works where it will be necessary. The new low voltage power supply cables for 400 / 230V system distribution will be compatible with EN and TNC-S systems. The isolation should be resistant to moisture and heat, adapted to maximum working temperatures up to 70 degrees Celsius. The main water pipelines should be replaced with PE 100, black color and confirm to the EN standard such as EN12201-2.

3.2.5 Upgrade of the existing swimming pool

The existing swimming pool, located at the western end of the existing promenade, will be upgraded by adding a floating structure with water sport activities. This will affect the staircase section that will expand by 6.35m at the beachfront. The height of the stairs will remain in the existing quota. Works will include cleaning of the existing stair surface, sandy wet cleaning and resin coating on the surface of all stairs with concrete in appearance.

3.2.6 Extensions of the existing promenade

There will be two extensions into the sea: a) Panorama Balcony and b) the central square Pier (see figure 4, 5 and 6)

3.2.6.1 Panorama Balcony

1. The Panorama Balcony at the entrance of the promenade. The intervention consists in the extension of the existing balcony into the sea, mostly consisting of stairs, at an additional length of around 30 m into the sea (Figure 4 and 6).

At the entrance of the promenade, rehabilitation and extension of Panorama Balcony which comes out from the beach coast and its bordered to the west and south with stairs descending to the sea, will take place. Extension surface of the balcony is 1240 m² which 972 m² is sea reclamation. This new extension consists of the extension of the existing structure with mainly staircases into the sea, at a length of approximately 30 m in addition to the existing structures.

3.2.6.2 The Pier at the Central Square

The central square Pier will be extended in addition to the existing pier. At the central square, there is an existing Pier, which will be extended, up to a total length of 56 m, out of which 30 m is the length of the new extension. Extension surface of the central square is 2,047 m², most of which lies in parallel to the existing coast / contour. The bearing structure for these additions will be realized by two main typologies: Concrete blocks/Kesone- Vertical Walls (see Figure 4, 5 and 6)

On the opposite side, the pier near the Fisherman Harbour will be expanded to 6.4m width and 17.5m length which will have stairs in west side that descend to the beach. The extension will consist of platforms and stairs descending into the water, destined for relaxation and recreational use, with a surface of 112m².

3.2.6.3 The technology for extending the promenade with the focus on sea leveling

The works shall consist of:

1. Levelling of the sea bed/ beach area, for the purpose of installing the concrete blocks. No dredging of the sea bed is foreseen.
2. Placement of premanufactured Concrete Block- TYPE 1 on top of the levelled and compacted surface
3. Placement of the premanufactured Concrete Block- TYPE 2 on the Concrete Block- TYPE 1.
4. The final top Block Concrete Block- TYPE 3 is placed always on the top when the desired level is realized.
5. A layer of 40 cm of concrete will be poured on top of the Concrete blocks to stiffen and connect the two wall structures.
6. Excavating, boring, digging, sleeving, and dewatering the pile shaft as required to prepare the pile for concrete placement will be limited within the pile footprint.
7. Supplying and placing reinforcing steel
8. Supplying, placing, vibrating, heating and curing concrete.

Of all listed activities, leveling of seabed present most risk to the environment. The sea bed in front of Saranda Promenade is rocky, with some seaweeds. Based on previously conducted studies, the seaweed vegetation starts at a distance of 200 m from the existing promenade border. Sea bottom preparation consist in levelling, so that concrete blocks to be used for the extension will have sound and a good connection with the ground. Levelling of the seabed can be accomplished with a long arm excavator. Once the sea bottom where concrete blocks will be placed is cleared and levelled in the correct position that is detailed on the designs, the next process of work is to place the concrete boxes on the ground. Once the reinforced

concrete blocks have been prepared, they should be placed on the right position with the help of high tonnage cranes. The levelling of the seabed can be achieved gradually, i.e. in the beginning to be excavated and levelled the part closer to the existing promenade, and after this process on the levelled ground to be placed the concrete boxes in the right positions, up to the level described in the designs. And after this part is completed with concrete boxes, the next process consists in filling these are with gravels. After this “first” part is done the work can proceed in the same way until all the area is completed. And after all these processes are finish, the contractor can proceed with the process of drilling the piles. The drilling process can be done on dry land now. If the works are done in this order the environmental impact is lesser and is almost limited to the area where the promenade should be build.

Details on works related to extension are described in annex 5.

3.2.7 Remodeling of the existing kiosks and other structures on Promenade

Total of 33 buildings will undergo the process of urban re-vitalization (Figure 8). The new developments usually will keep the existing typology of the area, respectively remodeling of outside structures of houses (apartments, houses, hotels, etc), lightening, completion of the area with extra facilities for tourists during summer period such as touristic market and sport centre, but also keeping clean and tidy the surrounding environment. Existing kiosks will be remodeled, position of some of those might slightly change but no structures will be permanently removed. Detailed description of intervention on kiosk is given in annex 6

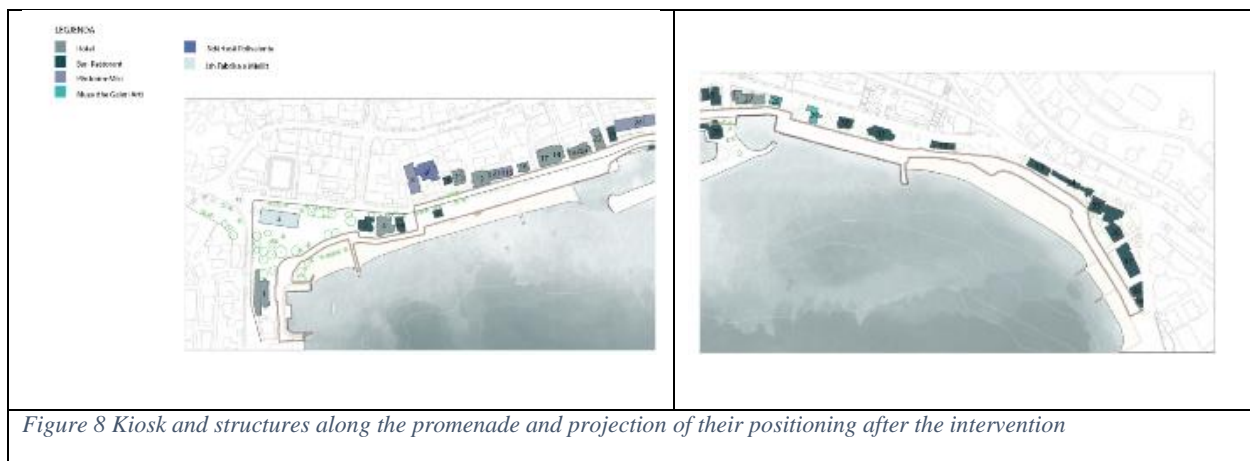


Figure 8 Kiosk and structures along the promenade and projection of their positioning after the intervention

3.2.8 Renovation of fascades

In general, intervention on the facades has applied the following:

- Color Palettes: Similar palette of colors used for the promenade and for the facades.
- Metallic Laser Cut Panel: Laser Cut Pannels are metal structures proposed to hide AC Units, creating a rhythm on the facade.
- Tents Unification: Tents Unification on the Ground floor are used to avoid the countless type of existing tents.
- Advertising Elements Unification: The menu board are proposed to be used on all waterfront bars and restaurants providing a servitude to all the tourists.

- e) Removal of the unnecessary extra elements: Reposition of the antennas and satellite parabolas on the terrace, with an angle of 30 degrees from the human eye from the promenade.
- f) Uniformity / White Shutters & Blue Railings: With the proposal of the white shutters we create a unification of the facades and a clear image of the buildings. By coloring the railings blue we get a linear and unified image of the buildings.
- g) Visual Connection between Promenade and Building Façade: The connection between the buildings and the promenade is made through similar shades of intervention.

4 Description of the existing environment

4.1 General description of the territory

The municipality of Sarandë borders to the north with the municipality of Himarë and Delvinë, to the south with the municipality of Konispol, to the east with Finiq municipality and west to the Ionian Sea. The centre of the municipality is the city of Saranda. The municipality has two administrative areas, city of Saranda and administrative unit of Ksamil. According to the national census of 2011, the new municipality of Saranda has a population of 20,227 inhabitants while in the civil registry is registered a population of 50,680 living inhabitants. The municipality has a surface of 58.96 km². Based on Census results, the population density here is 343 inhabitants/km² while according to the civil registry; the population density is 859.56 inhabitants/km².

Saranda city connects to the national road network through the Qafe Gjashta region of the national road, which goes to Kakavija (Greek border) and also connects to the coastal road in direction to Vlora (124 km distance), which is part of the Adriatic-Ionian Blue Corridor.

After the completion of the main road corridor Tiranë – Durrës – Lushnjë – Fier – Vlorë, which actually is improved, being also under a process of modernization, it is expected for Saranda to have a greater access to the central and north Albania.

Inside Saranda city there are 5 main parallel roads and perpendicular connecting roads. These roads are not in very good condition.

Pedestrians

Currently the pedestrian roads in the project area are opened for vehicles. However, during the summer season some off-hours are established in order for tourists to have safer and comfortable sightseeing around the city. Walking the promenade, one could observe a variety of different pavements and urban elements in shape and color. This does not help in the perception of a continuous and unique promenade, in the contrary, it creates the perception of different patches or segments of urban spaces.

Marine transport

The marine transport operates through Saranda port in connection with Corfu which operates during the summer season.

Air transport

Air transport service is done through the Nënë Tereza international airport in Tirana and Corfu airport in Korfu, Greece. The airport in Tirana being the only international airport in the country, is located in a distance of about 280 km from Saranda, and is not considered suitable for covering the travel needs of tourists.



Figure 9 Overview of Saranda promenade

4.2 The socio-economic environment in the project area

Data on main social and economic indicators has been gathered from central and local authorities, national census of 2011, INSTAT, as well as interviews with locals, from which resulted that nearly all respondents generally perceive that the project related results would be of substantial benefit in improving the quality of life of residents in the area.

Based on the latest Census (2011), the population of Saranda municipality has shown a slight increase of 18% over the last 10 years. There is also a small male dominance in this municipality.

Key economic sectors include public services, education, construction, financial services and business, transport, telecommunication, production, tourism and recreation, cultural industries, agriculture and livestock. The irrigated surface areas are 23.530 ha for the district.

The largest portion of businesses belong to the trade sector (41.2%), hotels and restaurants (21.5%) and processing industries of only 6.1%. The municipality has approximately 2,000 businesses / SMEs.

Saranda city is one of the most important cities of Albania. The port of Saranda is ranked third by national importance.

New and uncontrolled constructions have really impacted the quality of life in this city. The city serves also as the nearest gate to Greece, especially for tourism purposes.

Based on the data provided by INSTAT (annual bulletin 2016) for the district, the average monthly income per capita for the period 2011-2015 is around 52,553 Lek, and the monthly average expenses are around 54,931 Lek (table 2). Moreover: The brut PBB (per capita) is 94.8 %, while the real increase of PBB is -1.4 %.

Table 3 Indicators affecting the economy of the area (INSTAT, Annual Bulletin)

Indicators	Value affecting the PBB (%)
Agriculture, forestry, fishing	6.2
Mining, energy, water	5.4
Construction	8.5
Trade, transport, hotels	5.6
Information and communication	3.4
Insurance	5.6
Real estate	7.4
Scientific activities	2.5
Public administration	6.1
Recreation	5.1

The municipality has within its territory the lake of Butrint (approximately 14 km away), which is an important area for mussels' production and fisheries in the lagoon.

During the recent years, across the hills of Saranda have been planted over 30,000 pines and cypress trees, which aim to cover the hills surrounding Saranda and provide a green crown to the city. Lately the city was expanded through construction of some roads, where the last one (road No. 5) aims to ease the heavy traffic in the centre of the city and also to increase the capacities for parking.

The municipality of Sarandë is famous for its cultural traditions such as artisan works with wool, carpets, wood works, stone works, rakia production and wine, traditional food, etc.

One of the main social issues is migration. Overall migration has been one of the main demographic problems in Saranda changing considerably the population ratios and structure. During the years 1990-2000, an important part of labor force migrated outside of Albania. Migrants from Saranda have migrated mostly to Italy and Germany, and lesser amount to Greece. Once the migrants found employment in these countries and became officially registered in these Western countries, they took their families with them.

Unemployment is a problem in Saranda, as it is in the whole country. The official number of unemployed is large but it should be mentioned that an important part of the labor force is working informally, although steps forward have been taken by the central government to reduce the informality. Most of the population are employed in private enterprises, but also at state offices.

In the territory surrounding the “Naim Frasheri” promenade, the main source of profit for the locals is tourism. There are several restaurants, bars, hotels and seasonal souvenir kiosks located along the promenade, which base their source of income on tourism flow.

The revitalization of the existing promenade will boost tourism in the area, thus providing better sources of income to the local businesses.

4.3 Cultural assets

Saranda urban center is considered and approved as an archaeological zone category A and B. Category A zone presents higher protection. The promenade segment also is part of the both above mentioned zones. In the map are illustrated the respective boundaries of the zones, approved with Decision No. 428, date 20.06.2012. In the map is drawn even the walls of the hypothetical old castle of Onhezmi (Figure 19).

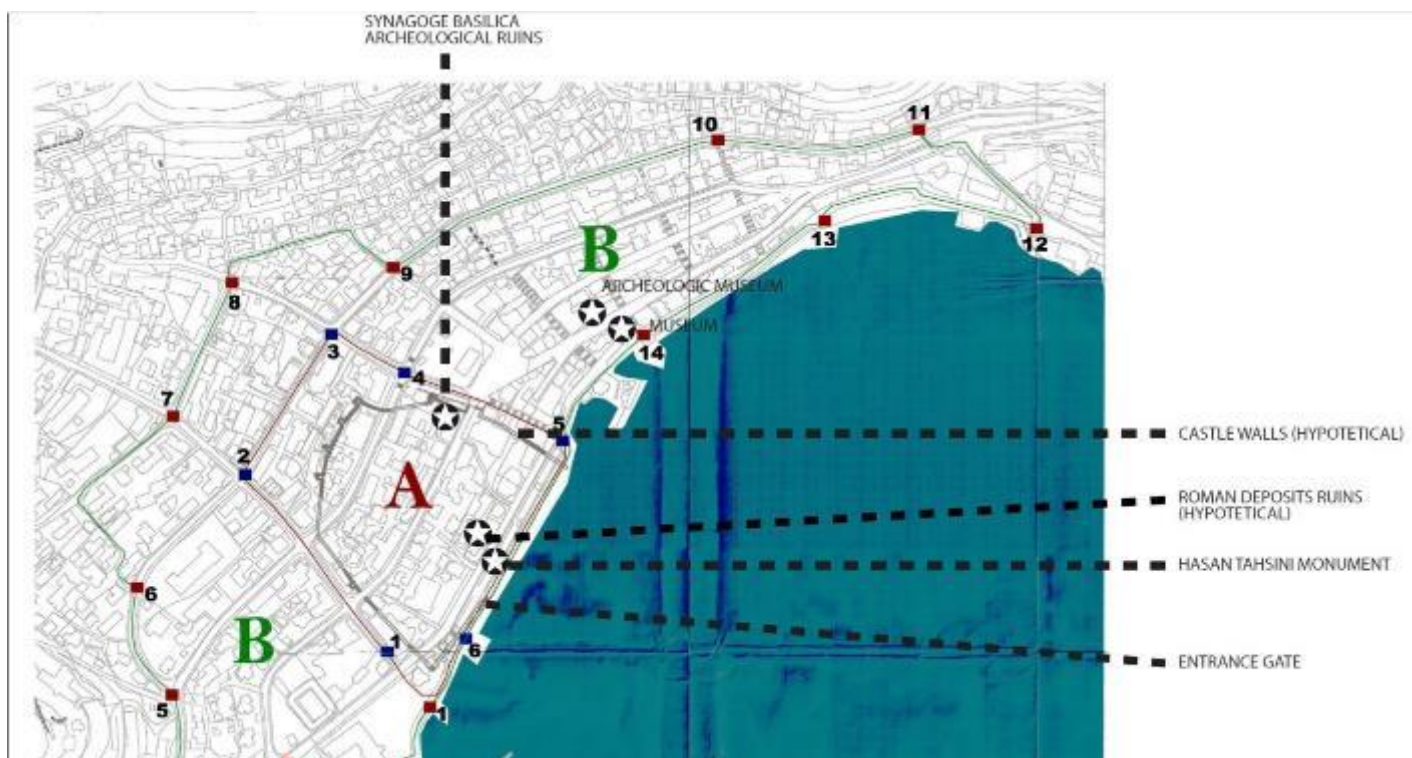


Figure 10 Cultural heritage sites / monuments near or at the project area

Important areas identified

- segment from the start of “Hasan Tahsini Promenade to the Limani zone (Staircase E) where the most valuable found and saved ruin is the “Onhezmit’s Entrance Gate”
- Area around Republika Hotel where are the ruins of Roman Deposits
- Area around Staircase E where are thought to be laid the hypothetical walls of Onhezmit Castle.



Figure 11 Ruins of the old castle wall A



Figure 12 Ruins of the old castle wall B

At high sensitivity points, where the ruins of Monuments are located (Figure 11, 12), contemplated interventions such as the expansion of the public beach or the proposed model of the "Babylon Garden" vegetation near the ruins of the Monument "Gate of Onhezmit" will not affect monuments integrity and will adapt a greenery that does not cover the monument but highlights its values. Precautions will be taken during construction to securely isolate these ruins with nets and proper signage, albeit they are not located within the promenade. In addition, in the site there will be supervision by cultural heritage experts also from the Ministry of Culture and if they will see necessary more protection for the monument then other conservation measures will be taken.

The works will not affect monuments. There will be no extension of promenade near the monuments so the wall near the monument will not be damaged or even touched. Closest works will take place approximately 2m away from monument and will consist solely of restoration of pavement and its layers.

Other sites in the municipality that are of special interest in regard to archaeological heritage, are the archaeological park of Butrint and other important objects such as monastery of 40 saints, castle of Lëkurësi, monastery of Shën Gjergj, city fortress remaining's, etc. Within the territory of this municipality can be found 118 objects registered as cultural monuments belonging to the first category. None of sites mentioned above will be affected by the Project because the work will be carried out at great distance from these sites.

4.4 The physical environment

4.4.1 Climate

The project site is situated in the low central Mediterranean area, which covers almost all the coastal lowland of Albania. This Mediterranean climate is characterized by hot and dry summers, and cold and wet winters. The rainfall annual average is between 950 - 1,200 mm/yr, where most of the rain falls during October-March (70-80%). The annual average temperature is measured between 15° -18° C. The highest

temperatures are measured during June-August, with a maximum of 30°-35° C. The lowest temperatures registered in the month of January, reaching the values between 6.5°-7.5° C.

The factors defining the climate in this area are: a) Geographical position (closeness to the sea); b) Impact of cyclones and anti-cyclones which regulate it, and c) Morphology of the region.

In Saranda Municipality, the average weather data is as follows (Figure 13):

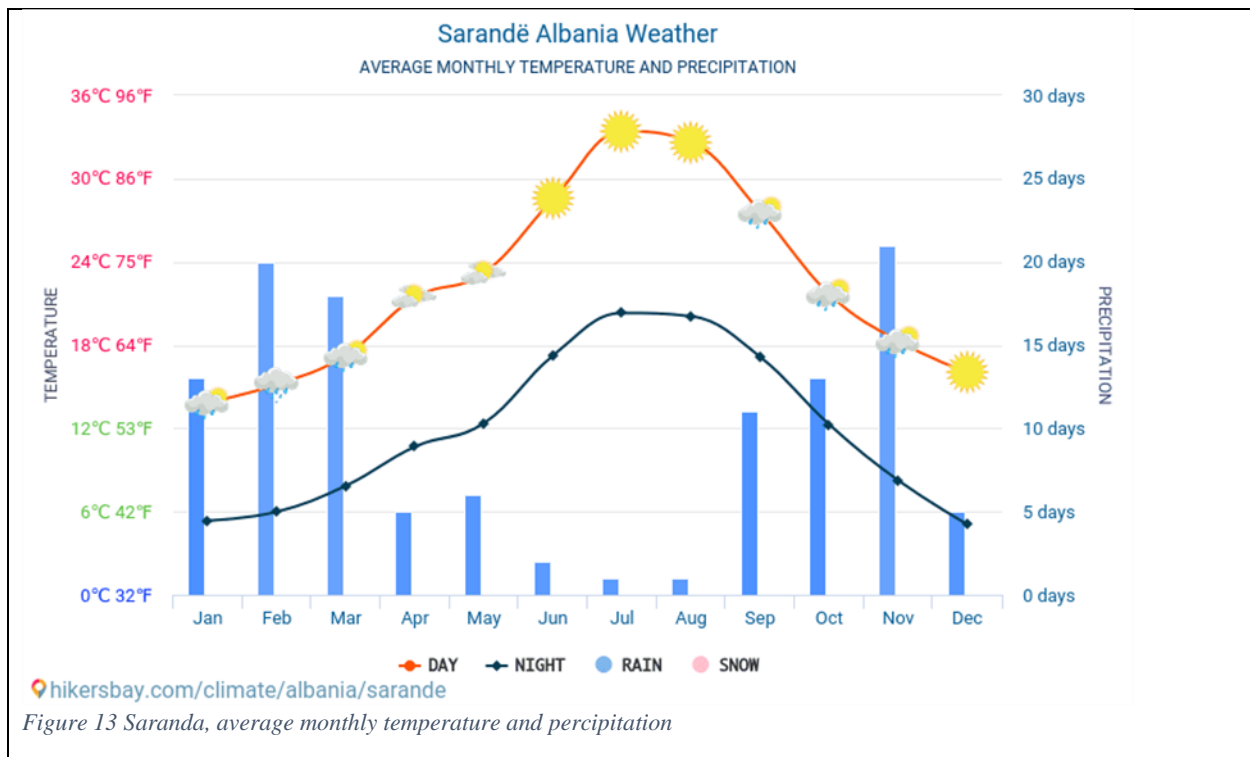
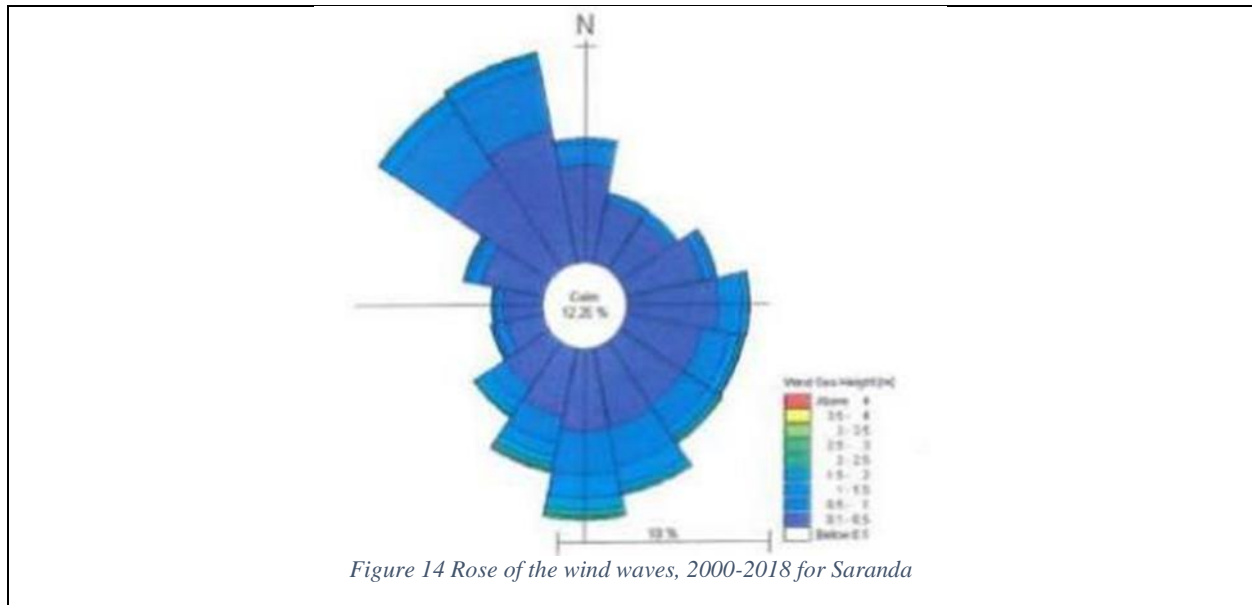


Figure 13 Saranda, average monthly temperature and percipitation

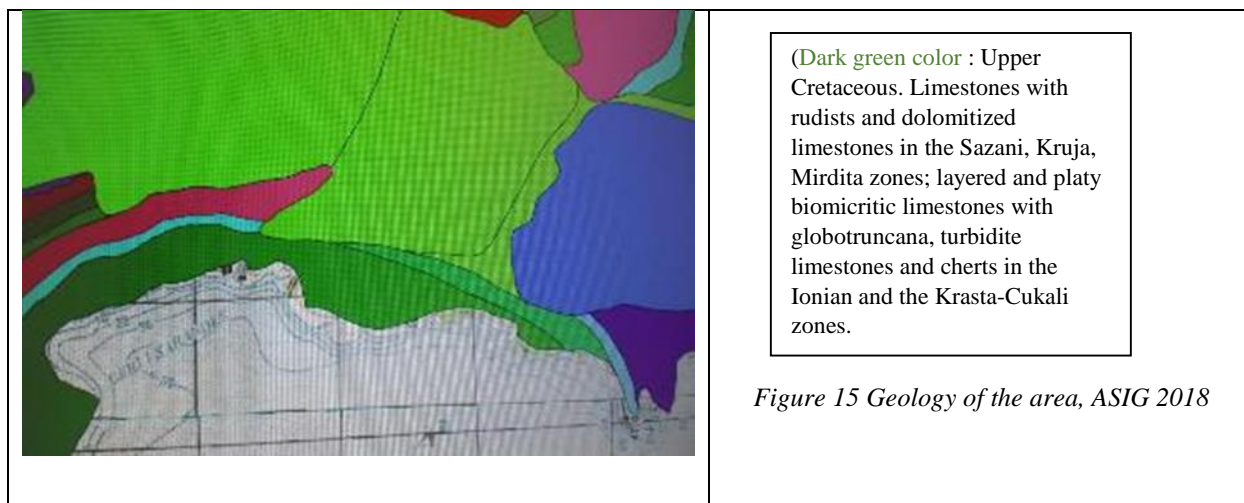
The Saranda area is highly exposed to the waves and offshore strong winds headed west and northwest from Adriatic Sea. In general, the wind waves headed north-west to west-southwest determine the climate conditions for Saranda shoreline. The wind rose, annual, for this area is presented as such in the figure below.



The wind speed reaches its highest values during winter, at an average speed of 3.2-3.5 m/s. The average period of yearly wind is around 4,700 hours/year. Saranda is also typical for a large number of sunny days/year compared to other regions in Albania, 270-300 days/year.

4.4.2 Geology and soils

Regarding the geology, the study area belongs to the anticlinal Shëndelli – Heremec – Sarandë. The limestones comprise an area of about 5 ha. They are micro crystal structures up to peptic ones belonging to the pelagic formations (Figure 15). They have white color with shades of light grey, and with layers. Limestones have large breaks in their surface, which follow different directions, but the most important ones are through the valley. Limestones in general have clear exits and above them are formed brown soils and deep brown soils, with thickness of 0,4-0,7m. Fliche deposits can be found along the national road Sarandë –Vlorë. They have a green colour, light green and with layers, dentine soils, axosolic, carbonates and sandy ones. The flished deposits belong to the Oligocene.



The soils are divided into:

- soils in the right side of national road Sarandë – Vlorë, brown grey soils, containing humus from 1-2% up to 5 – 6% and are soils under culture;
- soils in hills with a quote above +200m, are mountainous grey soils, situated over the carbonate formations and filched, and are used for pasture.

Erosion in Saranda are is a key problem because it causes removal of soil elements and fertilizers for plants by reducing so the level of land fertility (on-site effect) and causing sedimentation and eutrophication of waters (off-site effect).

4.4.3 Landscape characteristics

The territory of Saranda Municipality consists of a continuous segment of numerous coastal capes. The whole coastline is characterized by high landscape values, which should be protected and promoted. There is a great differentiation in landscape characteristics between mountainous coastal areas in the north region of the municipality and the lower southern areas when approaching Ksamil islands. Most of the hills above the shoreline are covered in macquis vegetation. Within the urban area, the landscape has been impacted by illegal deposition of construction waste and other materials. However, a large part of this territory remains intact.

4.4.4 Seismicity

Albania is geologically and seismotectonically a rather complicated region. The country is characterized by obvious microseismicity (a high number of small earthquakes), sparse medium-sized earthquakes (magnitude M 5.5 - 5.9), and rare large earthquakes (magnitude M>6.5). Most strong Albanian earthquakes have occurred along three well-defined seismic belts.

- the Ionian-Adriatic coastal belt extending northwest to north-northwest and coinciding with the boundary between the European plate and the Adria microplate.
- the Peshkopia-Korca belt, extending north-south in the eastern part of the country, and

- the Elbasani-Dibra-Tetova transverse belt, extending southwest-northeast across the former two belts.

4.4.5 Air quality

According to the 2016 environmental status report of national environmental agency (NEA), the overall air quality in Saranda is satisfactory. The results are presented in table 3.

Table 4 Air monitoring results (environmental status report 2016- NEA)

Station	PM 2.5	NO₂	PM10	O₃	CO	BTEX
Sarandë	9	13	22	63	0.5	1.5
Norm in Albania	60	60	60	65	2	5
Norm EU	25	40	40	0	0	5

The PM10 cause most concerns. Construction activity contributes in a great part in decreasing the air quality in the city. Construction also increases pollution from the automobiles due to circulation of much more vehicles in the area, heavy ones but also other vehicles, which are used in the construction process in the city of Saranda and its surroundings.

4.4.6 Noise

Table 5 gives the monitoring results on noise for the city of Saranda, at four monitoring sites: Measuring sites: Tregu i valutes; Perballe Bashkise; Xhamia, Uji i Ftohtë (as per environmental status report 2016 NEA). The results indicate exceedance of both day and night World Health Organization noise norms in Saranda.

Table 5 Average value for noise in Sarandë, day and night.

Monitoring site	LAeq/Day dB (A)	LAeq/Night dB (A)
Sarande	59.97	46.63
Standard WHO	55	45

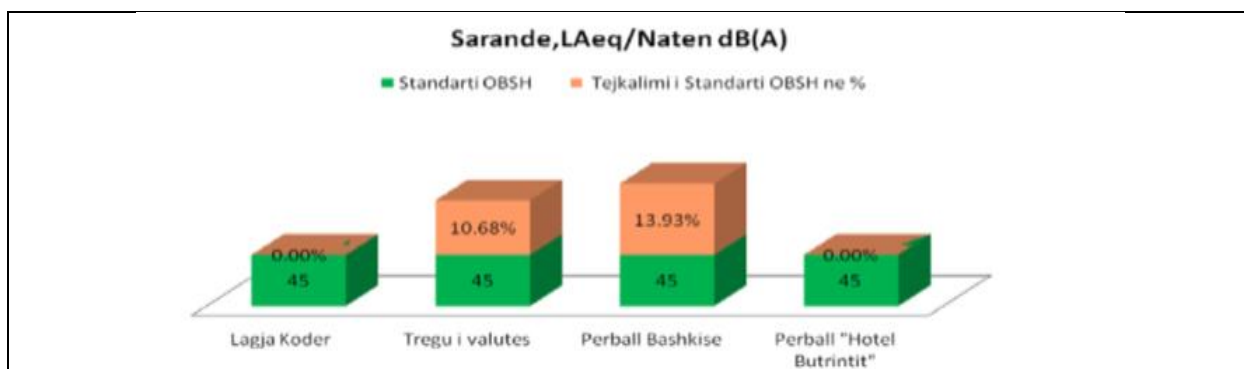


Figure 16 Night time noise levels (NEA report, 2016)

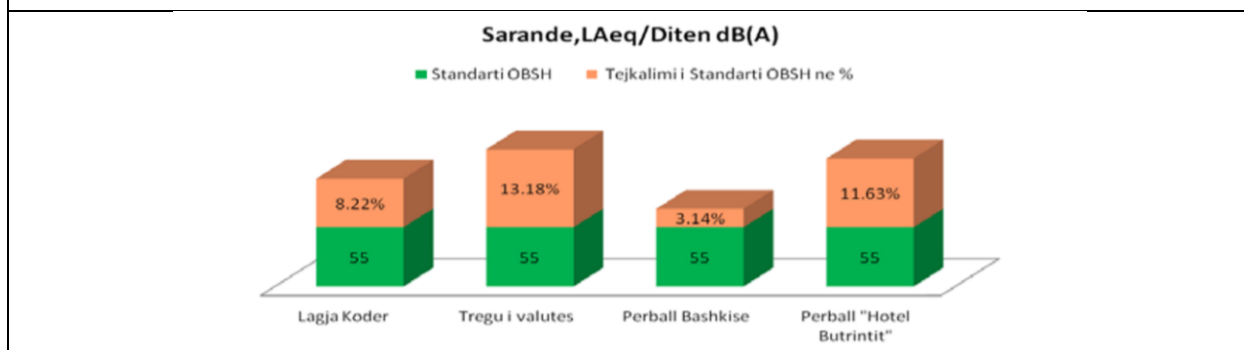


Figure 17 Day time noise levels (NEA report, 2016)

Based on the data from the National Environmental Agency (Monitoring report, 2016), it appears that in all sites (Figure 17), the national WHO standard is exceeded, during the day. The highest values are noticed at the Tregu i Valutes (Exchange market) site at 13.8% higher than the standard, while the lower values are noticed at the site Perballe Bashkise (in front of the municipality), at 3.14% higher. During the night hours (23:00 – 06:00), at the same sites, it results that there is still a higher than acceptable level of noise (WHO level) at two sites: Tregu i Valutes and Perballe Bashkise, while the other two sites are within acceptable limits.

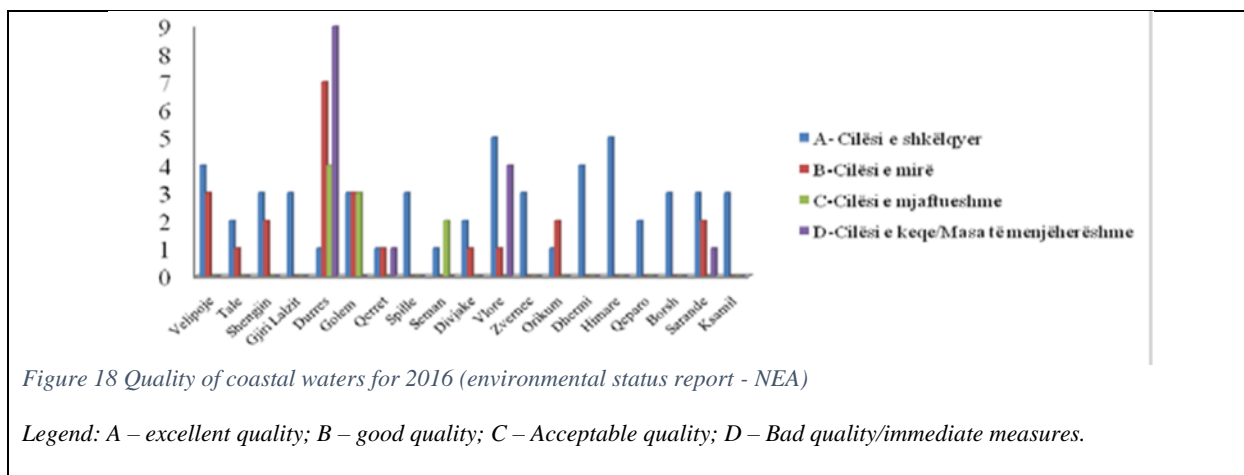
Based on Albanian legislation and according Instruction No.8, date 27.11.2007, form Ministry of Environment and Tourism “On limit levels of noise in certain areas”, the allowed level of noise in urban areas is 85-100 dB(A).

4.4.7 Bathing water quality and sediment

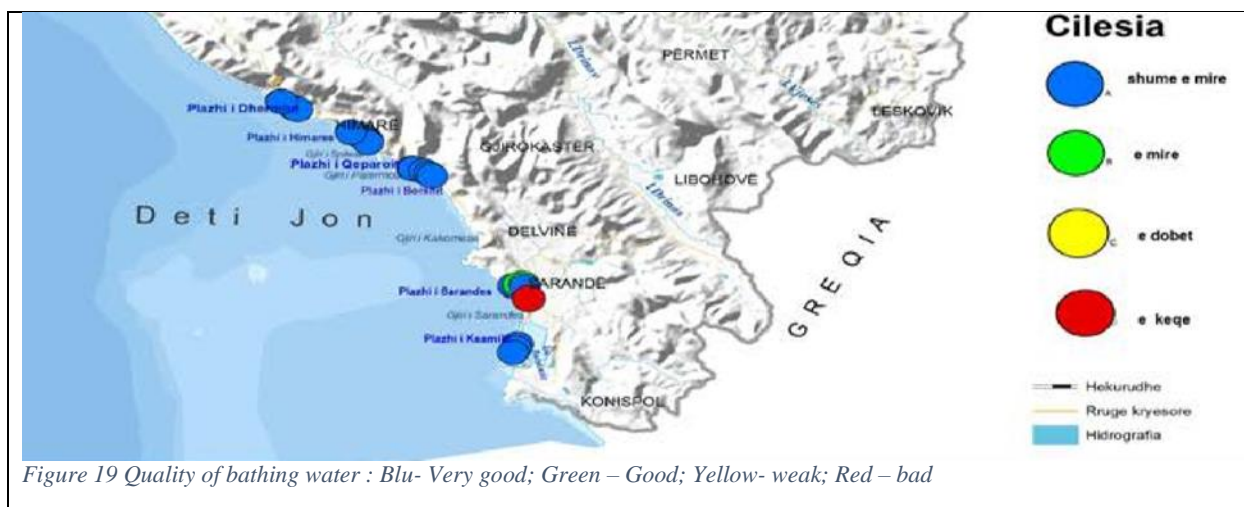
Regarding the water resources, in the study area are found groundwater sources in the gravel deposits and in depth of 2.7 m until 5.5 m, with varying water level according to the season.

Bathing sea water quality for Saranda beach, based on samplings by the National Environmental Agency for 2016, has been categorized as excellent in 3 monitoring stations- hence 50 %, good quality in 2 monitoring stations - hence 33%; bad quality in one monitoring station, hence 17 % of all monitoring stations. According to the report of National Environmental Agency the main factor of pollution of coastal

waters remains urban untreated water discharges in seaside directly and indirectly, for example temporary malfunction of the Wastewater Treatment Plant in Saranda.



Based on assessment of the National Environmental Agency (2016), bathing water quality in Saranda has, in three separate stations, varies. Bad water quality (red color) results in the south of the promenade.



Based on a previously conducted study¹, the sediments in the inshore waters of Saranda and Limioni bays were analyzed for polycyclic aromatic hydrocarbons (PAH), tri-butyl tin (TBT) and grain size distribution. The Saranda and Limioni (nearby) ports, have increased level of chemicals in the sediment. The levels of

¹ <http://documents.worldbank.org/curated/en/106611468004249243/Summary-port-of-Saranda>

PAH as well as TBT are very high in the inner part of Limioni Bay, where both the fishing port and the navy port is situated. The level of TBT is also high at station 12, which is situated close to the main passenger ferry quay. The lowest levels of TBT and PAH are found at stations 23 and 10, corresponding well with their positions isolated from traffic.

4.5 THE NATURAL ENVIRONMENT

4.5.1 Biodiversity, flora and fauna

Saranda municipality is located between hills that descend steeply or gradually to the sea, to a generally flat terrain. This municipality is part of Albanian Riviera, characterized by bays, rocky beaches, hills populated with characteristic Mediterranean bushes, but also medicinal plants, citrus fruits, olives, etc. For these latter, Saranda is famous in Albania. This project area is highly urban area.

Based on ecosystems and habitats identified, but also due to geographical position, hydrogeological characteristics, climate and relief, etc, the interventions in the area do not change the biological diversity and landscape. The project intervention foresees the rehabilitation of an existing urban area.

Characteristics of topography, soil, water and human presence make this territory populated with habitats, none of which are of high biodiversity value, hence, the intervention will be without any visible impacts for biodiversity or any change in the characteristic of biological diversity. The biodiversity elements in the project site mainly consist of fauna species of mammals, birds, amphibians and reptiles that live in human environments.

There are no natural protected areas near the project site. There are no endemic species under threat or at risk, or species protected by the international conventions where our country is Party.

4.5.2 Flora

Decorative plants along the promenade, mostly palm trees, which grow very well in this climate, characterize flora species around the project site. There are several leisure areas that contain decorative vegetation around the site, such as the “Friendship” park (Figure 22).

In the hilly areas and low land of Vremeroit (Bregasit), outside of the town, situated along the right side of the national road Sarandë – Vlorë, there is a considerable cultivated vegetation (citrus, fruits and agricultural plants).

Plant communities that are usually found in the hills surrounding Saranda town are dominated by *Euphorbia dendroides*, *Pistacia lentiscus* – *Allianca Oleo*; – *Ceratonion* (Assoc. *Pistacxio* – *Euphorbietum dendroides*); *Phrygana vegetation* (Assoc. *Chrysopogono* – *Phlometum fruticosae*, Assoc. *Ericetum manipuliflorae*); *Pseudo-steppe vegetation dominated by Brachypodium ramosum* (Assoc. *Brachypodium ramosi*); *Oak deciduous woodlands* (Assoc. *Quercetum frainetto*); *Quercus ithaburensis subsp. macrolepis*, and *Forests dominated by Pinus leucodermis* (Assoc. *Pinetum leucodermis typicum*).



Figure 20 Friendship park



Figure 21 Decorative trees

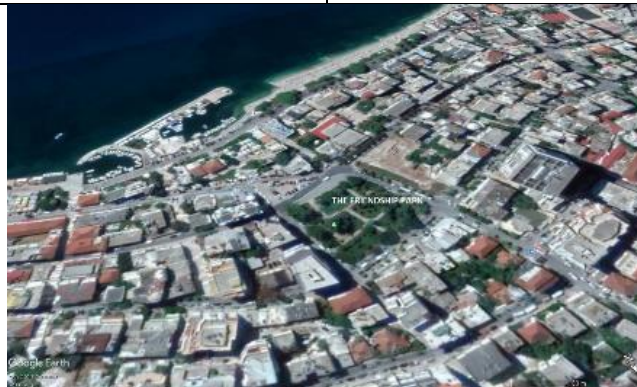


Figure 22 Friendship park

Along the promenade there are decorative trees and bushes that have been planted by the municipality or bars/restaurants over the years (Figure 23). These trees will need to be relocated to other green areas as assigned by the Municipality of Saranda, due to lack of uniformity and difficulties in working with layers within the promenade. Specifically for the projet purposes some existing trees will be relocated. Those are shown in red circles on Figure 23.

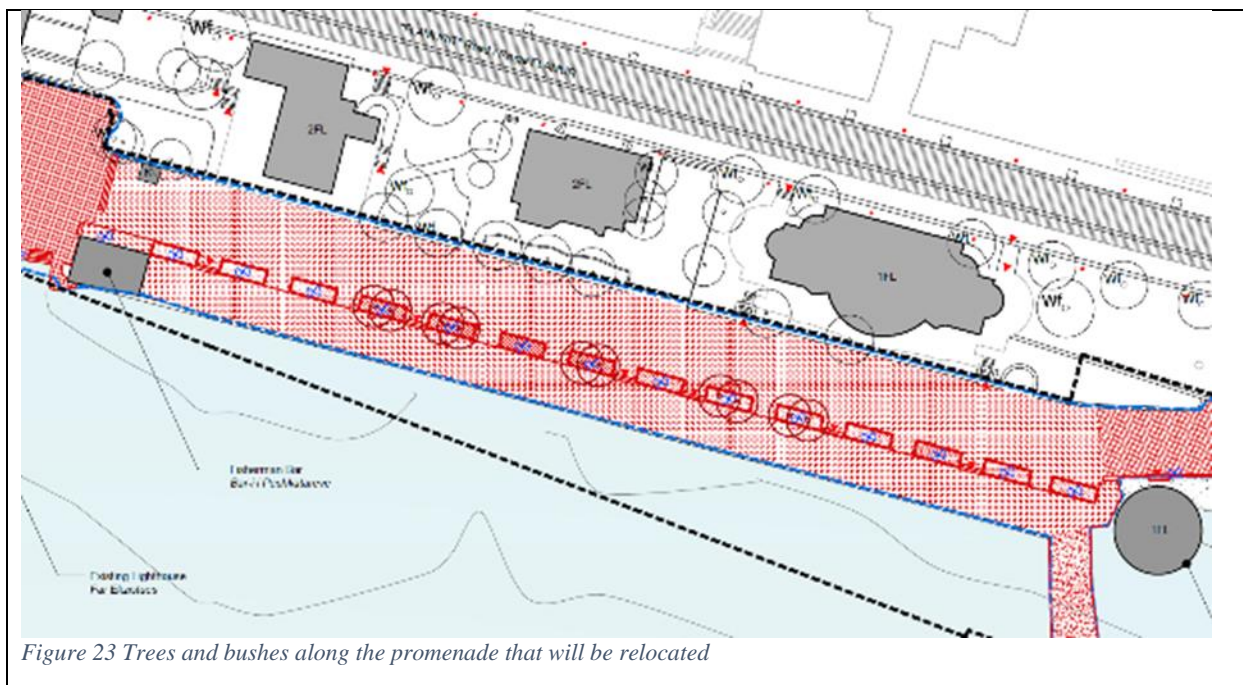


Figure 23 Trees and bushes along the promenade that will be relocated

4.5.2.1 Marine flora

Marine biodiversity is worth mentioning as a component of the natural environment of the area. The area offers to residents and foreign tourists amazing views of blue waters.

The marine flora near the tourism port (part of the promenade intervention), is comprised of seagrass, macro algae, including *Zoostera noltii* (IUCN LC), *Cymodocea nodosa* (IUCN LC), *Halophila stipulacea* (IUCN LC), etc. The density of these species is relatively low near the coastal urban areas and none of species identified in the area is endangered, sensitive or rare.

Based on data from previous assessments², the area near the Saranda Bay (zone 3, row VI in picture 26.c), has a very low percentage of sea grass cover (0-10%).

² Albania Integrated Coastal Zone Management Project

<http://documents.worldbank.org/curated/en/106611468004249243/pdf/E11410v20EIA0S1ort0of0Saranda10ICZM.pdf>

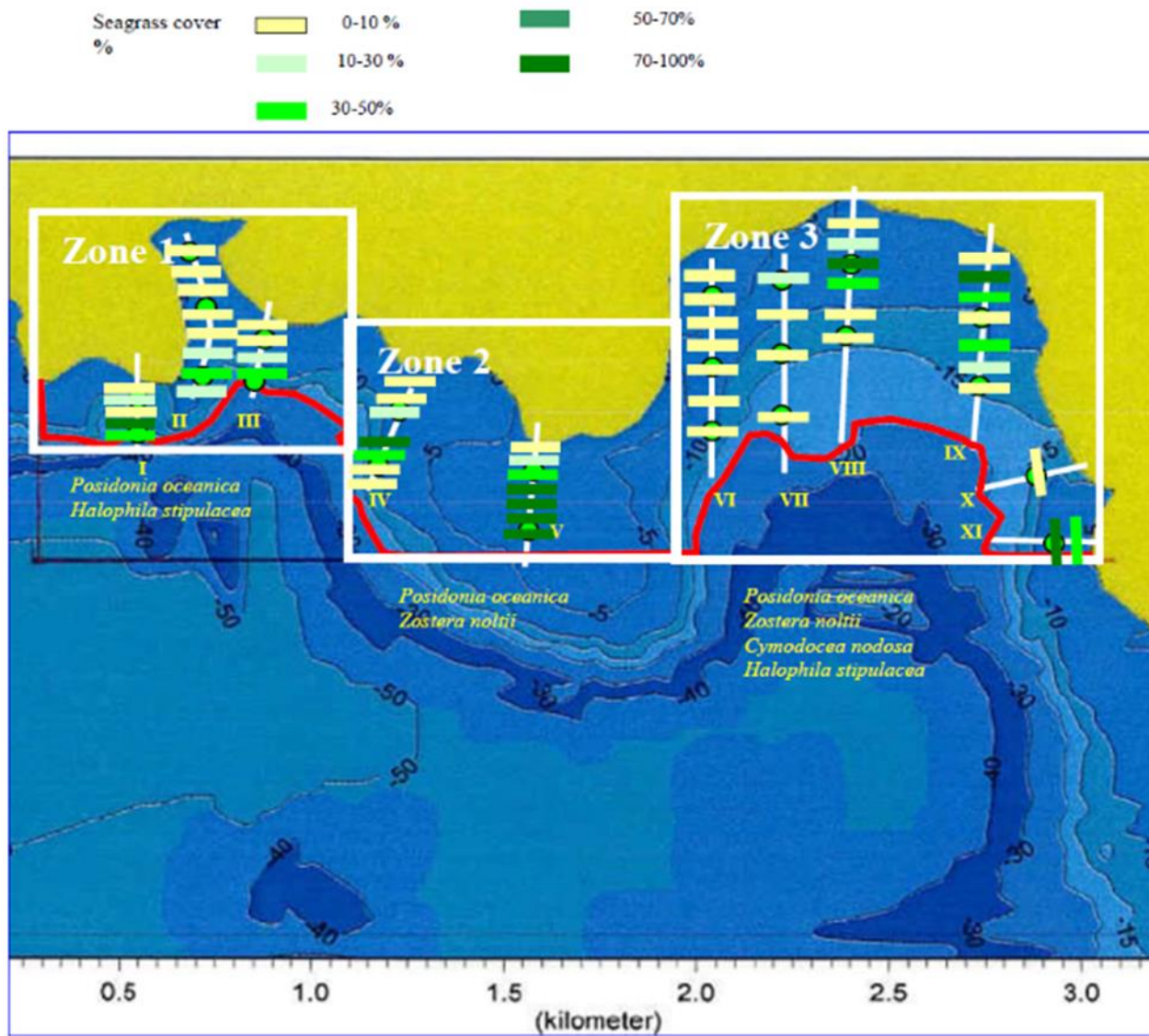
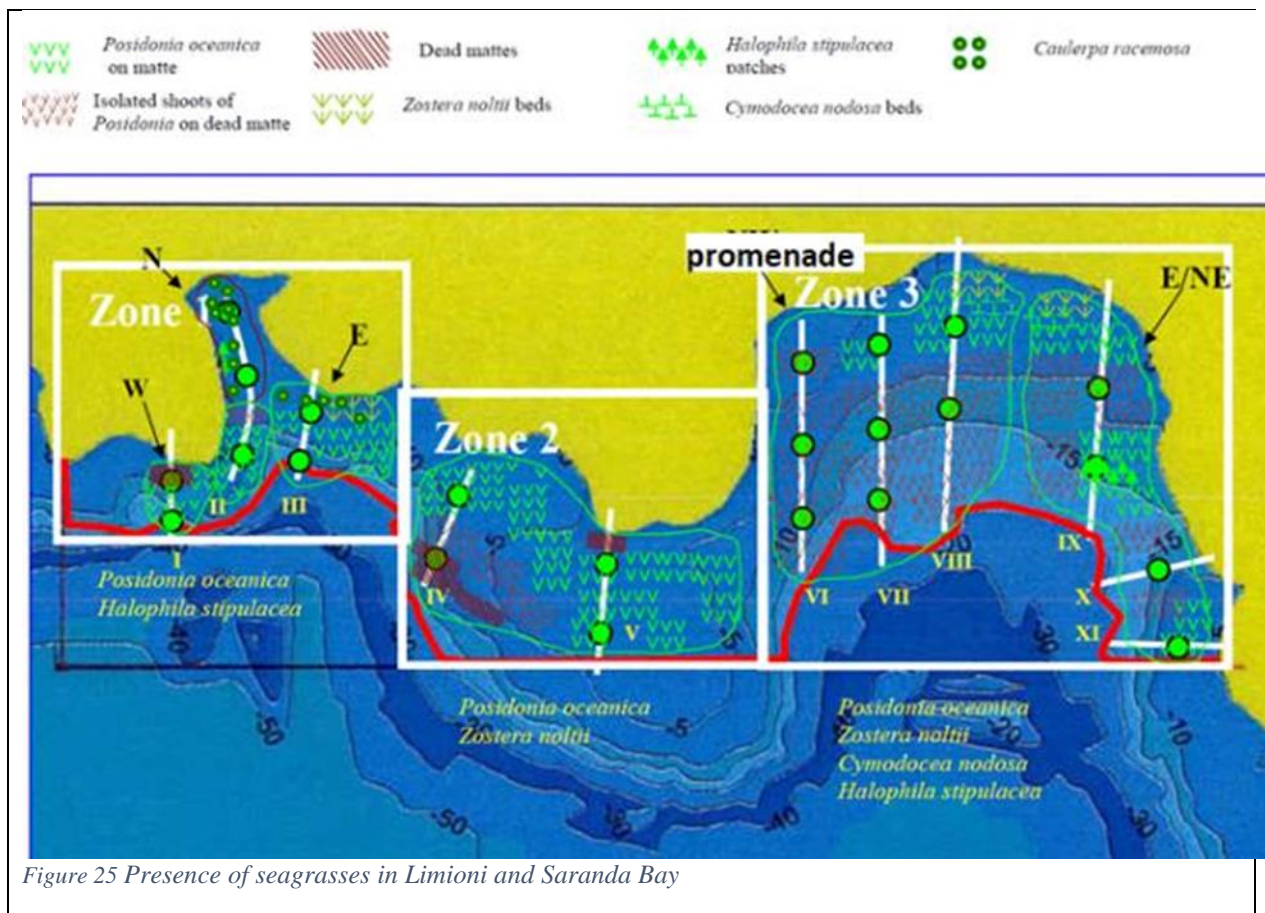


Figure 14: Percent seagrasses cover in Limioni and Saranda bays, February-March 2007.

Figure 24 Percent of seagrasses in Limioni and Saranda Bay (2007)



According to the above-mentioned study, Saranda bay area is characterized by high scale of degradation. During the benthic survey high levels of water turbidity were experienced within this area. Seagrass beds, especially these of *Posidonia oceanica*, endemic to the Mediterranean Sea are the most widely distributed and the most important/sensitive marine habitats near the project area. *Posidonia oceanica* beds were generally dense with isolated sand patches in Limioni bay (transects I, III), Headland area (transects IV, V) and Saranda bay (transect XI). The densest areas of seagrass were found within zone 2 (Headland area) **about 200 meters from the shoreline** in water depths 5-6 meters: bottom cover 40% to 80% and density 550-600 shoots/m². *Posidonia oceanica* meadows populations are reduced due to the polluted industrial and urban discharges into Saranda-Ksamili area. This has been associated with an increase in water turbidity reducing the amount of light exposure on the sea bed and this caused reduction in the *Posidonia oceanica* beds over the last decades.

According to the design, the extension of the promenade reaches a distance of maximum 40 m from the existing shoreline.

Several species of macroalgae were identified, including seven species of green algae, eight species of brown algae and nine species of red algae. Species of the genera *Fosliella*, *Dictyota* and *Flabellia* were the most commonly occurring algae. Their cover is not important and only sometimes arrive 15%. Also

referring to the same study, the marine ecosystem of Saranda certainly is damaged by uncontrolled wastewater emission of coastal urban concentrations.

4.5.3 Fauna

The area around the town of Saranda has a rich fauna world, like wild pig, hare, jackal, fox, wolf, partridges, etc. Sea gulls and other aquatic birds are frequently found flying over the beach and near the promenade. Dolphins are friends to the city, coming very close to the shore. However, it must be mentioned that within the project site, there are no specific biodiversity values, due to the area having a highly urbanized character, as well as there is no marine fauna that might be disturbed by the works.

The South Coast of Albania has a rich fauna diversity. In particular, the area holds a very rich fauna of insects (invertebrates). Furthermore, 11 species of amphibians (out of the 15 species known in the country) and 30 species of reptiles (out of 37 species known in the country) can be found in the area. The reptiles make the most abundant class with individuals which represent the fauna of the territory and is covered mainly by lizards, etc. Some 250 bird species are reported from the whole South Coast area, out of 330 species known in the country, which makes the Southern Coastal region a very important area for birds. The area is an important site for birds of prey, with the rare lesser kestrel and Egyptian vulture among a range of notable raptors. Passerines occur with a very large diversity, owing to the significant variation in topography and habitats.

The fauna in Saranda is rich also in aquatic species of Ionian Sea. In deep waters are present also the corallines. None of the species mentioned above is found in the project area

4.5.4 Natural Heritage

The whole municipality of Saranda has a surface of 730 km² and the centre is Saranda city. There are several natural monuments within the borders of Saranda Municipality. Nevertheless, the closest natural monument to the project site (the Ksamil islands) is located approximately 11 km away in aerial distance from the project site and Butrint National Park, which is located 14.3 km away

4.6 Existing Infrastructure

4.6.1 Waste management

Waste in Saranda municipality is transported to sanitary Bajkaj landfill. This landfill serves to the municipalities of Delvine, Saranda and Himara.

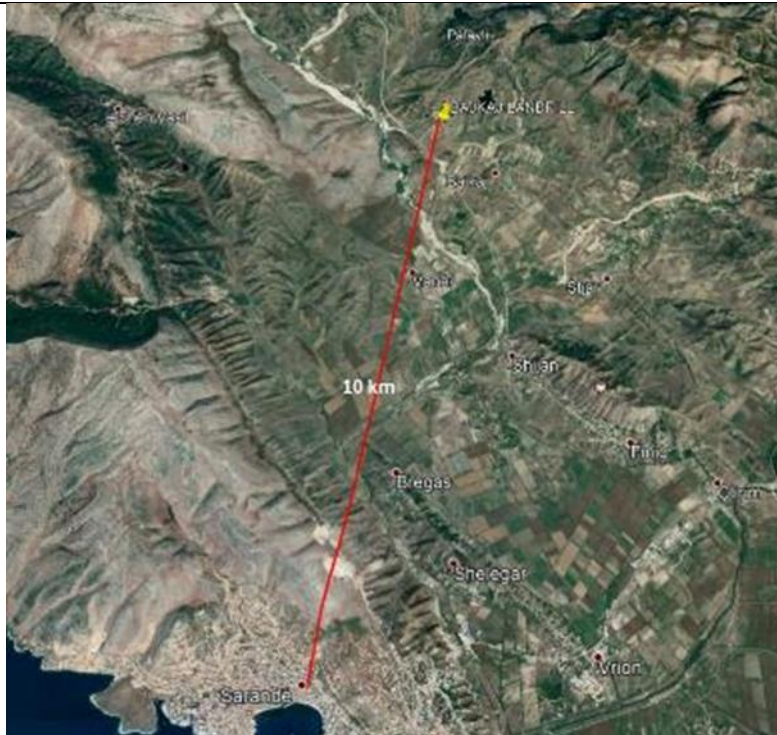


Figure 26 Location of Bajkaj Landfill in relation to the promenade

The landfill is located in a hilly area at an altitude of 150 m above sea level, occupying a surface of 12 hectares. It has a processing capacity of 140 tonnes of waste per day and a total depositing capacity of 365,000 m³, for a lifetime period of 25 years. It is located approximately 10 km north of Saranda town (Figure 26). The total yearly amount of domestic waste produced by Saranda municipality is 10,000 tonnes. Collection of solid waste and their deposit is the responsibility of contracted firms by the municipality of Sarandë. Based on the data reported by the environmental status report of 2016, for Sarandë:

Annual amount of waste: 5134 (ton)

Amount of waste: 0.14 (ton/day)

Amount of waste per capita: 0.7 (ton/capita /day)

Amount of medical waste: 4939.87 (kg)

4.6.2 Potable water

Drinking water is supplied by the KU Sarande, a government-administered utility service provider. This provider supplies also Ksamil town. Despite recent investments, the municipality is still insufficiently covered by this service.

Two water sources are used by this service provider: the source of Navarica (13 km east of Saranda town) and Vrioni well (3.5 km away from Saranda). Underground water is subtracted and pumped to the distribution network, which requires usage of electrical energy.

Based on the data provided by the National Agency for Water supply and Sewerage (Benchmark, 2015) the city of Saranda is supplied with 5.7 hours of drinking water and the water is classified as good quality. Water supply remains a permanent problem for the city and private supply of water by cisterns also exist in parallel.

4.6.3 Sewage waters

In the city of Saranda wastewater management improved in the last decade. Service for sewage waters is provided by KU Saranda. In 2011 the work has started for the construction on a wastewater treatment plant (Ksamil – Sarandë), with a World Bank investment. Currently, the plant is operational and serves to a population of 60.000 inhabitants. It has been designed with a capacity of 12,240 m³/day.

5 IDENTIFICATION OF POTENTIAL ENVIRONMENTAL IMPACTS

One of the objectives of this report is the identification of the possible impacts to the environment due to proposed activity. The identification of possible impacts to the environment will be assessed for construction works and use / operation works.

5.1 Identification of impacts during the construction phase

5.1.1 Discharges into water

5.1.1.1 Surface water (sea)

Although the reclaimed area is smaller than 3000 m², and will be done in degraded environment in highly urban area, reclamation should be minimized because it can severely damage ecosystems and may degrade nearby marine and estuarine environments. Reclamation works can release fine suspended sediments in shorelines underlain by fine sediments. Controlling turbidity from disturbed fine sediments is often a significant problem requiring careful operational planning and the use of sediment control or settling systems. Seagrass beds are particularly susceptible to increases in turbidity. The estimation is that seagrass beds of *Possidonia oceanica* is distant around 200 m from project site. The leveling of seabed will most probably impact the seabed grass but not significantly due to the small area of works and distance to seabed grass.

5.1.1.2 Groundwater

The pollution of groundwater is not expected. The waters flowing outside the construction site of the object are waters generated by the activity of watering the site, watering the wheels of the vehicles and rainwater as well. In the site (promenade) there will be no deposits of dangerous materials and therefore there will be no pollution of groundwater or surface water.

There is a potential for pollution from discharge of different solid waste, including hazardous waste in the project site. The waste generated in the project area, if left for a longer period on the soil/sand can infiltrate in the groundwater hence contaminating it.

5.1.2 Emissions to atmosphere

The emissions to the atmosphere could come from different sources of pollution.

Dust from transport vehicles and machines shall be present in the project area during the whole construction works. Implementing the mitigation measures will reduce the impact. All the machines which work on fossil fuel (diesel) must be maintained regularly and attested in order to minimize the emissions from the vehicles and machinery. On the other hand project foresees planting of trees and different plants to increase vegetation, which will contribute to better air quality.

Dust from civil works in the renovation of the buildings and also the renovation of the promenade will be present as well. It is recommended to avoid the use of electrical generators for producing electricity during

the construction works. It is recommended to use water sprinklers in dry season (for example rain water collected) to reduce the level of dust particles.

There will be emissions of different smells, mainly coming from utilization of the paint for painting the facades of the buildings, however based on continues monitoring and mitigation measures these impacts shall be minimized.

5.1.3 Noise and vibration

During construction works, various machines shall be used. However, having regards to the nature of works, the noise level will be only at construction site. The works foreseen relate mostly to painting the outside walls of the buildings, corrections, plastering the walls, planting trees, etc. All these activities have small and temporary impacts.

Noises that will be generated will come mostly from vehicles in the roads and use of different carrying machines, generators, establishments building scaffolding for painting the walls, noise generated by staff working in the area, etc.

The machines which generate noise will calibrated and attested according to the EU standards regarding the noise caused in the environment. During the operational phase the noise generated will be not considerable (see the respective paragraph).

Vibrations will not be detected during the construction works on site. However, noise will be monitored day and night for 8 hours of works. Moreover, the parts which create noise will be under supervision, which is constantly circulated and norms and criteria able to define noise, shall be evaluated. The technical director for construction works on site shall keep records for every noise detected.

5.1.4 Impacts on soil and seabed

There is no envisaged impacts on soil during works within the promenade.

Sea bottom digests consist in levelling and achieving the levels described in the implementation designs, so that concrete blocks to be used for the marine protection will have good flatten ground support and a good connection with the ground.

Excavation and levelling of the seabed can be accomplished with a long arm excavator (may have two or three arms). Once the sea bottom is cleared and levelled in the correct position that is detailed on the designs, the next process of work is to place the concrete boxes on the ground. There will be no dredging during the works in the seabed.

5.1.5 Impacts to biodiversity, impact to flora and fauna.

No impacts are foreseen on biodiversity.

Light pollution will be reduced by choice of light design that has a minimum impact.

The existing decorative vegetation will be relocated and replaced with new native plants as described previously, similar to the old vegetation. The umbrella pine trees that will be planted along the promenade are resistant to the beach climate of Saranda. Regarding the loss of biomass in the territory which will be used, measures shall be taken such as planting of vegetation inside the promenade that will increase the green spaces, since no vegetation will be lost or cut.

In regards to impacts on underwater flora due to the extension piers and platforms and the stairs, there may be some loss in underwater vegetation, especially microflora. Based on the fact that the underwater flora is scarce due to the ferry terminal located nearby; the high frequentation of the town beach during the tourism season; the pier extensions being limited to a maximum of 40 m, including the descending stairs (See figure 27), impacts on underwater fauna and flora are foreseen to be moderate and reversible.

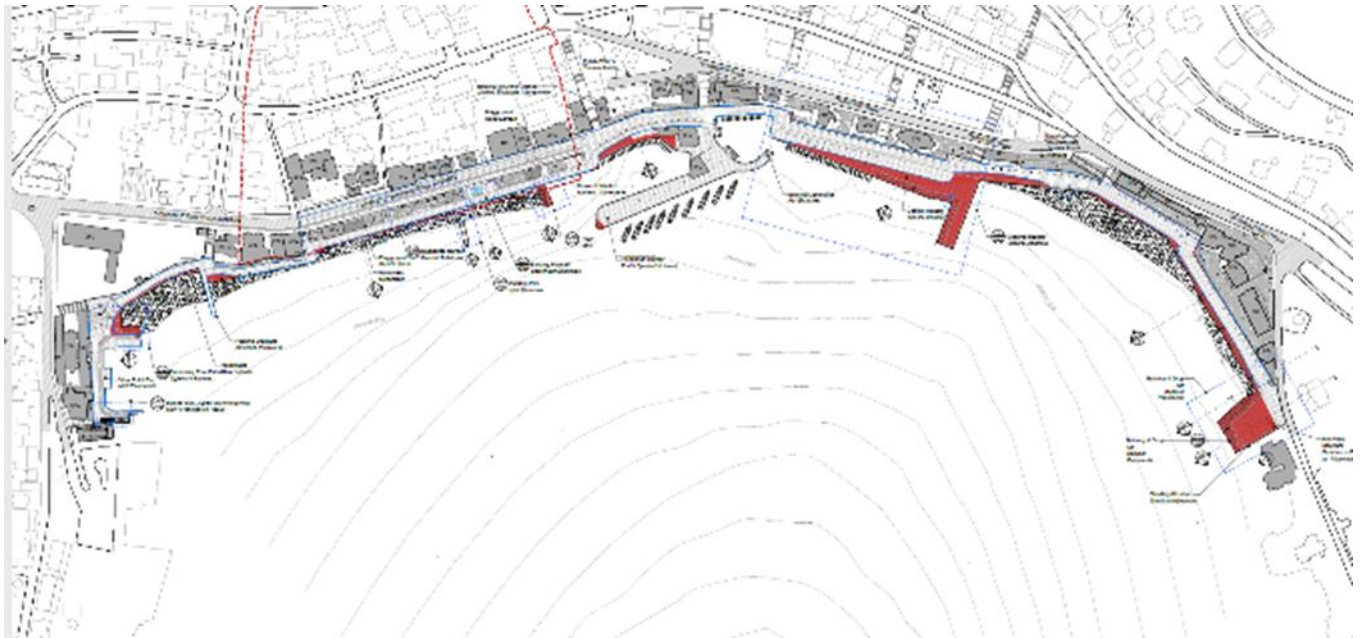
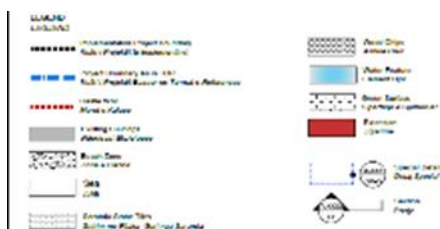


Figure 27 Sea Extension



Project foresee (under) waterworks that consist in placing piles, fillings with gravel and construction of concrete reinforcement layers.

During the works in the seabed levelling, there will be temporary negative impacts on the underwater flora and fauna. Extra care and surveillance will be required during marine works, in order to limit these impacts and to prevent unnecessary noise and length of works, as well as the works to be strictly limited with the foreseen project's boundaries. The marine works will be performed over the period of 8 months, while the whole construction period will last 14 months.

5.1.6 Urban waste

During the construction works, following types of waste will be generated:

- Construction waste material (damaged wall plasters from the facades of the buildings) completed as foreseen in the study;
- Construction waste from construction materials;
- Mineral waste (soil from excavation works);
- Different municipal waste generated by employees on site;
- Extra material coming from regeneration work on the promenade, on its upper layer.
- Possible inert waste materials from replacement of existing pipes.
- Small quantities of hazardous waste (oils, paint, CFLs, Asbestos, etc.)

Due to the work at the promenade and along it there will be generated an amount of solid waste, mainly soil, and ruins from plasters of walls. All the amount of soils generated shall be recycled inside the area. Soils shall be reused for planting trees and green areas, as well as for the preparation of substrate for planting decorative trees.

Materials with potential recycling potential will be given to individuals interested in construction works outside the city centre, part of the waste, not reusable one, including non-humus soil, shall be collected and disposed to the identified licensed landfill by the municipality of Sarandë, in accordance with the Permit of development. In case of production of hazardous waste, it will be packed according to national legislation and placed in the assigned site by the Regional Environmental Agency. It is expected to have minimum amount of industrial waste, and also removing the damaged machines. Also, it is expected to generate a small amount of household waste. Types, quantities, data and means of transportation for all the important waste shall be recorded in a register and moreover employees are requested to collect separately different waste fractions. For treatment of sanitary waste an outside contractor will be used.

5.1.7 Impacts on cultural heritage

The impacts to cultural heritage is not expected. The buildings planned to be renovated (facades and buildings) are private properties without cultural values, serving to economic reasons (hotels, restaurants, etc). There are no demolition works planned to occur to any building holding the cultural heritage status.

Outside the promenade, along the beach, there can be found the remains of the once thought to be the castle wall (Figure 28, 29). This cultural monument is not located within the intervention site. However, as

detailed in the Environmental and Social Management Plan, special measures will be taken during construction to adequately protect this monument, by installation of proper signage and protection with safety net. Competent authorities will be informed and consulted on the needed measures for protection of these objects



Figure 28 The remains of the castle walls (entry gate) on Saranda beach



Figure 29 The remains of the castle walls (entry gate) on Saranda beach

5.1.8 Impacts on landscape

The landscape of the project area is planned to change using colouring of the buildings, existing ones and changing the visual impact towards a more harmonized, warm and Mediterranean one. The facades of a selected group of buildings shall be subject to changing plaster and colour. More flower pots will be placed in the surroundings of them, increasing their ecological value.

The promenade shall change almost completely its view, as described in the respective chapter.

5.1.9 Impacts on health and safety

The impact on health and safety should be minimal when complying with mitigation measures. Incidents are expected only in cases when the employee shall not respect the rules and procedures for instance during excavation works, paint preparation, collection and removal of soil, depending on the area, etc. Therefore, it is necessary to use protective equipment like face masks on, working gloves, glasses and other protective clothes and equipment in line with the national legislation and best practices. The Contractor will ensure there is sufficient quantity of protective clothes and equipment. The special attention should be given to safety of pedestrians during the work execution and peak season should be avoided for works

5.1.10 Impacts on society

During the construction phase, based on the project provisions, many buildings shall be subject to renovation of the facades. Moreover, a few kiosks will be relocated as per the technical design. The design for this subproject has foreseen replacement of Kiosks, Sun tents, Metallic shutters, Gates and Advertising sign as part of the unification facade interventions.

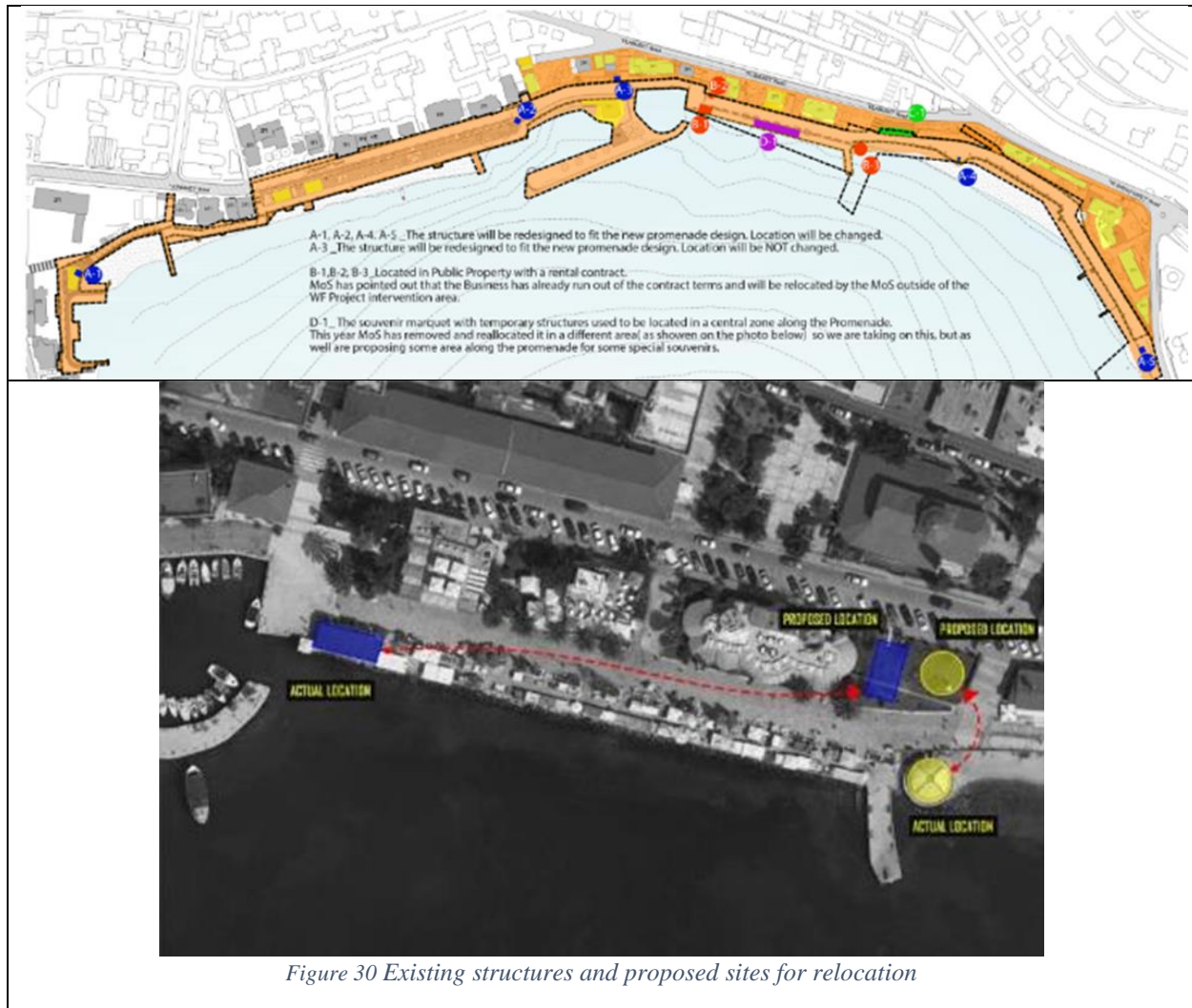
For this purpose, a Resettlement Action Plan is prepared and will be submitted to the World Bank.

With regards to the existing cafes and bars, no relocation will take place.

On the other side, the significant changes to the landscape that the project offers not only for the residents but also for the visitors to the touristic area, shall have an impact to the economy of the area. An increase in the number of visitors is expected which shall generate an increase in the revenues. It also might generate an increase in the revenues from the visits to the cultural sites of the area.

The four provisional structures (or kiosks) identified in the property evaluation report submitted (Figure 30), part of the design (A1, A2, A4, A5) will be replaced by 4 new structures with clearly defined design and technical specifications

Three identified provisional structures (B1; B2; B3;) will be relocated to clear the way for the rehabilitation of the promenade. The relocation process will be supervised in detail by ADF, in order to ensure a correct implementation of the Environmental and Social Safeguards Framework, in line with World Bank Guidelines. Final arrangements will be reflected in the ARAP.



5.2 Identification of impacts at operational phase

5.2.1 Impacts to water

There is no expected pollution to groundwater. Waters coming from human activities in the promenade and along it will be discharged in the sewerage of the city until the treatment plant in Cuqe. Also there might be washing waters from the surroundings which are not considered important to environmental pollution.

Regarding the water consumption in general it is foreseen to have an increase specifically during the summer season, when the number of tourists is also increased, being Albanian tourists or foreign ones. It is recommended to pay attention to drinking water use for other purposes such as for washing public spaces, washing the promenade, irrigating plants and green spaces along the promenade, etc. It is suggested to use alternate water resources such as well or collecting rainwater.

Seawater quality might also be threaten as there will be more boats in the area. For example Petroleum hydrocarbons are contained in fuel, oil, grease, lubricants, finishes, and cleansers. Petroleum can be spilled directly into surface waters when fuel drips from fueling nozzles or a fuel tank is overfilled at a dock.

5.2.2 Emission in the atmosphere

There will be no emissions in the atmosphere from the utilization of this object. The project foresees planting trees and increase vegetation, which contributes to better air quality. The Promenade will be pedestrian zone (with occasional service vehicles operation).

5.2.3 Noise and vibrations

There will be no additional noises generated due to the utilization of this object, however the summer season still is an issue associated with an increase of tourists using the promenade or relaxing structures along it. It is recommended a better management of the situation through accommodating the citizens within appropriate hours, around the touristic market and sport Centre.

5.2.4 Impact on soil

There will be no emissions on the soil due to the utilization of this object. The promenade is destined for residential purposes and services mainly touristic in nature, but the surfaces around it shall be cleaned and green.

5.2.5 Impact on flora / fauna

Light pollution is inevitable in the urbanized areas. The magnitude of this impact will be reduced by the selection of light bodies preventing excessive dispersion of lights in the design phase. No other impacts on flora and fauna are expected form the utilization of this object.

5.2.6 Generated waste

Solid waste generated form the daily consumption of different products in the area shall be mainly plastic, glass bottles, paper materials, organic waste, etc, all generated from tourists and residents utilizing the promenade, touristic market and sport Centre. These wastes shall be managed in cooperation with the municipality and the contracting firm.

5.2.7 Energy

When the promenade will be ready to use, it is expected to have an increase in the number of visitors, having regards to the increased number of sport / cultural / touristic activities taking place there.

It is recommended to pay attention to electricity available in order not to interrupt the power while these activities are taking place, as well as proper functioning of the machines installed here. It is recommended to use alternate power resources such as solar panels in order to meet the high demand for energy but also to protect the environment. In the same time, for the same reasons, it is recommended to use alternate power resources such as solar panels in order to cover with lights the whole promenade.

Phase	Environmental issue	
	Soil quality	-0
	Land use	0
	Physical – biological soil deterioration of soil	-0
	Biodiversity	-0
	Water quality	-
	Air quality	-
	Noise	-
	Landscape	-
	Urban waste management	-
	Transport	0
	Business development	0
	Floods	0
	Life quality and recreation	0
	Soil quality	+
	Physical – biological soil deterioration of soil	0
	Biodiversity	+0
	Water quality	+
	Air quality	+
	Noise	+
	Landscape	+
	Urban waste management	+
	Transport	+
	Business development	0
	Floods	+
	Life quality and recreation	0
	Soil quality	+

6 Environmental and Social Management Plan

Project's environmental management plan (EMP) consists of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. The plan also includes the actions needed to implement these measures.

Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the environmental impacts of the project and the effectiveness of mitigation measures. Specifically, the monitoring section of the EMP provides (a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

6.1 Mitigation measures table

Mitigation measures are in detailed described in annex 1

6.2 Monitoring tables

Monitoring tables are in detail presented in annex 2

6.3 Implementation arrangements

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

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 fulfilment of the measures set out in the Environmental and Social Impact Assessment Report, Environmental and Social Management Plan and the Environmental permit. The ESMP will be a contractual obligation of works contractor and will be part of the contract annexes. Implementation of ESMP during operation will be responsibility of Municipality of Sarada.

The ADF unit consisting of dedicated environmental and social specialists will monitor the work site and contractor performance in line with the monitoring measures and provide a check list for each site visit on the fulfilment of criteria as set out in the above-mentioned documents. 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.

An approval of the EIA report is required by Albanian Law and therefore periodical reporting must be prepared by the beneficiary and submitted to the National Environmental Agency, as specified in the approval document.

Construction works will be supervised by a licensed supervisor for this type of works, as well as by the Municipality of Saranda. Monitoring will be closely followed up by supervising engineer.

However, 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 as requested.

6.3.1 ESIA/ESMP Capacity building

The construction operator and/or supervisor must be fully aware of the ESIA/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. The workers will be trained before commencement of works (and upon the employment, for the newcomers) regarding safety issues and also by ADF staff during site visits on construction site.

6.3.2 Management of workers relationship

The contractor will maintain human resources policies appropriate to its size and workforce that sets out its approach to managing the workforce consistent with the requirements of Albanian law. These policies will be clear, understandable and accessible to workers:

- a) Creating and maintaining healthy relations between employee/management:
- b) Promoting fair treatment, non-discrimination and provide equal opportunities for employees
- c) Labour and employment laws in the country, and the main principles and regulatory standards set forth in the Code of Procedure of the Republic of Albania
- d) To protect and promote the health of workers, promoting in particular healthier and safer working conditions

Working relationship: The contractor will document and communicate to all workers their working conditions and terms of employment including their entitlement to wages, hours of work, overtime arrangements and overtime compensation, and any benefits (such as leave for illness, maternity/paternity, or holiday).

Should apply the principles and standards expressed in the Labor Code of the Republic of Albania as:

- a) the abolition of child labor
- b) the elimination of forced labor
- c) the elimination of discrimination related to employment
- d) the freedom of association and collective bargaining.

Child labor: The contractor will comply with all relevant national laws provisions related to the employment of minors. In any event, the client will not employ children in a manner that is economically exploitative, or is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health

or physical, mental, spiritual, moral, or social development. Young people below the age of 18 years will not be employed in hazardous work and all work of persons under the age of 18 shall be subject to an appropriate risk assessment.

Forced labor:The contractor will not employ forced labor, which consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty. This covers any kind of involuntary or compulsory labor, such as indentured labor, bonded labor or similar labor contracting arrangements.

Non-discrimination and equal opportunity:In particular, the contractor will not make employment decisions on the basis of personal characteristics, job requirements base the employment relationship on the principle of equal opportunity and fair treatment, and will not discriminate with respect to all aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, promotion, termination of employment or retirement, and discipline.

Wages, benefits and conditions of work: Wages, benefits and conditions of work offered should, overall, be comparable to those offered by equivalent employers in the relevant region of that country/region and sector concerned.

6.3.3 Occupational Health and Safety (OHS)

The contractor will provide the workers with a safe and healthy work environment, taking into account inherent risks in its particular sector and specific classes of hazards in the client's work areas, including physical, chemical, biological, and radiological hazards. The contractor will take steps to prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by:

- a) identifying and minimizing, so far as reasonably practicable, the causes of potential hazards to workers
- b) provision of preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances
- c) provision of appropriate equipment to minimize risks, and requiring and enforcing its use
- d) training of workers, and provision of appropriate incentives for them to use and comply with health and safety procedures and protective equipment,
- e) provision of adequate training and education,
- f) documentation and reporting of occupational accidents, diseases and incidents

6.4 Reporting and monitoring

The supervising engineer/contractor will report on the implementation of the ESIA/ESMP to the ADF monthly as well as on the implementation of works. The report must include a chapter on environmental performance, based on ESIA/ESMP items. The content of the report will be agreed with ADF (subject to

review by WB). In case of accident or negative impact on the environment (not predicted by the ESIA/ESMP) the supervising engineer will report to ADF and WB immediately.

6.5 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, as well as the World Bank Policy Guidelines.

The Municipality of Saranda, in cooperation with the ADF, made available to the public the technical project for public review, on May 15, 2018.

The draft ESIA with the ESMP will be disclosed on the official website of ADF: www.albaniandf.org upon approval of ADF

An Abbreviated Resettlement Action Plan will also be disclosed following World Bank Guidelines, upon clearance.

6.6 Grievance redress mechanism

A grievance mechanism needed to solve problems and manage unforeseen issues which may arise during implementation will be organized in such a way that they are accessible to all, with particular concern for the situation of vulnerable groups. Monitoring will be a joint undertaking under the ADF direction to measure and assess change in household status of project-affected communities.

In addition, the contractor will provide a grievance mechanism for workers (and their organizations, where they exist) to raise reasonable workplace concerns. The contractor will inform the workers of the grievance mechanism at the time of hiring, and make it easily accessible to them. The mechanism should involve an appropriate level of management and address concerns promptly, using an understandable and transparent process that provides feedback to those concerned, without any retribution. The mechanism should not impede access to other judicial or administrative remedies that might be available under law or through existing arbitration procedures, or substitute for grievance mechanisms provided through collective agreements.

During disclosure of the ESIA, the grievance redress mechanism will be explained to the stakeholders. The citizen engagement specialist of ADF will follow up on all grievances accordingly and address the concerns (contact point, email, telephone, etc).

The grievance mechanism will be made available also through ADF official web site.

7 Annexes

7.1 Annex 1 Mitigation measures

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
<u>Design phase</u>	<i>Increase of traffic, access difficulties</i>	Prepare measures and conditions for the Pedestrian and traffic management plan. The plan is to be approved by the competent authority (e.g. Ministry of Interior or local traffic police) prior to commencement of works	Designer contract		Designer/ADF	Designer/ADF	Should be clearly presented and advised with the contractor. Could be amended during the works
<u>Pre-construction</u>	<i>Involuntary resettlement</i>	Preparation of Resettlement Action Plan in case involuntary resettlement is needed	Included in the project cost		ADF/Designer/municipality		ADF/designer to prepare resettlement plan and municipality to follow up
<u>Pre-construction</u>	<i>Accidental situations, water and soil pollution</i>	Prepare an Emergency Preparedness Plan (that includes procedures in the case of spills)	Included in the project cost		ADF/Designer/municipality		ADF/designer to prepare resettlement plan and municipality to follow up
<u>Pre-construction</u>	<i>Waste management</i>	Identifying licensed landfills for major waste streams – hazardous and nonhazardous waste Sign the contracts with licensed companies if waste will not be handled by contractor. Keep waste manifest	Included in the project cost		ADF/Designer/municipality		

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, concrete, old asphalt, etc</i>	In consultation with the Municipality of Saranda, provide an appropriate method for recycling construction materials and scrap metal materials. Waste from cleaning of site will be separated and transported and processed/disposed on the licensed landfills.	NA		ADF/Municipality of Saranda	Contractor	As provided in BOQ
<u>Design</u>	<i>Permits</i>	All legally required permits (construction, environmental and other) have been obtained before works commence. Contractors and subcontractors have valid operating licenses.	NA	Included to project cost	ADF, Municipality and contractor		
<u>Design</u>	<i>Organization of traffic during construction</i>	Traffic has been organized through the Pedestrian and Traffic Management Plan so that there is minimal interference and maximized safety of participants. Traffic signalization and safety measures are prepared. Safe pedestrian passages are provided.	NA		ADF, Municipality and contractor		
<u>Design</u>	<i>Notification of public and relevant institutions</i>	All relevant institutions (e.g. traffic police, construction, environmental and H&S inspectorate, etc.) has been notified on the upcoming works. The public has received timely and relevant information through appropriate means (radio, local tv, newspapers and other) and its geographical and temporal scope.	NA	Included to project cost	ADF, Municipality and contractor		
<u>Design</u>	<i>Materials supplied from illegal or unauthorized sites may exert pressure on the natural resources</i>	Plan to use existing and licensed stones quarries; Before use check the official approval, environmental permit and/or valid operating license (whichever is required within the national regulation)	NA	NA	stone quarry	Contractor to obtain all permits	As required in the environmental permit

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
							To be specified in bid documents.
<u>Design</u>	<i>Landscape and nature protection</i>	Prepare the relocation plan for vegetation In case of unavoidable and unforeseen removal of trees, define procedures for relocation of individual trees in consultations with a botanist. Removal/relocation of individual trees must be approved by the competent authority.	Included to project cost	Included to project cost	Contractor	Contractor in cooperation with municipality	
<u>Design</u>	<i>Biodiversity protection</i>	Prepare plan for sea leveling and define conditions when sea leveling works should stop (strong currents, wind, etc.) in order to reduce turbidity and impact to <i>Possedonia oceanica</i> .	Included to project cost	Included to project cost	Contractor	ADF in cooperation with environmental expert or NEA	
<u>Design</u>	<i>Public participation</i>	The relevant comments from (i) preliminary design and (ii) ESIA public consultations will be addressed in the final design and revised ESIA.	Included to project cost	Included to project cost	ADF, designer	ADF	
<u>Design/Construction</u>	<i>Damage to infrastructure</i>	The works on sections transecting utility infrastructure will be coordinated with utility services providers (electricity, sewerage, water supply, telecommunications, etc.). Precise positions of present infrastructure/installations will be determined before works on a particular section commence.	Included to project cost	Included to project cost	Contractor	Contractor	

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
<u>Design/Construction</u>	<i>Soil stability</i>	Appropriate geotechnical studies are carried out.	Included to project cost	Included to project cost	Contractor	Contractor	
<u>Construction Phase</u>							
<u>Construction</u>	<i>Dust generated during transport of stone, aggregate or other materials</i>	wet or covered truck load. Unload trucks while preventing dusting, e.g. avoid free-falling and use dust protection sheets. Sites must be maintained in tidy condition, Keep drop height to the minimum.	NA	NA	Construction Contractor	Construction Contractor	As required in the environmental permit To be specified in bid documents.
<u>Construction</u>	<i>Dust generated during construction works</i>	Water construction site and material storage sites as appropriate. Use dust screens if needed. During pneumatic drilling/compaction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at the site. The surrounding environment (at last one road line) shall be kept free of debris to minimize dust.	NA	NA	Construction Contractor	Construction Contractor	As required in the environmental permit 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 only. No open burning or combustion of any sort is allowed on site.	Minimal, included in the project cost	Minimal, included in the project cost	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>	Noise disturbance to humans and animals	Check that noise emitted during rehabilitation of the road does not exceed the national norms set out in regulations (85 dB for urban environment, outside as defined in the national legislation). During operations, the engine covers of generators, air compressors and other powered mechanical equipment shall be closed, and equipment placed at site camp. No night work will be carried out unless with a special permission from competent authorities (municipality / police) and for a limited period of time. Works will be avoided during the tourist peak season (July-August)	minimal, included in the project cost	Minimal, included in the project cost	Construction Contractor	Construction Contractor	To be specified in bid documents.
<u>Construction</u>	Traffic that may create noise, vehicle exhaust, road congestion on and around the site	Arrange for material transport at hours of minimum traffic. Use alternative routes to minimize traffic congestion. Works to be performed alternatively on half of the road length or in batches in order to allow access to pass	NA	minimal, included in the project cost	Construction Contractor: Transport manager and Truck operator	Construction Contractor: Transport manager and Truck operator	
<u>Construction</u>	Traffic disruption during construction activity Pedestrian safety	Use and revise if necessary Pedestrian and Traffic management plan with appropriate measures to redirect traffic and is easy to follow (signs and signaling); in cooperation with the local authorities, include traffic police. Regularly inform the local communities and traffic informational agencies of traffic disruptions. Ensure alternative access to the key locations (schools, hospitalists.)	as specified in bidding documents, included in the project cost	minimal, included in the project cost	Construction Contractor	Construction Contractor	Measures to be included in the Traffic management Plan (Bid documents). Plan should be approved before commencement of works

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 should be installed as per Pedestrian and Traffic management plan. Timely announcement in the media when construction will take place. Safety passages for pedestrians are ensured if needed.	as specified in bidding documents, included in the project cost	minimal, included in the project cost	Construction Contractor	Construction Contractor	
<u>Construction</u>	<i>Depletion in non-renewable resources and producing stress to the environment</i>	Use raw materials (sand, gravel, stone) only from suppliers that have valid licenses and concessions issued by the competent authorities.	Included to project cost	Included to project cost	Contractor	Contractor	
<u>Construction</u>	<i>Risk from surface soil erosion and landslides</i>	<p>Inspect the site for potential landslides and surface erosion with special focus of prevention of debris ending up at the sea.</p> <p>The surface runoff management will be applied in the entire length of the promenade;</p> <p>Cleaning the channels, culverts/ box culverts and having a good maintenance of drainage system will ensure effective protection of the road from erosion and sedimentation;</p> <p>Where works are necessary, they will be undertaken in such a way to minimize the occurrence of soil erosion, even for short periods. They will be rehabilitated</p>	Included to project cost	Included to project cost	Contractor	Contractor	

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
		<p>(greened) as soon as possible. Stockpiles will not be placed on the site.</p> <p>Vehicles and machinery manipulation and movement space will be defined in advance and clearly marked.</p> <p>In the case of risk form promenade collapse on some ends, apply adequate measures, such as geotechnical assessment and design, installation of gabions, reinforcement measures, etc.</p>					

<u>Construction</u>	<i>Water and soil pollution</i> from works, management and usage of construction machines	<p>Isolate all works from the watercourses. Where necessary use water pumps, filters and other equipment to prevent turbidity. Working site run-offs with possible charge with suspended matter should be filtered before discharging to natural flows.</p> <p>Although small quantities are expected, take care not to mix topsoil and subsoil during stripping. Topsoil must be reused where possible.</p> <p>Install leak control equipment Have a leak control mechanism in place (bunds, leak proof containers, containment systems, etc.) and emergency interventions/procedures to control spills.</p> <p>Construction equipment and vehicles (regular maintenance and checkups of oil and gas tanks, machinery and vehicles will be performed) can be parked (manipulated) and washed only on asphalted or concrete surfaces with surface runoff water collecting and approved treatment system. There will be no discharge of wastewaters to natural recipients without a prior treatment.</p> <p>On site painting or applying protection coatings should be done in the way that annuls the risk of leaking or spilling to waters (e.g. using trays).</p> <p>Sanitary facilities will be provided for workers and no wastewater will be discharged to the natural recipient.</p>	as specified in bid documents, , included in the project cost	Bill of Quantities	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.
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		There will be no unauthorized use of water resources. The exploitation will require obtaining a special permit from the competent authorities.					
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Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
<u>Construction</u>	<i>Pollution</i> from improper disposal of waste materials	<p>Temporarily dispose earth and mineral waste material at appropriate designated location protected from runoff, in cooperation with the municipality of Saranda. No waste can remain on temporary or working site upon the completion of works.</p> <p>For temporary, short storage of wastes, select an area on impermeable surface with the runoff collection system, away from any potential leaking into the watercourse. Sufficient number of waste containers for separate collection and of adequate volumes/capacity should be provided.</p> <p>All waste, including construction debris and excavated materials will be regularly and timely transported off site and managed through a licensed agency/company and disposed of at a licensed landfill/processing plant for the type of waste.</p> <p>Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities.</p> <p>General refuse, recyclables, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers.</p>	minimal, included in the project cost	As specified in BOQ, included in the project cost	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	
		<p>Whenever feasible, the contractor will reuse and recycle appropriate and viable materials, or materials should be submitted to municipality for reuse.</p> <p>All hazardous and toxic wastes (e.g. oil and oiled materials) will be separately collected, in bins which are leak-proof, and will be handled over to the authorized management and disposal to the licensed landfill/processing company, receipts for which shall be kept.</p> <p>Waste manifests/records that inform on disposal/processing location, amounts, waste type and other will be kept.</p> <p>All waste types will be separately collected and not mixed (hazardous with non-hazardous and different hazardous waste types). Disposing any type of liquid or solid waste to the natural surrounding (water particularly) is strictly forbidden.</p>					
<u>Construction</u>	<i>Potential contamination of soil and water from improper maintenance, improper material storage, and fueling of equipment</i>	Organize and cover material storage areas; 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 or licensed landfills. In the case of leakage, the contaminated soil should be collected and as hazardous waste disposed as hazardous	minimal, included in the project cost	minimal, included in the project cost	Construction Contractor	Construction Contractor	The municipality of Saranda must provide a written permission for an appropriate waste landfill before the

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
		<p>waste. The waste should be collected in separate and leak proof containers. Have a leak control mechanism, procedures and equipment (e.g. absorbents, impermeable bags, spill fences, etc.) in place and emergency interventions to control spills.</p> <p>Store all materials in original containers in adequate locations, which allow for leak-proof storage (e.g. use of bunds).</p> <p>Ensure workers are familiar with safety regulations and storage requirements for each product.</p> <p>Hazardous substances (including hazardous waste) must be kept in appropriately labelled leak-proof containers during temporary storage. Either the container or the storage room must be equipped with the secondary containment system.</p> <p>No large amounts of fuel will be kept on the site. In the case of re-fuelling on site, precautionary measures will be taken to prevent accidental spilling (e.g. use of trays).</p> <p>In the case of any run-off coming from works area possibly contaminated by hazardous substances, it shall be collected on site to a temporary retention basin and transported to an adequate treatment plant.</p> <p>Soil work and management will take into account metrological data and</p>					<p>construction works may commence. The selected landfill must be licensed in lien with the national regulation and hold all required permits (construction, environmental, etc.).</p>

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
		<p>conditions when planned and carried out (e.g. avoid works during heavy rains).</p> <p>No water can be discharged to the surrounding nature without prior treatment.</p>					
<u>Construction</u>	Interruption of surface and underground drainage patterns during construction, creating of standing water.	In line with approved design, maintain natural drainage pattern.	minimal, included in the project cost	minimal, included in the project cost	Construction Contractor	Construction Contractor	
<u>Construction</u>	Workers health and occupational safety	<p>Provide workers with safety instructions and protective equipment (glasses, masks, helmets, boots, et complying with the H&S international best practices. The protective equipment is worn at all times.</p> <p>Workers are adequately trained/certified and experienced in using dangerous equipment and for higher risk positions/work.</p> <p>All work will be carried out in the safe and disciplined manner designed to minimize the impacts and risks for</p>	minimal, included in the project cost	minimal, included in the project cost	Construction Contractor	Construction Contractor	

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
		<p>workers, surrounding communities and the environment.</p> <p>In case of accidental disruption, immediately stop all works and remove the cause of accident (e.g. stop the leakage) as per Emergency plan, notify proper authorities and proceed with remediation of damaged network in line with the requirements of Law on civil emergencies. Any incident will be reported to the project manager immediately and regularly to supervising engineer. During cleaning, ensure workers are equipped with protective equipment. Workers will avoid direct contact with contaminated sites. In the case of soil or water pollution, the contaminated soil or water should be collected and taken for the appropriate treatment/disposal (as hazardous waste).</p>					
<u>Construction</u>	Works site organization	<p>Construction sites are fenced off or protected by barriers, tape-marks and informational posts and warnings. Construction site is equipped with proper sanitary facilities (chemical toilets) and resting areas for workers; medical kit and fire equipment is present at the site with use trained employees. The site and construction camp remain inaccessible to public.</p>	Included in the project cost	Included in the project cost	Construction Contractor	Construction Contractor	

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
		<p>Appropriate sign postage is in place informing workers of key rules and procedures to follow.</p> <p>Potentially hazardous areas (trenches, manholes, excavations and other) must be protected/covered and clearly marked.</p>					
<u>Construction</u>	Impacts on flora and fauna	<p>The working zone must be reduced to space that is necessary. The clearing of vegetation shall be kept to a minimum, with replacement planting planned and conducted,</p> <p>Project activities will not include use of pesticides.</p> <p>Replanting plan for trees to be removed is agreed with municipality and implemented.</p> <p>There will be no disturbance of any kind of animals.</p> <p>Collection of timber, firewood, herbs, forest products and poaching is strictly forbidden.</p> <p>Hunting is strictly forbidden.</p> <p>Only native or species present in the area for a longtime are used in greening and site rehabilitation;</p>	NA	, included in the project cost	Construction Contractor; Forestry Directorate, Municipality of Saranda		<p>As specified in the environmental permit and technical specifications</p> <p>According to the national environmental regulations, for 1 tree that is cut, 3 must be planted</p>

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
		Site is restored to previous condition.					
<u>Construction</u>	Chance finds items of cultural/historical interest.	<p>In the case of chance findings, ensure all works are stopped, the area will be secured and the relevant authorities (Ministry of Culture/Regional Cultural Directorate) will be informed within three days of said finds. The authorities will within fifteen days to respond and indicate what measures need to be taken to proceed with the works.</p> <p>Ensure presence of cultural heritage expert during earth works and seabed leveling</p>	NA	In case of chance finds, the project owner will pay for all required investigations	Construction Contractor, ADF, municipality of Saranda		Albanian legislation details necessary actions in case of chance find items. Special attention must be paid to proper installation of protection for the castle walls near the promenade.
<u>Construction</u>	<p>Labor and working conditions</p> <p>a) Disease prevention and health examinations</p> <p>b) Creation of additional workplaces</p> <p>c) Workforce accommodation</p>	<p>a) Preventative health examinations for workers, training on disease prevention, provision of education/ information and health related to reduce sexually related disease.</p> <p>Informing of local population on vacancies. Maximum possible involvement of local labor.</p> <p>Accommodation needs will be assessed in all worker camps. Ensure standard for accommodation.</p> <p>provide workers with safety instructions and protective equipment (glasses, masks, helmets, boots, etc);</p>	As specified in BOQ, included in the project cost	minimal, included in the project cost	Contractor, ADF	Contractor	It is a legal requirement to provide protective equipment for safety at work

Phase	Issue	Mitigating measure	Cost (in EUR)		Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Operate	Install	Operate	
	d)Workers safety on site	Grievance mechanism for workers to raise reasonable workplace concerns (comments or complaints).					
<u>Construction</u>	<i>Grievance issues</i>	Establishment of a grievance redress mechanism			ADF and contractor	Municipality	
<u>Construction</u>	<i>Damage to electricity, water, sewerage and other infrastructure</i>	<p>During works near and on utilities' installations (e.g. electricity, water supply, sewerage, etc.) the services may be shut down or limited. Local population will be informed and, in the case of longer periods of shutdown, alternative supply will be ensured.</p> <p>When working in vicinity of electrical and other installation, to avoid damages, the works will be manual with light equipment and using no machinery and in consultations with the owner of utilities (e.g. water company, electricity company, IT, etc).</p>	Included to project cost	Included to project cost	Contractor	Contractor	
<u>Operation / Maintenance/</u>	<i>Noise disturbance to local population and workers caused by regular and scheduled maintenance works on the road</i>	Limit activities to daylight working hours (as agreed with local authorities.)	Minimal, included in the project cost	minimal, included in the project cost	Maintenance Contractor/LGU	Maintenance Contractor/LGU	to be specified in maintenance contract documents- Technical Specifications for realization of maintenance works

7.2 Annex 2

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	All permits are obtained before works start. Possession of official approval or valid operating license for stone quarries and other material supply subjects (e.g. gravel and sand exploitation companies, asphalt plant etc.).	on location of stone quarry, minerals exploitation companies	inspection of all necessary documents	before work begins	to ensure sustainable use of materials	possession of official approval or valid operating license and concession	NA	NA	Quarry Operator	Quarry Operator
Pre-Construction	Public and relevant institutions are notified of works.	Contractor's premises	inspection of all necessary documents	before work begins	To ensure public awareness	Announcements in the media and direct information dissemination	Included to project cost	Included to project cost	Supervising engineer, ADF	Supervising engineer, ADF
Pre-Construction	Emergency Preparedness Plan and Pedestrians and Traffic management plan have been prepared.	Contractor's premises	inspection of all necessary documents	before work begins	To reduce risks and impacts of accidental situations and	Plans and blueprints in place	Included to project cost	Included to project cost	Supervising engineer, ADF	Supervising engineer, ADF

	Position of existing infrastructure at relevant sections has been determined.				damage to the infrastructure.					
Pre-Construction	Works organized and scheduled to avoid disturbance of tourist season. Plan has been prepared for sea leveling activities with the measures to minimize turbidity	Contractor's premises	inspection of all necessary documents	Once before work begins	To reduce risks and impacts to biodiversity	Plans in place	Included to project cost	Included to project cost	Supervising engineer, ADF	Supervising engineer, ADF
Construction	Covering or wetting down transported materials that can generate dust, such as stone, sand or gravel, keeping the site wet and protected from dust spreading. Protection from dust while unloading. There is no burning at the site.	job site – each vehicle	supervision	continuously	ensure minimal disruption to air quality	Covered truck load Report from the supervising engineer	NA	minimal, included in the project cost	ADF	Supervision Contractor Supervision Contractor
Construction	Congestion on site, disruptions to traffic patterns,	On the site	Visual supervision	regularly by supervision	To ensure minimal disruptions to the local	Number of complaints received		minimal, included in the	a) ADF	Supervision Contractor

	complaints on traffic management. Implementation of Pedestrian and Traffic management Plan Safe passages for pedestrians are provided.				traffic, prevent accidents and ensure safety			project cost		
Construction	Damage to soil structure, landslides and slips, embankments. Soil erosion and landslides prevention measures in place	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	land slips, erosion, damaged embankments, measures in place, studies completed before the works on the affected area	NA	minimal, included in the project cost	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. In the case of incompliance - regularly. oncomplaintor negative inspection finding	assure compliance of performance with environment, health and safety regulation and standards	Incompliance (>85dB), complaint, negative inspection finding	minimal, included in the project cost	minimal, included in the project cost	ADF	Supervision Contractor
Construction	Air pollution parameters of dust, particulate matter	At and near job site	Sampling by authorized agency	Before the works commence, during the peak earth works and	To ensure no excessive emissions during works	Incompliance, complaint, negative inspection finding ,	minimal, included in the project cost	Included in supervision cost	ADF	Supervision Contractor

	PM10, PM2.5, Dust.			Upon complaint or negative inspection finding		reports of REA				
Construction	water quality – sea BOD 5, oils, turbidity	At and near work site (upstream and downstream) As per seabed leveling plan for reducing turbidity install measure turbidity before the works and during the works	Sampling by authorized agency Visual inspection of leaks, turbidity and contamination	Before the commencement of works Upon complaint or noticed spill/leak/spill/turbidity into the river/water body or soil near the water body. Turbidity before the works and during the works	To ensure no excessive emissions during works	Incompliance, No of grievances recorded, reports of REA	Minimal, included in the project cost Should be determined upon preparation of seabed leveling plan	minimal, included in the project cost, bill of quantities S	ADF, through the expert	Supervision Contractor Through the expert
Construction	Traffic safety, signaling and accessibility	In the wider area of the working site	Visual inspection, consultations with the traffic police, consultation with the local residents	Upon the start of works on a particular section, upon complaints.	To prevent accidents and ensure access to services and livelihood	No of grievances recorded	Included to the project cost	Included to the project cost	Supervising engineer, ADF	ADF
Construction	Safety signage and procedures in place. Fence is in place. Warning signs in place.	At and near work site	Visually by supervisor	Regularly	To ensure clear posting of safety signs	Number of signs	Minimal, included in the project cost	ADF	Supervision Contractor	ADF

Construction	Disposal of waste materials at licensed landfills/process plants, transported by the licensed transport companies.	On site for timely collection and disposal on final disposal site	Documents check (licences, waste records), site visit,, visually	Before start of works and regularly	To ensure proper waste management thus prevent contamination	Licenses issued by the competent bodies, amounts of waste removed	, included in the project cost	ADF	Supervision Contractor	ADF
Construction/waste	Separate waste collection	On site	Visually, number, labelling and capacity of containers, waste mix, containers safety Documents check	Regularly	Prevent pollution	No of containers, waste mix, labelling, procedures	included in the project cost	included in the project cost	Supervision Contractor	ADF
Construction / hazardous substances (including waste) management	Containers are leak-proof and with secondary containment system. Containers are accessible only to authorized personnel. During use, spill protection systems are in place.	On site	Visual	Regularly	Prevent pollution	No. and size of spills, amount of contaminated soil or water, leaks	included in the project cost	included in the project cost	Supervision Contractor	ADF

	Containers are adequately labeled. Check tanks, machinery and vehicles for leaks.									
Construction / Workers safety	Protective equipment (glasses, masks, helmets, boots, et) worn at all times, safety warning and instruction are on site; organization of bypassing traffic, other Health and Safety (H&S) measures. Workers are adequately trained and certified for positions and work they perform. Emergency Preparedness Plan and emergency procedures are available on site and communicated to all workers through H&S training.	job site	inspection	unannounced inspections during work	Prevent accidents	number of on-job accidents recorded, procedure available, protective equipment available	NA	minimal, included in the project cost	Supervision, ADF	NA
Construction / Site organization	Site is well organized: fences, warnings, sign postage in place.	Work site, camp	inspection	unannounced inspections during work	Prevent accidents	number of on-job accidents recorded	NA	minimal, included in the	Supervision, ADF	NA

	Dangerous areas fenced and marked. Sanitary facilities available in sufficient number. Camp inaccessible for public.							project cost		
Construction/ <i>Destruction of crops, trees meadows etc</i>	loss of/impact on vegetation Implementation of Replanting plan	job site	Supervision, photographic reports	during material delivery and construction	Landscape value protection	Reports of frequent visits on site by the Env. Expert	NA NA	minimal, included in the project cost	Supervision Contractor, ADF	ADF
Construction/impact to biodiversity and nature	Only native species or those presents for decade in the area are used in greening and site rehabilitation; Site is restored to previous condition.	Working site	Visual inspection of a site, inspection of documents;	Regularly; permissions before works commence.	Landscape value and nature protection.	Complaints	minimal, included in the project cost	minimal, included in the project cost	Supervision Contractor, ADF	ADF

	Disturbance of animals and collection/destruction of flora is not present.									
Construction/ Chance find items	Cultural properties. chance findings clause is applied	Job site, documentation	Expert visits from Institute for Cultural Monuments, regular supervision	Continuous, in the case of findings. Before earth works and sea bed works, during the works	Cultural heritage preservation	Catalogue of items found, including photographic and textual documentation ; chance findings report	Should be part of the regularly scheduled activities	minimal, included in the project cost	Supervision Contractor, ADF, ICM	Supervision Contractor, Cultural Directorate , ADF
Construction/ a)Disease prevention and health examinations b)Creation of additional workplaces c)Workforce accommodation d)Workers safety on site	1) Health examinations for workers, 2) training on disease prevention, including STD 1)Informing of local population on vacancies 2)Involvement of local labour 1)Accommodation needs will be assessed 2)standard for accomodation 1)safety instructions and protective equipment (glasses, masks, helmets,	At or near job site	visits on site and communication with workers and community	Once a week by ADF	To ensure proper implementation of health and safety requirements	Knowledgeable workforce on procedures, Equipped with safety equipment	Should be part of the regularly scheduled activities	Minimal, included in the project cost	ADF, supervisor, contractor	supervisor, contractor

	boots, etc); safe 2)organization of bypassing traffic 3)Availability of grievance mechanism and grievance focal point									
Operation/ Vehicle and pedestrian safety	As per traffic management plan visibility and appropriateness of signage	at and near job site	observation	once per week in the evening	Safety	Number of warning signs installed, appropriatenes s, number of accidents recorded	minimal	minimal, included in the project cost	ADF	maintenanc e Contractor, ADF
Operation/ Increase of domestic solid waste due to increased number of visitors to the site	Visual impact	At and near job site	visits on site and communicatio n 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
Operation / Water monitoring	Measuring BOD5, COD, mineral oils	In the vicinity of Promenade	measuring	Per month					LGU	LGU

7.3 Annex 3 Projects subject to profound EIA procedures

Law No. 10 440 dated 7.7. 2011 On “Environmental Impact Assessment”

1. Crude-oil refineries (excluding undertakings manufacturing only lubricants from crude oil) and installations for the gasification and liquefaction of 500 tonnes or more of coal or bituminous shale per day.
2. — Thermal power stations and other combustion installations with a heat output of 30 megawatts or more, and — nuclear power stations and other nuclear reactors including the dismantling or decommissioning of such power stations or reactors (*) (except research installations for the production and conversion of fissionable and fertile materials, whose maximum power does not exceed 1 kilowatt continuous thermal load).
3. (a) Installations for the reprocessing of irradiated nuclear fuel.
(b) Installations designed:
 - for the production or enrichment of nuclear fuel,
 - for the processing of irradiated nuclear fuel or high-level radioactive waste,
 - for the final disposal of irradiated nuclear fuel,
 - solely for the final disposal of radioactive waste,
 - solely for the storage (planned for more than 10 years) of irradiated nuclear fuels or radioactive waste in a different site than the production site.
4. Integrated works for the initial smelting of cast-iron and steel;
Installations for the production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes.
5. Installations for the extraction of asbestos and for the processing and transformation of asbestos and products containing asbestos: for asbestos-cement products, with an annual production of more than 20 000 tonnes of finished products, for friction material, with an annual production of more than 50 tonnes of finished products, and for other uses of asbestos, utilization of more than 200 tonnes per year.
6. Integrated chemical installations, i.e. those installations for the manufacture on an industrial scale of substances using chemical conversion processes, in which several units are juxtaposed and are functionally linked to one another and which are:
 - (i) for the production of basic organic chemicals;
 - (ii) for the production of basic inorganic chemicals;
 - (iii) for the production of phosphorous-, nitrogen- or potassium-based fertilizers (simple or compound fertilizers);
 - (iv) for the production of basic plant health products and of biocides;
 - (v) for the production of basic pharmaceutical products using a chemical or biological process;
 - (vi) for the production of explosives.
7. (a) Construction of lines for long-distance railway traffic and of airports (1) with a basic runway length of 2 100 m or more;
(b) Construction of motorways and express roads (2);
Nuclear power stations and other nuclear reactors cease to be such an installation when all nuclear fuel and other radioactively contaminated elements have been removed permanently from the installation site.
 - (1) For the purposes of this Directive, ‘airport’ means airports which comply with the definition in the 1944 Chicago Convention setting up the International Civil Aviation Organization (Annex 14).
 - (2) For the purposes of the Directive, ‘express road’ means a road which complies with the definition in the European Agreement on Main International Traffic Arteries of 15 November 1975.
- (c) Construction of a new road of four or more lanes, or realignment and/or widening of an existing road of two lanes or less so as to provide four or more lanes, where such new road, or realigned and/or widened section of road would be 10 km or more in a continuous length.

8. (a) Inland waterways and ports for inland-waterway traffic which permit the passage of vessels of over 1 350 tonnes;
(b) Trading ports, piers for loading and unloading connected to land and outside ports (excluding ferry piers) which can take vessels of over 1 350 tonnes.
9. Waste disposal installations for the incineration, chemical treatment as defined in Annex IIA to Directive 75/442/EEC (1) under heading D9, or landfill of hazardous waste (i.e. waste to which Directive 91/689/EEC (2) applies).
10. Waste disposal installations for the incineration or chemical treatment as defined in Annex IIA to Directive 75/442/EEC under heading D9 of nonhazardous waste with a capacity exceeding 100 tonnes per day.
11. Groundwater abstraction or artificial groundwater recharge schemes where the annual volume of water abstracted or recharged is equivalent to or exceeds 10 million cubic metres.
12. (a) Works for the transfer of water resources between river basins where this transfer aims at preventing possible shortages of water and where the amount of water transferred exceeds 100 million cubic metres/year;
(b) In all other cases, works for the transfer of water resources between river basins where the multi-annual average flow of the basin of abstraction exceeds 2 000 million cubic metres/year and where the amount of water transferred exceeds 5 % of this flow. In both cases transfers of piped drinking water are excluded.
13. Waste water treatment plants with a capacity exceeding 150 000 population equivalent as defined in Article 2 point (6) of Directive 91/271/EEC (3).
14. Extraction of petroleum and natural gas for commercial purposes where the amount extracted exceeds 500 tonnes/day in the case of petroleum and 500 000 m³/day in the case of gas.
15. Dams and other installations designed for the holding back or permanent storage of water, where a new or additional amount of water held back or stored exceeds 10 million cubic metres.
16. Pipelines with a diameter of more than 800 mm and a length of more than 10 km:
— for the transport of gas, oil, chemicals, and,
— for the transport of carbon dioxide (CO₂) streams for the purposes of geological storage, including associated booster stations.
17. Installations for the intensive rearing of poultry or pigs with more than:
(a) 20 000 places for broilers, 10 000 places for hens;
(b) 3 000 places for production pigs (over 30 kg); or
(c) 900 places for sows.
18. Industrial plants for the
(a) production of pulp from timber or similar fibrous materials;
(b) production of paper and board with a production capacity exceeding 30 tonnes per day.
19. Quarries and open-cast mining where the surface of the site exceeds 25 hectares, or peat extraction, where the surface of the site exceeds 5 hectares.
20. Construction of overhead electrical power lines with a voltage of 220 kV or more and a length of more than 15 km.
21. Installations for storage of petroleum, petrochemical, or chemical products with a capacity of 200 000 tonnes or more.
22. Any change to or extension of projects listed in this Annex where such a change or extension in itself meets the thresholds, if any, set out in this Annex.
23. Storage sites pursuant to Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide (1).
24. Installations for the capture of CO₂ streams for the purposes of geological storage pursuant to Directive 2009/31/EC from installations covered by this Annex, or where the total yearly capture of CO₂ is 1,5 megatonnes or more.

7.4 Annex 4 - Projects subject to preliminary EIA procedures

1. Agriculture, silviculture and aquaculture

- (a) Projects for the restructuring of rural land holdings;
- (b) Projects for the use of uncultivated land or semi-natural areas for intensive agricultural purposes;
- (c) Water management projects for agriculture, including irrigation and land drainage projects;
- (d) Initial afforestation and deforestation for the purposes of conversion to another type of land use;
- (e) Intensive livestock installations (projects not included in Annex I);
- (f) Intensive fish farming;
- (g) Reclamation of land from the sea.

2. Extractive industry

- (a) Quarries, open-cast mining and peat extraction (projects not included in Annex I);
- (b) Underground mining;
- (c) Extraction of minerals by marine or fluvial dredging;
- (d) Deep drillings, in particular:
 - geothermal drilling,
 - drilling for the storage of nuclear waste material,
 - drilling for water supplies,with the exception of drillings for investigating the stability of the soil;
- (e) Surface industrial installations for the extraction of coal, petroleum, natural gas and ores, as well as bituminous shale.

3. Energy industry

- (a) Industrial installations for the production of electricity, steam and hot water (projects not included in Annex I);
- (b) Industrial installations for carrying gas, steam and hot water; transmission of electrical energy by overhead cables (projects not included in Annex I);
- (c) Surface storage of natural gas;
- (d) Underground storage of combustible gases;
- (e) Surface storage of fossil fuels;
- (f) Industrial briquetting of coal and lignite;
- (g) Installations for the processing and storage of radioactive waste (unless included in Annex I);
- (h) Installations for hydroelectric energy production;
- (i) Installations for the harnessing of wind power for energy production (wind farms);
- (j) Installations for the capture of CO₂ streams for the purposes of geological storage pursuant to Directive 2009/31/EC from installations not covered by Annex I to this Directive.

4. Production and processing of metals

- (a) Installations for the production of pig iron or steel (primary or secondary fusion) including continuous casting;
- (b) Installations for the processing of ferrous metals:
 - (i) Hot-rolling mills;
 - (ii) Smitheries with hammers;
 - (iii) Application of protective fused metal coats;
- (c) Ferrous metal foundries;
- (d) Installations for the smelting, including the alloyage, of non-ferrous metals, excluding precious metals, including recovered products (refining, foundry casting, etc.);
- (e) Installations for surface treatment of metals and plastic materials using an electrolytic or chemical process;
- (f) Manufacture and assembly of motor vehicles and manufacture of motor vehicle engines;
- (g) Shipyards;
- (h) Installations for the construction and repair of aircraft;

- (i) Manufacture of railway equipment;
- (j) Swaging by explosives;
- (k) Installations for the roasting and sintering of metallic ores.

5. Mineral industry

- (a) Coke ovens (dry coal distillation);
- (b) Installations for the manufacture of cement;
- (c) Installations for the production of asbestos and the manufacture of asbestos-products (projects not included in Annex I);
- (d) Installations for the manufacture of glass including glass fibre;
- (e) Installations for smelting mineral substances including the production of mineral fibres;
- (f) Manufacture of ceramic products by burning, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain.

6. Chemical industry (Projects not included in Annex I)

- (a) Treatment of intermediate products and production of chemicals;
- (b) Production of pesticides and pharmaceutical products, paint and varnishes, elastomers and peroxides;
- (c) Storage facilities for petroleum, petrochemical and chemical products.

7. Food industry

- (a) Manufacture of vegetable and animal oils and fats;
- (b) Packing and canning of animal and vegetable products;
- (c) Manufacture of dairy products;
- (d) Brewing and malting;
- (e) Confectionery and syrup manufacture;
- (f) Installations for the slaughter of animals;
- (g) Industrial starch manufacturing installations;
- (h) Fish-meal and fish-oil factories;
- (i) Sugar factories.

8. Textile, leather, wood and paper industries

- (a) Industrial plants for the production of paper and board (projects not included in Annex I);
- (b) Plants for the pretreatment (operations such as washing, bleaching, mercerization) or dyeing of fibres or textiles;
- (c) Plants for the tanning of hides and skins;
- (d) Cellulose-processing and production installations.

9. Rubber industry

Manufacture and treatment of elastomer-based products.

10. Infrastructure projects

- (a) Industrial estate development projects;
- (b) Urban development projects, including the construction of shopping centres and car parks;
- (c) Construction of railways and intermodal transshipment facilities, and of intermodal terminals (projects not included in Annex I);
- (d) Construction of airfields (projects not included in Annex I);
- (e) Construction of roads, harbours and port installations, including fishing harbours (projects not included in Annex I);
- (f) Inland-waterway construction not included in Annex I, canalization and flood-relief works;
- (g) Dams and other installations designed to hold water or store it on a long-term basis (projects not included in Annex I);

- (h) Tramways, elevated and underground railways, suspended lines or similar lines of a particular type, used exclusively or mainly for passenger transport;
- (i) Oil and gas pipeline installations and pipelines for the transport of CO₂ streams for the purposes of geological storage (projects not included in Annex I);
- (j) Installations of long-distance aqueducts;
- (k) Coastal work to combat erosion and maritime works capable of altering the coast through the construction, for example, of dykes, moles, jetties and other sea defense works, excluding the maintenance and reconstruction of such works;
- (l) Groundwater abstraction and artificial groundwater recharge schemes not included in Annex I;
- (m) Works for the transfer of water resources between river basins not included in Annex I.

11. Other projects

- (a) Permanent racing and test tracks for motorized vehicles;
- (b) Installations for the disposal of waste (projects not included in Annex I);
- (c) Waste-water treatment plants (projects not included in Annex I);
- (d) Sludge-deposition sites;
- (e) Storage of scrap iron, including scrap vehicles;
- (f) Test benches for engines, turbines or reactors;
- (g) Installations for the manufacture of artificial mineral fibres;
- (h) Installations for the recovery or destruction of explosive substances;
- (i) Knackers' yards.

12. Tourism and leisure

- (a) Ski-runs, ski-lifts and cable-cars and associated developments;
- (b) Marinas;
- (c) Holiday villages and hotel complexes outside urban areas and associated developments;
- (d) Permanent camp sites and caravan sites;
- (e) Theme parks.

13. — Any change or extension of projects listed in Annex I or Annex II, already authorized, executed or in the process of being executed, which may have significant adverse effects on the environment (change or extension not included in Annex I);

— Projects in Annex I, undertaken exclusively or mainly for the development and testing of new methods or products and not used for more than two years.

7.5 Annex 5 Description of extension works

The Marine Structure of the Vertical Wall consists of two walls parallel to each other and connected through the positioning of the concrete blocks as well through the 40 cm concrete layer on top of this structure up to the required walkway quota. The walls are constructed from three type of concrete blocks placed on top of each other in the same technique of the “Full Brick Wall” where the joints of the bricks do not fall in the same position. This is made to create a solid, stiffened structure. (Figure 5.e.)

The principle of this construction is that these blocks function as a gravitational retaining wall and retainer, in order to host the forces generated by the sea waves and on the other side to retain the promenade weight on top.

The concrete blocks or Kesone are of a high qualified concrete, and are Prefabricated, White, Waterproof, Reinforced Blocks of Concrete C30/37, with antisulfate additives and high viscosity.

Also for the area from Limani to where the stairs start, behind the keson wall, will be placed a row with piles (Figure 5.e.) that will reinforce and will continue to make it more rigid. This is because this area is designed to anchor various sailing vessels.

The works shall consist of:

- a) Levelling of the sea bed/ beach area, for the purpose of installing the concrete blocks.
- b) Place on top of the levelled and compacted surface the Concrete Block- TYPE 1
- c) On top of the Concrete Block- TYPE 1 the Concrete Block- TYPE 2 is positioned.
- d) The final top Block Concrete Block- TYPE 3 is placed always on the top when it is achieved the desired level.
- e) A layer of 40 cm of concrete C30/37 will be poured on top of the Concrete blocks to stiffen and connect the two wall structures.
- f) Excavating, boring, digging, sleeving, and dewatering the pile shaft as required to prepare the pile for concrete placement, limited within the pile footprint.
- g) Supplying and placing reinforcing steel
- h) Supplying, placing, vibrating, heating and curing concrete.
- i) No dredging of the sea bed is foreseen

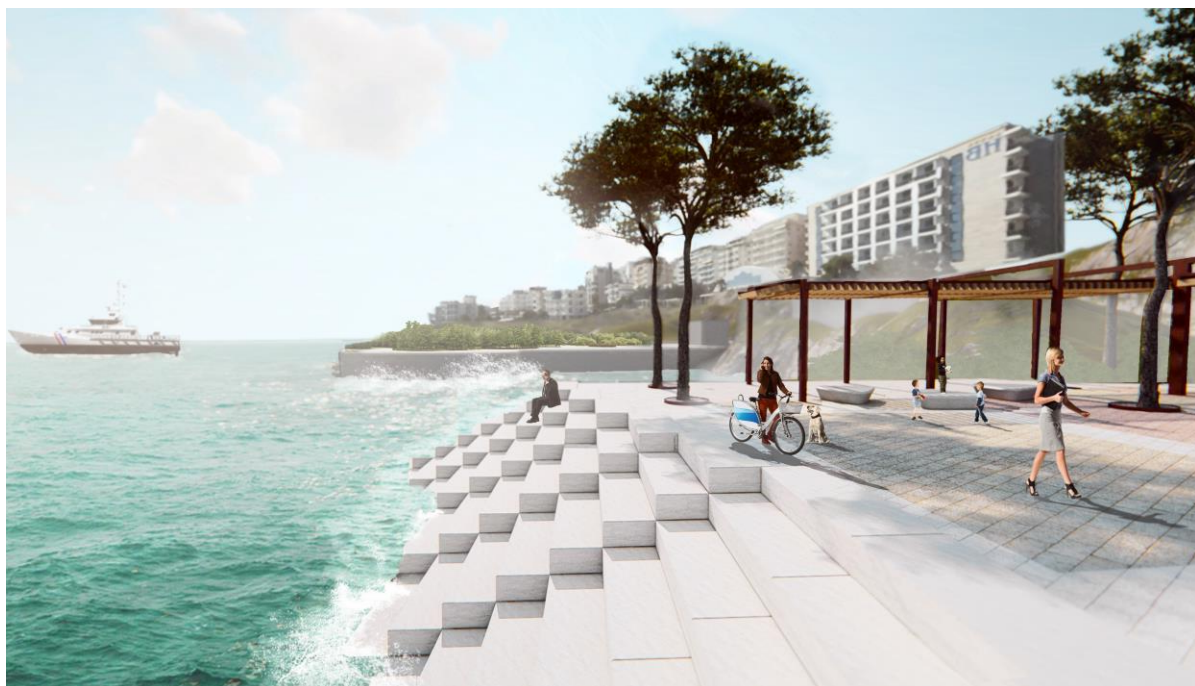
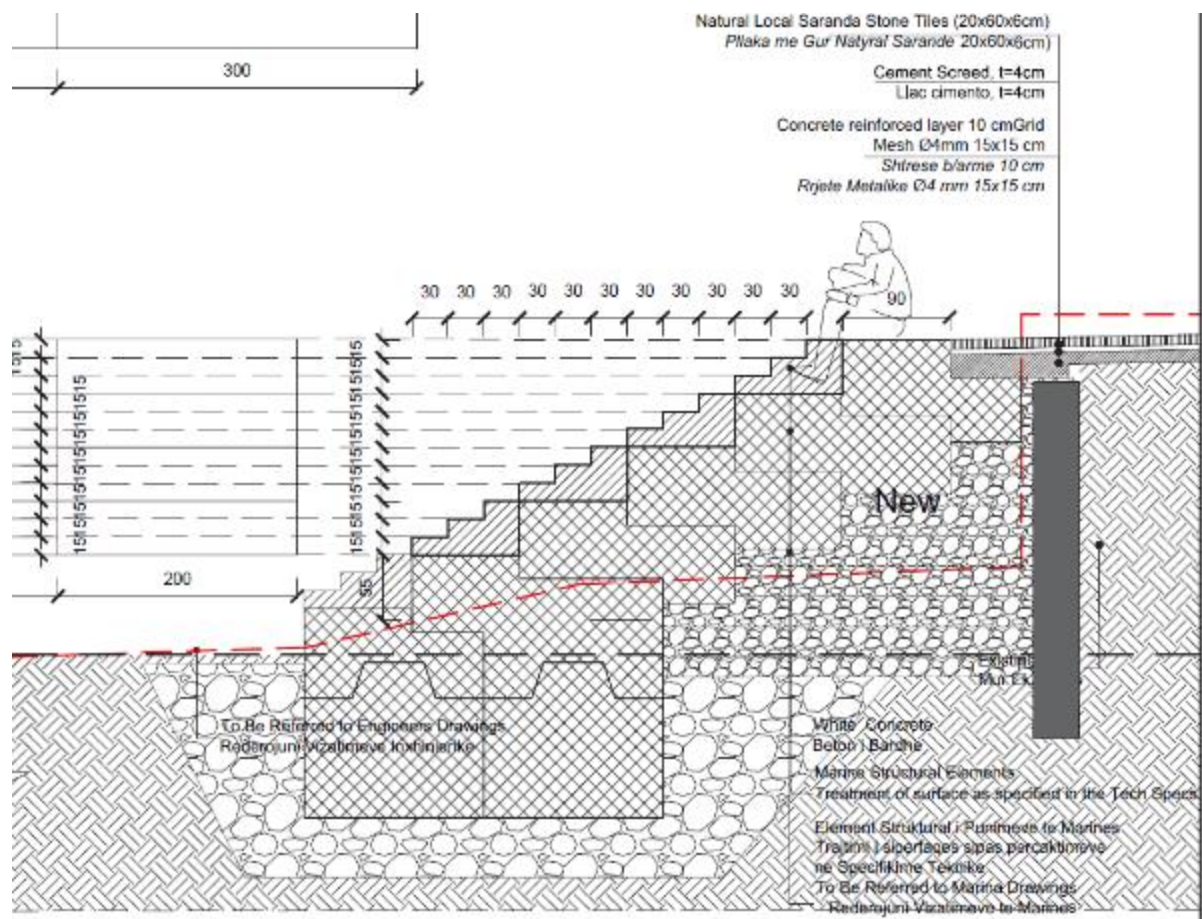


Figure 5. --: extension of the staircases into the sea

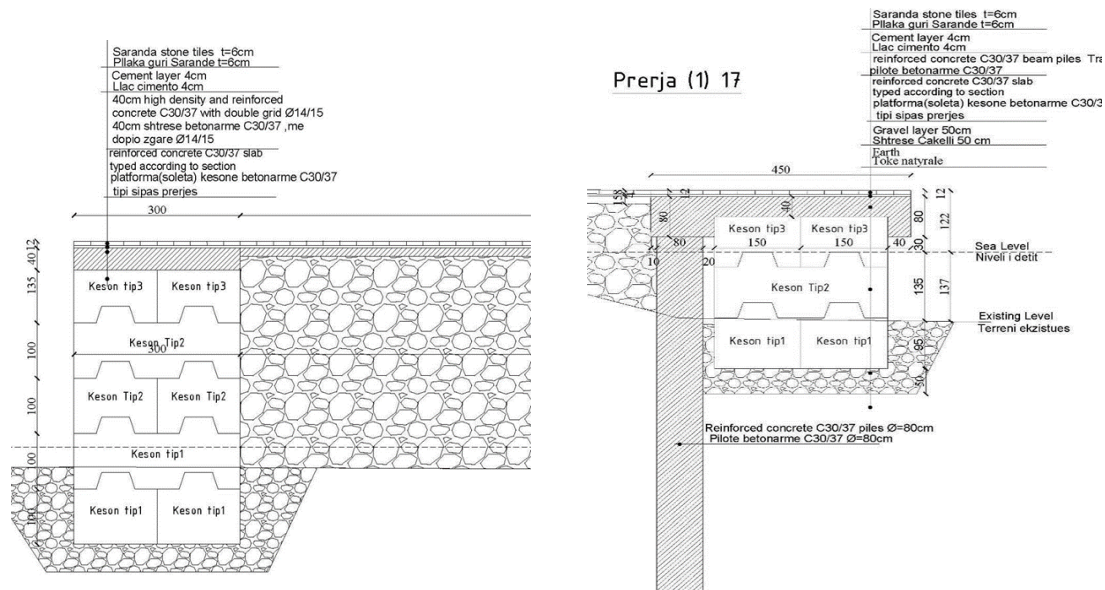


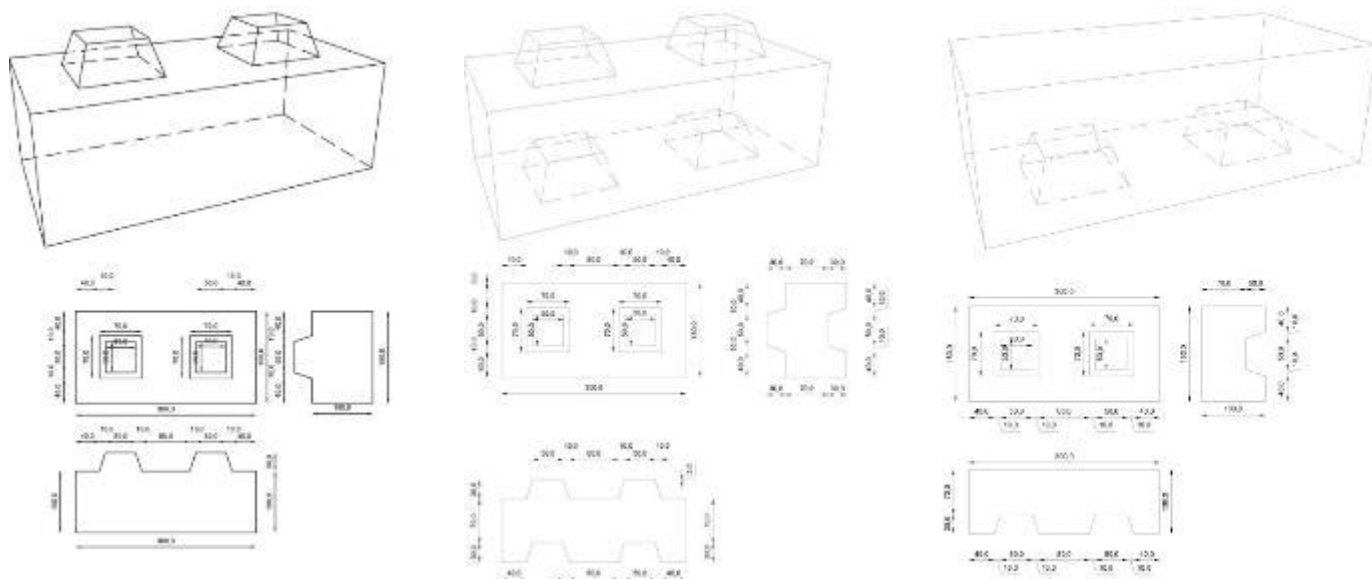
Figure 5.e Sea bed works

Concrete Block- type 1

Concrete Block- type 2

Concrete Block- type 3

Figure 5.f. Concrete Blocks types and dimensions



Each of the blocks (Figure 5.f.) has a shape to be clipped with the one on top of it and create a well-integrated structure. The establishment of these reinforced concrete elements must be realized in a certain order. In the sea bed (or in the beach area) it is necessary to start levelling the terrain. After the levelling of the terrain is settled, the kesone type 1 is placed. Next, kesone type 2 should be placed above kesone type 1 row. The joints of different types of settlements should not fall on one another but follow the principle of construction of "double wall with full bricks". This allows better bonding and compacting of the entire structure. Then on the keson type 2 row you can continue to set another row of this element (if the difference between the end quote of the promenade and the seabed requires this)

or to place a kesone type 3 that has a right side on the side its upper. For every row of this concrete elements, the principle is the same as that of building a "double brick wall". After reaching the required quota over the entire length of the wall of the kesone elements, a reinforced concrete slab of 40 cm thickness has to be constructed, which has a rigid function of this structure. The same methods and principle of construction will be followed for the areas where the stairway is to be constructed.

Also concrete piles of diameter 80 cm and depth of 9 m will be executed behind the concrete block walls where is foreseen to anchor boats. This for retaining the Pulling Power from the Boats to the anchorage points.

In the main square are proposed anchorage point for Boats. This will create some pulling powers from the boats.

To sustain this, power piles are positioned in the back of the wall and the 40 cm concrete layer on top C30/37 is extended to connect as well the Pile Top Head.

7.5.1 Underwater excavations and levelling

Sea bottom digests consist in levelling and achieving the levels described in the implementation designs, so that concrete blocks to be used for the marine protection will have good flatten ground support and a good connection with the ground. Excavation and levelling of the seabed can be accomplished with a long arm excavator (may have two or three arms). Once the sea bottom where concrete blocks will be placed is cleared and levelled in the correct position that is detailed on the designs, the next process of work is to place the concrete boxes on the ground. Once the reinforced concrete blocks have been prepared, they should be placed on the right position with the help of high tonnage cranes. The levelling and the excavation of the seabed can be achieved gradually, i.e. in the beginning to be excavated and levelled the part closer to the existing promenade, and after this process on the levelled ground to be placed the concrete boxes in the right positions, up to the level described in the designs. And after this part is completed with concrete boxes, the next process consists in filling these are with gravels. After this "first" part is done the work can proceed in the same way until all the area is completed. And after all these processes are finish, the contractor can proceed with the process of drilling the piles. The drilling process can be done on dry land now. Removal of water is not a special process that needs to be carried out in a specific way. Once the excavation is carried out, the placement of the concrete boxes is done according to the designs, during the process of filling with gravels the water goes away gradually. If the works are done in this order the environmental impact is small, and is almost is limited only on the area where the promenade should be build.

Below there are some pictures that show some process of works for the excavation and levelling of the seabed.

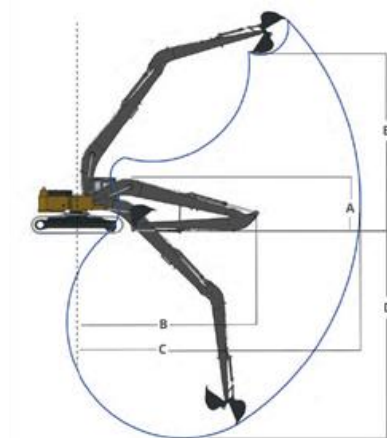


Figure 5.g. Excavation process

The project includes several underwater digging and levelling areas. There are two main spots along the promenade where is proposed the extension of the existing promenade towards the sea. This works will request not only specialized equipment's and machineries but as well for specialized workmanship as well as for specialized management of the construction. Special attention to be paid to the environment and the risk of sea pollution.

The sea bed is rocky, with some seaweeds. (Figure 5.d). Based on previously conducted studies³, the seaweed vegetation starts at a distance of 200 m from the existing promenade border.

From a detailed analysis of the current beach situation and morphology it results that the beaches nearby Saranda are of different character. The one positioned in a more central area near the promenade has a more urbanized background and the seawater is not visually clear.

The sediment samples mainly contains silt and an upper layer consisting of very soft, organic clay. Below these layers, limestone was encountered.



Figure 5.d: Typical sea bed near the project site

³ <http://documents.worldbank.org/curated/en/106611468004249243/Summary-port-of-Saranda>

7.6 Annex 6 Restoration of the facades and remodeling of the existing kiosks

In the area are selected in total 33 buildings to undergo the process of urban re-vitalization (Figure 6.a, b). The new developments usually will keep the existing typology of the area, respectively remodelling of outside structures of houses (apartments, houses, hotels, etc), lightening, completion of the area with extra facilities for tourists during summer period such as touristic market and sport centre, but also keeping clean and tidy the surrounding environment.



Figure 6.a: Location of the buildings along the promenade and projection after the intervention



Figure 6.b: Projection of the promenade after the intervention

7.6.1 Existing structures and assets within the promenade

Structure A-1



Figure 7: Structure A1

Positioned at the western point of the promenade. Function: Shop. Existing condition is estimated as not good. It is surrounded by greenery, high trees, flowers and bushes.

Type of proposed Intervention: Systematize the area following the main WF Project.

Structure A-2



Figure 8: Structure A2

Positioned between the WF-Promenade and Jonianet Street. Function: Shop

The structure will be redesigned to fit the new promenade design. Location will be slightly changed.

Structure A-3



Figure 9: Structure A-3



Positioned at the End of Staircase D in the boundary of the WF project. Function: Shop
The structure will be redesigned to fit the new promenade design.

Structure A-4



Figure 10: Structure A4



Positioned near the existing stairs. Function: Shop
The structures will be redesigned to fit the new promenade design.

Structure A-5



Figure 11: Structure A5

Positioned at the end point of the promenade. Function: Shop
The structures will be redesigned to fit the new promenade design.

Structure B- 1



Figure 12 a: Structure B1- the existing Fisherman bar



Figure 12.b: Proposed relocation of the Fisherman bar

Positioned next to Fisherman -Port and will be relocated by the MoS outside of the WF Project intervention area, however it will be very close to the promenade

Structure B-2



Figure 13: Structure B2

Positioned at the End of Staircase C. Function: Shop

Structure B-3



Figure 14 a) Structure B3; b) relocation of structure B3

Positioned at the End of Staircase C. Function: Tourist information office / library and will be relocated by the MoS outside of the WF Project intervention area, on the opposite side of the promenade (Figure 14.b)

Structure C-1



Figure 15: Structure C1

Positioned in front of the first floor of one of the buildings, that face the promenade. Function: Souvenir shop/ fast food/bar/ice cream shop.

Structure D-1



Figure 15 a: Structure D1

The souvenir market with temporary structures used to be located in a central zone along the Promenade. This year MoS has removed and reallocated it in a different area (as shown on the photo below- Figure 15.b), but as well are proposing some area along the promenade for some special souvenirs.

