

FINAL REPORT  
ELABORATION OF THE MANAGEMENT PLAN OF  
THE MUNICIPAL NATURAL PARK "BAY OF PORTO  
PALERMO-LLAMANI" WITH THE PARTICIPATION OF  
THE LOCAL COMMUNITY

March 2021

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## Abbreviations & Acronyms

AZA	Allocated Zones for Aquaculture
RAPA	Regional Administration of Protected Areas
NCA	National Coastal Agency
NANR	National Agency of Natural Resources
NAE	National Agency of Environment
NAF	National Agency of Forestry
NATP	National Agency of Territorial Planning
NAPA	National Agency of Protected Areas
NAWRM	National Agency of Water Resources Management
RAE	Regional Agency of Environment
NAT	National Agency of Territory
EU	European Union
BL	Blue Land “Participatory model for the sustainable management of marine and coastal resource and for crossborder habitats, biodiversity and ecosystem services safeguard”.
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CPA	Coastal Protected Areas
CM	Council of Ministries
DBPA	Directorate of Biodiversity and Protected Areas
DLPM	Directorate of Land Protection and Management
SPPBP	Strategic Policy Paper for Biodiversity Protection
DTPD	Directorate of Territorial Planning and Development
RDNC	Regional Directorate of National Culture
DFS	Directorate of Forestry Service
RDFS	Regional Directorate of Forestry Service
NITP	National Inspectorate of Territorial Protection
INCA	Institute for Nature Conservation in Albania
IUCN	International Union for Conservation of Nature
FI	Fisheries Inspectorate
CBD	Convention on Biological Diversity
WBS	Water Basin Council
NCT	National Council of Territory
NCW	National Council of Water
MC	Management Committee of the Protected Area
MedPAN	Mediterranean Network of Protected Areas
MIE	Ministry of Infrastructure and Energy
NM	Natural Monument
MTE	Ministria of Tourism and Environment

NGO	Non Governmental Organization
MP	Management Plan
MNP	Municipality Natural Park
NP	National Park
GNP	General National Plan
GLP	General Local Plan
SPMCPAs	Strategic Plan for the Marine and Coastal Protected Areas
IMOC	Inter-Ministerial Maritime Operational Centre
NMR/NP	Natural Managed Reserve/Natyral Park
EN	Ecological Network
NPA	Network of Protected Areas
DCM	Decission of the Council of Ministries
PA	Protected Area
MCPA	Marine and Coastal Protected Area
SPAMI	Specially Protected Areas of Mediterrenenan Importance
SME	Small Medium Enterprise
TSUZ	Traditional and Sustainable Use Zone
CZ	Core Zone
RZ	Recreation zone
CHLZ	Cultural Heritage and Landscape Area
SCZ	Special Conservation Zone

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## Introduction

Protected Areas are increasingly being affirmed as an effective means of ensuring the protection of marine ecosystems, which are threatened by human impacts and the impact of global warming. The need to protect these ecosystems is especially important in the Mediterranean, where Albania is included, due to the special natural characteristics, but also the increased pressure of human activity.

In this context, Porto Palermo - Llamani, an area of significant natural values, is proposed to be included in the network of marine and coastal protected areas based on the "Strategic Plan for Marine and Coastal Protected Areas<sup>1</sup>", and confirmed by successive studies, most recently with the Study - "Assessment of the system of environmental protected areas in Albania<sup>2</sup>".

The National Agency of Protected Areas, in the framework of the project "Blue Land" has included the area of Porto Palermo-Llamani, as a pilot area for the preparation of a: "Participatory model for the sustainable management of marine and coastal resource and for cross-border habitats, biodiversity and ecosystem services safeguard "

The project aims to pilot the creation of a common model, which will be implemented in other coastal areas of the Mediterranean. The three project areas include marine and coastal habitats along their part in three countries: Albania, Italy and Montenegro, in the following areas:

- Coastline Otranto-Leuca (Puglia), Italy;
- Coastline Ada-Bojana (Buna), Monte Negro;
- Porto Palermo-Llamani, Albania.

The project aims to introduce a new approach to the management of marine and coastal resources, assessing the protection of their resources, transboundary habitats, biodiversity and ecosystem services, with the participation of the local community and for this purpose this management plan is prepared

The management plan proposes a more sustainable management of these resources, at the local level, defining a form of management comparable to that of a "Marine Protected Area at the national level", but with a wider involvement of local institutions and beneficiaries in the management of the area.

To draft the Management Plan were considered the findings and recommendations set out in:

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<sup>1</sup> INCA. "Strategic Plan for Marine and Coastal Protected Areas (SPMCPAs)", March 2013.

<sup>2</sup> Kromidha G., Dragoti N., Dedej Z., 2019 Study - Assessment of the system of environmental protected areas in Albania - National Parks Association of Albania, Tirana. 304 pp + Annexes

- ✓ The General Local Plan, Municipality of Himara, approved by Decision of NTC no.02, Date 16.10.2017.
- ✓ Assessment of the system of environmental protected areas in Albania - National Parks Association of Albania, Tirana.
- ✓ Management plan for the Natural Park "Porto Palermo-Llamani Bay", RAC / SPA-UNEP / MAP, 2015.
- ✓ Study "Improving the Effectiveness of Coverage and Management of Marine and Coastal Protected Areas", with the objective: "Ensuring the protection of Albania's unique coastal and marine biodiversity for current and future generations", supported by the Albanian Government, GEF and UNDP.
- ✓ "Strategic Plan for Marine and Coastal Protected Areas, prepared with the support of UNDP, within the project "Increasing the area and improving the management of marine and coastal protected areas".
- ✓ Regional Project for Mediterranean Maritime Development and Coastal Protected Areas Network (CPA) by promoting the Establishment and Management of CPA-s ("MedMPANet Project").
- ✓ "Ecological study of the Gulf of Porto Palermo and surrounding areas".
- ✓ "Socio-economic analysis and study on tourism development".

The current management plan is a revision of the proposed plan in 2015, unapproved and unimplemented. The current plan also considers the socio-economic changes, infrastructural and tourist developments that occurred during the period in this region, the approval of the General Local Plan of the Municipality of Himara and Law no. 81/2017 "On protected areas".

The drafting of this new plan was based largely on the objectives and activities envisaged under the project "Blue Land" (BL), with the aim of creating a common model, which will be implemented in other coastal areas of the Mediterranean.

The BL project introduces a new approach, in the way of managing marine and coastal resources, with the participation of the community, valuing the protection of their resources, transboundary habitats, biodiversity and ecosystem services.

The development and establishment of this joint participatory governance model at the cross-border level, including local coastal communities, to define actions for environmental protection and sustainable use of marine and coastal resources, remains the main objective of the PM.

The management plan for the Municipal Natural Park was drafted and developed by the Association "Flag Pine" in cooperation with the Institute for Nature Conservation in Albania (INCA), with the support of the National Agency of Protected Areas, within the Blue Land project, part of Interreg IPA-CBS program Albania-Montenegro-Italy.

The main partners for the design and implementation of the PM, in addition to institutions at local and central level have been fishermen's associations, RAPA Vlora, citizens and representatives of local users, visitors, tourism sector and support services that have socio-economic interest in the Natural Park Municipal, as well as the Municipality of Himara as the main actor at the local level that will benefit from the results achieved and will continue the work for the announcement and management of the natural park.

Several meetings and consultations were held with representatives of institutions, residents, NGOs and other business groups in this area in order to identify priorities and jointly define management actions.

The new law on protected areas (Law no. 81/2017 "On Protected Areas") provides a new approach to the categories of protected areas, aiming to preserve the natural values of areas regardless of whether they are part of national PA network or not. For this purpose, Porto Palermo-Llamani is proposed Municipal Natural Park, managed according to the Blu Land model, in the management of local institutions and involvement of communities and actors at the local level.

This management plan is based on the structure of the Management Plan according to the Order of the Ministry of Environment, Forests and Water Administration no. 148, dated 21.02.2013 "On the approval of the standardized structure of the Management Plan of the Protected Area" and refers to previous studies and the Management Plan for the Natural Park "Porto Palermo Bay - Llamani", drafted by INCA with the support of RAC / SPA-UNEP / MAP, 2015.<sup>3</sup>

Part I of the management plan provides an overview of the Protected Area in terms of location, boundaries, legal status, policies and legislation. This section also contains a stakeholder analysis and description of the PA's natural system, services and facilities at the PA and its use by visitors, the socio-economic system, the proposed governance structure, the landscape and cultural heritage.

The assessment of the protected area and the institutional framework further provides an in-depth look at the current values, threats and institutional framework. All of this translated into a management program with concrete management actions to meet these objectives.

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<sup>3</sup> RAC / SPA - UNEP / MAP, 2015. Management Plan for the Natural Park "Porto Palermo Bay - Llamani" in Albania. By Zamir DEDEJ, Genti KROMIDHA and Nihat DRAGOTI. Ed.RAC / SPA - MedMPAnet Project, Tunisia 84p + Annexes.

In the fourth part it is included the financial plan which foresees the financial and human resources needed to ensure the effective management of the park.

In Section 5, the management monitoring and evaluation framework is provided, for the realization of the described results, according to the action priorities presented in the Management Action Plan. In the 6th part, bibliographic references are given, and the plan closes with the 7<sup>th</sup> part where the appendices, maps, tables, graphs etc. are reflected.

The management plan will serve as regulatory document for the managers of the area, fishermen's associations, local administrations, the tourism sector, business, citizens, visitors and the local community, who had a key role in the preparation and will be involved in the implementation of the Management Plan for this area.

This management plan foresees the actions that will take place within the PA in the next 10 years. Changes that will occur during these 10 years will be included in the review of management actions. Every 5 years the analysis of the implementation of the Management Plan and the achieved results will be assessed. In case of substantial changes in the area, the plan will be reviewed. If necessary, management actions will be partially changed or completely reviewed.

## Summary

### Overview and description of the protected area "Porto Palermo-Llamani Bay"

The protected area of Porto Palermo-Llamani Bay is located entirely within the administrative territory of the Municipality of Himara and lies southeast of the city of Himara.

The protected area includes sea and land parts. The terrain is mostly rocky, in many cases falling directly into the sea. The slope is created mainly by limestone rocks. The slopes along the coast are covered with various vegetation. Gravel deposits are present in the coastal delta stream. These phenomena have created beautiful beaches. It is generally poor in the hydrographic network. In Llamani Bay, in its southern part, there are also several underwater sources. Such springs are also found in the bay of Porto Palermo (Armeridha).

The climate is very different due to the geographical position, the large amplitude of altitude above sea level and mainly due to the relief. In general, the protected area has a Mediterranean climate, due to its geographical position and extent. The average annual rainfall is estimated from 1,000-1,200mm / year, in the form of rain.

Within the surface of the PA can be found: the "Hill of the Thin Olive", Llamani beach, "Lera Pass", the great peninsula of "Kavadon", ruins of military buildings, fortifications and tunnel; Shepherd's huts, the "Dock", Fishermen's Buildings, "St. Nicholas Church", "Ali Pasha Castle", Palermo Peak, in which the antennas are placed, accompanied by typical Mediterranean vegetation.

Coastal-marine and underwater environments are characterized by rocks and bays. They meet the Bay of Llamani, the Bay of Porto Palermo, which consists of two bays: Armeridha and St. Nicholas and the Bay of Grava, in the South.

Within the territory there are some secondary roads that are not maintained, such as those that lead to the Cape of Alpun, the Bay of Llamani, the Cape of Kavadon, the peninsula and the Cape of Panorma, the ruins of the Castle of Kukum and the Cape of Spinaras, etc. In the area of Porto Palermo-Llamani, there are: Cape of Alpun (Prato), which lies to the South of Cape Niqifor (Mësunit). It is completely rocky, forms abysses, around which the depths are great. This Cape also includes three small bays and small capes, part of Llamani Bay.

The bay of Kavadonit is one of the largest on the Ionian coast. It has south direction and enters 1.5-2.5km in the sea. Its top sinks gently into the sea, though precipices form several feet high on the sides.

Cape of Panorama has the appearance of a small rocky peninsula, almost round in shape, enters the sea about 1km, forming precipices, which go up to 115m.

The last capes of the Himara coast are the Cape of Spinaras, in the S, of Panorma and of St. Demetrius (Suga) in the SE, of the first. The capes surround the water surface, creating numerous arc-shaped and horseshoe-shaped bays, with high rocky shores or great depths.

The bays are formed by tectonic sinkholes, but their shores are modeled by sea activity. Llanan bay and beach lies about 3km to the south of Himara. Its edges are rocky, especially the southern part, where a precipice about 30m high is formed. The rest, of the coast, forms a sandy beach, very beautiful. It is formed by cattle and ballast brought from “Përroi i Thatë”. It is one of the beaches preferred by visitors. On its J side there are also submarine water sources.

The Bay of Palermo, known since ancient times, is the most typical, most beautiful and magnificent Bay of the entire Ionian coast. It is inserted in the ground about 2km, while the width of the entrance is 1.5km. A small rocky cape, in the shape of a Peninsula, named the Peninsula of the Castle, as the Castle is located, built during the reign of Ali Pasha Tepelena.

The peninsula divides the Gulf into two parts: The Gulf of Armeridha and Saint Nicholas. In part V, of Armeridha Bay, there are submarine water springs and the cave of Porto Palermo, declared a Natural Monument (MN). Porto Palermo Bay, known as Panorama Bay in ancient times, is located southeast of the city of Himara between the Panorma Peninsula and the Kavadoni Peninsula in the Ionian Sea.

Study data and those collected from recent research in the southern coastal region of Albania, show a rich flora and great diversity of habitats, plant associations, species of special national importance, from a scientific, ecological and sociological point of view. economic.

Vegetation of low-lying areas or forests and shrubs, always green, extend from the coastal lowlands to an altitude of 900m.

Associations with *Euphorbia dendroides* are considered the most interesting and almost unique in Albania. It is a natural habitat of regional importance.

There are evergreen deciduous forests and forests dominated by *Quercus ithaburensis subsp. macrolepis* (known as Vlora oak), is the dominant type of oak forests. This type of forest is located in the Himara-Porto Palermo region and is considered a relict species since the Tertiary period.

The floristic composition of this community consists mainly of the species: *Anagyrris feotida*, *Salvia triloba*, *Lotus cytisoides*, *Phlomis fruticosa*, *Glaucium flavum*, *Galium aparine*, *Pistacia*

*terebinthus*, *Salvia triloba*, *Calicotome villosa*, *Spartium jusceulus*, *Spartium junceulus*, *Rusart aestivus*, *Chrysopogon gryllus*, *Acanthus spinosus*, *Trifolium angustifolium*, *Brassica incana*, *Paliurus spina-christi*, etc.

Coastal rock vegetation, the xero-halophytic vegetation of the *Crithmo-Limonietea* class dominates the lower layer above the level of wave action. The most common species in this area are *Crithmum maritimum*, *Limonium anfractum*, *Elymus pycnanthus*, *Desmazeria marina*, *Lotus cytisoides*, etc., which represent the endemic communities *Crithmo-Limonietum anfracti*.

Seaweeds are of the species Magnoliophytes marine. They form underwater beds, which are important habitats for marine ecosystems. They provide food and shelter for a large number of marine species.

Three species of marine plants are present in the area: *Posidonia oceanica*, *Cymodocea nodosa* and *Halophila stipulacea*. *Posidonia oceanica*, or sea grass, is the most abundant species, forming large meadows at shallow and medium depths. Meadows with *Posidonia* are among the most important habitats of the Mediterranean, and their preservation is a high national and international priority.

The upper boundary of the meadows with *Posidonia* has been identified at 3.5m depth and at the lower boundary at 28m. A narrow group of *Posidonia*, with short leaves is located in a rocky bottom area, opposite the castle, at 23m depth. In areas where water purity is higher, beds with *Posidonia* at depths of 25-27m have been observed. In general, the area shows a regression of this lower boundary with depth ranging to 18-20 m.

Among the most sensitive Mediterranean habitats should be mentioned *Lithophylum byssoides* (sensitive to hydrocarbons) for mediolittoral areas, *Cystoseira* communities as a hydrodynamic index in the upper littoral area and meadows with *Posidonia*, in the infralittoral area.

In the area of Porto Palermo-Llamani a great diversity of fish has been found, but the most common ones are: *Chelon sp.*, *Mullus surmulletus*, *Diplodus sp.*, *Coris juli*, *Serranus cabrilla*, *Oblada sp.*, *Chromis sp.*, Etc. In and around the bay of Porto Palermo-Llamani meet 26 species of fish.

In the area of Palermo, according to studies so far, 54 floristic species have been registered, of which 10 species are considered important and 13 species are included in the Red Book of Albanian Flora and Fauna. Algae are represented by 52 species (12 green, 14 brown and 26 red). Marine species are represented by 31 species, which are protected by the Barcelona Orange, the

Bonn Conventions, the Bern Conventions and CITES. Fish species are represented by 26 species.<sup>4</sup>

Meadows with *Posidonia oceanica* are among the most important habitats of the Mediterranean and PA. Their conservation is a high national and international priority (EU Habitats Directive 92/43 / CEE, 21 May 1992). *Posidonia oceanica* is included in Annex I (Strictly Protected Flora Species) of the Berne Convention, and Annex II (List of Endangered or Threatened Species) of the Barcelona Convention. *Posidonia oceanica* is also included in the Red List of Albanian Flora.

In the Porto Palermo area 2 species of invasive / invasive plants have been recorded, *Agave americana* L. and *Ailanthus altissima* (Mill.) Swingle.

The main socio-economic activities related to the protected area and its surroundings, especially rural activities, are of great importance for the region, for its economic sustainability. The main sources are: agricultural land, livestock, medicinal plants, forestry and pastures, hunting, fishing and aquaculture, water use, tourism and ecotourism and traditional and cultural activities.

The area of Porto Palermo - Llaman, especially the bays, are a very important source for fishing and marine culture.

Tourism, ecotourism and leisure activities, is an important source of economic income for the area. Indeed, the area offers natural, cultural and historical values. Tourism in recent years in the city of Himara, its surroundings and the Gulf of Porto Palermo-Llaman has seen some improvements. Recently, tourism has expanded the natural and cultural potentials of the area by offering a high variety of opportunities for tourism such as: beach, water sports, marches, climbing, hiking, cultural, etc.

The meadows with *Posidonia* form submarine lawns, clean sea-coastal and underwater space still undamaged, fantastic for diving, the presence of archeological remains (amphorae) of the 2nd century BC, as well as the Archaeological Area of Ali Pasha Castle and the Church of St. Kolli , this area and facilities enjoy protection status as part of the Cultural heritage of our country.

## Values

The marine and costal space includes special natural values and the perfect ecological balance of national and international level. It represents one of the most important and most important regions with a high perspective for the socio-economic development in general and tourism in

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<sup>4</sup> Kromidha G., Dragoti N., Dedej Z., 2019 Study - Assessment of the system of environmental protected areas in Albania - National Parks Association of Albania, Tirana. 304 pp + Annexes

particular. The symbol of Porto Palermo-Llamani Bays is the combination of natural and cultural elements in a relatively small space.

Ecological, traditional and cultural values are represented as follows:

- ✓ It is the most interesting part deserving the name of Albanian Riviera.
- ✓ It represents the most picturesque, stunning and natural individuality landscape with a diversified relief composed of four capes, three bays, with blue marine-coastal space and ever green natural environment around, with beaches of cold water and crystal sources.
- ✓ Coastal marine and underwater rich biodiversity, habitats and rare species are threatened. Presence of *milkweed* (*Euphorbia dendroides*) is considered interesting and almost unique for Albania. Forests dominated by the *sumac* (*Quercus ithaburensis subsp. Macrolepis*,) can be considered relict species of the Ionian coast, since the Tertiary period.
- ✓ Marine subsurface biodiversity is known for the diversity of threatened species such as *Posidonia oceanica*, *Cymodocea nodosa* and *Halophila stipulacea*. Likewise, it is known for the diversity of fish, and the occasional presence of charismatic species such as Dolphins, Mediterranean Seals, Sea Turtles, as well as Shellfish, Sea urchins, Corals, etc.
- ✓ It is a unique site combining eco-tourism and marine tourism, especially underwater tourism. It is also a potential site for entertainment and water and mountain sports such as (excursions, cycling, hiking, parachuting, horseback riding, bird watching, sport fishing, swimming, diving, canoeing, sailing, motorboats, etc.), thus creating conditions for camping with tents, etc.
- ✓ Mediterranean climate combined with the terrestrial, coastal-marine and submarine landscape, with permanent vegetation and clean beaches, have bio-curative potentials (climatic, hydro) for medical purposes.
- ✓ An area for potential socio-economic development (livestock, fishing, pasture, citrus, orchards, processing of agricultural and livestock products, agritourism and ecotourism). There is an opportunity of resources for production of renewable energy in the surrounding areas.
- ✓ The area is part of an ancient history, and a unique historical and cultural heritage. There are characteristic ancient and cult buildings such as the Church of St. Nicholas, the Castle of Ali Pasha Tepelena, the military base of Porto Palermo (which in the future can be turned into a museum), with rich underwater archeology, etc.
- ✓ Beauties of nature and spirit of people are reflected in the specific spiritual world of folklore, rare polyphonic songs, dances, costumes, folk traditions, etc., values which make the area more attractive to foreign and domestic tourists.
- ✓ The area has great value for scientific research and monitoring.

## Major threats

The Porto Palermo-Llamani area is an exceptional center of diversity of species and habitats, but also one of the most threatened one. Uncontrolled human activity, for several, has caused a strong stress to the area. Such an impact has been associated with major damage of demographic and ecological nature.

The intensity of these impacts is significantly determined by socio-economic factors such as population growth or depopulation of some rural areas, agriculture, livestock and bad practices of forest, pasture and fisheries management.

Albanian marine and coastal ecosystems are under considerable pressure. Risks are related to their intrinsic value, but also to the loss of biodiversity, species and natural habitats, which play a key role in healthy life of people, lifestyle, food production and the availability of natural resources for social development economic and community welfare.

*The main risks to the Porto Palermo-Llamani area and its surroundings are as follows:*

- Intensive development of the marine and coastal region;
- Population movement and its non-uniform distribution;
- Loss and fragmentation of habitats, deterioration of vulnerable or endangered species, destruction of vegetation and pastures by fires;
- Introduction of non-indigenous / native species, genetically modified species, as well as introduction or reintroduction of species that currently exist or have existed before;
- Damage to the meadows of Posidonia by fishing, marine culture, ships, anchors, pollution and dumping of waste of any kind;
- Urbanization of marine and coastal area, uncontrolled constructions, social and economic activities or the construction of quays for yacht anchorage;
- Solid waste, sewerage and other untreated waters;
- Pollution from ship discharges, spills of hydrocarbons and wastewater;
- Dumping of solid waste and activities conducted on the coast and land;
- Dumping of waste or other hazardous materials, such as poisonous, explosive, fertilizers and pesticides;
- Activities involving the use and modification of land or subsoil use in parts of the territory of the area, bed or subsoil;
- Dumping of waste and any kind of material from ships, installations and from the coast;
- Sinking of ships, cargo and goods of any kind and other solid waste precipitating to the sea floor;
- Issue of ownership and ambiguity in the title of ownership;
- Concentration of tourism investments in marine and coastal areas;

- Over-use and lack of sustainable management of natural resources (fisheries, pastures, medicinal plants, etc.);
- Harassment and mistreatment of animals, including illegal hunting, overfishing and the use of prohibited tools and methods are vulnerable in and around the protected area;
- The presence of marine culture, the use of industrialized food, antibiotics and the accumulation of excrement from fish, exerts a localized and relatively strong pressure on the environment and contributes to pollution and water quality reduction.

The Porto Palermo-Llamani area and the sensitivity of its natural and cultural resources are influenced, for the most part, by the ease and possibility of entering to carry out illegal and / or legal activities, but not well managed, the presence of an infrastructure favorable, strong business demand for natural resources and construction as well as the inability to control the territory.

### Vision and goals for the Municipal Natural Park

Marine and coastal Protected Areas are created to preserve biological diversity, coastal-marine ecosystems included, species, terrestrial-marine-coastal and underwater landscape; good administration of the functions and services of the marine-coastal ecosystem.

The Municipal Natural Park, managed according to the Blue Land model, will provide resources for sustainable living conditions for the population, stakeholders and future generations.

The park will be well managed with the direct participation of local government, with the involvement of local stakeholders, in order to contribute to the sustainable management of natural resources and the landscape, ensuring the balance between the conservation of coastal-marine ecosystems and the development of activities. human.

*The priority of the Municipal Natural Park is to ensure the maintenance and conservation of:*

- Representative types of marine and coastal ecosystems with suitable and acceptable dimensions to ensure their long-term survival and preserve their biological diversity;
- The habitats at risk of extinction in the areas of their natural distribution areas or in a reduced distribution of their natural area as a consequence of their regress or restricted areas;
- Critical habitats to ensure the survival, reproduction and regeneration of endemic, endangered and threatened flora and fauna species;
- Areas of scientific, aesthetic, cultural and educational importance;
- Safety of water quality, conservation of specific natural and biological processes and life support systems.

At the same time, the creation of the Municipal Natural Park and the management according to the Blue Land model, in addition to conservation, will improve and manage:

- The use of the area for recreational, entertainment, sports, ecotourism and cultural purposes, related to the co-operation of nature conservation and landscape objectives with the development of various types of ecotourism activities.
- Development of sustainable socio-economic and tourism activities for economic gains and equal social opportunities within the protected area.
- Improving sustainable ecosystem services, through financial mechanisms that can increase funding for nature recovery and related services.
- Promotion of the values of nature, biodiversity, historical and cultural of the protected area and scientific research, through communication, awareness and education.
- Ensure the involvement of the local community and users directly in the management of the area.

## Zoning and management

Efforts to prepare a management plan for the "Porto Palermo-Llamani bay" area have started with the draft Management Plan, drafted in 2015, but not approved. Based on the provisions of Law 81/2017 "On protected areas" and bylaws implementing it, the process of consultation with users and local actors, as well as the objectives of the project 'Blue Land "arose the need for a reassessment of categorization and the process of surface zoning, to be taken into account in the new zoning proposed in this revised management plan for the area.

The process of zoning the proposed territory for the Municipal Natural Park is based as much as possible on DCM no. 57, dated 6.2.2019 "*On the criteria and manner of zoning the territory of an environmentally protected area*".

The zoning is defined in function of the objectives of the PM according to the consultations with the participation of the community and as such can be changed in accordance with the dynamics of development of the area.

In the process of defining the objectives of the Park management and achieving the objectives in accordance with the values of biodiversity, habitat types and endangered or endangered species, unique landscape, natural and cultural monuments, etc., it was necessary to divide the area into management sub-areas, where their treatment is done independently, but integrated in the whole process of protected area management. Zoning is associated with the determination of permitted and prohibited activities by zones.

Due to the proposed categorization for the area as a Municipal Natural Park, at the same time the model proposed within the "Blue land", zoning refers to the criteria set out in the legislation on protected areas, but also takes into account the proposals of stakeholders and users.

The area is divided into 3 main sub-zones, Central Sub-Zone, Recreation Sub-Zone and Traditional and Sustainable Use Sub-Zone. Central sub-area for management effect is divided into two levels, Central sub-area (Level A) and Central sub-area (Level B).

The goals are set for each management sub-area. For each sub-area, management descriptions are provided in a reasonable, uniform manner and differentiated in type or intensity from other sub-areas.

The process of consulting and proposing the activities allowed in each sub-area has been a very delicate process, in order to avoid holding positions that are unprotected or impossible to implement on the ground.

In general, the process of zoning the surface of the Municipal Natural Park "Porto Palermo-Llamani" is oriented to:

- Strengthen the implementation of the requirements of applicable legal provisions;
- Preserve sensitive marine and coastal ecological elements from disturbance and misuse of public and private interests;
- Separate incompatible uses from each other and set priorities for uses or specific goals in different sub-areas;
- Prevent discharges or dumping of wastes or other substances directly or indirectly harming the integrity of protected area;
- Respect for the natural marine, coastal and subsurface environment, in order to develop a harmless approach of a balanced environment, including ecological, historical, cultural, spiritual and archaeological values;
- Conserve/preserve the ecosystem of rare species and their natural habitats, by means of area division, with a total ban on dangerous methods, but allowing only natural processes
- Regulate or prohibit any activities involving the misuse and modification of land or underground of the territory of area, seabed or undersea area;
- Protect capes, bays, peninsulas and steep slopes, with a ban on general development, based on the full set of geomorphological features in a sub-area extending no closer than 20-300 m from the shore or any active geomorphological elements;
- Create specific panoramic corridors, with focus on preserving the quality of landscape from the favorable key points, including all panoramic places of the seaside, mountain, bays, capes, slopes, canyons, etc., from the local, national and inland roads or creation of special places preferred by visitors and tourists
- Regulate the transfer, prohibition or anchoring of boats, speedboats and fishing boats

- Identify and provide marketing of cultural, historical, archaeological and important monuments of outstanding value of the sub-areas. Their development should be based on the attached instructions of the institutions in charge of territorial planning;
- Define the prohibition of activities with significant impact on the environment, and the sub-areas of permission of these activities after obtaining an environmental permit.

The zoning process is dynamic, consensual and not immutable. At the same time, this sub-zoning system can also be used to inform all involved sections about the management goals, integrated and with the zoning set out in the PPV for the municipality of Himara.

Through the zoning process of MNP "Porto Palermo-Llamani" aims to integrate policies of protection of the marine-coastal environment in those of socio-economic development, as the development of the environment is closely related to the economic development of Himara municipality.

### Monitoring and assessment of management

Efficient management is a multi-disciplinary judgment, which includes biophysics, socio-economic and governance issues. In general, it requires several various indicators to determine that the management is meeting the goals and objectives. Long-term monitoring programs using appropriate indicators are needed to determine whether enforcement actions are being implemented as described in the management plan, and whether the goals are being met (results of protection). The plan does not include a clear plan for scientific monitoring of ecosystems and biodiversity, which is proposed to be drafted on an ongoing basis, based on the establishment of natural park management structures.

## PART I. DESCRIPTION OF MUNICIPAL NATURAL PARK

The Natural Park "Porto Palermo-Llamani" lies entirely within the administrative territory of the municipality of Himara, in the southeast of the city of Himara in the district of Vlora and is one of the most important natural areas. It is bordered by the Cape of Alpun (Prato) of Llamani Bay, in the V, and ends in part J, with the Cape of Spinaras. While in P, with the sea surface, which lies at a distance from the shore 1 nautical mile (1853m), from the main capes: Alpuni, Kavador, Panorma and Spinaras.

Total surface of the area: 1,751.90ha, of which 315.38ha land area (18%) and 1,436.52ha marine area (82%).

Within the surface of MNP the condition: "Kodra e Ullirit të Hollë", Llamani beach, Lera Pass, quotas 123.8m and 75.2m; The great peninsula of Kavador, the ruins of military buildings, fortifications and tunnels, stalls, piers, fishermen's buildings, St. Nicholas Church, Ali Castle (quota 28.2m); small points for beaches; Palermo peak (quota 104.7m), in which communication antennas are placed, with Mediterranean and pasture vegetation.

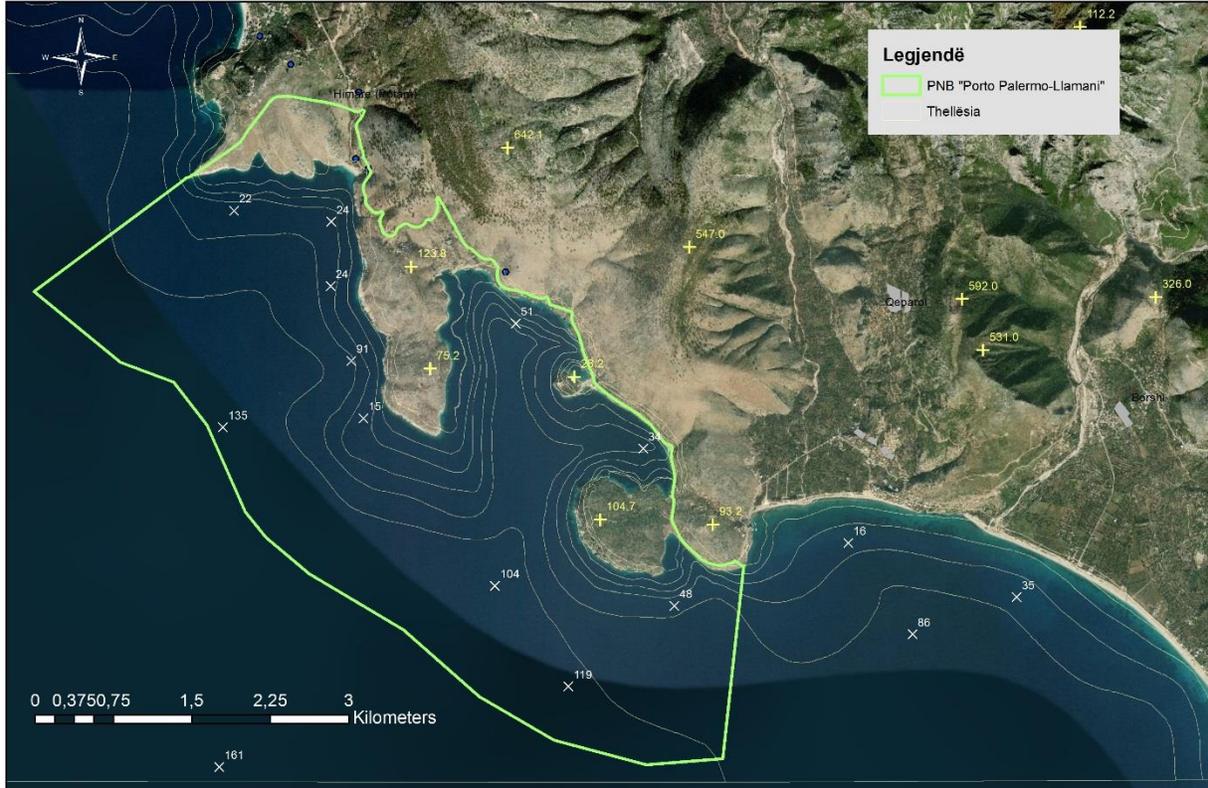
Coastal-marine and underwater environments are characterized by rocks and bays. They meet the Bay of Llamani, the Bay of Porto Palermo, which consists of two Bays: Armeridha and St. Nicholas and the Bay of Grava, in the South.

Meadows with *Posidonia oceanica*, form submarine lawns, clean sea-coastal and underwater space still undamaged, fantastic for diving, the presence of archaeological remains (amphorae) of the II century BC, as well as three fish growth centers (marine-culture).

Within the territory there are some secondary roads that are not maintained, such as those that lead to the Cape of Alpun, the Bay of Llamani, the Cape of Kavador, the Peninsula and the Cape of Panorma, to the ruins of the Castle of Kukum and the Cape of Spinaras, etc.

The territory of the Municipal Natural Park is surrounded by the village of Himara (Potam), the highway Himara-Qeparo, Gjomi Peak (642.1m) and Veriu peak (547.0m), Kukumi Pass, the stream of Qeparo, the mountain covered with pasture vegetation, some spots of *Quercus Macrolepis* and Agaves, some small bars, Llamani beach.

Harta fizike e PNB "Porto Palermo-Llamani"  
MNP "Porto Palermo-Llamani" physical map

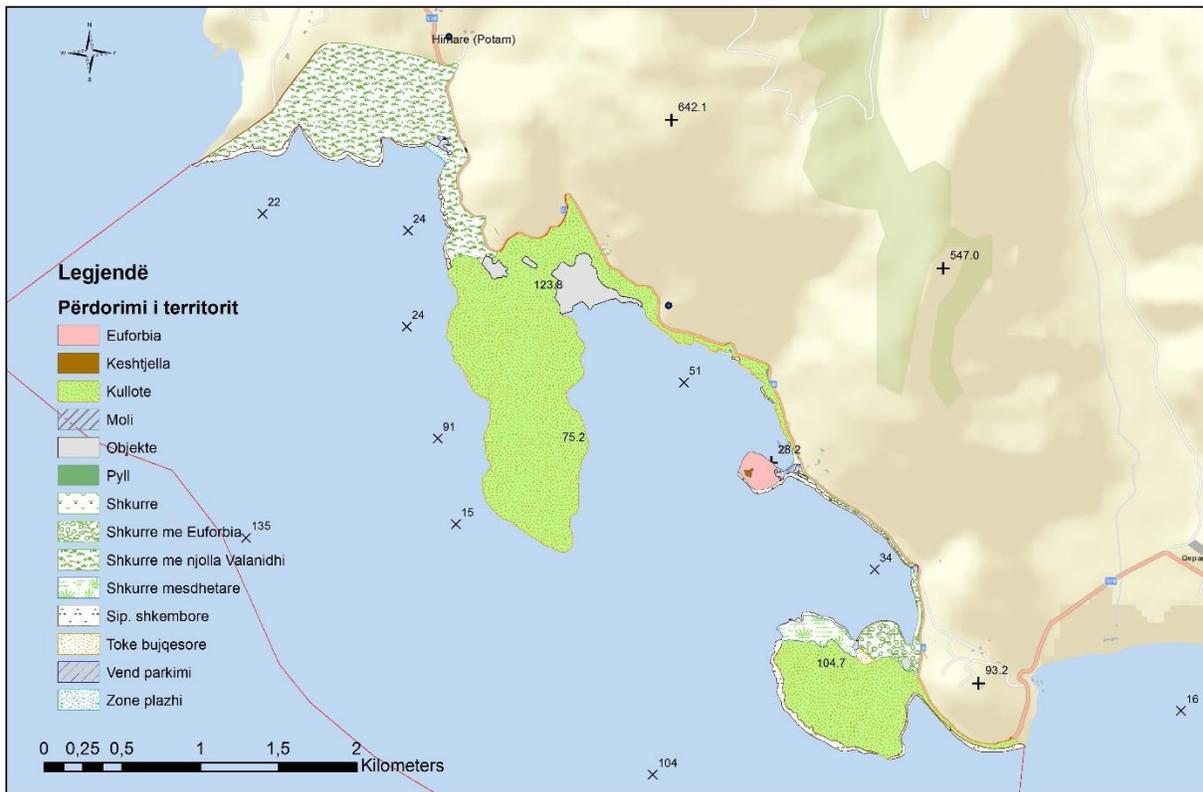


Map 1: Municipal Natural Park "Porto Palermo – Llamani Bay"

Table 1 Land use within the Municipal Natural Park "Porto Palermo-Llamani"

Nr.	Use of Surface	Surface Ha	%/Total
1.	Forest area, shrubs, land with forest vegetation	101.45	5.79
2.	Pasture area	184.67	10.54
3.	Agricultural area	0.71	0.04
4.	Water surface (sea)	1,436.52	82.00
5.	Non-productive (rocky) surface	13.71	0.78
6.	Land and urban areas (military facilities, Dock Castle, beach area, parking lots)	14.84	0.85
	<b>TOTAL</b>	<b>1,751.90</b>	<b>100.00</b>

Përdorimi i territorit PNB "Porto Palermo-Llamani"  
MNP "Porto Palermo-Llamani" land use



Map 2: Land use of Municipal Natural Park of "Porto Palermo – Llamani Bay"

### Legal status of the Municipal Natural Park

The management of protected areas is based on Law no. 81/2017 "On protected areas". The purpose of the law is to declare, preserve, administer, manage, sustainable use of environmental protected areas and their natural and biological resources, based on the principle of sustainable development, to guarantee the fulfillment of environmental, economic, social and cultural, in the interest of the whole society, as well as defining the responsibilities of public institutions and private natural / legal persons for their preservation and sustainable administration.

In defining the categories of protected areas, the PA law also refers to marine protected areas which are treated in a separate article. The law also defines the category of Municipal Natural Park, which is also the category defined for the area "Porto Palermo-Llamani Bay", referring to

the legal analysis and consultations with local actors. The Municipal Natural Park, as defined in the PA Law, refers to category IV according to IUCN, which corresponds to the Managed Nature Reserve/Natural Park, respectively category IV according to the Albanian legislation.

## Policy and legal framework

Protection of nature and sustainable use of natural resources is one of the priorities of the Albanian Government. Prevention of environmental degradation, loss of major natural values, high levels of air pollution in urban and industrial centers, massive erosion of soil, damage of forests, above and underground water pollution in land and marine areas, protected areas etc., are some of the main concerns in the long-term national development.

EU environmental legislation includes provisions dealing with horizontal legislation such as: water and air quality, waste management, nature protection, climate change, industrial pollution control and risk management, genetically modified organisms, chemicals, noise and forests.

Nature protection is one of the priority sub-areas related to the *Acquis Communautaire* in the field of environment. As defined by the SAA (Article 70/3 and Article 108), Albania has an obligation to approximate its national legislation with that of the EU. The European Union's policies on environment and climate change aim to promote sustainable development, the transition to an economy with resource efficiency, low emissions and sustainable climate change, and environmental protection for existing and future generations.

The key principles of the *acquis* contained in Chapter 27 are: *Preventive action, the principle that "polluter pays", The fight against environmental damage at source, Joint responsibility and the integration of environmental, climatic and natural disaster considerations into other Union policies European.*

The approximation of the Albanian legislation with the *acquis* in the field of environment, is directly related to the environmental standards, the vital task to fight the degradation of the environment in order to promote the environmental sustainability. This objective is included in the sectoral strategic documents, and in the Strategic Biodiversity Protection Policy Document (DPSMB).

Albanian legislation is clearly inspired by EU standards. Also, the main principles of EU environmental laws are already found in Albanian legislation. This legislation is being drafted with the assistance of foreign experts and reflects the requirements of the conventions to which Albania is a party.

The legal framework for nature protection is based on this hierarchy: Constitution, legislation and supporting normative acts: bylaws, government decisions, ministerial orders, guidelines and standards.

MTM, in cooperation with line ministries and stakeholders, make efforts for the full harmonization of Albanian legislation regarding protected areas and biodiversity with European legislation. The current legislation on biodiversity protection and management of protected areas is supplemented by a series of bylaws, decisions and ordinances of the Council of Ministers (CM) or ministries related to the study, proclamation and administration of protected areas.

Nature conservation, within the PAO system, is increasingly valued as an important instrument for preserving the highest values of biodiversity in the country. Expanding and strengthening the Network of Environmentally Protected Areas (MDRs), the basis for the establishment of the Ecological Network (ECN) of the country, remains one of the most important objectives of the Programs and Action Plans of the Albanian Government.

The new PA management concepts are based on the coordination of actions for the preservation of natural values with the sustainable use of natural resources by local residents and stakeholders. They see these concepts with residents and users of natural resources as a very important part of the integrated PA management process.

*In Annex 2: “Brief description of the legal basis for BNP management” are described in detail the legal basis for the management of Natural Protected Areas and some of the opportunities and limitations associated with MNP management.*

## Groups of Interest

The identified list identifies the most important and direct stakeholders for the establishment, administration and management of the “Porto Palermo-Llamani” NAP, according to the institutional and decision-making hierarchy, as well as the contribution to the consultation process and public hearings.

Stakeholders are classified according to their importance: most important and influential and least influential, emphasizing their mission, role and potential to advocate and lobby, to improve and monitor the implementation of relevant legislation, to better manage natural resources and the balanced use of the environment and marine and coastal resources with economic and social effectiveness.

*Table 1 Role of the stakeholders in the management of natural resources and ecosystem services*

INSTITUTIONS	MISSION AND ROLE IN THE MANAGEMENT OF PROTECTED AREAS
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<p><b>COUNCIL OF MINISTERS (CM)</b></p>	<p>Council of Ministers (CM) is the highest executive body and decision-making authority for the environment, national authority on territorial planning. Besides other powers, CM promotes development and planning policies related to the territory, supports the formulation of national territorial plans by relevant planning authorities and ensures that they meet the technical and procedural standards, as defined by law.</p>
<p><b>NATIONAL COUNCIL OF TERRITORY (NCT)</b></p>	<p>It is the decision-making body responsible for the approval of national instruments of territorial planning and functions under the Council of Ministers. According to the new law on Protected Areas, NCT approves in advance the zoning of protected areas.</p>
<p><b>NATIONAL COUNCIL OF WATER (NCW)</b></p>	<p>It is the highest coordinating and decision-making body at the central level for integrated water resources management, headed by the Prime Minister.</p>
<p><b>MINISTRY OF TOURISM AND ENVIRONMENT (MTE)</b></p>	<p>MTE mission is to develop and propose policies, strategies and action plans for the protection and management of the environment, forests and waters, in view of a sustainable development, improving the quality of life of people and supporting integration in European Union. This mission will be accomplished by participation, promotion and coordination of activities, leading to long-term development and prosperity, while protecting the nature and awareness of public opinion.</p>
<p><b>MINISTRY OF DEFENCE</b></p>	<p>The military area located in the bay of Porto Palermo is an important element for the park and its management.</p>
<p><b>MINISTRY OF CULTURE</b></p>	<p>Responsible for managing the Cultural Monuments and Archaeological Protected Area of Porto Palermo.</p>
<p><b>MINISTRY OF INFRASTRUCTURE AND ENERGY</b></p>	<p>It is responsible for drafting and implementing the legal framework, strategies and policies in the areas of state responsibility it covers. The main areas of its activities, which are closely related to environmental protection, is determined to lay the foundation of the activity: principles and policies of environmental protection and the improvement of institutional behavior.</p>
<p><b>MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT</b></p>	<p>Defines the management of water bodies and is responsible for drafting the AZA-s in the territory of Albania.</p>
<p><b>NATIONAL ENVIRONMENT AGENCY (NEA)</b></p>	<p>NEA is subordinate to the MTE and responsible for environmental protection. NEA exercises the functions conferred by the laws "On</p>

	Environmental Protection", "On environmental permits," and "On environmental impact assessment".
NATIONAL COASTLINE AGENCY(NCA)	NCA scope is the protection and sustainable development of the coastline area. It is also responsible for the implementation (NCA) of policies for the integrated management of coastline area, coordination of programs and promotion of investment
NATIONAL AGENCY OF PROTECTED AREAS (NAPA)	The National Agency for protected Areas is the main authority responsible for the management of protected areas
NATIONAL AGENCY FOR TERRITORIAL OF PLANNING (NATP)	NATP has implementation responsibility related to territorial planning at national level. NATP conducts studies and assessments on developments in the territory and based thereupon, it suggests to the Council of Ministers the improvement of legal system for urban planning and the related control instruments of development, or any other measures pertaining to the planning processes or other necessary measures.
NATIONAL TOURISM AGENCY	Performs functions related to the promotion and marketing of tourism, e.g. production and distribution of promotional publications, official tourist portals, cognitive tours, public relations, tourist trade fairs, etc.
NATIONAL INSPECTORATE FOR TERRITORIAL PROTECTION	NITP has a key role in the control of territory. Controls the law enforcement for forests and pastures, waters and the environment.
REGIONAL COUNCIL, VLORA	Regional Council of Vlore builds and implements regional development policies in line with state policies at the regional level, serving as a coordinator between the central government and basic units of local government.
HIMARA MUNICIPAL COUNCIL	The Municipal Council has, inter alia, the functions of water supply, sanitation, sewerage, drainage and irrigation, construction, rehabilitation and maintenance of local roads, public transport, waste management, planning. Other possibilities in support of the local level are to extend its rights and powers. The authority that is expected to declare the area a Municipal Natural Park and designate the structure for its management.
HIMARA MUNICIPALITY	Exercises its functions, including those related to water supply, sewerage, sewage, drainage and irrigation, construction, rehabilitation and maintenance of local roads, public transport, pollution management, planning, the possibility for the local level to expand the rights and its competencies. It is the authority that is expected to declare the area a Municipal Natural Park and designate the structure for its management.
INTER-MINISTERIAL	An intersectoral institution responsible for monitoring Albania's

MARITIME OPERATIONAL CENTRE (IMOC)	maritime area and planning and coordinating offshore activities
VLORA FISHING INSPECTORATE	Responsible for monitoring fisheries activities, including MNP
BORDER AND MIGRATION POLICE	Responsibility for MNP as well as (entry control in the area)
CAPITENERY OF VLORA PORT	Regulates cruising and licensing procedures
PROTECTED AREA MANAGEMENT COMMITTEE	Consultative body headed by the District Prefect, to coordinate institutions and other important actors in the management of the PA
BUSINESSES	Use of territory for construction and socio-economic and tourist activities. Use of sea and coastal territory for vacations, entertainment, water and land sports activities, etc.
CHAMBER OF COMMERCE AND INDUSTRY, VLORA	Private Business Association in Vlora, potential for promotion of activities
DIVING CENTERS	Albanian Diving Federation, Blue Oasis
CIVIL SOCIETY, ENVIRONMENTAL NGOs RESPONSIBLE FISHERIES ASSOCIATION, FLAG PINE, ENVIRONMENTAL EDUCATION ORGANIZATION - SEEP, RESEARCH CENTER, COOPERATION AND COLLABORATION, AULEDA, AARHUS ORGANIZATION, HIMARA INTELLECTUALS ORGANIZATION	Communication, awareness and education on nature conservation, biodiversity and landscape issues
UNIVERSITY "ISMAIL QEMALI"	Departments of Natural Sciences and Tourism, Research and Scientific Studies in the Area. Laboratory of biology.
FISHERS, AQUACULTURE, TOURISTS	MNP users, promotion and awareness raising.

## Description of the natural system of MNP “Porto Palermo-Llamani Bay”

The selection as a protected area of "Porto Palermo-Llamani" is based on studies, analysis and recommendations expressed for the selection criteria of coastal-marine areas, set in the "Strategic Plan for Marine and Coastal Protected Areas", prepared by INCA, with the support of UNDP, within the project "Increasing the area and improving the management of marine and coastal protected areas" and re-evaluated, according to the objectives and activities of the Blue Land project.

In defining the area of Porto Palermo-Llamani Bay, with a protection status are considered:

### *Ecological criteria*

**Great natural and biological diversity:** Includes interesting marine and coastal habitats with rich variety of habitats and species.

**Representation:** It is represented by the rocky coast and the infra-coastal stage of the Ionian Sea.

**Productivity:** High productivity in terms of natural and semi-natural production (marine-fish culture).

**Importance for endemic species:** *Mediterranean seal*, endangered and endemic species of the Mediterranean *Limonium himarensense*, endemic species in our country.

### *Priorities*

Endangered, diminished or endangered habitat types: *Posidonia* and *Reefs*

Importance for a habitat / biotope: *Posidonia*, *Reefs*, *Euphorbia*.

**Significance for different species:** Despite limited data, many marine and terrestrial species are of international concern.

**Sensitivity:** *Posidonia* meadows are affected by marine-cultural activities in the area and by human activities (baths, fishing boats, etc.); they show signs of pressure. The negative effect can also be observed in terrestrial habitats (especially for *Euphorbia*) damaged during constructions and fires in the summer season.

### *Naturalness:*

The area was heavily manned around the 1960s, during the construction of underwater tunnels. However, being a military area since then, it has renewed and preserved its naturalness.

The protected area is part of the Southern Region of Albania and includes sea and land parts of the territory of Himara. PA is created to preserve the essential functions of ecosystems, habitats and marine and coastal species, which serve the livelihood of the local population.

The boundaries of the physical context of the area extend over major ecosystems along the Ionian coast.

#### *Geomorphology:*

Ionian coast is mostly rocky, which in a number of cases fall directly into the sea. The gradient is mainly formed from limestone rocks. Slopes along the coast are covered with various types of vegetation. Gravel deposits are present in the coast delta stream. Attractive beaches are formed due to these phenomena. The protected area does not distinguish geological and physical prominent phenomenon. Geological structure of the Southern coastal region consists of the deposits of Jurassic era until the Quaternary era.

#### *Hydrographical network:*

The coastal area is permeated by some rivers and torrents. PA is generally poor in water resources. Borsh torrent is situated in its south, deriving from the East of Borsh village and flows into Ionian Sea. There are some undersea water springs in the southern part of Llamani Bay. These springs are also found in Porto Palermo (Armeridha) Bay.

#### *Climate:*

The climate is highly variable due to the geographic position, large amplitude of the height above sea level and basically due to the relief. In general, the protected area has a Mediterranean climate due to its geographic position and extension. The annual average rainfalls are estimated at 1,000-1,200 mm. They are mainly in the form of rain, while snow is a rare phenomenon. 70-80 % of the amount of annual rainfalls belongs to the period of November-April. Only 20 % of the annual amount of rainfalls is recorded in spring.

#### *Temperature:*

Annual average temperatures fluctuate between 16.1-17.7°C. In January, air temperature is between 8-10°C while in August it ranges between 24-26 °C.

#### *Wind:*

Being a coastal area, the sea wind directly impacts the climate conditions, especially in summer. From November to March the main wind direction is to the East while in spring the wind direction is south northwest.

#### *Lands:*

The agricultural system consists of agricultural land, occupied by field crops, orchards, vineyards and olive groves, wherever it is located, and which has its essential features of soil fertility, irrigation canals and reservoirs. The area is presented with a system of terraces with orchards, traditional that has been widely used before.

Forest soils are mainly sandy and clayey formations. They have characteristics in common with ordinary forest soils, but differ from them by acidity, by the lower degree of alkaline saturation and by the content in smaller amounts of humus and nitrogen.

#### *Biodiversity:*

Study data and those collected from the recent researches in the Southern coastal region of Albania display a rich flora and broad diversity of habitats, plant associations, species of special national importance from the scientific, ecological and socio-economic perspective.

The main types of vegetation located in the land part of the protected area are as follows:

- *Vegetation of lowlands or forests and brushwood's is evergreen.* It expands from maritime lowland up to 900 m height, also present in Palasa-Himara region.

*Densely leafed forests are ever green (Asoc. Orno-Quercetum ilicis),* are also located in the region of Himara and Qeparo, in the vicinity of the protected area.

*Vegetation communities dominated by Euphorbia dendroides, Pistacia lentiscus-Allianca Oleo-Ceratonion (Assoc. Pistacxio- Euphorbietum dendroides).* This type of vegetation is encountered in particular along the maritime area, as well as in Porto Palermo. It exhibits at low heights (50-100 m). The associations of Euphorbia are considered more interesting and roughly unique in Albania.

*Vegetation of Mediterranean pseudo-steppe, dominated by Brachypodium ramosum (Assoc. Brachypodium ramosi).* The degradation caused by overgrazing or fires has triggered pseudo-steppe type vegetation, which is dominated by grass, mainly Brachypodium ramosum, over calcareous rocks. Parts of meadow are commonly encountered at 0-900 m height, along the entire southern coastline, including Himara- Qeparo region.

*Caduceus oak forests (Assoc. Quercetum frainetto).* They are also encountered in the western slopes of Vuno- Himara region.

*Forests dominated by Quercus ithaburensis subsp. macrolepis* (known as oak tree of Vlorea), is a dominating species of oak forests: the layer of trees covers 60-70 % at 7 m height; the layer of brushwood covers 50-60 % at 1-2 m height; the layer of grass covers roughly 30 % at 0,3 m

height; the maximum diameter of the trunk is 30-40 cm. This type of forests is located here and there in Himara-Porto Palermo region and is considered as a relict species since tertiary period.

*Phrygana/Frigana*. It is composed of low brushwood, roughly 60 cm high, not very close to each-other and dominated by *Phlomis fruticosa* (assoc. *Chrysopogono- Phlometum fruticosae*). Even the associations with *Salvia fruticosa* L are characteristic of the community of this area.

The floristic composition of this community mainly consists of species like: *Anagyrris feotida*, *Salvia triloba*, *Lotus cytisoides*, *Phlomis fruticosa*, *Glaucium flavum*, *Galium aparine*, *Pistacia terebinthus*, *Salvia triloba*, *Calicotome villosa*, *Spartium jusceraus*, *Spartium jusceraum*, *Spartium juscera*, *Asphodelus aestivus*, *Chrysopogon gryllus*, *Acanthus spinosus*, *Trifolium angustifolium*, *Brassica incana*, *Paliurus spina-christi*.

*Annex 3: Terrestrial Plant species recorded in the Porto Palermo-Llamani Bay*

*Annex 4: List of important terrestrial plant in the Porto Palermo-Llamani Bay area.*

### **Vegetation of maritime rocks**

The xero-halophytic vegetation of *Crithmo-Limonietea* class dominates the lowest layer above the movement of waves. The ordinary types in this area are *Crithmum maritimum*, *Limonium anfractum*, *Elymus pycnanthus*, *Desmazeria marina*, *Lotus cytisoides*, etc., which represent *Crithmo-Limonietum anfractum* endemic communities.

### **The maritime seagrass of Magnoliophytes type**

It forms underwater beds, which are important habitats for maritime ecosystems. They offer food and shelter for a large number of maritime species. Likewise, they prevent coastal erosion through stabilizing sediments with their rhizomes

There are three types of plants present in the area: *Posidonia oceanica*, *Cymodocea nodosa* and *Halophila stipulacea*. *Posidonia oceanica* or the maritime meadow is the most abundant type, which forms huge meadows of shallow and middle depth. *Posidonia oceanica* meadow is among the most important habitats of the Mediterranean, and its preservation is a high national and international priority (Guideline for Habitats EU 92/43/CEE, May 21, 1992). *Posidonia oceanica* is also included in the Red List of Albanian Flora (2013).

In the shallow waters (2-3 m) within the bay, there have been identified small areas covered with *Cymodocea nodosa* spots, partly accompanied by *Halophila stipulacea*.

### **Associations of coralogenous biocenosis**

They belong to the circalittoral area but can be particularly encountered as an enclave in the biocenosis of infralittoral algae, which favor shadows /nuances. This habitat is encountered in various locations between 20-60 m depth.

### **Biocenosis of low medio littoral rocks**

It is a part of maritime area subjected to the movement of waves. The organisms populating this medio littoral scene are easily adaptable to the sudden change of temperature and salination.

### **Lithophyllum byssoides Habitat**

It is characterized by the presence of calcareous formations, mainly red algae (*Lithophyllum byssoides*), which are ordinary in the northern and central parts of the Western Mediterranean and Adriatic Sea. Fragments (isolated pillows) are present only along the coastline in the north of Porto Palermo area.

### **Biocenosis of medio littoral caves**

They correspond to the ruptures or entrances of caves that are partly outside the water. Some of these habitats are present within the bay and along the coastline of the northern part of the studied area, where there grow types of *Hildenbrandia prototypus*, *Phymatolithon lenormandii*, *Peyssonelia spp* etc.

The infralittoral stage is a benthic environment, always submerged. The upper border is mainly characterized by the presence of vegetation that cannot tolerate the long appearance, (such as *Cystoseira*), whereas the lowest border has been normally fixed at the maximum depth, where it is possible for vascular maritime plants or "fanerogame" (such as *Posidonia oceanica*) to survive.

### **Biocenosis of infralittoral algae**

Includes brown, red and green macroalgae, which are the primary important producer and the same as maritime meadow. Further, they can offer food, substrates and shelter for a wide variety of animals.

### **Association with *Cystoseira amentacea* var. *spicata***

Is placed in the first rank of infralittoral height and creates belts, mainly in the exposed coastline of the area north of Porto Palermo. This association includes many layers and is characterized by high and rich species. It shelters epibiotic organisms and other nethic organisms, which mainly pertain to algae, polychaetes, mollusks and crustaceans.

The infralittoral phase is a benthic environment, permanently immersed. The upper limit is usually characterized by the presence of plants that cannot tolerate long emergence (eg *Cystoseira*), while the lower limit is normally fixed at the maximum depth where possible for vascular marine plants or "phanerogame" (eg *Posidonia oceanica*) to survive.

## Description of the socio – economic system

The main socio-economic activities related to the protected area and surrounding areas, especially rural activities, have a great importance for the region and its economic development. The main sources are agricultural land, livestock, medicinal plants, forestry and pastures, hunting, fishing and aquaculture, water use, tourism and ecotourism and traditional cultural activities. Most of the buildings and services are concentrated in Himara town

Land ownership is divided into state, municipal and private property. Agricultural land occupies about 21.4% of the total land area and is mostly composed of olive, citrus and orchard plantations. A good part of the area is divided by Law 7501 "On land", divided into family area of 500 m<sup>2</sup>.

It is noticed that the agricultural land is well organized and with drainage system (with canals, reservoirs, etc.). An area of 185ha pasture is owned and administered by the Municipality of Himara. The municipality also manages about 4ha with Euphorbia and 101ha of Mediterranean forests and shrubs. Also, in this area can be found military infrastructures under the administration of the Ministry of Defense, represented by the Military Department 2004.

The area has private owners and ex-owners, but there is no accurate information on the number of owners and the people claiming the properties.

Agriculture and agricultural products, these products are of special importance because agricultural land is generally limited. Land is of good quality and fertile. Also, the weather conditions are favorable for the cultivation of agricultural and forest plants.

Agricultural production is mostly consumed by the local market. Manufacturers face difficulties related to the agricultural products processing, and they do not have an organized place for their marketing.

Pastures/grazing often significantly affect habitats and are spread very close to the coastline. Although the impact of grazing was under-estimated in this area; it will be a major threat of potential habitats and endangered species, unless it is controlled and managed as quickly as possible.

The hills around Porto Palermo Bay are often burned by shepherds, who believe that burning of pastures is the most effective and easiest way to improve them. This is a high-risk and constant threat to the recovery of natural vegetation, including the rare endangered species of national and international interest.

Medicinal plants, the region is rich of other natural resources that can be collected and served as an additional source of income for the local population, such as medicinal plants. Although the area has a high potential for medicinal plants, there is a low interest, mainly due to extreme use for grazing purposes and continuous burning incidents.

Forestry and pasture, there is a reduction of the area occupied by forests in the Protected Area. Most of the land is used for pasture

Fishing and marine-culture, Porto Palermo- Llamani area and especially the numerous bays are an important source for fishing and marine-culture. Sea fishing activity is carried out mainly by the fishing boat fleet. There are a wide variety of fish species like Bogue, Common dentex, European hake, Red mullet, Blackspot seabream, European pilchard, Wreckfish, Gilthead seabream, etc. The area is known for a high quality of sea fish, due to its geographical position in the region and shores of the Ionian Sea.

Offshore fish farming activities are carried out in the Porto Palermo area. Marine culture (basket production in the sea of Seabass and Seabream) is present in the bay of Porto Palermo, at reduced levels compared to the approved capacity. Fishing is practiced individually, at low levels.

Water use, generally hydrogeological conditions depend on the geological and morphological structure of the coastal area that condition the water reserves. There are natural water resources (surface and submarine), with limited amounts of water almost throughout the area. The waters are of very good quality.

Marine waters are used for fishing, sports, entertainment and vacation.

Tourism, ecotourism and recreational activities, these activities are a main source of economic income in the area. Tourism development areas are intended for the development of various, general forms of tourism of special interest, which also form the profile of the region. As a rule, specially designated tourist areas exclude other activities, which are not in line with the character of the area and residential developments, which are not related to the general development scheme.

The proposed categories of tourist development areas are:

- (i) Tourism within the areas of settlements (hotels).
- (ii) Tourism outside residential areas (resorts, villas).
- (iii) Special forms of tourism (ecotourism and agritourism).
- (iv) Special infrastructure for tourism / Facilities (spa-golf etc.).
- (v) Camping.

Indeed, the Natural Municipal Park offers natural, cultural and historical values. Tourism in recent years in the city of Himara, its surroundings and the Bay of Porto Palermo-Llamani has

seen some improvements. Recently, tourism has expanded the natural and cultural potentials of the area by offering a high variety of tourism opportunities such as: beach, water sports, hiking, climbing, hiking, cultural tourism, etc.

Education and scientific research, this is certainly an important area for research and exploration of prehistoric and archaeological underwater remains.

*Other useful presence in the area:*

Infrastructure refers to all parts of infrastructure for transport, solid and liquid waste, water supply, oil and gas, biofuels, communications, electricity supply, land, coast and marine and hilly space protection, etc.

The infrastructure network in the municipality of Himara shows different developments based on the characteristics and specifics of each administrative unit. Urban roads are part of the road network, which lies within urban and rural settlements. They vary in size and speed of travel, starting with main, secondary and pedestrian roads. Moreover, most of them need to cover the occasional parking needs. In this context, we can emphasize as a positive effect the road axis Himara-Proto Palermo-Qeparo, which passes along the territory of the Natural Municipal Park.

Maritime transport is carried out through the port of Himara, which is also used for fishing. In the Gulf of Porto Palermo there is a small pier used by tourist boats, aquaculture fishing and the military.

Wastewater collection and treatment is the biggest problem, as all administrative units of Himara municipality do not have treatment and treatment plants. Most of the polluted water is discharged directly into the sea. This problem becomes very serious especially in the tourist regions, including the Porto Palermo- Llamani-Bay.

The condition of the urban waste and their general construction has rest, concern cleaning and their removal from all points of identification for the tourist area, including Porto Palermo-Llamani.

Army, there are former military bases located within the Protected Area, which are still under the jurisdiction of the Ministry of Defense.

Services in the area: They are divided into two main types: Commerciale (Hotels, Shops, Personal Services, Office, Business, etc.) and Touristic (Bar, Cafe, Restaurants, Beach Services, Cultural, Museum, etc.)

The local general plan of the municipality of Himara defines a considerable number of hotel areas, combined with commercial activities, which are related to tourism such as bars,

restaurants, etc. Also, the tourist areas of resorts in attractive places, as areas of new development, intended to accept high quality and low-density investments, which also affect the territory of the Natural Municipal Park.

### Current and planned governance structure

Currently the network of protected areas is managed by the National Agency of Protected Areas based on policies and guidelines set by the Ministry of Tourism and Environment. At the regional level, the NAPA is represented by regional administrations. In Vlorë region PA's are managed by the Regional Administration of Protected Areas Vlorë (RAPA) which in its structure has two sectors: management and monitoring. RAPA Vlorë has in its jurisdiction approximately 65,000 ha of protected areas.

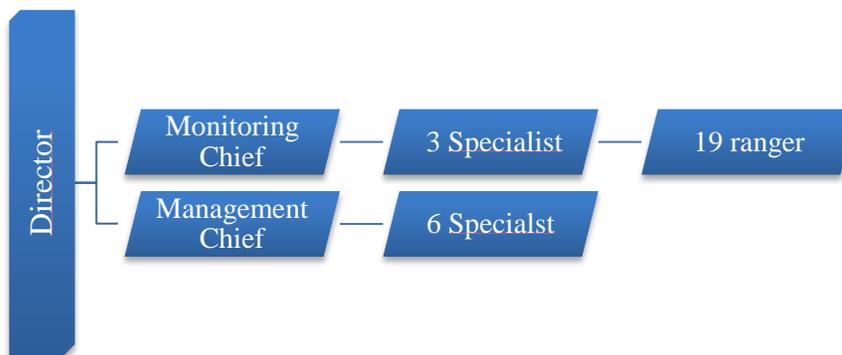


Figure 1: Structure of the Vlorë Regional Administration of Protected Areas (RAPA Vlorë), 2020

Local government also play an irreplaceable role in the protection of protected areas in the territory where they operate, implementing the requirements of the law "On protected areas" and their organic laws.

These local government units based on article 24 (law no. 81/2017) have the right to declare and manage Municipal Natural Parks (MNP).

In the case of Marine and Coastal Protected Areas, the municipality of Himara, has duties and responsibilities, according to the legal provisions in force for this territory in the general framework of the implementation of the Local General Plan (LGP). The municipality, as a basic unit of local government, performs all self-governing duties exercised through their local representative bodies.

Currently the sectors with direct management and control competencies in the area for the environmental aspect include, the Directorate of Land Protection and Management, Forests and Pastures, the Inspectorate for Territorial Protection (which includes the Forest-Pasture sector) and the Fire Protection Sector and Rescue , which are responsible for the management of natural areas Another important structure for the management of the area is the Directorate of Territorial Planning and Development which is directly responsible for the implementation and monitoring of LGP. At the same time, they serve as coordinators for other sectors.

Currently, the Directorate of Territorial Planning and Development consists of 10 employees and the Directorate of Land Protection and Management. In the context of reviewing the needs of staff and resources of the municipality, it is found that there are shortages mainly in environmental and tourism specialists, which may be reflected in problems during the implementation of the plan and projects, especially in sensitive areas with natural values and development pressure. For this reason, it is suggested to include in the organizational structure of the municipality environmental and water specialists, tourism experts, etc., who may be involved in the management of the Natural Municipal Park.

Vlora Regional Directorate of National Culture is also present with management competencies in the territory. This directorate is responsible for the management of archeological sites and cultural monuments and currently one employee is responsible for the management of visitors to Ali Pasha Castle.

As additional management structures for MNP, it is proposed to create a sector of Protected Areas within the Directorate of Protection and Land Management, consisting of a specialist within the structure of Himara municipality, with the function of specialist for natural protected areas and tasks defined in the Function Regulation of the municipality, to include the tasks for the management of MNP "Porto Palermo Bay - Llamani". As well as a "ranger" employee, who will cover the control of activities in the area, visitor management and environmental education and awareness. Permanent staff will be supported over the summer with at least two additional seasonal staff.

#### Description of the cultural landscape and heritage

The cultural heritage of the southern coast is important for the values associated with identity and the history. Himara is an ancient settlement since the fifth century B.C. Written sources indicate that in ancient times, Himara was the settlement of the Kaon tribe, an important tribe of Epirus, along with Mollos and Thesprotias. Kaon tribes were in possession of Epirus before Mollos. Pliny states that the name Kaon comes from Chaones of Akrokeraunes coasts, where the strongholds Himara were settled, below the royal water source of Meandria (ancient city in Borsh), Kestrine etc.

Within the park territory there are some important historical sites as the Porto Palermo Castle (Ali Pasha) and St. Nicholas Church. Since 1948, this Castle has the status of a cultural monument.

The area has a very interesting natural landscape which combines the typical views of the Albanian coast and Riviera alternating with the values of cultural heritage.

The presence of relics and objects of the military base in the area add value to the landscape and the historical value of the park.

On the surface of the natural municipal park lies the "Cave of Porto Palermo", which enjoys the status of a natural monument and presents special natural values in terms of geological formation of the area.

## PART II ASSESSMENT OF THE PROTECTED AREA AND INSTITUTIONAL FRAMEWORK

### 2.1.1 Ecological values

#### **Habitats and flora of the protected area landscape<sup>5</sup>.**

Description of habitats and species in relation to the area of Porto Palermo-Llamani is mainly based on data collected from the “Ecological Study of Porto Palermo Bay and surrounding areas”.

#### **Land Habitats:**

#### **Schlerophile shrubs (Matoral) Thermo- Mediterranean and pre-desert shrubs Euphorbia formations**

Associations with the formations of milkwort (*Euphorbia dendroides*) are considered the most interesting and almost unique in Albania. It is a natural habitat of EC relevance under the code 5330 EUNIS (according to the EU Directive on Habitats).

Flora composition of this community primarily consists of: *Anagyrris feotida*, *Salvia triloba*, *Lotus cytisoides*, *Phlomis fruticosa*, *Glaucium flavum*, *Galium aparine*, *Pistacia terebinthus*, *Salvia triloba*, *Calicotome villosa*, *Spartium junceum*, *Ruscus aculeatus*, *Asparagus acutifolius*, *Urginea maritima*, *Asphodelus aestivus*, *Chrysopogon gryllus*, *Acanthus spinosus*, *Trifolium angustifolium*, *Brassica incana*, *Paliurus spina-christi*.

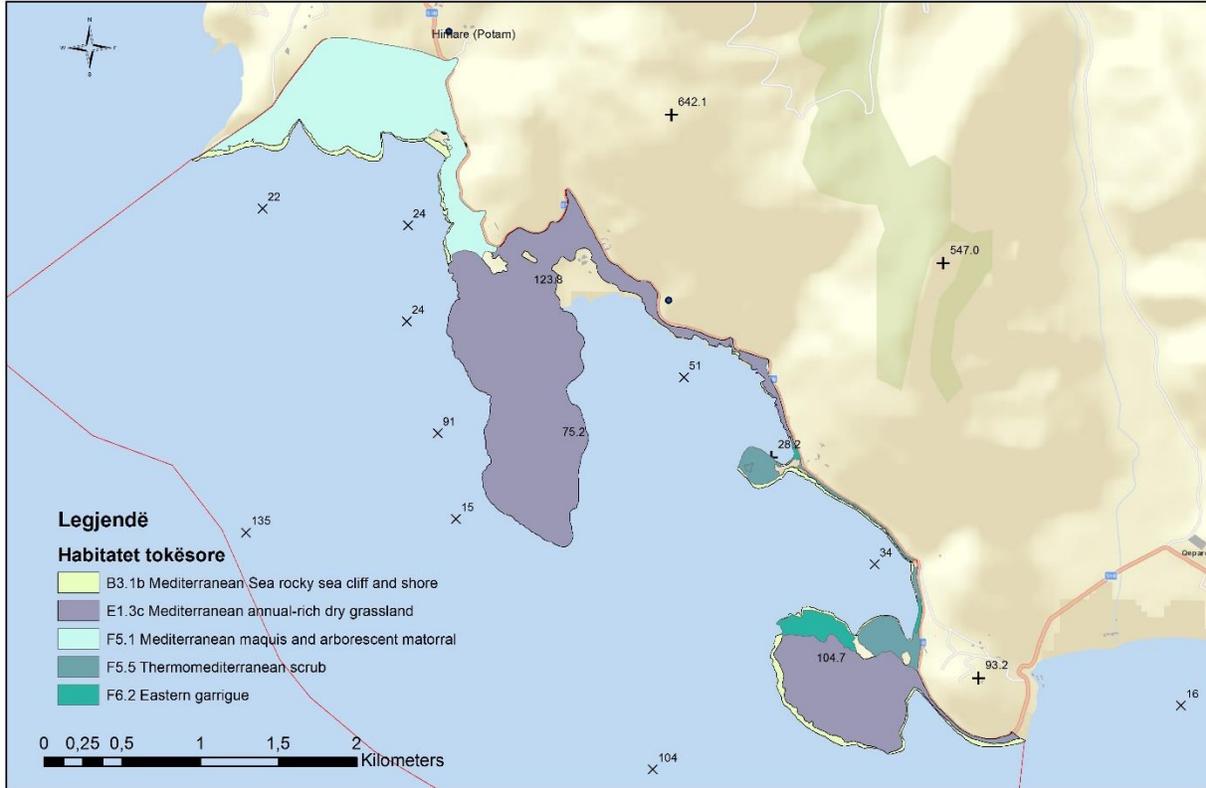
#### **Phrygana**

It is composed of nearly 60 cm high low shrubs, not so close to each other and predominated by *Phlomis fruticosa* (assoc. *Chrysopogono-Phlometum fruticosae*). Further, the associations of *Salvia fruticosa* L. are characteristic of the community of that area.

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<sup>5</sup> Lefter Kashta, Sajmir Beqiraj, Arjan Gaçe, Xhemal Mato "Ecological study of the bay of Porto Palermo and surrounding areas", November 2013 and data provided by the Blue Land project, 2019.

Habitatet tokësore PNB "Porto Palermo-Llamani"  
MNP "Porto Palermo-Llamani" terrestrial habitats



Map 3: Terrestrial Habitats in “Porto Palermo – Llamani Bay”

### Vegetation of Mediterranean pseudo-steppes

This formation dominated by *Brachypodium ramosum* (assoc. *Brachypodietum bronkial*) over the limestone rocks is exposed as degraded due to its uncontrolled use or continuous burning.

### Forests dominated by *Quercus ithaburensis subsp. macrolepis*

The vegetation of *Quercus ithaburensis subsp macrolepis*, known as Vlora oak tree, is considered as a relic species since the Tertiary period and is present in the hills of northern and eastern section of the area.

### Vegetation of coastal rocks

The shores of Porto Palermo area are mostly rocky. The xero-halophytic vegetation of *Crithmo-Limonietea class* dominates the lowest stratum above the level of wave action. The most common types in this area are *Crithmum maritimum*, *Limonium anfractum*, *Elymus pycnanthus*, *Desmazeria marina*, *Lotus cytisoides* etc, representing endemic communities of *Crithmo-Limonietum anfractum*.

The upper layer of this vegetation (from 5-6 meters to 50 meters in specific cases), periodically dusted by a crystallized dry salt smoke during strong aerosaline storms, is represented by a very rare and common vegetation of the *Capparo-Putorion* group. Characteristic types of this belt are *Capparis orientalis*, *Putoria calabrica*, *Ephedra foemina* etc.

This layer of rare vegetation hosts some subendemic types of relics such as *Acis ionica*, *Athamanta macedonica*, *Brassica incana subsp. egaea* etc.

In the Palermo-Llamani area, according to studies to date, 54 terrestrial species have been recorded, of which 12 species are considered important and 13 species are included in the Red Book of Albanian Flora and Fauna (*Annex 4: List of important terrestrial plant species in the Bay Area of Porto Palermo-Llamani*).

Two types of invasive plants are recorded in the area of Porto Palermo, *Agave americana* L. and *Ailanthus altissima* (Mill.) Swingle. *A. americana*, once cultivated for fibers, is indeed naturalized and expanded, covering large surfaces across the hill slope on the national road from Himara to Qeparo.

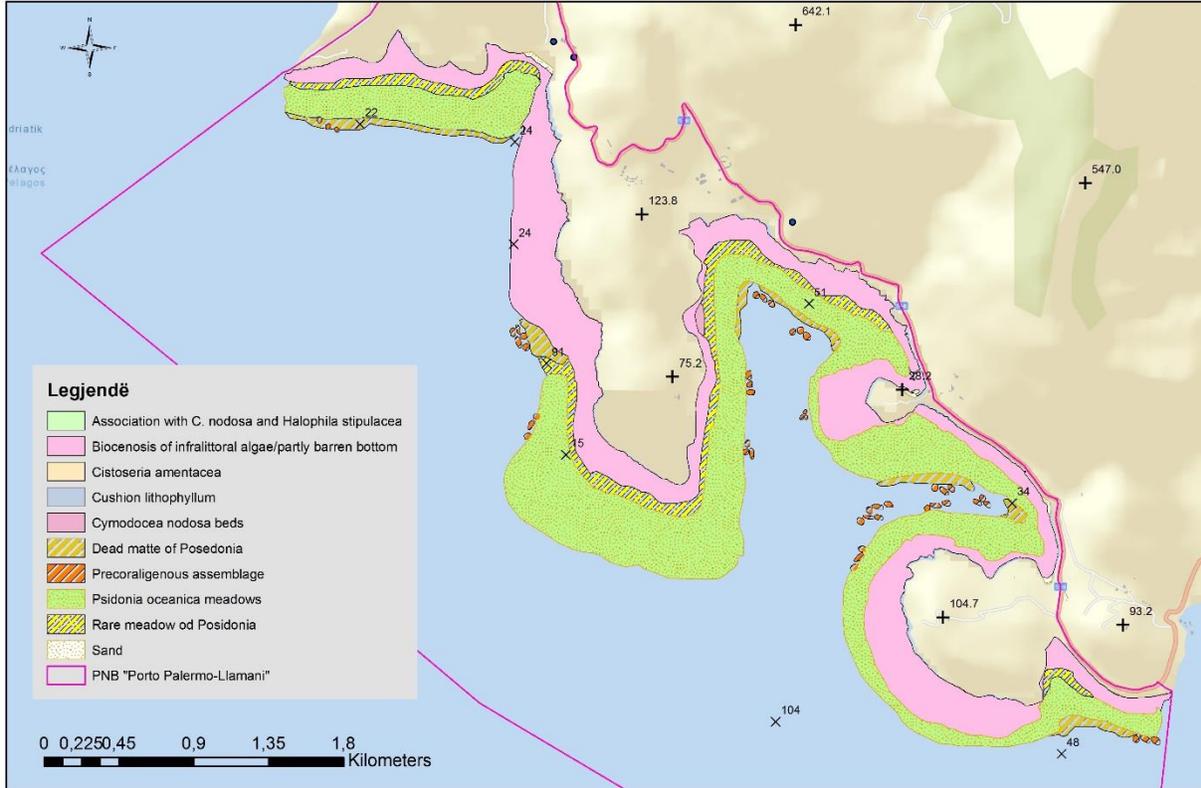
## **Benthic marine communities and habitats**

### *Solid beds and rocks*

### *Mediolittoral area*

The mediolittoral stage is part of the maritime area subjected to the movement of waves. The organisms populating this mediolittoral scene are easily adaptable to the sudden changes of temperature and salination.

Harta e habitateve ujore PNB "Porto Palermo-Llamani"  
MNP "Porto Palermo-Llamani" marine habitat map



Map 4: Marine habitat map of “Porto Palermo – Llamani Bay”

### Biocenosis of low medio littoral rocks

Solidified masses of supporting organogenic coast (*Lithophyllum byssoides*). This habitat is characterized especially by the presence of algae calcareous formations, mainly red algae (*Lithophyllum byssoides*) that are common in the northern and central parts of the Western Mediterranean and Adriatic Sea. Fragments (isolated) are present only along the coastline, north of Porto Palermo area.

### Biocenosis of mediolittoral caves

The mediolittoral caves correspond to ruptures or entrances of caverns that are partly outside the water. Some of these habitats are present within the bay and along the coastline of the northern area where there grow species like: *Hildenbrandia prototypus*, *Phymatolithon lenormandii*, *Peyssonelia spp.*, etc.

### Infralittoral Section

The infralittoral stage is a benthic environment that is always submerged. The upper border is normally characterized by the presence of vegetation that cannot tolerate the long appearance (such as *Cystoseira*). The lowest border has been commonly fixed at maximum depth where it is possible for vascular maritime plants or “phanerogam” (such as *Posidonia oceanica*) to survive.

### **Biocenosis of infralittoral algae**

The biocenosis includes brown, red and green algae, which are primary important producers. The same as maritime meadow, they can offer food, substrates and shelter for a wide variety of animals.

### **Associations with *Cystoseira amentacea* var. *spicata***

The association is placed in the first line of the infralittoral height. It creates belts mainly in the exposed coastline of the area north of Porto Palermo. The association includes many layers and is characterized by high and rich species. It shelters epibiotic organisms and other benthic organisms, which mainly belong to algae, polychaetas, mollusks and crustaceans. In this area there has been recorded a total of **12** (twelve) species of green algae, **14** (fourteen) of brown algae and **26** (twenty-six) of red algae. (See *Annex 3: Seagrass and Seaweed of Porto Palermo-Llamani Bay*)

### **Sea Grass Meadows**

The maritime meadow is of Magnoliophytes maritime types, which form the underwater beds that are important habitats for maritime ecosystems. They offer food and shelter for many maritime species. Likewise, they prevent coastal erosion through stabilizing sediments with their rhizomes.

Three species of plants are present in the area: *Posidonia oceanica*, *Cymodocea nodosa* and *Zostera Marina*. *Posidonia oceanica* or the seagrass is the most abundant type, which forms huge meadow in shallow and middle depth in Porto Palermo area.

### ***Posidonia oceanica* meadows**

*Posidonia oceanica* meadow is among the most important habitats of the Mediterranean Region. Their preservation is a high national and international priority (Guideline for Habitats EU 92/43/CEE, May 21, 1992). *Posidonia oceanica* is included in Annex I (Types of strictly protected flora) of the Berne Convention and Annex II (List of endangered or threatened species) of the Barcelona Convention. *Posidonia oceanica* is also included in the Red List of Albanian Flora (2013).

*Posidonia oceanica* meadow has a multifunctional role within maritime systems toward primary production, cycle of nutritional substances, stabilization of sediments, modification of the inclination rate of wave energy and provision of «nests» habitat for fish and non-vertebrates.

The upper border of the *Posidonia oceanica* meadow in the area has been identified at 3.5 m depth and the lowest border at 28 m. A similar group with *Posidonia oceanica*, with short leaves was found in a lower rocky area in front of the castle at 23 m depth.

In areas where the water is clearer, there have been observed beds with *Posidonia oceanica* at 25-27 m depth. In general, the area shows a regress of this lower border with a depth varying from 18-20 m.

The results of the survey suggest that *Posidonia oceanica* has suffered a decline in Porto Palermo bay. The presence of dead surfaces highlights that the beds cover a much larger space than in the past. This decline is mainly connected with the anchoring of ships and construction of farms (marine-culture) of the fish within the bay.

In the shallow waters 2-3 meters within the bay, there have been identified small areas covered with spots of *Cymodocea nodosa*, partly accompanied by *Halophila stipulacea*.

*Associations of coralogen biocinos:*

Coralogens belong to the circalitoral area but can be found as an enclave in the biocenosis of infralitoral algae. Often this habitat is observed in different places 20-60m depth.

## **Description of benthic habitats for each area**

Based on the ecological study the Porto Palermo- Llamani bay and the surroundings heading north, and south are divided into three parts:

1. Northern Area - Llamani Bay;
2. Central Area - Porto Palermo Bay;
3. Southern Area -Panorma Peninsula and Spinaras Cape.

### **1. Northern Area: Llamani Bay**

It represents several particularities compared to other areas toward the distribution of benthic biocenosis. The Medio-littoral has a well-developed community of *Cystoseira* and

Lithophyllum almost along the entire coastline. In their lowest part, they are often accompanied by spots of photophilic algae with domination of corals.

The barren areas cover a large part of the upper infralittoral area amounting to 5-11 m depth. This huge representation of barren areas in this field, apart from the effect of the invasion by sea urchins, can be also connected with the presence of rocks, stones recently thrown in the sea by illegal builders along the coast and by the high impact of human activity.

During summer, the Llamani Bay is one of the areas with the highest tourist pressure. The rare macrobenthic population is represented by mucilaginous algae, other photophilics, black urchins (*Arbacia lixula*) and sponges dominated by *Chondrilla nucula*.

In this area it has been found a strong segmentation of meadow of *Posidonia oceanica*. A well-developed meadow in the southern part has been recorded in the maximum border at 7 m depth and in the lower border at 21 m depth. In the eastern coast the *Posidonia* meadow lacks entirely. In this part, at 11-27 depth, the bottom rocks are represented by a very rough relief and with steep slopes that can be unfavorable for the development of *Posidonia* meadow.

Mainly at these depths, the macrobenthos is dominated by macroalgae, often mucilaginous and association of sponges. Another potential reason for the lack of *Posidonia* in this part can be connected with the entry of sweet and cold waters from underwater sources. In the northern and western part of the area, the *Posidonia* meadow is represented in a fairly good shape, respectively placed within a range of 8-28 m depth.

Below the *Posidonia* meadow, from 26-30 m depth, there have been recorded developed precoralogenous and coralogenous formations, with a high presence and diversity of sponges, macroalgae, including those mucilaginous and *Caulerpa racemosa* var. *cylindracea*. At 30-35 m depth, the bottom part is mainly covered with coarse sand, whereas at lower depths from 40-50 m, the bed is composed of a soft bottom with the presence of precoralogenous and coralogenous formations, large quantities of sponges, echinoderms (mainly *Asteroidea* and *Crinoidea*) and shells of dead mollusks.

## 2. Central Area: Porto Palermo Bay

The shallow waters of medio-littoral and upper infralittoral of the coastline vary from 0 to 3-4 m depth. They are characterized by a bottom of stony composition, mainly barren. In the central part of this area, proportions of the barren habitat amount to 6 m depth. At these depths, the macrobenthos is dominated by populations of photophilic algae, sponges (*Chondrilla nucula*) and black sea urchins (*Arbacia lixula*). In the northern part along the coastline, strips of *Cystoseira* are extended up to 1 m depth.

The *Posidonia oceanica* meadow has mainly degraded in the overwhelming part of the area, especially in the southern one. In this part, upper border of the meadow varies at 5-8, 5 m depth. The meadow degradation is more visible from 12-16 m and the lowest border is recorded at 18 m. In this part, the long bare strips at the bottom within the meadow of *Posidonia* can be due to building human activity for the creation of marine culture.

In the northern part, *Posidonia* meadow appears to be in better shape, with a larger cover and density at the maximum border varying from 4.5-7 m and at the lower border from 20-26 m depth. In this part, within the *Posidonia* meadow it has been recorded the fairly wide presence of sponges and *Codium sp.* and *Pinna nobilis*.

The upper circalittoral area, roughly 26-70 m depth, is dominated by soft bottom but with a wide variety of micro-habitats. Among other things, it is encountered sand, bare muddy sediments or covered by macro-algae, decomposing dry leaves of marine grass, dead shells of mollusks, bivalvia, coralogenous and precoralogenous formations dominated by sponges and calcareous algae, organogenic rocks etc.

The presence of precoralogenous formations, especially coralogenous in this field plays an important role for the enhancement of biodiversity, since these habitats are suitable for the shelter of a considerable number of microalgae types, macroinvertebrates and fish. In the bottom areas, the ordinary macrofauna is represented by sponges, ascidians, gastropods (*Natica*, *Turritella*, *Hexaplex*, *echinoderms Ophidiaster*, *Echinaster*, *Cnidarian Pennatula*) etc.

In the southern part, in the vicinity of the lower border of *Posidonia* meadow, there have been also recorded many other invasive algae of *Caulerpa racemosa* var. *cylindracea* (grapevine-like *Caulerpes*).

Near this area, at the bottom of its southern part it has been found presence of ancient amphora, which can be considered as an added value for the development of local tourism, through diving activities that can be also attracted by coralogenous and precoralogenous formations from the underwater steep slopes, which can sometimes amount to 40 m depth, immediately below the coast.

*Cystoseira* communities are present in several parts among upper medio-littoral and infra-littoral with a dominance of *C. amentacea* in the eastern part and *C. compressa* in the western part of this area.

The barren maritime areas spread up to 3.5 m and sometimes up to 7 m depth. They are characterized by a high presence of black sea urchins (*Arbacia lixula*), where the effect of grazing is visible throughout the area. The rare macrobenthos in these dwellings is represented

by algae photophilic *Acetabularia*, *Jania*, *Padina*, sponges (*Chondrilla nucula*), gastropods (*Cerithium vulgatum*) and echinoderma (*Arbacia lixula*) and *Holothuria tubulosa*.

Sponges are present in small caves and ruptures in shallow waters vary from 1-3 m depth, in the southeastern part. Deeper in southeastern and northwestern parts there have been recorded spots of fanerogames *Cymodocea nodosa* (small grass of Neptune).

In the southeastern part it has been found high presence of anthozoan (a type of cnidaria) in sections with *Cymodocea*.

In the shallow waters of this area there have been recorded two unknown types: low presence of marine grass (*Halophila stipulacea*), within the plot with *Cymodocea* in the southeastern part at 1-2 m depth, grapevine-like algae (*Caulerpa racemosa* var. *cylindracea*), in the western part at 4 m depth.

The entry of sweet waters is present in the coastline of southeastern part and has eroded the coast, forming small caves and ruptures. Further down the north, in eastern coast it can be seen the impact of sweet waters by means of a strip of sediments (gravel and sand) spreading from the coast up to 15 m depth at the bottom of the sea.

The distribution of *Posidonia* meadow shows a wide variety in the upper and lower borders of area depth. Its upper border varies from 3.7 m in the eastern coast to 6-7 m in the western coast of this area, whereas the lower depth border varies from 21-28 m. In its most part, the cover and density of *Posidonia* meadow appears high up to 12 m depth.

The degradation and fragmentation of the meadows are more visible at 13-16 m depth. The spots with *matte morte* (dead plants of *Posidonia*) are relatively abundant within the meadow, among 11-18 m depth. The highest degradation of meadow has resulted to be in the northwestern part, where large bare fragments and *matte morte* cross meadow from 9-16 m depth. In the shallow waters of this part, at 5 m depth, *Cymodocea* and *Caulerpa* have often grown in *matte*, in the vicinity of the upper border of *Posidonia* meadow.

The western coast of the castle lacks *Posidonia* meadow, probably due to the immediate depth and very steep slope. In this area there are also found photophilic algae up to 18 m depth, whereas *Posidonia* has been found in small parts in rocks at 23 m depth, where it was rare and with short leaves.

Mainly in the northern and western parts, associations of macroalgae, sponges and ascidians are relatively well-developed in *Posidonia* meadow, which is also characterized by a high cover or epibenthic organisms and mucilaginous algae.

Several micro-habitats have been recorded in the deeper section below the lower border of Posidonia meadow, up to 70 m depth. The circalittoral in upper part immediately below the Posidonia meadow up to 30 m depth, is characterized by bare soft bottom, soft bottom with macroalgae, *matte morte* covered by sediments and soft bottom covered by dead mollusks of the sea. At 30- 56 m depth, apart from above-mentioned micro-habitats, precoralogenous and coralogenous formations, it has been recorded also a vast richness of species of macroalgae, sponges (*Agelas*, *Axinella*), cnidarians (*Parazoanthus*, *Caryophyllia*) and ascidians. The soft leafy bottom and decomposing marine grass, ascidians, sponges and bare soft bottom are common at 40-50 m depth. At lower depths up to 70 m, the soft bottom is more homogenous with bare areas and less presence of sponges and ascidians.

### 3. Southern Area: Peninsula of Panorma- Cape of Spinaras.

The medio littoral is characterized by a continuous presence of algae *Cystoseira amentacea* and other photophilics, which were highly evident up to 6 m depth, dominated by *Padina*, *Acetabularia* and *Dyctyota*.

Due to immediate depth and very steep slopes in the western part of the area, Posidonia meadow starts at 11 m depth in the northern part and at 13 m depth in the northwestern part. The lowest border of meadow in this area has been recorded at 20 m depth.

In the central and eastern part of the area, the upper border of Posidonia meadow is present at 7 m depth, whereas the lowest border is at 19 m depth. In the eastern part it has been recorded a light fragmentation of the meadow at 12 m depth.

In the eastern part near the lowest border of Posidonia, at 18-19 m depth, there are present coraligenous formations dominated by macroalgae and sponges of the gender *Axinella*, *Agelas* and *Spongia*. In the central part below the Posidonia meadow, at 22-23 m depth, the bed is covered by *matte morte* and bare soft sediments (without macro-vegetation).

Likewise, in the northwestern part of the area there have been recorded coraligenous formations with high diversity of sponges and macroalgae at 31-33 m depth. In the central and eastern part, at 30-32 m depth, the bottom is composed of soft homogenous sediments without macro-vegetation.

#### Marine habitats and species of conservation interest

Special priority is attached to the threatened Mediterranean habitats and species of conservation interest published in the following documents:

- ❖ The Mediterranean “Red List” of species.
- ❖ EU Directive of Habitats (92/43) with the relevant annexes:

- Natural Species of Habitats in the Interest of Community;
- Species of animals and plants in the Interest of Community;
- Strictly protected species;
- Species under regulated exploitation.
- ❖ Barcelona Convention (1995) concerning the Protocol regarding the Specially Protected Areas and Biological Diversity in the Mediterranean, with the relevant annexes:
  - Endangered or threatened species;
  - Species under regulated exploitation
- ❖ Alghero meeting (1995) on the marine and coastal biodiversity in the Mediterranean Region.
- ❖ Berne Convention (1996), with the relevant annexes:
  - I- Strictly protected flora species;
  - II- Strictly protected fauna species;
  - III- Protected fauna species.
- ❖ National Red List of the Albanian flora and fauna (2013).<sup>6</sup>

**Among the most sensitive habitats of the Mediterranean** (UNEP, RAC/SPA.1997) it is worth-mentioning *Lithophyllum byssoides* (sensible to hydrocarbons) for medio littoral areas, *Cystoseira* communities as a hydrodynamic index in the upper littoral area and *Posidonia oceanica* meadow in the infralittoral area.

### ***Lithophyllum byssoides* Associations**

In the medio littoral areas there appear white red pale plates and calcareous rhodophytes layer of the *Lithophyllum byssoides*. The typical habitats of the Western Mediterranean Basin and Adriatic Sea are indicators of the high-water quality.

*International Status:* “Red List” of the Mediterranean (endangered habitats), and Guideline of Habitats EU 92/43 (Annex I, underwater rocks); Alghero Meeting (endangered habitats); Barcelona Convention (Annex II); Berne Convention (Annex I, Strictly protected flora species).

*National Status:* Red List of Flora and Fauna (2013) EN B1.

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<sup>6</sup> Source: Interpretation Manual of European Union Habitats, version EUR 28 (2013)

***Cystoseira amentacea* var. *spicata* Associations** The characteristics of this belt have been observed in several highly exposed rocky fields at 0 up to 1 m depth. It is a very complex habitat, high structural and functional biodiversity. BIO indicators are at a high level as to the water quality.

*International Status:* “Red List” of the Mediterranean; Habitats Directive EU 92/43. Alghero meeting. Barcelona Convention (Annex II). Berne Convention (Annex I, Strictly protected flora species).

*National Status:* Red List of Flora and Fauna (2013) VU B2C.

### ***Posidonia oceanica* Meadow**

This endemic community in the Mediterranean Sea represents the top of the soft infralittoral ending beds and one of the most important habitats of the Mediterranean. Their protection is a high national and international priority

*International Status:* Mediterranean "Red List"; Habitats Directive (Annex I: \* priority habitat); Barcelona Convention (Annex II); Berne Convention (Annex I, Strictly protected flora species).

*National status* (VU A2d): Red List of Albanian flora and fauna (2013).

### ***Cymodocea nodosa* Associations**

This important phanerogam colonizes sand and the bottom mud and sand. It sometimes replaces the decline of *Posidonia oceanica* meadow, but in the protected area it is present only in a small surface, mainly in shallow waters of the bay.

*International Status:* “Red List” of the Mediterranean; Berne Convention (Annex I, Strictly protected flora species).

*National Status:* Red List of Flora and Fauna (2013) VU B2C.

(Annex 6: *List of species recorded in “Porto Palermo -Llamani Bay” with national concerned status, according to the “Red List of Wild Flora and Fauna in Albania”* and Annex 7: *List of international importance marine species located in “Porto Palermo- Llamani Bay”, listed in the most important Conventions*).

In Porto Palermo-Llamani area it has been found a wide variety of fish but the most ordinary ones are *Chelon* sp., *Mullus surmulletus*, *Diplodus* sp., *Coris juli*, *Serranus cabrilla*, *Oblada* sp., *Chromis* sp., etc. within and along Porto Palermo-Llamani bay 26 types of fish are encountered (See Annex 8: *List of fish species with economic importance*).

The list of some species of international importance as rare endangered species under protection and special conservation of their habitats, as provided for in some international agreements and conventions, is presented below:

Table 3: The list of some species of international importance as rare endangered species

No.	Name in Latin	Name in English	Name in ALbanian
1.	<i>Hippocampus hippocampus</i>	Short snouted seahorse	Kal deti turishkurtër
2.	<i>Isurus oxyrinchus</i>	Shortfin mako	Peshkaqen tonil
3.	<i>Lamna nasus</i>	Porbeagle	Tonil
4.	<i>Rostroraja alba</i>	White skate	Raxha
5.	<i>Sciaena umbra</i>	Brown meager	Korb i zi
6.	<i>Sphyrna zygaena</i>	Smooth hammerhead	Peshk karabiner
7.	<i>Syngnathus abaster</i>	Black-striped pipefish	Gjilpërëza shiritazezë
8.	<i>Umbrina cirrosa</i>	Shidrum	Korb i bardhë
9.	<i>Xiphias gladius</i>	Swordfish	Peshku shtizë

**List of some alien/invasive species appearing in Palermo-Llamani bay:**

*Caulerpa (Caulerpa racemosa var. cylindracea)*

*Halophila stipulacea*

*Grab (Percnon gibbesi)*

*Blue Crab (Callinectes sapidus).*

**Natural monuments**

The Porto Palermo Cave is a natural monument located within the Bay of Porto Palermo near the former submarine military base. It is located on the right side of the highway that connects the city of Himara with Saranda. Can be accessed by boat from the sea or by a not very visible trail next to the road. It is a karst cave created by limestone activity. It is famous for its geological and touristic values.

**Socio-economic values**

The coastal region of Himara, constitutes the largest and most attractive part of the Albanian Riviera, is a territorial unit with distinctive characteristics, which currently faces the dilemma regarding its future development. Meanwhile, the potential for social-tourism development has capacities that can bring income improvements at the national and local level as well as the quality of life of local communities.

The population age structure in the study area is dominated by young population. This has influenced the average age of population, which is 31.2 years old. This is a very good potential for the project area development. The average family size is some 3.9 members dominated by a family domination structure. The population growth in the area is expected to be normal. The area has had and still has a dynamic life according to the population. According to the latest public data, the average annual rate of population growth in the last 10 years is 6.3 % per year.

The economy of the Protected Area can be primarily focused on the following sectors stated below:

- a. Land use, constructions and services;
- b. Agriculture and livestock;
- c. Fishery sector;
- d. Eco-tourism and cultural tourism.

The sustainable development of the territory is essential for the preservation of the natural and cultural values of the area. Priority should be given to infrastructure in accordance with the environment, vision and management objectives, following standards and norms, according to the load, type of construction and environmental carrying capacity of an area of special importance.

Private land, divided into relatively small pieces, currently dominate the area, with pronounced uncertainties over ownership. Public military areas have so far guaranteed the protection of a large area of land. These military properties constitute the primary areas for construction and beneficial tourist services, including Porto Palermo.

The traditional use of these natural resources offers the opportunity to increase the income of the local population. Traditionally the agricultural products, livestock by-products and fisheries constitute one of the main financial sources of incomes, where tourism sector is gaining terrain year after year.

The municipal natural park is considered an area with high tourist potential. Ecotourism and cultural tourism are important opportunities of sustainable development and further increase of the economic level for the local communities of the protected area.

As a rule, in these touristic areas, activities which are not in line with the character of the area and which are not related to the general development scheme are excluded. The construction standards include a policy of conserving some areas, near the coast for different types of tourism, setting conditions to limit or prohibit housing or other types of development, in order to avoid the consumption of valuable coastal resources, envisaging a different approach for different parts of the territory. Areas designated for economic and industrial activities should not be allowed in

the areas dedicated to the development of tourism and ecotourism as well as historical and cultural centers. The perspective of economic growth in the municipality of Himara is mainly influenced by developments in the tourism sector and the Blue Economy.

According to Himara Municipality, soft forms of mass and sustainable tourism are expected to be developed, with respect to natural and cultural resources. Porto Palermo has planned the construction of a tourist port and resort area in the existing military area. Landscape values of the area are treated with special importance and protected from development of infrastructure without respecting the criteria.

10 bungalows have been built in the area, which are mainly used by foreign tourists. However, mostly visitors prefer the area for leisure and entertainment purposes and stay in hotels outside it. Tourist and infrastructure services are insufficient and unsustainable, especially in Llanan Bay.

### Cultural values

In the area there are several cultural and historical objects, which together with religious objects create an interesting and attractive landscape. *In Annex 7: Archaeological Protected Areas and Cultural Monuments*, detailed information on cultural heritage sites in the Area.

The bay of Porto Palermo - Llamani forms a relatively important urban center with its historical, geographical and cultural specifics that has had a direct impact on the formation of local identity, and its role in the regional context. It is a closed bay, slightly developed and with a naval military base, in the northern part.

In Porto Palermo, the small peninsula, where the Castle of Ali Pasha is located, divides the bay into two parts. Porto Palermo is one of the most important cultural monuments in the South of Albania and is an important touristic destination. In the northern part of the bay is located the military base, which is one of the reasons for the preservation of the area from illegal construction.

In addition, the presence of abandoned military buildings, damages the landscape value of the park and Ali Pasha Castle. The archeological area, which includes the Castle and the Church of "St. Kollit", despite the interventions carried out in recent years still needs investment to acknowledge the importance it deserves for the historical and cultural values it carries.

### Assessment of Institutional Framework

MTE and NAPA are the main institutions responsible for the management of biodiversity and protected areas in Albania, represented by the Regional Administrations of Protected Areas in the regions. The mission of the NAPA is: "The preservation of nature, biodiversity and PA,

through the implementation of international and national best practices of sustainable use and promotion of their values with the participation of stakeholders."

Other institutions, at central and local level, involved in the conservation and management of PAs are as defined in: Part 1. Description of the marine-coastal protected area, point 1.5. Institutional Structuring.

The Municipality of Himara operates according to the law on "Local governance" (2015). It is responsible for drafting local environmental plans in line with national environmental strategies. It also has the right to undertake any initiative for economic development in the interest of the inhabitants, provided that these activities do not conflict with the strategic policies.

The implementation of the PPV requires a more realistic approach to human resources available to the municipality of Himara. The analysis, on the state of the institutional capacities of the municipality, distinguishes that the limitations with the most significant impact are:

- Lack of specialized capacities and expertise in the extended part of the municipality, which is several times larger than the previous territory of the municipality.
- Lack of institutional experience in dealing with environmental, land management and tourism issues.
- Lack of data and information on the new territory.
- Lack of administrative units with the necessary material base for efficient performance of its work, etc.
- Lack of full specialized capacities in drafting local sector plans.
- The community, non-profit organizations, civil society, business, owners, play an active role in the field of conservation and management of natural resources.

### *Threat Assessment*

The threat assessment in the area of the Municipal Natural Park of "Porto Palermo Bay - Llamani" was developed based on close cooperation with local actors. The assessment of the current situation has been achieved as a result of multidimensional field studies, seminars organized with representatives of the municipality, prefecture, environmental NGOs, fisheries, culture, tourism and other stakeholders.

Also, the threat assessment is based on the analysis of strengths, weaknesses, opportunities and threats (S.W.O.T) in the Municipal Natural Park. This analysis has served to highlight the potentials of the area; to identify aspects that need to be improved or avoided in future management; to determine ecological and socio-economic threats; opportunities for future development, and to create an overview of key priorities in the protected area.

The impacts of coastal development are among the major threats, intensified in recent years. This significant change in coastal demographic growth contributes to landscape degradation; in habitat loss and fragmentation; deterioration of the situation of vulnerable or endangered species; destruction of vegetation, forests and pastures by fires or the introduction of invasive species. Phenomena faced by the protected area.

Coastal urbanization represents the extent of population growth and socio-economic activities with very serious consequences, most of which are strongly related to the tourist use of the territory.

Although, on a small scale, the protected area faces the trend of tourism development both within the territory and in its vicinity, with an increase in the number of land users and natural resources. In the areas of current use for tourism, in the bay of Lllaman and Porto Palermo, there is a lack of waste management systems, sewage and drinking water. Thus, increasing the discharge of waste and untreated wastewater to the coast.

Construction activities are also out of control, especially along the coast, including the uncertainty of property titles. Like along the entire Albanian coast, illegal construction and uncontrolled tourism have also occurred in Porto Palermo, but at a lower pressure, compared to the surrounding areas like Himara. Construction activities along the coast are causing permanent changes, destruction of natural habitats, decrease of habitat size and fragmentation, and landscape deterioration.

Damaged military constructions and fortifications, as well as various waste materials scattered everywhere, represent a concern to the protected area, mainly to Porto Palermo and Panorma peninsula.

The concentration in recent years of tourist investment on the coastal area, is not anticipated or associated with proper infrastructure such as water supply, wastewater sewage, and collection, transportation and hygienic solid waste disposal. These problems have serious consequences for water, land and air pollution, including higher health risks to people, animals and lower life quality. The situation is more urgent in Porto Palermo but also in other areas where reception centers for visitors are built, such as Lllamani and Panorma peninsula.

Tourism activities are a key element in the urban planning of the coastal area (new areas or re-converted areas) affecting the protected area promoting the growth of local economics, but associated with management challenges. Similar facts are observed with former military buildings, cattle cultivation facilities, or the opening of new recreation centers located within the protected area.

Overuse and lack of a rational use of natural resources (fishing, pasture, medicinal herbs, hunting), disturbance and abuse of wildlife, including also their illegal hunting, overfishing and prohibited means and methods, are present in and around the protected area.

Illegal and uncontrolled cut of bushes and Mediterranean vegetation in the protected area is a serious threat to the protected area conservation, although the forests are absent in Porto Palermo-Llamani area. Also, cattle grazing, overpopulation in their types and numbers compared with the pasturing capacity, remain a matter of concern with an adverse impact, causing loss and fragmentation of habitats, and threatening flora and fauna species.

The hills around Porto Palermo-Llamani bay are often purposely burned by shepherds, who believe that burning pastures is the most effective and easiest method to improve them. This is a high constant threat, which may prevent the recovery of natural vegetation, including rare endangered species of national and international importance.

Hunting within the area, under the methods already used, has been one of the main factors causing the reduction of populations of animals and birds in some of the caves of Panorma peninsula, such as wild rabbits (*Lepus europaeus*), fox (*Vulpes vulpes*), turtledoves (*Streptopelia torture*), woodcocks (*Scolopax rusticola*), mountain partridges

(*Alectoris graeca*), field partridges (*Perdix perdix*), wild pigeons (*Columba livia*), several species of wild ducks etc. The behavior of hunters and local community in general is not very friendly in hunting activities.

The presence of marine-culture in a protected area exerts a strong localized environment pressure based on the area development. Porto Palermo bay is suitable for the development of sea marine culture. The bay is protected, relatively deep, and favors its development. Currently, there are three fishery cultivation centers in Palermo bay (marine-culture). Use of food, antibiotics and accumulation of fish excrement can produce a negative impact on water pollution and reduce water quality. Fish cultivation exerts additional pressure on fishery resources and for some fish species it gives an extremely low result, taking into account the volume and size needed to feed the cultivated fish.

Both in Porto Palermo and Llamani, illegal fishing is a serious threat to fish species, crustaceans and other communities of marine and coastal habitats. Illegal fishing situation is still far from being under proper control. Illegal and destructive collection of date mussels (*Lithophaga*) has caused damage to the rocky coasts of Porto Palermo.

The protected area has never had impacts from natural disasters. It may be connected with climate change in the region. Climate change is a well-known threat and should be considered a challenge for the sustainable development at a global level. The Protected Area may be affected

by drought, wildfires, heat waves, reduction of vegetation and water resources. Thus, fauna and flora must adapt to changing conditions, in order to be able to change the ecosystem structure. New unknown species may appear by colonizing and causing the extinction of other species.

It is crucial to take into account the sensitivity of marine and coastal systems and the balance of social, economic and cultural aspects of the traditional groups of interest in this context under pressure, in order to guarantee both the regeneration capacity of these ecosystems and promotion of sustainable practices for the use of renewable resources.

The Protected Area and the sensitivity of its natural and cultural resources is mostly influenced by easy access to perform illegal activities, presence of a favorable infrastructure, strict criteria to business activities for natural resources, and impossibility to control the territory.

## III. PROTECTED AREA MANAGEMENT

### VISION AND OBJECTIVES

**Vision:** The Municipal Natural Park "Porto Palermo- Llamani Bay" is a protected area with important natural and cultural values well managed with a wide participation of local actors, where resources are used sustainably for the development of sustainable tourism.

### Mission

Preservation and protection of natural values, endangered habitats and species as well as landscaping through monitoring, territory management, strengthening cooperation with stakeholders, planning the implementation of the activities and use of natural resources for the benefit of the community, promotion and environmental education.

### FUNCTIONS

**Nature Protection:** Strengthening the administration and management of the protected area through careful planning will ensure increased efficiency of the park management in terms of 4 main functions:

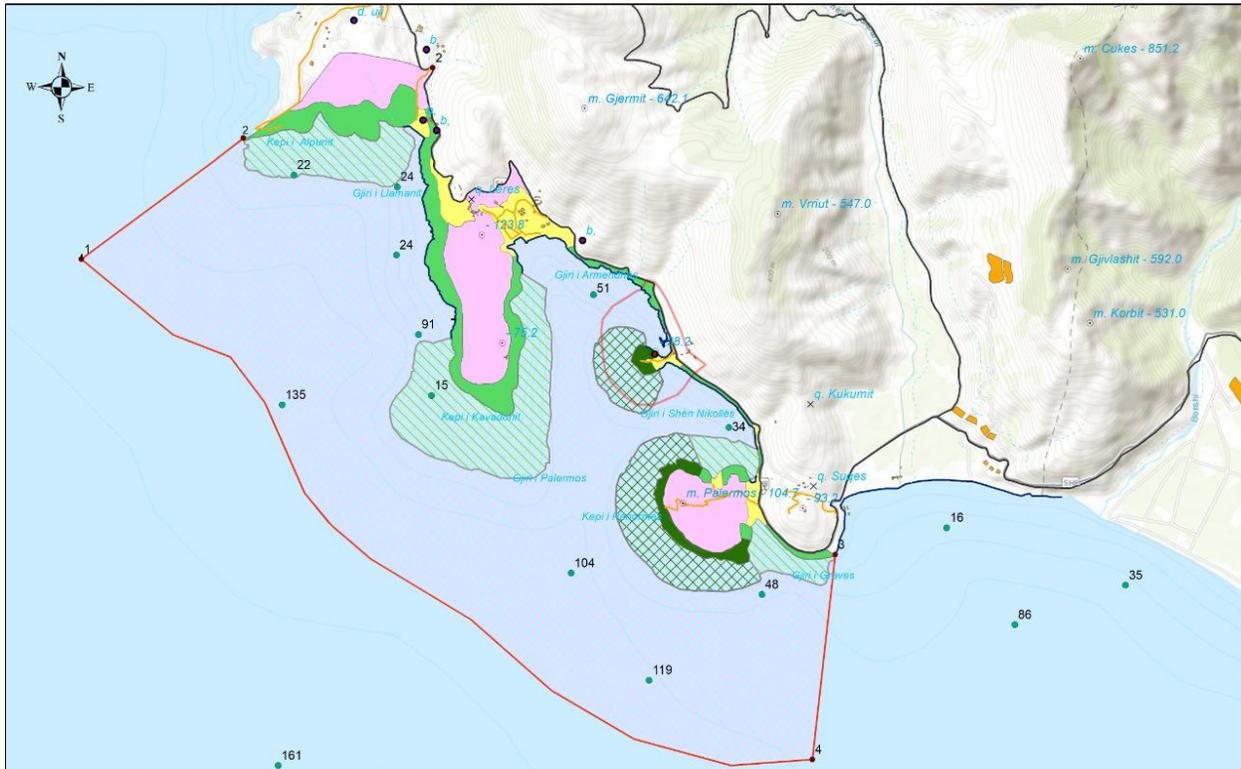
- Tourism
- Cultural function
- Scientific function
- Educational function

### MANAGEMENT AREAS OF THE MUNICIPAL NATURAL PARK "PORTO PALERMO – LLAMANI

The territory zoning approach consists in dividing the territory into well marked areas that differ in the type and intensity of their use according to the objectives for the preservation of the area and ecological values aiming to reach sustainable development. In this context, given the status and category of protection proposed for the natural park, the real conditions of the country, threats and recreational potential of the area, in the area in question will be a simple zoning system which consists of three sub-zones as below:.

- Core Zone with an area of 445.27 ha, where is applied the highest level of protection. This area is divided into two levels of protection, Level A and Level B protection.
- Traditional and Sustainable Use Zone, with an area of 1579.87 ha, where the second level of protection is applied.
- Recreation zone with an area of 42.61 ha, where the third level of protection is applied.

This system is in accordance with the categorization of protected areas and the levels of protection described in the Law no. 81/2017, dated 04.05.2017 "On Protected Areas".



**Zonimi i territorit të PKB Porto Palermo-Llamani**

- Kufiri ZM
- Burime
- Hidrografia
- Vija bregdetare
- Rrugë dytësore
- Rrugë kryesore
- Nënzona Qendrore Niveli A
- Nënzona Qendrore Niveli B
- Nënzona e Rekreacionit
- Nënzona e Përdorimit Tradicional dhe të Qendrueshëm
- Zona arkeologjike-Kalaja e Porto Palermos



MAP 3: Zoning of MNP Porto Palermo-Llamani Bay

### Core Zone

This zone includes the main marine and coastal habitats and important parts of the archaeological area. It is defined as an area with very important values for natural and cultural heritage and the highest level of protection is applied in it. The area covers an area of 445.27 ha and level I of protection is applied.

The area ZM is divided into two levels of protection, Core Zone Level A and Core zone Level B.

**Core Zone Level A**, with an area of 119.44 ha, of which 18.76 ha land and 100.68 ha submarine, lies along the coastal and maritime area of the Porto Palermo peninsula excluding the existing infrastructure, parking lot and church of St. Nicholas the road that leads to the Castle. Also

included are the Southern, Western and Northern parts of the Panorma Peninsula, along with the maritime space.

The land surface is dominated by typical Mediterranean vegetation and some spots of Oak. Marine habitats include low mediolateral rock biocenoses, mainly red algae (*Lithophyllum byssoides*) and seagrass meadows.

Core Zone Level A, aims to preserve the natural and cultural values of the area, biodiversity, landscape, natural and cultural monuments and to minimize disturbances and concerns through careful planning, development of sustainable tourism activities, conducting scientific research and of other activities approved in accordance with the level of protection.

**Activities allowed in this level:** No activities are allowed in the Core Zone level A with the exception of activities that are provided with the approval provided below. In this sub-area it is recommended to use the territory only for scientific research, development of free ecotourism activities in nature and oriented visits of the archeological area.

**Prohibited activities in Core Zone Level A of Protection:** The following activities are prohibited in this area: cutting trees and shrubs, use of chemicals and chemical fertilizers, construction of any kind, extraction of minerals, lighting fires outside certain points, grazing and construction of facilities for their maintenance, movement by motor vehicles of any kind, with the exception of vehicles of the area protection administration and firefighters, anchoring, development of marine culture, maritime traffic, organization of competitions with vehicles and floating vehicles and sports and military activities.

**Activities that require approval:** The following activities can be carried out after the approval of the area administration: Creating conditions for the mooring of vessels, through ecological piers and mooring buoys. Photographing, painting nature, landscape, and species of flora and fauna, only in places designated by the administration. Scientific research and environmental monitoring of this sub-area, with special authorization of the PA administration. Excavations in the archeological area and works for the maintenance of monuments. Navigation according to defined itineraries, boat excursions and diving at certain points according to the permits and rules determined by the administration.

**Core Zone Level B** - The total area is 325.83 hectares, of which 96.99 hectares are land area, and 228.84 hectares are marine areas.

It includes the coastline and sea area along the Cape of Alpun, from Llanan Bay to the Bay of Ameridha, the northern and southern part of the Cape of Kavadarci, at a distance of 200 ml from the shore, as well as parts of the cape of Panorma and the bay of Grava, which are not included in the Core Zone Level A.

The sub-area supports studies and scientific research, monitoring of biodiversity status and sustainable use of natural marine and terrestrial resources. It aims to minimize human impact on the territory, controlling the area and promoting sustainable activities.

**Activities allowed in Core Zone Level B:** In this sub-area it is recommended to use the territory only for scientific research, development of free ecotourism activities in nature and oriented visits to the archeological area and natural areas following the defined paths. No other activity is allowed in the Core Zone Level B except for activities priorly approved by the administration.

**Prohibited activities in Core Zone Level B:** The following activities are prohibited in this area: cutting trees and shrubs, use of chemicals and chemical fertilizers, construction of any kind, extraction of minerals, lighting fires outside certain points, grazing and construction of facilities for their maintenance, movement by motor vehicles of any kind, with the exception of vehicles of the area protection administration and firefighters, anchoring, development of marine culture, maritime traffic, organization of competitions with vehicles and floating vehicles and sports and military activities.

**Activities that require approval:** The following activities can be carried out after the approval of the area administration: Creating conditions for the mooring of vessels, through ecological piers and mooring buoys. Photographing, painting nature, landscape, and species of flora and fauna, only in places designated by the administration. Scientific research and environmental monitoring of this sub-area, with special authorization of the PA administration. Excavations in the archeological area and works for the maintenance of monuments. Navigation according to defined itineraries, boat excursions and diving at certain points according to the permits and rules determined by the administration.

**Activities that require approval:** The following activities can be carried out after the approval of the area administration: Creating conditions for the mooring of boats, through ecological piers and mooring buoys. Photographing, painting nature, landscape, and species of flora and fauna, only in places designated by the administration. Scientific research and environmental monitoring of this sub-area, with special authorization of the PA administration. Excavations in the archeological area and works for the maintenance of monuments. Navigation according to defined itineraries, boat excursions and diving at certain points according to the permits and rules determined by the administration.

### Traditional and Sustainable Use Sub-area

The total area is 1,579.87 hectares, of which 157.00 hectares is land area and 1,422.87 hectares is marine area.

The land area of this sub-zone constitutes the largest part of the park, the upper part of the Alaup cape, the Llanan beach, the central part of the cape of Kavador, Panorma, Spinaris and the slopes along the highway, which are not included in the areas other. Also included is the entire marine water surface in the entire territory remaining from the CZ, Level A and B and RZ.

The land surface is dominated by landscape areas, with combinations of typical Mediterranean and Rryelli vegetation. As in the whole area of the park in the coastal and rocky areas, the presence of endemic species such as *Limonium himarense* and *Brasica sp.*

The terrestrial surface is dominated by thermo-Mediterranean vegetation and pre-desert. Marine habitats include biocenoses of low mediolitoral rocks, inflittoral algae caves and seagrass meadows.

This area aims to harmonize human interaction with nature by promoting the development of traditional and sustainable economic and social activities and to promote appropriate forms of tourism development.

**Activities allowed in this sub-division area:** Activities that can take place freely in this area, without prior authorization include sailing, hiking, swimming, beach, development of non-motor water sports, camping, sports activities, anchoring, mooring, kayaking, in compliance with regulations determined by the administration. Grazing, keeping pets and use of private properties according to the category of area.

**Prohibited activities in this sub-division area:** The following activities are prohibited in this area: changing the natural state of water reserves, depositing chemicals, moving and parking vehicles off public roads and designated parking places, intensive collection of plants, minerals, paleontological finds and stones, cutting of trees and bushes, extraction of minerals, lighting fires outside certain points, development of intensive marine culture, maritime traffic, organization of military activities

**Activities that require approval:** The following activities can be carried out after the approval of the area administration: Artisanal and sport fishing, creation of conditions for anchoring of vessels, construction of infrastructure, scientific research and environmental monitoring of this sub-area, maintenance interventions infrastructure, water sports.

### Recreation Zone

Total land area is 42.61 hectares.

Includes areas that are currently used for the development of tourist activities, such as the Bay of Llanan, Ameridhe, St. Nicholas, Glava and the sub-administrative area of the army. This area also includes the parking of the archeological area.

In this area is applied the third level of protection where the recreation touristic activities and recreation for the purpose of entertainment and which does not alienate the surface of the sub-zone for other economic purposes.

**Activities allowed in this sub-division area:** Activities that can take place freely in this area, without prior authorization include sailing, hiking, swimming, beach, development of non-motor water sports, camping, sports activities, anchoring, mooring, kayaking, in compliance with regulations determined by the administration. Grazing, keeping pets and use of private properties according to the category of area and defined leisure and tourist functions.

**Prohibited activities in this sub-division area:** The following activities are prohibited in this area: changing the natural state of water reserves, depositing chemicals, moving and parking vehicles off public roads and designated parking places, intensive collection of plants, minerals, paleontological finds and stones, placement of stands, data boards, advertisements, signs and posters, except those that provide information on park protection objectives, alpine climbing, camping and lighting fires outside certain points and paths, cutting down trees and shrubs, the development of marine intensive culture.

**Activities that require approval:** The following activities can be carried out after the approval of the area administration include: creating conditions for the mooring of vessels, construction of infrastructure, infrastructure maintenance interventions.

Zoning and areas in the Natural Park are given in Table 4.

Table 2: Zoning of the Municipality Natural Park

Zones	Area (ha)	% Total
Central Zone	445.27	21.54
Traditional and Sustainable Use Sub-area	1579.87	76.41
Recreation Zone	42.61	2.06
<b>Total</b>	<b>2067.75</b>	<b>100</b>

## MANAGEMENT OBJECTIVES

Table 3: Themes and Management Objectives

### THEME 1: MANAGEMENT, ADMINISTRATION AND SUSTAINABILITY

**PURPOSE:** To ensure effective and sustainable management of the area through capacity building, providing the necessary human and financial resources, improving communication and cooperation with stakeholders and organizing the structure for the management of Blue LAND.

## OBJECTIVES:

1. Proclaiming the BLUE LAND Status
2. Approval of the management plan
3. Establishment of the sector of Protected Areas in the Municipality of Himara.
4. Establish the patrolling system of the PA
5. Establishment of the management committee for the PA.
6. Increasing human resources and the level of knowledge and skills needed to manage the park.
7. Improving communication and cooperation with local residents and local authorities, through involvement in decision-making for the sustainable use and preserve the biological diversity and natural landscape of the protected area.
8. Ensuring and managing the use of the area to ensure the physical and spiritual well-being of visitors, in the framework of the co-operation of nature protection objectives with the development of various types of ecotourism activities.
9. Improve cooperation between local and central stakeholders and the park management structure.

## THEME 2: PRESERVATION OF NATURAL AND CULTURAL VALUES

**PURPOSE:** Preservation and protection of biodiversity, natural landscape, endangered habitats and species which carry and present important natural values.

## OBJECTIVES:

1. Preservation of natural and cultural landscape values during the period of implementation of the management plan.
2. Reducing degradation and maintaining the size and status of *Posidonia* meadows during the management plan time frame (10 years)
3. Maintaining the favorable status of endangered and protected marine species and ensuring the safe passage of charismatic species (sea turtles, Mediterranean seals and dolphins) during the management plan time frame (10 years).
4. Avoiding degradation and maintaining the size and status of *Limonium himarensis* and *Euphorbia dendroides* during the management plan time frame (10 years).
5. Development of sustainable practices for the management and promotion of the natural values of the protected area.
6. Encouraging and regulating the development of scientific research related to the goals of protected area management.

## THEME 3: AWARENESS AND EDUCATION

**PURPOSE:** Raise awareness and improve knowledge towards the importance of nature conservation and sustainable use of natural resources

**OBJECTIVES:**

1. Raising awareness of the visitors and the general public about the values and peculiarities of the protected area.
2. Educate stakeholders on issues related to their contribution to improving natural park management.
3. Promotion of outdoor activities in order to recognize and present the values of the protected area.
4. Promoting partnerships with academic institutions for the development of activities based on natural education.
5. Establishment and functioning of the visitor center as a station in the park for the dissemination of information on tourism and nature in the park.

**THEME 4: PROMOTION OF THE AREA AND THE RETURN OF THE PARK TO AN ECOTOURISTIC DESTINATION**

**PURPOSE:** Creating conditions for the development of sustainable tourism to ensure the prudent use of natural resources in the area.

**OBJECTIVES:**

1. Improving the visitor experience by promoting and encouraging the development of infrastructure in function of ecotourism.
2. Diversification of outdoor activities to orient the tourist flow and facilitate the impact in the most frequented areas.
3. Adherence to environmental standards for activities allowed in the area.
4. Promotion and development of ecotourism, health and cultural activities in the area.

Table 4: Management actions for management, administration and sustainability

MANAGEMENT ACTIONS	RESPONSIBLE INSTITUTION	TIMEFRAME	MANAGEMENT SUBZONE	INDICATORS
<b>Theme 1: MANAGEMENT, ADMINISTRATION AND SUSTAINABILITY</b>				
Approval of the management plan of the Municipality Natural Park	Municipal Council MTE / NAPA	2020-2021	PA	Approval of the management plan, approval by the Minister of Tourism and Environment.
Drafting and implementation of actions for the recognition of legal provisions, regarding the administration, management and sustainable use of natural and cultural resources of the PA.	PA Sector, Municipality of Himara, NAPA, IKMT, FI	Every year	PA	Law Enforcement, reduction of cases of penal and administrative offenses.
Recognition and implementation of the management plan of "Porto Palermo Bay - Llamani".	PA Sector on the Municipality of Himara NAPA\RAPA Vlore	Every year	PA	Increase the performance of PA management.
Establishment of PA sector, in municipalities. Hiring dedicated staff and delegating functions to current structures.	Municipality of Himara NAPA\RAPA Vlore	2021-2022	PA	Determining the structure and functions of the proposed staff.

Capacity building and strengthening of inter-institutional cooperation between the Municipality, RAPA and responsible management institutions and other local stakeholders.	PA Sector on the Municipality of Himara NAPA\RAPA Vlore	Every year	PA	Involvement of stakeholders in the process of consolidating the management and use of natural resources.
Staff training on PA management, information and data management for maritime and coastal systems.	Municipality of Himara NAPA Scientific institutions	Every year	PA	Periodic trainings participation for PA staff.
Training of local stakeholders for management, PA activities and their responsibilities.	PA Sector on the Municipality of Himara, NAPA	Every year	PA	Consolidation of knowledge and responsibilities for the implementation of activities in the PA.
Field delineation of PA boundaries.	Municipality of Himara	2021 -2022	PA	Placing signs for the land borders of PA.
Preparation and implementation of a regulation for PA management, functions and responsibilities of the PA sector in the municipality as well	Municipality of Himara NAPA\RAPA Vlore	2022	PA	Defining the duties, responsibilities and rights of the staff in their work. Visitor entry rules
Control of social, economic, touristic and service activities, within the territory of the PA.	Municipality of Himara RAPA Vlore, NITP	2021 –in progress	PA	Control in the sub-zones for all socio-economic activities.
Providing offices, tools and logistics for the administration and their maintenance (staff building, office equipment and furniture, PC, printer, photocopier, scanner, uniform, car, binoculars, camera, telescope)	Municipality of Himara Donors	2020- in progress	PA	Equipping with the necessary tools for the realization of the activities defined in the management plan.

Establishment of the MNP Management Committee	Municipality of Himara NAPA\RAPA Vlore	2021	PA	Involvement of structures with responsibilities in the territory. Representation of communities
Establishment of the Porto Palermo-Llamani Local Action Group	Municipality of Himara NAPA\RAPA Vlore	2021	PA	Involvement of representatives of local stakeholders and local community

Table 5: Management actions for the preservation of natural values

MANAGEMENT ACTIONS	RESPONSIBLE INSTITUTION	TIMEFRAME	MANAGEMENT SUBZONE	INDICATORS
<b>Theme 2: PRESERVATION OF NATURAL AND CULTURAL VALUES</b>				
Develop action plans for the conservation and rehabilitation of natural habitats.	Municipality of Himara; NAPA Scientific institutions	2022-2030 in progress	PA	Preparation of action plans for the main habitats of the area.
Identification and compilation of lists of components of biodiversity, habitat types and endangered species, according to their protection status.	Municipality of Himara; NAPA Scientific institutions	2021 in progress	PA	Provide lists with complete data on species, habitat types and creation of PA database. Updating them.
Surveillance, monitoring of illegal activities and informative inspection.	RAPA Vlore, Municipality of Himara Police Coast Guard Fisheries Inspectorate	Continually	PA	Periodic surveillance reports.
Provide new financial mechanisms for investments for the rehabilitation of the protected area. Implement the "Polluter pays" principle and involve various donors.	Municipality of Himara	2021-in progress	PA	Improving the nature and landscape of the protected area.
Develop monitoring programs to identify and evaluate the effectiveness of the implemented of the	Municipality of Himara; NAPA Scientific institutions	2020-2025	PA	Improving of the protected area conditions

management plan and improve the condition of the protected area.				
Study and evaluation of activities that have negative effects on the protected area, on species or habitats, determination of measures to ensure a favorable living condition for the preservation of the protected area.	Municipality of Himara; NAPA Scientific institutions	2020-2022	PA	Provide a list of measures to improve the conservation status of protected areas and habitats.
Identify and monitor the impacts of climate change on MNP	Municipality of Himara; NAPA Scientific institutions	2025-2030	PA	Recognize the monitoring of impacts in the PA.
Installation and use of anchoring Buoys	Municipality of Himara; NAPA\ MTE	2021	TSUZ/RZ	Number of vehicles using this infrastructure
Determining the measuring indicators and the main parameters for monitoring the environmental situation of the PA.	Municipality of Himara; NAPA\RAPA Vlore\Administrate Scientific institutions	2020-2021	PA	Improving the status of the natural environment.
Inventory of forest and pasture areas in PA. Reforestation of damaged areas.	Municipality of Himara;	2023	PA Inland zone	Continuous updating of cadastral information and monitoring
Socio-economic study on fisheries and ongoing monitoring	Municipality of Himara; RAPA Vlore Donors	2023	PA Marine zone	
Study, identification and	Municipality of	Every year	PA	Increase the implementation



<p>evaluation of the effectiveness of protection and management measures, implementation of the management plan and improvement of the protection status of the protected area.</p>	<p>Himara; NAPA\RAPA Vlore\Administrate Scientific institutions</p>	<p>performance of the management plan.</p>
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Table 6: Management actions for awareness and education

MANAGEMENT ACTIONS	RESPONSIBLE INSTITUTION	TIMEFRAME	MANAGEMENT ZONE	INDICATORS
<b>Theme 3: AWARENESS AND EDUCATION</b>				
Promoting research and any scientific activity that ensures the recognition of the values, the form of management of the protected area, its sustainable use, the management of the protected area, the habitats and protected species	NAPA\RAPA Vlore\Administrate Scientific institutions	Every year	PA	Studies and assessments of natural ecosystems.
Drafting education-awareness program for the publicity of the PA, recognition of ecological, natural, traditional and cultural values, of biodiversity and landscape, borders, rules of management, permitted and prohibited activities and rules to be applied by subjects and visitors.	PA Sector in the Municipality NGOs	2020	PA	Provide education and awareness program.
Improving the process of public awareness, understanding, evaluation of PA environments and the potential impact of human activities on these environments.	PA Sector in Municipality, NGOs, Media	Every year	PA	Assess the potential of the protected area for the sustainable development of human activities.
Support to environmental NGOs and local associations to undertake awareness-raising activities.	PA Sector in Municipality, NGOs, Media	Every year	PA	Increase the participation of the community, NGOs, and the private sector in the good management of natural and cultural resources.

Organizing training seminars and classes on the sustainable use of natural and cultural assets.	Municipality, NGOs	Every year	PA	Providing knowledge and capacity building for PA management.
Preparation of brochures, leaflets, advertising spots, promotional material with the logo of PA, for natural and cultural values.	PA Sector in Municipality, NGOs, Privat sector	Every year	PA	Providing various advertising, awareness materials for PA.
Public information on the values of the protected area, species and scientific knowledge that can be gained from the point of view of nature conservation, biodiversity and other perspectives.	Municipality, NGOs	Every year	PA	Increase transparency in the implementation of the management plan, the rational use of natural and cultural resources.
Encourage the participation of the public, NGOs, schools, mass media, business and individuals, to take the necessary steps for protection and sustainable development of PAs.	Municipality, NGOs	Every year	PA	Development of concrete activities with the participation of stakeholders.

Table 7: Management actions for the promotion of the area and turning the park into ecotourism destination

MANAGEMENT ACTIONS	RESPONSIBLE INSTITUTION	TIMEFRAME	MANAGEMENT ZONE	INDICATORS
<b>Theme 4: PROMOTION OF THE AREA AND TURNING THE PARK INTO ECOTOURISM DESTINATION</b>				
Placement of explanatory and informative boards, for the promotion of the natural and cultural values of the area.	Municipality Private sector	2022	PA	Providing information and promoting the natural and cultural values of the area.
Proposing and implementing environmental itineraries that promote the natural, scientific and cultural values of the protected area.	Municipality Private sector	2020-2030	PA	Proposing and creating natural paths. Completion with auxiliary and informative infrastructure in function of the path.
Defining key areas for landscape surveillance and setting up protected area observation points.	Municipality Private sector	2022-2026	PA	Creation of an observation structure.
Promotion and development of ecotourism, health and cultural activities, through the support of the private sector and the community, without compromising the vision and objectives of the PA.	Municipality Private sector	Every year	PA	Increasing the improvement of services, quality of life of residents and visitors.
Defining the areas of eco-touristic activities, camping, service points and development of sports activities in PA.	Private sector	2020-2025	PA	Project ideas for creating facilities and services that meet the needs of visitors and generate income for the community.
Repair of the pier in Porto Palermo and placement of touristic and fishing boats	External Budget	2025	RZ/TSUZ	Number of moorings
Repair of the access road to the Castle of Porto Palermo	Municipality	2022	RZ	Improving the visitor experience.

Arranging two parking lots in the areas most frequented by visitors.	Municipality	2023-2025	RZ	Number of secured parking spaces
Placement and maintenance of waste separation containers at the PA.	Municipality Private sector	2021 – in progress	PA	Clean area from waste
Preparation of natural guides / eco-guides suitable for different groups and inclusion in the package of outdoor activities of the surrounding areas.	Municipality Tour operators NGOs	2021 –in progress	RZ/TSUZ	Provide information and increase visitor management performance.
Establishment and implementation of an infopoint in function of PA.	Municipality	2025	PA	Info-point functioning

#### IV. FINANCIAL PLAN

The financial plan is based on the management actions set out in the Part 3. This plan also includes needs for human resources.

The financial plan was drafted in accordance with a PA management by state institutions, therefore no operating expenses were included. Depending on the form that will be selected for the administration of the Porto Palermo-Llamani Natural Municipality Park, the financial plan must be adapted.

Funds required for the management of the Porto Palermo-Llamani Bay Municipality Natural Park for the 10-year period of the management plan are estimated at 499,400 Euros, of which expenditures for human resources in the amount of 123,600 Euros and the rest for management actions. The financial plan specified according to the management objectives is defined in the table in table 10 below, detailed by activities in *Annex 11: Financial plan by topics and activities*.

*Table 8: Expenses Table based on Management Themes*

No.	Management theme	Costs in euro
1	Topic 1: Management, Administration and Sustainability	57400
2	Topic 2: Conservation of Natural and Cultural Values	39900
3	Amount 3: Awareness and Education	15000
4	Topic 4: Promoting the Area and Turning the Park into an Ecotourism Destination	263500
	<b>TOTAL BY ACTIVITIES</b>	<b>375800</b>

#### Human Resources Plan

Given the current governance structure of the Municipality and RAPA/NAPA, as well as referring to the management plans, the administration of the protected area for MNP “Porto Palermo - Llamani Bay”, can start with a specialist / technician and an environmental guard (Ranger ).

Additional staff for the management of MNP are proposed within the structure of the Municipality of Himara, with the function of specialist for natural protected areas and the tasks defined in the regulation of the Municipality to include tasks for the management of BNP "Porto

Palermo Bay - Llamani" . As well as a "ranger" employee, who will cover the control of activities in the area, visitor management and environmental education and awareness. The permanent staff will support during the summer with two additional seasonal employees.

Existing functions in the Municipality / RAPA and support functions are not included in the Human Resources Plan. During the 4-month period of the summer season, two seasonal employees are foreseen as a necessity for managing the flow of visitors, for the management of Infopoint, environmental paths and awareness for keeping the Park clean.

*Table 9: Staff estimated cost*

POSITION	NUMBER	SALARY PER MONTH (EURO)	ANNUAL SALARY (EURO)	TOTAL BUDGET (10 YEARS) (EURO)
PA Specialist	1	450	5400	54 000
Permanent Ranger	1	380	4560	45 600
Seasonal Ranger (4 months)	2	300	2400 <sup>7</sup>	24 000
<b>TOTAL</b>	<b>4</b>	<b>1130</b>	<b>12360</b>	<b>123 600</b>

<sup>7</sup> 2 seasonal employees per 4 months

## V. MONITORING AND ASSESSMENT OF MANAGEMENT

The purpose of monitoring the implementation of the Management Plan is to check the effectiveness of the activities carried out and whether they have contributed to the achievement of the set objectives. Monitoring also enables the collection of information through the observation of management impacts, on the basis of which management activities will be adapted. The action plan should be evaluated annually, while an in-depth analysis, in order to consider any new information and opportunities, will be done after 5 years, reviewing the management objectives if the need arises.

Several methods are used in the management monitoring and evaluation process. In our country has been applied "Management Effectiveness Tracking Method (MEET). The use of METT helps managers track progress in implementing certain measures for protected areas, which range from Rapid Assessment to Priority Methodology, under the Convention on Biological Diversity. The method is generally used in cases where it can help monitor progress towards improving management effectiveness.

All PA staff should be aware of the activities needed to monitor the impacts of the Management Plan and collect data and information that will indicate whether the objectives of the Management Plan are being achieved. Based on the results of monitoring the impacts of the Management Plan, regular annual changes to the implementation monitoring program will be recommended. In that way the activities for the next year will be able to adapt to the experience from the realization of the Plan of the previous year or to the changed circumstances and new knowledge.

The Assessment of Management Effectiveness should display the level of enforcement of actions referred to in the management plan, based on the "Implementation" (0= not started, 1= ongoing, 2= completed), based on the group of criteria and indicators, with the involvement of the interested parties and active in the protected area.

On the basis of these periodic assessments, when deemed necessary, amendments to the plan may be made. But these changes should not affect its overall goals and objectives. When deemed necessary, before making changes, a public consultation should be conducted on the proposed interventions in the PM for the next 5 years.

Organization of the assessment and revision is a responsibility of the management plan administrators, who should conduct a precise assessment of the results of actions interfering with the ecological situation within the protected area (achievement of the expected results, adverse effects, unexpected or adverse outcome etc.). Also, the proposals for necessary corrections in the management plan are of paramount importance.

The Table of Monitoring of the Protected Area Management Effectiveness is completed by in-local, foreign and independent experts: Staff of the protected area; Members of the supervisory authorities (MTE and NAPA); Members of the Management Committee; Independent experts.

The team of experts after monitoring, evaluation and completion of the table, expresses the proposals for corrections in the management plan to the competent and decision-making bodies, using as a model the table below:

**Table 17: Table of the effectiveness of the Management of PA Management Plan**

Programme/Objectives/Actions	Indicators	0 = non started, 1 = on going, 2 = completed			Assessment /Correction s/Notes
		Implementation			
		0	1	2	

## VI. REFERENCES

RAC / SPA - UNEP / MAP, 2015. Management Plan for the Natural Park "Porto Palermo Bay - Llamani" in Albania. By Zamir DEDEJ, Genti KROMIDHA and Nihat DRAGOTI. Ed. RAC / SPA - MedMPAnet Project, Tunisia 84p + Annexes.

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Lefter Kashta, Sajmir Beqiraj, Arjan Gaçe, Xhemal Mato "Ecological study of the bay of Porto Palermo and surrounding areas", November 2013

## VII. ANNEXES

*Annex 1:* Habitats of the area according to Nature 2000;

*Annex 2:* Brief description of the legal basis of Management of MNP

*Annex 3:* List of Terrestrial Plant Species recorded in Porto Palermo-Llamani Bay

*Annex 4:* List of terrestrial important plant species in “Porto Palermo – Llamani Bay”

*Annex 5:* Species of seagrass and seaweed in “Porto Palermo-Llamani Bay”

*Annex 6:* List of species recorded in “Porto Palermo -Llamani Bay” with national concerned status, according to the “Red List of Wild Flora and Fauna in Albania”

*Annex 7:* List of international importance marine species located in “Porto Palermo- Llamani Bay”, listed in the most important Conventions

*Annex 8:* List of fish species of economic importance

*Annex 9:* Coordinates of the Porto Palermo – Llamani Bay borders

*Annex 10:* Archeological Protected Areas and Cultural Monuments

*Annex 11:* Financial Plan by topics and activities;