



Natural and Cultural Heritage of the Ohrid Region

Management Plan 2019-2028.



Skopje-Ohrid-Struga Debrca, 2019.

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The methodology for the preparation of the management Plan is based on international standards, in particular to the European principles for protection of cultural heritage and Recommendations of UNESCO, ICCROM and ICOMOS.

1. Foreword

The Convention on Protection of the World Cultural and Natural Heritage of UNESCO (Paris, 1972) is the most comprehensive international instrument for the protection of natural and cultural heritage. Member States, Parties to the Convention for Protection of the World Cultural and Natural Heritage, are required to achieve the highest standard of protection of natural and cultural heritage inscribed on the World Heritage List of UNESCO.

Once an area / site / monument is inscribed on the List of World Heritage List of UNESCO, it is necessary to establish an appropriate management mechanism that would establish a balance between the objectives of conservation, sustainable development and developing changes of the protected good.

"The operating guide for the implementation of the World Heritage Convention" establishes the necessity of making a management Plan for each area / site / monument that is inscribed on the World Heritage List, which will ensure the protection of the outstanding universal value. The Management plans are a central planning tool for protection, usage, conservation and sustainable development of the good, but also protect its authenticity, integrity and transmission to future generations.

The natural and cultural heritage management plan in the Ohrid region will provide a high level of protection of the outstanding universal value of the region. It is the basis for decision-making development of all stakeholders in ensuring a balance between protection of good and its utilization.

In order to ensure synergy between national Plans for managing natural and cultural heritage in the Ohrid region in the preparation of the Plan, extensive consultation was carried out with the stakeholders which included competent authorities and organizations from Albania too.

2. Introduction

2.1. History of protection of the Ohrid region

Until 1912 the Ohrid Lake was protected by the legal regulations of the Ottoman Empire, from 1912 to 1941 with legal regulations of the Kingdom of Yugoslavia. The first solution to protect the lake after the Second World War was adopted in 1944 on the first session of ASNOM. With the Decision. 08-267 in 1963, the Republic Institute for Protection of Cultural Monuments revokes the previous decision and protects the Ohrid lake within the category of Natural Monument.

The Assembly of the Socialist Republic of Macedonia in 1977 adopted the Law on Protection of the Ohrid, Prespa and Dojran lake ("Official Gazette" of RNM "no. 45/77) by which the lake was declared a protected area in the category of "Natural Monument", and an area of 200 km².

Because of the exceptional value and above all because of the high concentration of cultural goods, by Resolution no. 07-57 / 1 from 28.03.1968 the Institute for Protection of Cultural Monuments - Ohrid protects the old urban core of the city Ohrid as a monumental whole with protection measures.

2.2. Statement of outstanding universal value¹

The General Conference in Paris (16 November 1972). UNESCO adopted the Convention for the Protection of the World Cultural and Natural Heritage, which provides **identification, protection, conservation² and presentation of cultural and natural resources with "Outstanding universal value"**³.

The Convention for Protection of the World Cultural and Natural Heritage defines two different types of World Heritage: Cultural and Natural. Combined or mixed goods contain elements of both types of heritage.

After the inscription on the List of World Heritage, the state of play with the protection of goods is followed by the World Heritage Center of UNESCO with its advisory bodies - ICOMOS, IUCN and ICCROM.

The Convention for Protection of the World Cultural and Natural Heritage was ratified by the former Yugoslavia in 1974, and ratified by the Republic of Macedonia by succession in 1997 (with retroactive effect from 1991).

2.3. Outstanding universal value

"Outstanding universal value" of UNESCO's World Heritage is based on three pillars:

1. The area / site / monument is believed / to satisfy at least one of the criteria set out in the Operational Guide for implementation of the World Heritage Convention;
2. The area / site / monument is believed to satisfy the conditions of authenticity and integrity;
3. The area / site / monument is believed to meet the requirements on protection and management of World Heritage;

The Ohrid region possesses outstanding universal value as a combination of natural phenomena with quality and diversity of cultural heritage - tangible and intangible (fig.1).

¹ The Statement of outstanding universal value was adopted at the 39th session of the Committee's World Heritage of UNESCO (Bonn, Germany 2015., Decision 39 COM 8E);

² Conservation activities include research, documentation, treatment and preventive intervention with scientific methods.

³ Outstanding universal value is attributed to the areas that possess natural and cultural values that transcend territorial boundaries and are therefore important for current and future generations of all humanity. For these reasons the permanent protection of this heritage is of the highest importance for the entire international community.

2.4. Criteria for inscription of the Ohrid region on the World Heritage List

The operational guide for the implementation of the World Heritage Convention⁴ among other things, defines the criteria according to which a certain area / site / monument, besides authenticity and integrity, should satisfy highlighting its outstanding universal value, as a condition to be inscribed on the List of World Heritage Sites. Until 2005 six criteria were established for the cultural and four criteria for the natural heritage; in 2005 an integrated set of ten criteria was established, and the area / site / monument which was nominated for inscription on the World Heritage List should meet at least one criterion.

The Ohrid region is inscribed on the World Heritage List because of its **natural values in 1979**, (according to the criterion (iii), that is **now criterion (vii)**). In the recommendations from the evaluation conducted by the IUCN⁵ in 1979 it is indicated that the inscription on the World Heritage List should be based on cultural values. Hence, **in 1980** an extension of the nomination was conducted with additional **criteria for cultural values (i), (iii) and (iv)** and the goods are entered under the name "*Ohrid region with its cultural and historical aspects and its natural environment*"⁶.

Considering the status of the natural and cultural heritage in 2005 one recognized the need to revise the boundaries of the region and change the name under which it is inscribed on the World Heritage List. Followed the proposal of the Ministry of Environment and Space Planning and the Ministry of Culture it received the new name - **Natural and Cultural Heritage of the Ohrid Region** which was adopted at the 30th session of the World Heritage Committee in July 2006, in Vilnius, Lithuania (Decision 30 COM 8B.9). At the 33rd session of the UNESCO's Committee on World Heritage (21 to 30 June 2009., Seville, Spain), and starting from the evaluation reports of ICOMOS and IUCN the proposed modification was accepted with regard to the boundaries of the natural and cultural heritage of the Ohrid region (Decision 33 COM 8B.40).

The Ohrid region is part of the **Transboundary biosphere reserve Ohrid-Prespa**. The nomination of Ohrid-Prespa with regard to the Biosphere Reserve was officially discussed at a meeting of MAB Committee of UNESCO in June 2014 and by unanimous decision of the Committee, the region Ohrid-Prespa was declared a transboundary biosphere reserve⁷.

The entry of natural and cultural heritage in the Ohrid region (which includes the territory of the Republic of North Macedonia) is based on four of the ten criteria for inscription on the World Heritage List:

- **Criterion (i): Cultural good as a masterpiece of the human creative spirit:** the city of Ohrid is among the oldest settlements in Europe. There are well-preserved archaeological sites from the Bronze Age to the Middle Ages, religious architecture of the VII-XIX centuries and authentic urban architecture of XVIII-XIX centuries. These sites and ruins have historical, architectural, cultural and artistic values. Because of the concentration of archaeological sites and urban structures in the old urban center of Ohrid, along the coastline of the Ohrid lake and in the immediate environment, an extraordinary and harmonious ensemble has been created, which makes this region truly unique.
- **Criterion (iii): to possess unique or at least remarkable testimony to the cultural tradition of a particular existing or extinct civilization:** This World Heritage is a testimony of Byzantine art, which is displayed on more than 2.500m² frescoes and more than 800 icons. Churches St. Sofia (XI century), St. Mary Perivlepta (XIII century) and St. Jovan Kaneo (XIV century) present a high level of artistic and

⁴ <https://whc.unesco.org/en/guidelines/>

⁵ International Union for Conservation of Nature (International Union for Conservation of Nature (IUCN));

⁶ 4th session of World Heritage Committee - Paris 1980 (CONF 016 V.13);

⁷ 26th session of the International Coordination Council for the MAB program, Jonkoping, Sweden in 2014 (SC-14 / CONF.226 / 8 / REV);

achievements in frescoes and theological presentations which are made of domestic and foreign artists. The aesthetic values of the religious architecture, frescoes and icons contributed this region to become a significant religious and cultural center throughout the centuries.

- *Criterion (iv): to represent an outstanding example of building, architectural or technological ensemble or landscape which reflects significant eras of human history:*

In the city of Ohrid the oldest Slav monastery was erected as well as the first Slav University in the Balkans which has contributed to the development and spread of education and culture in the old Slavic world. The old city core of Ohrid (whose ancient name is Lihnidos) is the only preserved authentic urban whole with architectural planning solutions - forum, public, residential and sacral buildings with the necessary infrastructure, which by its harmonious setting fit in the coastline and the surrounding terrain. Early Christian art from IV to VI century, with spacious basilica and mosaic floors, where Byzantine art complements (IX-XIV century), with many preserved religious buildings of various types, interior richly decorated with frescoes, icons and church mobiliar, representing a particular highlight/marking of the period of its creation. A special place in the architectural heritage of Ohrid occupies the old architecture, especially for the fact that here is preserved the typical appearance of oriental city house from XVIII and XIX century which has developed into a genuine local variant. The limited space for building dictated the formation of very narrow streets.

- *Criterion (vii): contains superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance: the Ohrid lake which dates from pre-glacial period is an extraordinary natural phenomenon. As a result of its geographical isolation and continuous biological activity, the Ohrid lake represents the habitat of numerous endemic and relict species of freshwater flora and fauna. In oligotrophic waters of the Ohrid Lake live over 200 endemic species - benthic flora and fauna, especially algae, diatoms, worms, snails and other species and 17 endemic species of fish. In the Ohrid region 87 species of birds are also found.*

2.5. Integrity

Despite minor changes made at the border in 2009, not all the elements were covered that determine the exceptional universal value of the region, because only two-thirds of the lake were protected in the Republic of North Macedonia and only one part of the lake's basin.

In February 2018 Albania submitted the nomination file to expand the boundaries and inscribe the part of the Ohrid region that extends to the territory of Albania on the List of World Heritage by UNESCO. The Albanian part of the Ohrid lake includes important areas such as the area of the peninsula Lin and Lin village, the landscape in northern Lin, where the ancient settlements of Illyrians, and the springs Drilon are located. In July 2019, the Committee for the World Heritage of UNESCO has accepted the expansion of the boundaries of the good at the territory of Albania too, thus satisfying a major component of the exceptional universal value, that is to preserve the integrity of the oldest and richest in biodiversity lake in Europe (Decision 43SOM 8V.9);

Main threats to the integrity of the good is the uncoordinated urban development, population growth, inadequate wastewater treatment and solid waste and pressures from tourism. In addition, water quality is threatened by pollution caused by traffic.

The integrity of the good was somewhat impaired when several houses built in the XIX century were demolished to present the excavated remains of the Roman theater. The overall density of the good, that is the compactness of the facilities in the area can easily be broken if the construction of new buildings is not controlled properly.

2.6. Authenticity

The long historical continuity of this region, characterized by cultural exchanges between East and West, has formed a distinctive identity on this small territory.

The city is relatively well preserved, but the uncontrolled urbanization negatively affects the values: the shape of the monumental ensemble, coastline and scenery. These values are endangered because of the potential impacts of infrastructure projects and other interventions in space.

Major reconstruction and conservation work on some of the religious buildings have been implemented in 1990 and are thoroughly researched and documented. However, it may be noticed that some of these activities are negatively affecting the authenticity of the good. The icons and frescoes held in churches are in good condition.

Some buildings intended for housing are reused and its interior has been modified to improve living conditions. During the reconstruction of objects commonly the most used materials are the authentic original ones which were used during the construction, but occasionally new materials have been used, which pose a threat to the authenticity of the good.

2.7. Limits of the good

In the nomination record of 1979 the limits of the protected area were not clearly defined. For these reasons in 2009, realizing the real situation, new identification of the boundaries of the protected area was conducted and the same is accepted by the World Heritage Committee in Seville, Spain (Decision 33 COM 8B.40).

The boundaries of the Ohrid region in which the natural and cultural heritage lies stretch as follows: It starts from the border crossing at St. Naum of which extends to the east and northeast on the border line between the Republic of North Macedonia and the Republic of Albania up to the border pillar F 11 I / . Hence the boundary turns north, debouching on an altitude of 1,102 m on Old Galicica Mountain, from where it ascends to greater altitude, then descending along the dry ravine that ends in the region of Lipova Livada at an altitude of 1.568 m. From here the boundary turns in eastern direction and leads on the asphalt road up to the region of Dolna Plos, where it changes direction northwards climbing to the top Tomoros – trigonometrical point with elevation of 1,673 m. From onwards the boundary keeps the same direction and leads up on the hillsides Preseka - trigonometrical point with 1.633 m elevation, Tumba – trigonometrical point with elevation 1,605 m, Shagon – trigonometrical point with elevation of 1,622 meters, Samar - 1.657 m elevation, Crven Kamen – trigonometrical point with elevation 1,660 meters, Garvanov Kamen, Samernica – trigonometrical point with elevation 1,346 meters Bajchinov Rid – trigonometrical point with elevation 1,380 m, which cuts the road Ohrid - Resen and protruding over the hill Prchishta – trigonometrical point with elevation 1,184 meters, then leading to Stogovo – trigonometrical point with elevation 1,327 meters and Kalipadinje - elevation 1,372 m. Hence the border continues to stretch into northern direction and descends the height point with elevation of 1,268 meters, passing through the hill of Nikotinec – elevation of 1,131 meters, from where it descends in the region of Privja Voda - elevation 899 m. From here the boundary changes its direction and extends to the northwest climbing on the hill Gradiste – trigonometrical point with elevation 1,086 m. From here the

border descends and passes through the southern parts of Debarca, then through the hill Gorica – trigonometrical point with the elevation of 877 meters, intersecting Sateska River and passing through the region of Gorna Tumba and elevation of 1,270 m, then going across the hill Kodra Mare – trigonometrical point with elevation 1,436 m and height point with elevation of 1522 m, descending to the region of Grikovec, passing through the village of Tosca and protruding on height point of 971 m. From here the boundary changes direction toward the south, intersecting the Black Drin River, passing through Suvo Pole, then across the trigonometrical point 754 m and 714 m, intersecting the hill Dolna Krasta and also intersecting the road along village Vranishta - v. Oktisi passes through the height point of 752 meters altitude and across eastern parts of Sinje Brdo, passing through the height point of 864 m, intersecting the road along Struga – to the v. Vishni, passing through elevation of 1,026 meters, then across the regions of Bango and Conga, the height point 1.165 m, trigonometrical points 1.144. (Karalishte), 1,103 meters (Krasje) and 1,179 meters and breaking at the border crossing Qafa San of the Macedonian-Albanian border. Hence, the boundary changes direction towards the east and in length of 2, 2 km leads to the shore of the Ohrid Lake on the border towards Albania, then running through the Ohrid Lake so as to finish at the border crossing at St. Naum. (Appendix-Map with borderlines)

The area of the natural and cultural heritage of the Ohrid region amounts 833.5 km².

It should be noted that with the cross-border expansion of the natural and cultural heritage, covering Albania's part of Ohrid lake 11,378.6 ha of area have been added.

2.8. Contact area

In the period when the natural and cultural heritage was inscribed on the List of World Heritage in 1979/1980, it covered the wider region around the Ohrid lake, but it was not offered a contact zone. UNESCO recommends that any area / site / monument of world importance should have a contact zone defined around the natural and cultural heritage so as to provide its better protection. The Contact zone should provide additional protection for the outstanding universal value, authenticity and integrity of the heritage. Within the contact zone, complementary legal protection is being established that provides adequate prohibitions regarding the manner of land use, urbanization and the development of infrastructure projects, in order to provide additional protection for the natural and cultural heritage⁸.

The contact area includes the immediate surrounding of the heritage, so as to protect the line of sight from and to the natural and cultural heritage, to reduce the negative impacts of its outstanding universal value and to include areas that are functionally related to protected areas. It represents an integral part of the system that the state and the institutions have established for appropriate protection and management of the protected heritage.

The need to establish a contact zone was noted in the Report of the Reactive Monitoring Mission (2017.), with a recommendation to include the Prespa Lake too⁹.

During the development of the natural and cultural heritage management Plan in the Ohrid region analyzes were conducted to determine the alternative boundaries of the contact zone. In doing so, the

⁸ 2017 UNESCO Operational Guidelines, 103-7;

⁹ 20170628_Reactive_Monitoring_mission_report_Ohrid_region.pdf

guidelines of the publication of UNESCO "World Heritage and Contact Zones"¹⁰ were applied that define the need and importance of establishing contact zone.

The determination of the contact zone of protected areas is a relatively new concept in the science of conservation, and access may vary greatly for each location.

2.8.1. Proposed boundaries of the contact zone

Defining the contact zone with protected natural and cultural heritage, especially when it comes to cross-border heritage with mixed values (natural and cultural) is very complex.

Therefore, the management Plan for natural and cultural heritage of the Ohrid region considers three proposals for determining the boundary of the contact zone as follows:

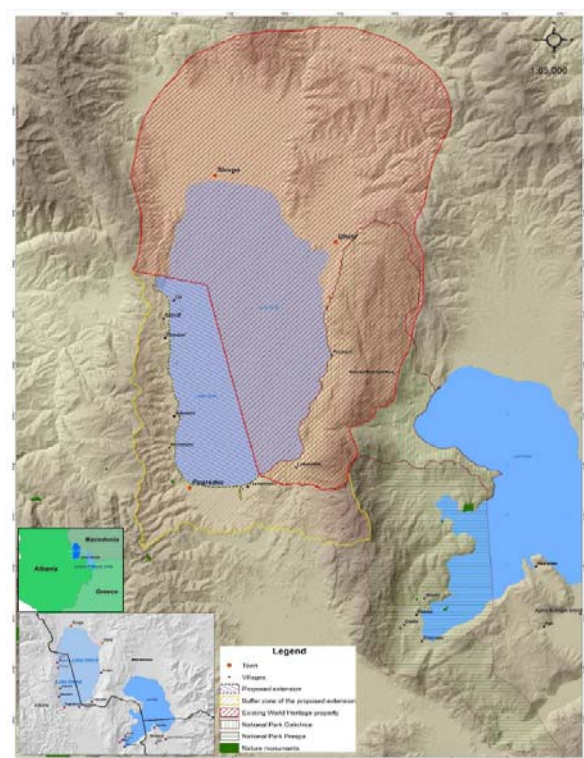
1. Limit of the contact zone which is identical with the boundary of **Transboundary Biosphere Reserve Ohrid-Prespa**;
2. Limit of the contact zone which includes Prespa Lake;
3. Limit the contact area where the main emphasis is given on the integrity of the National Park Galicica.

In determining the boundaries of the contact zone one monitored the linear structure on the field, regardless if they are natural (relief, watercourses, water bodies, etc.) or man-made (road, limit of cadastral parcel, boundary of the area with the same or similar land use etc.).

The reviewed draft-borders of the contact area will be discussed through a broad consultative process. The defined limit of the contact zone, following the adoption by the Committee for World Heritage (procedure regulated by the Operating guide for the implementation of the World Heritage Convention), shall be included in the nomination record. Thus, the new frontier will be described, shall be entered on the cadastral bases, the surface of the contact area shall be identified, the purpose of the land use and other characteristics of the area.

Considering the fact that in July 2019 the part of the Ohrid lake that belongs to Albania is inscribed on the World Heritage List of UNESCO, in considering the alternatives for defining the contact zone, the boundaries of the already defined contact area on the Albanian side have been respected (Fig. 2).

¹⁰"World Heritage and Buffer Zones", UNESCO 2009 (http://whc.unesco.org/documents/publi_wh_papers_25.pdf)

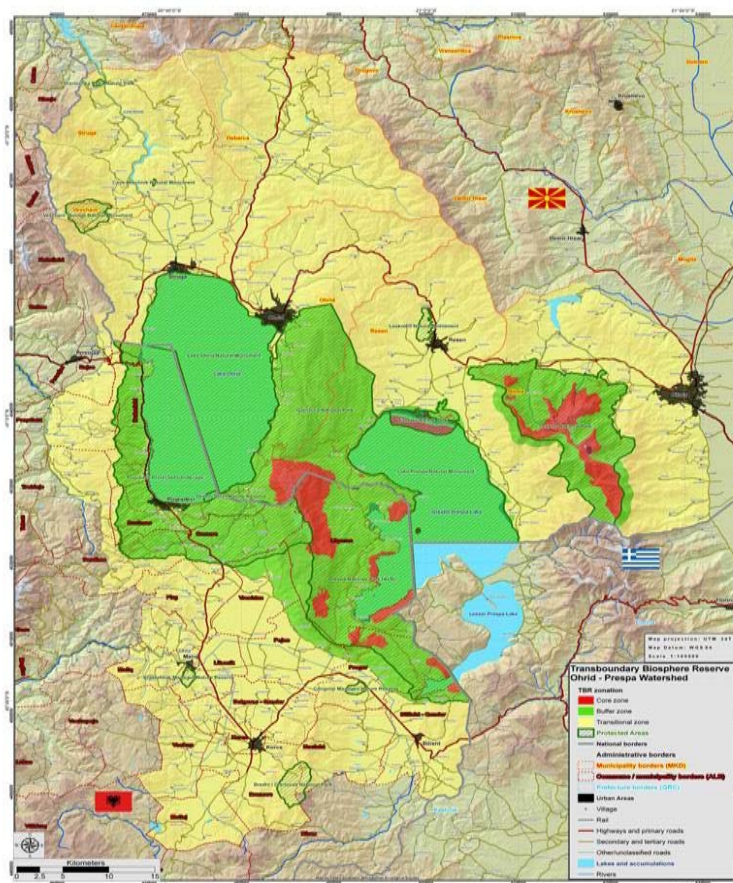


picture1. Borders of transboundary heritage with defined contact zone on the Albanian side

2.8.1.1. Proposal 1: Border of contact zone which is identical to the limit of the transitional zone of the biosphere reserve Ohrid-Prespa

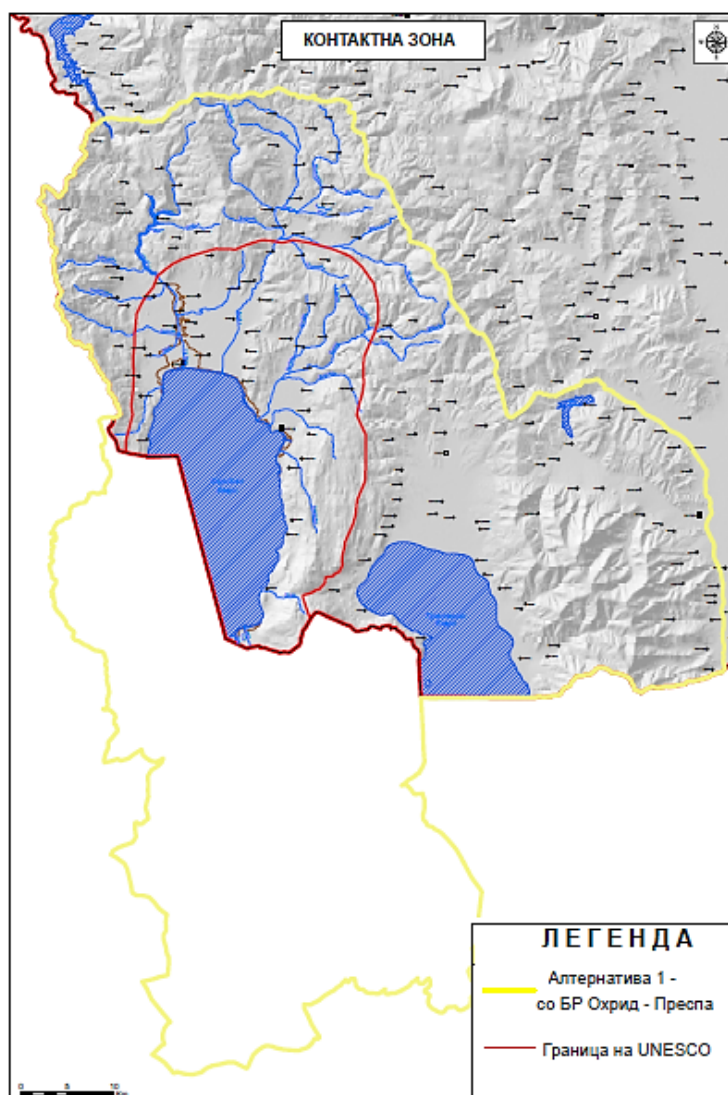
The Transboundary Biosphere Reserve Ohrid-Prespa was designated as natural and cultural heritage in 2014 at the session of the International Committee of UNESCO on the proposal of the Bilateral Commission of the Ohrid Lake and the Ministers of Environment in Albania and North Macedonia. The Biosphere Reserve extends to the territory of the municipalities of Ohrid, Struga, Resen, Bitola, Debarca Vechani, Korca, Pogradec, Bilshit and Malic, Cerave, Dardash, Drenovo, Hichisht, Hudenisht, Bilisht-Kender, Libonik, Liqenas, Bulgarec-Kender, Molaj, Pirgo Buçimas, Pojan, Progrer, Proptisht, Rayche, Trebinje, Vioskop and Vreshtash.

The total area amounts 446,244.52 ha, of which the core zone is 14,339.25 ha and the contact zone amounts 140,479.27 ha (Fig.2).



picture2.Biosphere reserve Ohrid-Prespa

The core zone in the biosphere reserve Ohrid-Prespa refers to strictly protected areas established in protected areas - National Park Galicica, National Park Pelister and Natural Park of nature Ezerani. The contact zone is formed within the zone of active management and sustainable usage, whereas the transitional zone is limited by the administrative boundaries of the municipalities of Ohrid, Struga, Debarca, Resen and Bitola.



picture3.Border of the transitional zone of the biosphere reserve Ohrid-Prespa boundaries of protected areas and the border of the natural and cultural heritage in the Ohrid region

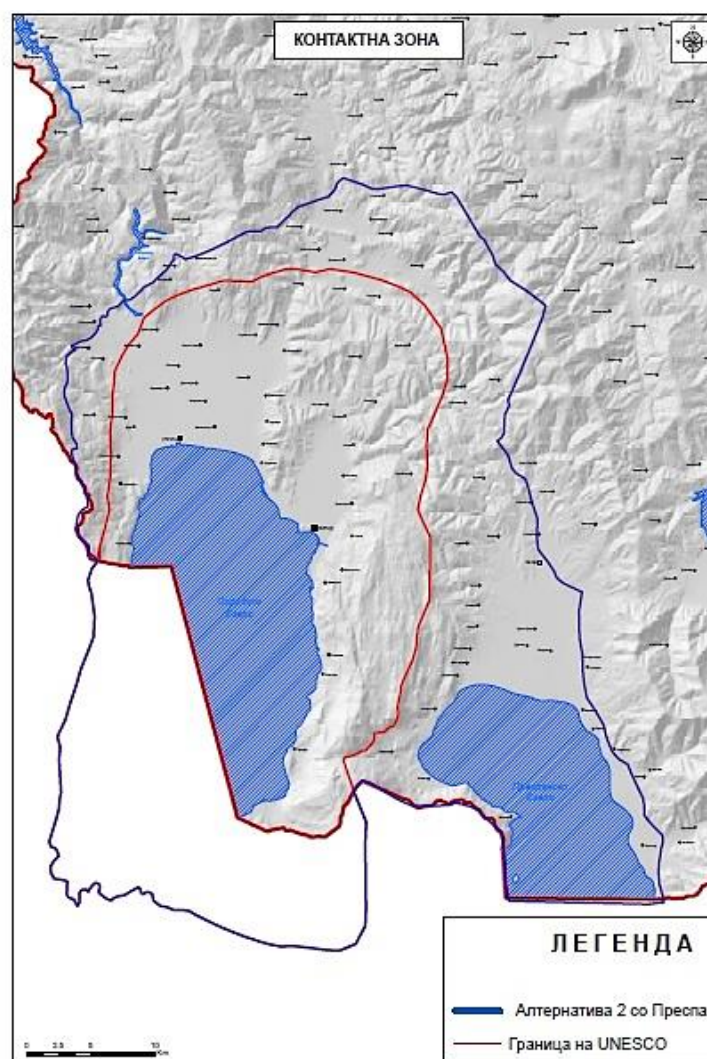
Within the potential limit of the contact zone of the natural and cultural heritage in the Ohrid region that would be identical to the limit of the transitional zone of the biosphere reserve Ohrid-Prespa will include Resen and Bitola and the National Institution “The National Park of Pelister”.

This extension can complicate the existing integrated management model that is based on processes that implement a number of institutions. The established contact zone of Natural and Cultural Heritage of the Ohrid region in the territory of Albania does not follow the boundaries of the transitional area defined by the boundaries. Additionally, the contact zone that is determined by the nomination of the heritage on the Albanian side is smaller than the transitional zone determined by the boundaries of the biosphere reserve Ohrid-Prespa (Fig.3).

For this reason the adoption of the border of the contact zone which is identical to that of the biosphere Park Ohrid-Prespa is not acceptable.

2.8.1.2. Proposal 2: Border of the contact zone which includes Lake Prespa

In order to further protect the heritage (proposal contained in the Report of the Reactive Monitoring Mission of UNESCO since 2017.), a border has been proposed of the contact zone that moves on natural relief forms, and includes areas having the same or similar purpose of usage so as to enhance the functionality of the region. This border is related to the contact zone of the Ohrid lake on the Albanian side.



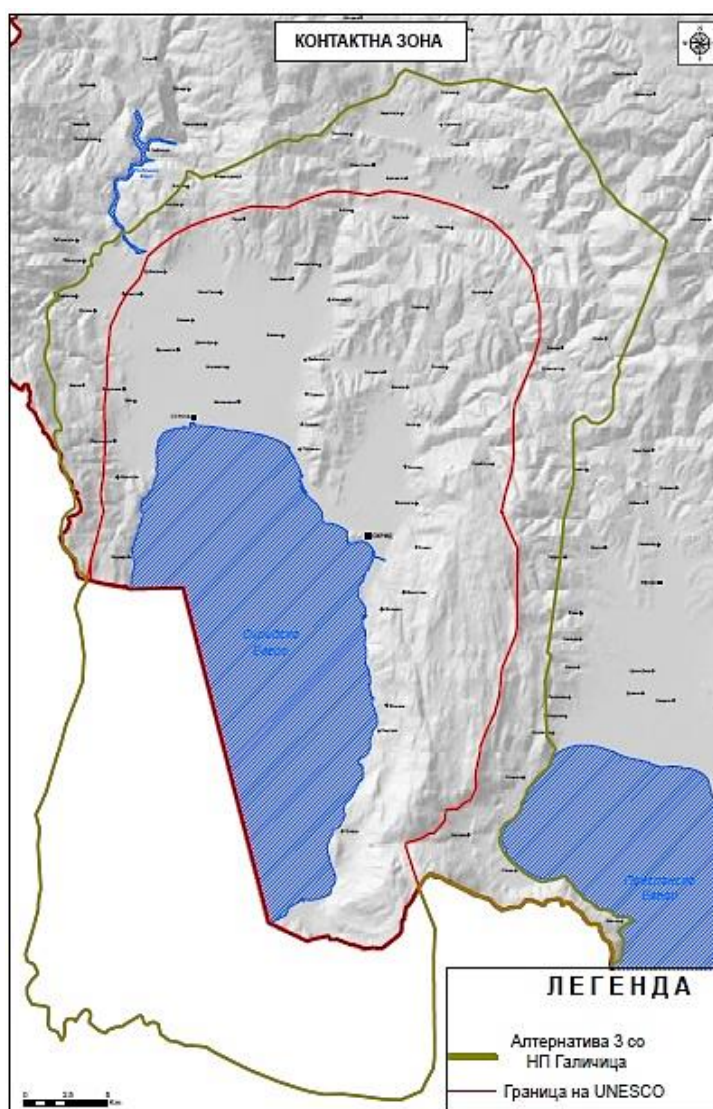
picture4.Border of the natural and cultural heritage in the Ohrid region and a proposal for a contact zone that is smaller than a contact area of the biosphere reserve Ohrid-Prespa and includes the Prespa Lake

By adopting this proposed contact zone the municipality of Resen will be included that again can complicate the existing comprehensive management model.

In terms of the necessary protection that is supposed to provide the contact zone, this proposal has its benefits because with the inclusion of Prespa Lake one recognizes the relationship of this water body with the Ohrid lake. Therefore, this alternative will be rejected and will be discussed during the public consultation on Proposal 3.

2.8.1.3. Proposal 3: Border of the contact zone with the main emphasis on the integrity of the National Park Galicica

This proposed border of the contact area in its opening part is almost identical with the second alternative, but instead of including the Prespa Lake, it descends to the south and moves along the eastern boundary of the National Park Galicica. This border, also follows, the contact zone of the Ohrid lake on the Albanian side.



picture5.Border of natural and cultural heritage in the Ohrid region and a proposal for a contact zone that is smaller than the contact zone of the biosphere reserve Ohrid-Struga but does not include Prespa Lake

Eastern boundary of the National Park Galicica follows the coast line of Prespa Lake. Furthermore, despite the fact that the contact zone does not include the lake, with the inclusion of the coastline that contains karst caverns on the mountain Galicica one can recognize the hydrological connection between Prespa and Ohrid Lake.

The Acceptance of this proposed contact zone does not complicate the existing integrated management model. On the other hand, the boundaries of the heritage are still to be defined because the contact zone includes the entire area of the National Park Galicica, versus the current border that extends along the ridge of the mountain.

3. Values

Ohrid Lake is one of the oldest lakes in Europe, surrounded by ancient roads and settlements that persist throughout history. The natural and cultural history of this special place mingled over time creating exceptional heritage with its own specifics that count as world heritage and as such should be preserved and passed to future generations.

Region of Ohrid Lake

- Ohrid Lake is located at an altitude of 683 m;
- It is surrounded by high mountain ranges to the east and west, reaching an altitude of about 2,250 meters;
- It has a maximum depth of 288.7 m and an average depth of 155 m;
- It is one of the lakes with the largest volume in Europe; It has a total water surface of 358 km², of which about two thirds are located in Macedonia and about a third in Albania;
- The surface of its immediate basin is 1129 km, while the effective area of the basin includes the Prespa Lake due to underground connection throughout the karst;
- Found over 1,400 native species, including 300 species that are endemic to the lake;
- The city of Ohrid is one of the oldest human settlements in Europe; it represents a rare architectural and artistic achievement and a treasure trove of architectural, archaeological, tangible and intangible assets;
- Struga resides on the shores of the lake and the banks of the Black Drin, which as a natural phenomenon flows out of the Lake; It has archaeological findings from the Neolithic, Bronze Age, Macedonian - Hellenistic period, the Roman and early medieval period;
- Coastal settlements (Trpejca, Ohrid Region, Radožda and Kalista) testify to the tradition, rural architecture and represent an exceptional cultural landscape in which the buildings are in harmony with the morphology of the terrain, vegetation and water mirror of the lake.

3.1. Natural values

Lake Ohrid (fig.7) has long been known as a superlative natural phenomenon. With geological and biological history of 2-5 million years ago, it is known as the oldest natural lake in Europe and one of the oldest lakes in the world. The basin of the lake supports equally rich and important biodiversity and many endemic species. From a scientific point of view, this aquatic ecosystem is among the most important aquatic ecosystems such as the Lake Baikal and Tanganyika.

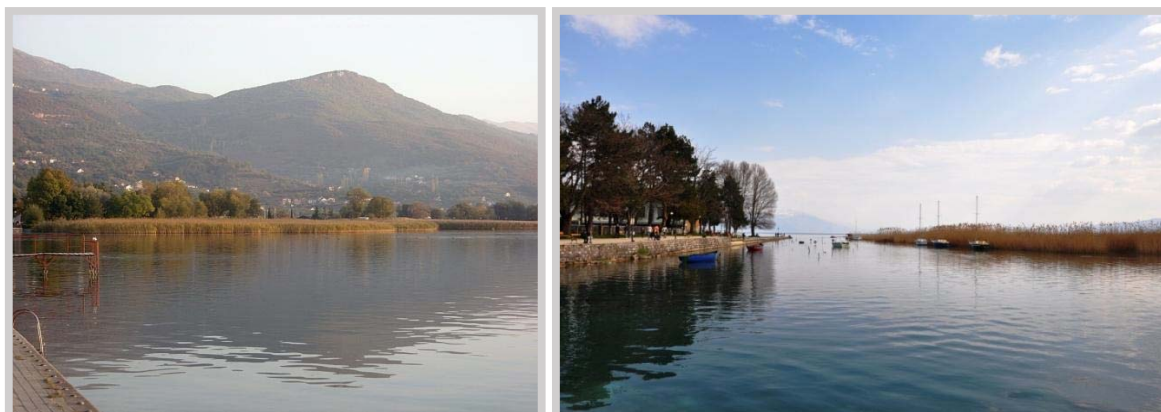


Figure 6 Ohrid Lake

This superlative natural phenomenon is characterized by the following outstanding universal value:

- With the largest average depth of 155 meters the Ohrid lake is the deepest lake not only in the Balkans but also in Europe, and fourteenth in the world.
- It represents the last remnant of an ancient Top regions of the Euro-Asian continent before Ice Age and according to its geological and biological history is among the oldest lakes in Europe.
- It represents an extreme hotspot of biodiversity of global importance. With 212 endemic species of flora and fauna and an area of 358.2 km², probably it represents a lake with the greatest diversity in the world in terms of present endemic species per unit area. Living fossils and endemic species developed as a sole result of geographic isolation and the smooth operation of biological activity. This endemism of the lake includes snails, Turbellaria or flatworms, many relics from algae and diatoms, lake sponges, algae, fish, and 87 species of birds. Remains of vegetation are also present in the marshy vegetation of glacial origin, as the only example in the Balkans, as well as water plants (eg. Silica algae).

- In absence of major phases of glaciation in the Pleistocene, conditions were created for specific ecosystems (especially cave and aquatic ecosystems) and elements of fauna that are part of these ecosystems to survive in the course of longer periods. Ancient groups (relict fauna) have dispersed through a process of evolution where out of one species occur two or more genetically independent species (speciation), which resulted in numerous local endemic species.



picture 7 Karst landscape of Galichica

When valuing the space, special attention is given to the geomorphological and topographic characteristics, line of sight, the attractiveness of the region and the specific climate characteristics. Out of the mountains, the central regional position is occupied by the massif Galicica with the Magaro peak (2,275 m), while the Jablanica Mountain represents the western border region with several peaks over 2000 m. The geographic diversity of mountain Galicica is represented by all kinds of relief forms that are typical of karst (Fig.8).

- Ohrid Lake, National Park Galicica and Prespa Lake as a complex whole, represent an area with exceptionally rich biodiversity, with a high degree of heterogeneity and endemiza, and in that sense is considered as impressive location in Europe (Gaston & David, 1994)¹¹.
- Within the National Park Galicica over 30 plant taxa are discovered and they are considered as a protected mark of the mountain. Herepresent are 19 taxa of the world's Red List of threatened plants of the IUCN with the of status "rare" (R - rare). The total number of taxa of fauna that have been observed so far in the Park amounts over 3,150 ha, which is an enormously high versatility in an area of only 25,000 ha.

In the Ohrid region a large number of natural sites have been identified as a World Heritage with natural values:

1. **St. Bogorodica Kalishka** - sublacustrine sources



picture8.Sublacustrine springs in Kalista

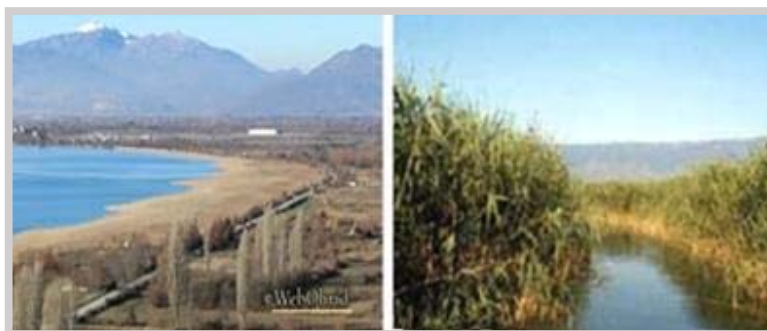
2. **Kalista** - the only natural habitat of the yellow water lily (*Nuphar lutea*) Ohrid Lake



Picture 9.Habitat of the yellow water lily in Kalista

3. **Podmolje** - widest reed band (*Phragmites australis*) of the Ohrid Lake, a natural habitat of endangered bird species and hatchery of carp;

¹¹Gaston, KJ & David, R. (1994). Hotspots across Europe. Biodiversity Letters, 2: 108-116.



Picture10. Largest belt of reed in Podmolje

4. **Mazija** - Revitalized natural habitat of the yellow water lily (*Nuphar lutea*), carp hatchery and habitat and nest of birds;



picture11. Revitalized habitat of the yellow water lily in Mazija

5. **Studenchishte Marsh** - macrophyte vegetation and productive fishing ground of carp;



Picture12. Studenchishte Marsh

6. **Veli-Dab** - sublacustrine springs, productive fishing ground of trout and biodiversity of benthic fauna;



picture13. Sublacustrine springs in Velja Pesh

7. **Velja-Pesh** - sublacustrine springs, productive fishing ground of trout and biodiversity of benthic fauna;



Picture 14. Sublacustrine springs in Velja Pesch

8. **St. Peter** - coastal and sublacustrine springs, hatchery of trout and biodiversity of benthic fauna;

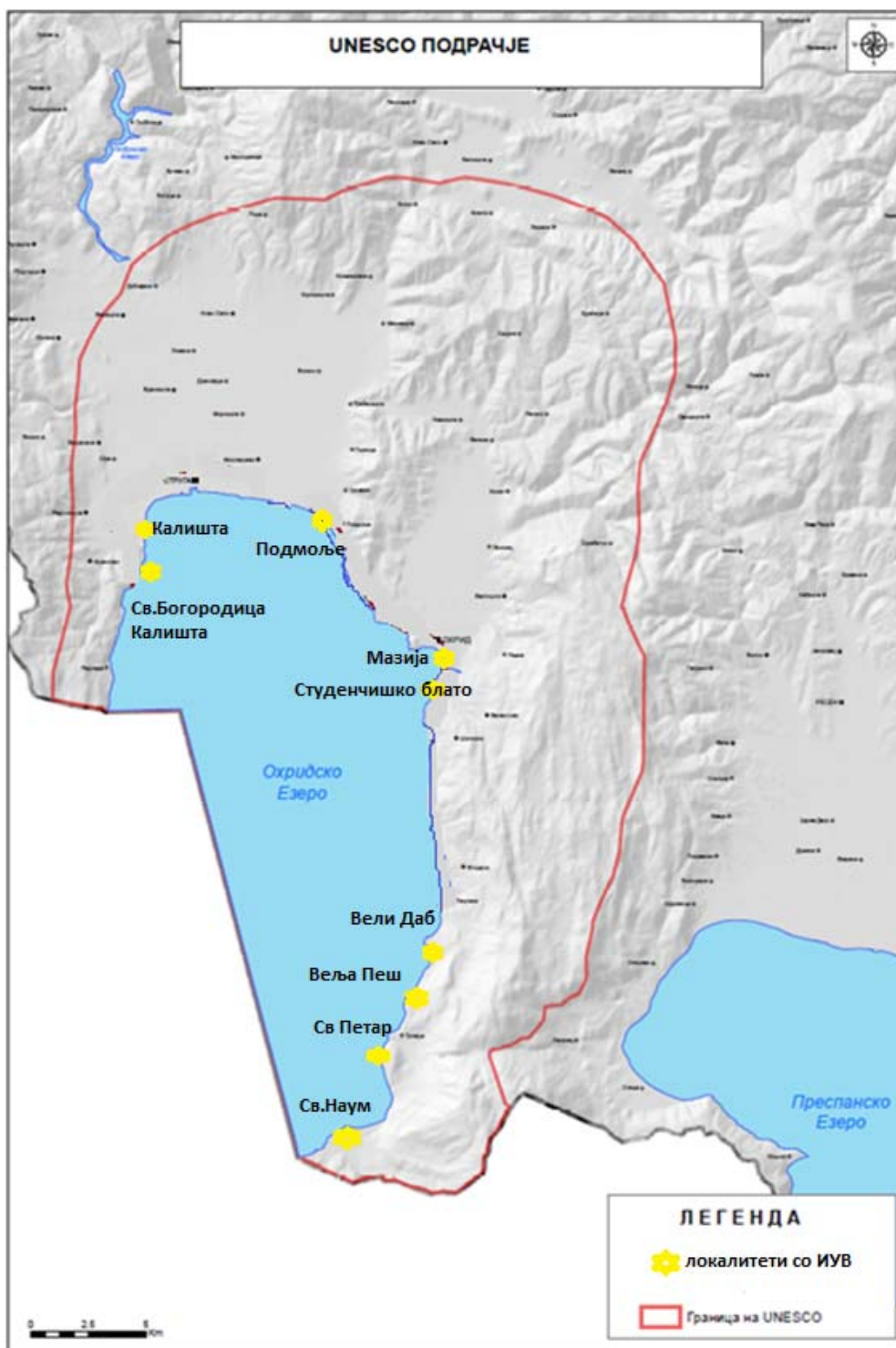


picture15.Sublakustrichni sources St. Peter

9. **Svetinaumski Springs** – most prominent spring of Lake Ohrid, trout hatcheries and carp fish and biodiversity of benthic fauna.



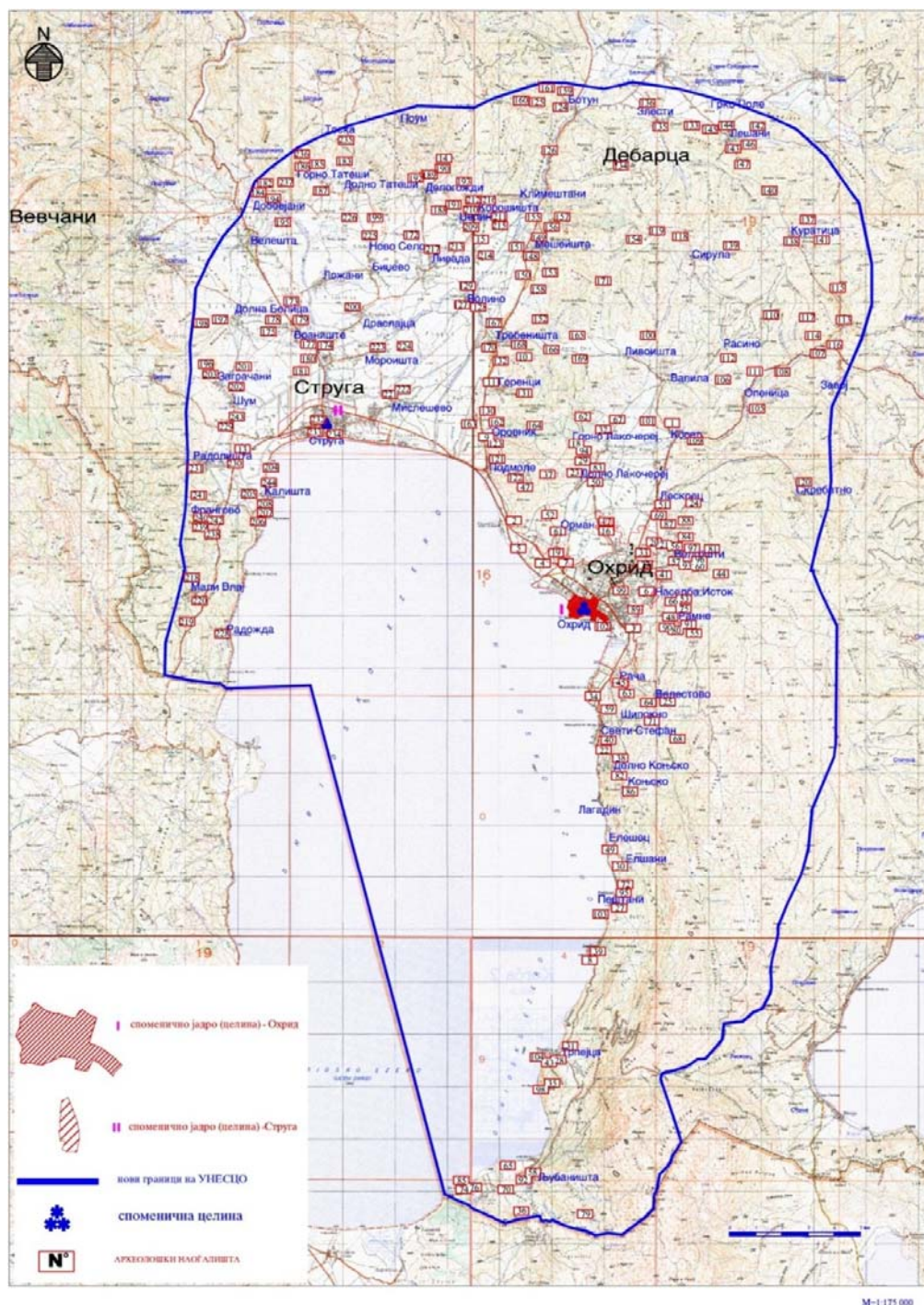
Picture16.Springs near St. Naum



Picture17.Localities with natural values in Ohrid Region

3.2. Cultural values

The long historical continuity in this area and exchange of cultures between East and West established a distinct identity on this small territory as there is nowhere else to be found in the wider area of the Balkans.



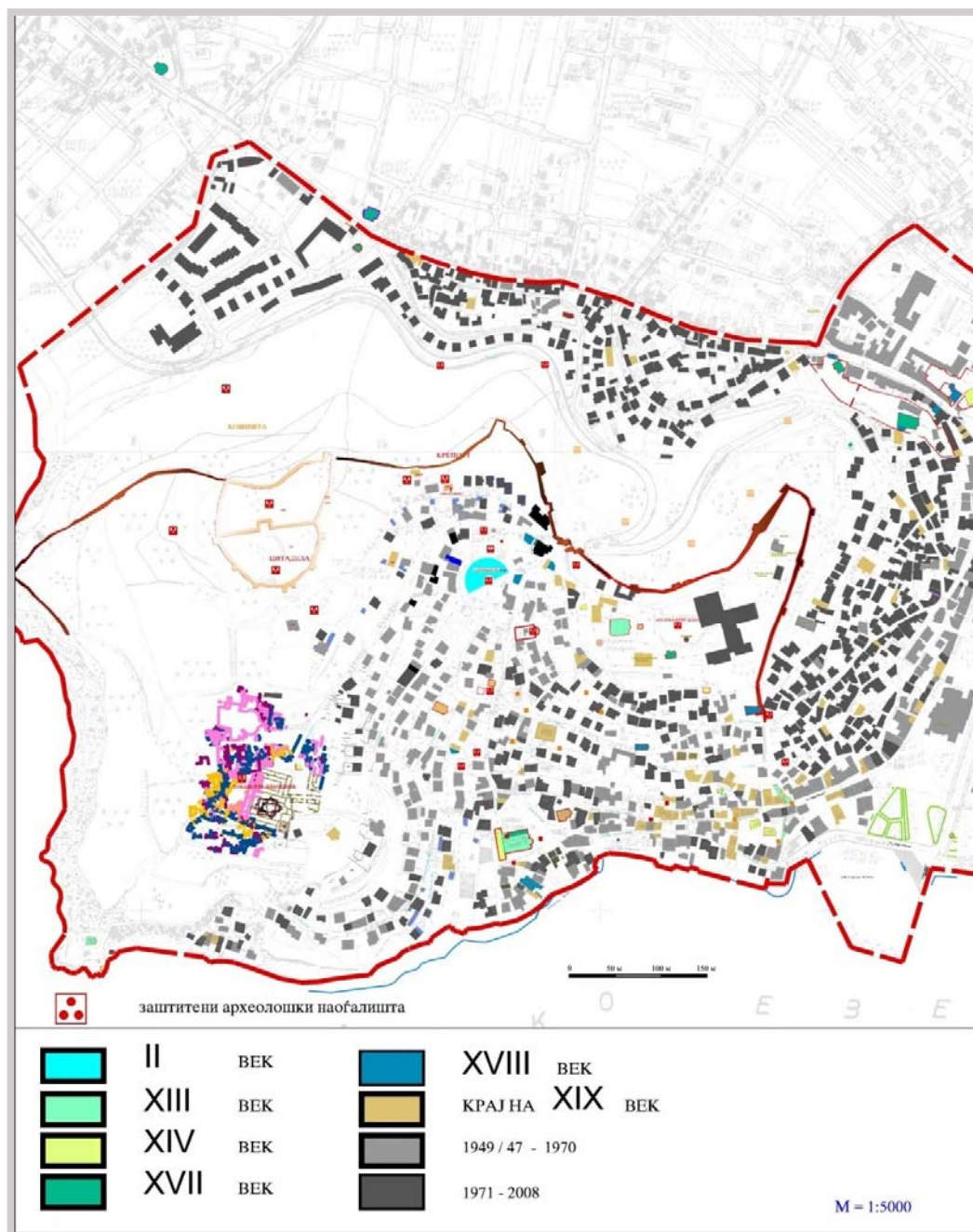
picture18. Sites of cultural values in the region of Ohrid

The distinctive architecture that abounds in its own distinctive and unique characteristics and the successful achievement of unity between cities, settlements, natural surroundings and the lake make this area an authentic and therefore extremely valuable.

Considering the rich historical, architectural, archaeological and ethnological values which give distinctiveness, uniqueness, representativeness, authenticity by its conservation, diversity and integration, have created opportunities for the region to represent heritage of highest national importance with universal values for humanity and its history, culture, art and science.

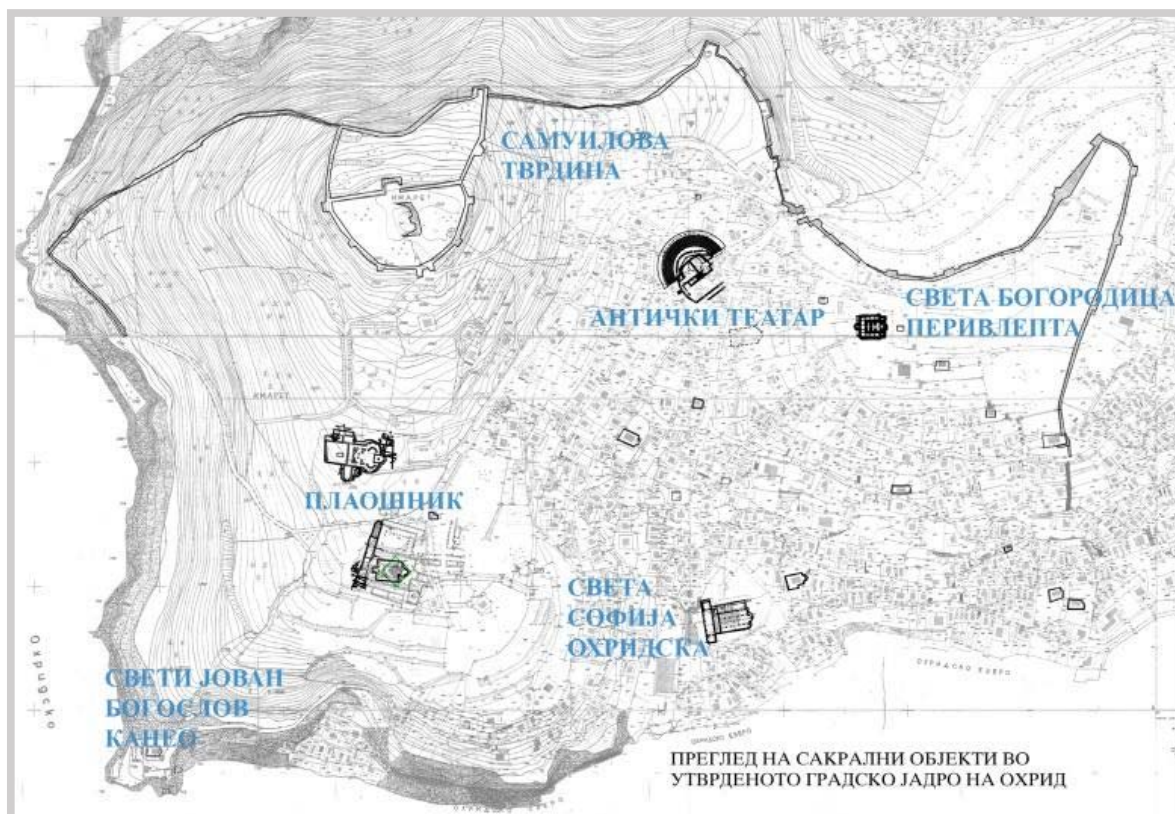
The inscribed heritage includes the historic center of the cities of Ohrid and Struga with their architectural and urban matrix, several coastal settlements along the Ohrid Lake, over 250 archaeological sites which cover a period of over 5000 years, early Christian spiritual centers and monasteries, buildings from the Byzantine and Ottoman period and others.

- Ohrid as a monumental whole, is of great importance because of the complexity of the numerous archaeological remains and a series of individual buildings that have the characteristics of cultural heritage of exceptional importance. As one of the oldest human settlements in Europe it presents a rare architectural and artistic achievement and a treasure trove of architectural, archaeological, tangible and intangible values. The city set up in different natural, geographical, historical, ethno-social and aesthetic conditions of living and working, in the past, had grown and developed into a distinctive harmony, with no tendency to occupy the space and line of sight.
- The urban core of the city of Ohrid includes buildings and other structures dating from prehistory, antiquity and late antiquity, early Christian period, the early and High Middle Ages, the Ottoman period up until today. Built mostly between VII and XIX century, Ohrid is the seat of the oldest Slav monastery (St Panteleimon) and home to more than 800 icons with worldwide fame in the Byzantine style, painted between XI and XIV century. Ohrid architecture is best preserved and most complete collection of urban architecture in this part of Europe. Slavic culture spread from Ohrid to other parts of Europe. The town of Ohrid is the home of one of the oldest Slav monasteries founded by St. Kliment Ohridski in the IX century (it is considered the first "University" in the Balkans), which spread literacy, education and culture across the ancient Slavic world. Along with the architectural researches, up to now there have been seven basilicas dating from the IV and the beginning of VI century, containing architectural and decorative features which undoubtedly point to the strong rise and glory of the ancient Ohrid (Lihnidos). The structure of the urban core is enriched with a number of archaeological sites, with an emphasis on early Christian basilicas, which have numerous mosaic floors.



Picture19. Cultural heritage in the town of Ohrid to the period of foundation

As most outstanding representatives of heritage with architectural and urban values and spiritual centers the old urban cores of Ohrid and Struga stand out, the Monastery of St. Archangel Michael (St. Naum) on the southern part of the Ohrid coast, the Monastery of St. Bogorodica Zahumska-Zaum, at v. Trpejca, the Monastery complex of St. Bogorodica - Kalista on the western coast of Lake Ohrid and St. John Bogoslov - Kaneo.



Picture 20 The old urban core of the city



Picture 21 The city of Ohrid



- Struga, although it is located along the coast of the Ohrid lake, its life is still centered on the river Black Drim, which as a natural phenomenon flows out of the lake. The origination of Struga is linked to the pile dwelling settlements beside the Ohrid lake. The archaeological sites testify to the findings from the Neolithic, Bronze Age, Macedonian - Hellenistic period, the Roman and early medieval period. The

relevance of Struga is confirmed by the representatives of urban architecture that are distinguished by their ambient, aesthetic and construction values.



Picture22.Cultural heritage in Struga by type



Picture 23 the City of Struga

- According to the relief features **Debrca** municipality is counted among the mountainous municipalities and part of its territory belongs to the borders of protected natural and cultural heritage of the Ohrid region. The concentration of archaeological sites with significant archaeological findings reflect the importance that this territory had in the past as well as its contribution to complete the picture of authentic universal value of the region. Its established archaeological sites in the municipality of Debarca belong to different periods, of which we could mention: Trebeniska Necropolis, Gorenci, 8-4 century BC (Known for its rich archaeological material - discovered gold funeral masks) Trebenisko Kale, Trebenista (Antique Period), Evil side, Gorno Sredorechje (Neolithic period), Kutlina, Velmej (Neolithic to 6th century), Suva Cesma, Three celusti and Vrtulka , Gorenci (8-4 vek.p.n.e.) Cherepec, Godivje, cave Jaorec, Velmej (found traces of original communities). Religious heritage (the Church of All Saints in v.Leshani from 14th century) and some commercial buildings (mill in v.Leshani) are just part of the rich cultural heritage that owns this region.

Picture 24 Church of Bogorodica Precista, v.Zlesti, and the Church of Si Sveti, v.Leshani



Coastal settlements (Trpejca, Pestani, Radožda and Kalista):

- *Trpejca*: For centuries the population is engaged in fishing as a major source of income. An important role plays the animal husbandry, and agriculture is limited to a small farm land in dry trpejchko field. The village has 370 inhabitants. Near the village the oldest preserved church of St. Bogorodica Zahumska is situated dating from the XIV century.

- *Peshtani*: For centuries, residents have dealt with fisheries and livestock, but the last few decades they have been oriented towards the development of tourism with well-developed trading and catering services. This imposed on old rural households to readapt in modern contemporary facilities for the tourism and hospitality and they represent revitalized rural areas.
- *Radozda*: A typical fishing village, located in the plains north-western end of the lake shore which gradually grows into a rural tourist settlement, with ideal opportunities for developing rural tourism. The village is gradually being transformed into a modern tourist resort with the development of service industries: trade, catering and tourism. Above the village the cave church Archangel Michael has been situated with preserved valuable paintings with description of life.
- *Kalista*: A typical fishing village where in recent years more and more small restaurants have been built and hospitality and tourism has been developing. Near the village there is a monastery complex of St. Bogorodica with a cave temple Rozdestvo na presveta Bogorodica (Nativity of the Virgin Mary). The monastery church and the hospices were built recently and are still active today.

3.3. Social values

The Social values of the Ohrid region are associated with traditional social activities and its modern use, which includes the care and the high awareness of the environment, by encouraging the process of protection and promotion of natural and cultural heritage. They have an important role in establishing social and cultural identity, both locally and nationally. These values are generated by the very cultural and natural heritage and by the processes of their care. The alignment between conservation and heritage management of the Ohrid region, present a guarantee for sustainable development.

3.4. Scientific - educational values

Long civilized existence of the city of Ohrid through the ages as a spiritual and cultural center has left a special mark in educational activities with the establishment of the first Slavic "university" or the actions of the famous Ohrid Literary School (St. Clement's University).

The rich fund of Greek and Slavonic church manuscripts handled by the city for various reasons, during the XVIII, XIX and early XX century seriously impoverished the Ohrid collection of manuscripts, but the city still owns an enviable stock of manuscripts and copies of old Slavic epigraphic monuments.

With the decline of the power of the Ottoman Empire the revival period and the time of national awakening appeared on the social scene, as an element of the new European understanding of the concept of nation states. The educational values of the city of Ohrid seen through the prism of the works of more Ohrid intellectuals and artists in this period are also considered as part of the scientific and educational values of the region. In the past of Ohrid, high church dignitaries coming from the major Christian centers as Constantinople or Thessaloniki always had a dominant role in the local processes for the formation of social, educational and spiritual values of the city. Their sacred deeds also fall into this category.

The stated values of the Ohrid region are that this city it has extremely great potential for research in the field of natural sciences, history, archeology, architecture, ethnology and art history.

4. Methodology and process of preparing the natural and cultural heritage management Plan in the Ohrid region

4.1. Need for adoption of the Plan on Sustainable Management of World Heritage

The main objective of management is to ensure effective protection of the heritage for present and future generations. However, management as a process in itself contains much more: it is a mechanism through which we strive to understand the history of the heritage, its use and its values for present and future. Management based on the values of the heritage is an essential principle and consultations, discussions and building consensus achieved during the process of drafting the Plan will play a key role in future successful management of World Heritage.

Signatory countries to the Convention for the Conservation of the World Cultural and Natural Heritage (Article 4 of the Convention) are obliged to ensure the identification, protection, conservation, promotion of cultural and natural heritage on its territory, but also to preserve the authenticity, integrity and the outstanding universal value and to pass it on to future generations. The World Heritage Committee of UNESCO has expressed strong recommendation to all signatory countries to form a framework for the promotion and adequate legal safeguards that will ensure long-term protection of sites of World Heritage. In this regard the Operating guide for the implementation of the Convention emphasizes the importance of the management Plan as an effective tool for achieving these commitments. The management Plan shall enable to the Ohrid region to step forward, relying on its ground values as an internationally significant region for the heritage.

That is possible through proper planning, implementing appropriate measures and monitoring their successful performance. The Management plan for the natural and cultural heritage in the Ohrid region is the first step towards the definition of a sound policy for managing natural and cultural heritage and adequately promote the worldwide significance of the Ohrid region.

The need for management Plan stems not only from international guidelines, but also from the provisions of national law which provides a solution for dealing with the real state of play of the region.¹²

4.2. Methodology of preparation of the management Plan

The methodology for the preparation of the management Plan for the protected Ohrid region is based on the recommendations of UNESCO, ICOMOS and IUCN, and in accordance with *the Guidelines for managing sites of World Heritage* (Bernard M. FILDA, Jukka Jokileto, 1998) - a joint publication of ICCROM, ICOMOS and UNESCO and *world heritage management Plans - a practical guide* (Brigitta Ringbek, 2008) - publication of the German Commission for UNESCO, and the positive experiences of other countries in the preparation of the management Plan. The Management plan takes into consideration other documents as the Declaration of the Budapest World Heritage from the 26th session of the World Heritage Committee of UNESCO since 2002. (CONF 202 9)¹³ and the Burra Charter to protect places of cultural significance (ICOMOS Australia, 1979, revised 2013)¹⁴ etc.

When preparing the management Plan of the Ohrid region data were used which were contained in the national strategic documents, analyzes, reports, information and relevant bibliographic items for the natural and cultural heritage in the Ohrid region.

¹² Law on Management of the World Natural and Cultural Heritage of the Ohrid region ("Official. Gazette" no. 75/10);

¹³ *Budapest Declaration on World Heritage*, Budapest, Hungary 2002 (<https://whc.unesco.org/en/decisions/1217/>);

¹⁴ The Australia ICOMOS Charter for Places of Cultural Significance, The Burra Charter, 2013 (Burra Charter);

The operating guide for the implementation of the World Heritage Convention of UNESCO, adopted by the Committee on World Heritage expresses strong recommendation to all signatory countries to form a framework for the promotion and adequate legal safeguards that will ensure long-term protection of goods which represent World Heritage Sites. The Operating guide emphasizes the importance of the management Plan as an effective tool for achieving these commitments and thus gives the following directions:

1. Considering that each area / site / monument has its own specifics and differences, common elements that should be preserved in order to establish an efficient system for managing World Heritage are as follows:
 - Implementation of participatory planning and consultation process in order to inform all stakeholders of the importance of conserving natural and cultural heritage;
 - Monitoring of standard cycle - planning, implementation, monitoring, performance assesment of the plan and its revision;
 - Vulnerability assessment of heritage in terms of social, economic and other pressures and changes, including the monitoring of impacts or trends of the proposed interventions;
 - Develop mechanisms to coordinate the activities undertaken by various interested parties and stakeholders;
 - Allocate the necessary resources;
 - Capacity building and awareness raising; and
 - Transparent and accountable description of the functioning of the world heritage management system.
2. The Committee recommends that the member states of the Convention should include aspects of preparedness for risks management Plans on world heritage and training plans.

4.3. The preparation process of the management Plan

In 2007 the inter-ministerial expert committee that worked on revising the boundaries of natural and cultural heritage of the Ohrid region was established. At the same time, a working group was formed on starting a procedure with regard to the preparation of the Law on Management of the World Heritage in the Ohrid region.

The process of preparation of the Plan which begins in late 2018, is based on the concept of teamwork and interdisciplinary approach, which requires synchronized running of multiple research procedures by a working team composed of experts from different specialties, based on common methodological platform, the objectives that need to be achieved and the unified single coordination.

From 13-16 December 2009 in Ohrid, organized by the UNESCO Office in Venice, a workshop was held on the topic of "Implementing the Natural and Cultural Heritage Management Plan of the Ohrid region," on which ground the guidelines were set out for the preparation of the Action Plan as an important part of the management Plan preparation.

The process for the preparation of the natural and cultural heritage management Plan in the Ohrid region lasted for ten years. In 2009 after the acceptance of the Information on the preparation of the Management Plan for Natural and Cultural Heritage of the Ohrid region by the Government of the Republic of Macedonia (conclusions of the 48th session, no. 19-3428 / 1 from 08.07.2009), The first draft version of the management Plan for natural and cultural heritage of the Ohrid region was submitted for consideration to the world heritage Center of UNESCO (2010). Following the recommendations and observations of the Advisory Bodies (ICOMOS and IUCN), an audit of the Draft Management Plan was

conducted. In 2015, a revised management Plan for the natural and cultural heritage of Ohrid region was prepared (2016-2025).

The 40th session of the UNESCO's Committee on World Heritage (Istanbul, Turkey - 2016), recognizing the vulnerability of heritage, brought a Decision (40SOM 7V.68) which recommended conducting a reactive monitoring mission by the Center on world heritage and the advisory bodies IUCN and ICOMOS. The purpose of the mission was to assess the state of conservation of natural and cultural heritage, and to provide assistance with initiating the development of a Strategic Environmental Assessment (SEA) of the Draft Management Plan for the natural and cultural heritage in the Ohrid region. SEA would estimate individual and cumulative impacts of urbanization and the implementation of the planned projects in the field of tourism, roadway and railway infrastructure upon the outstanding universal value of the world's natural and cultural heritage of the Ohrid region.

The need to revise the existing Draft Management Plan for the natural and cultural heritage of Ohrid Region 2016-2025 is noted in the Report of the Reactive Monitoring Mission (conducted from 9 to 14 April 2017).

This Management Plan on World Heritage in the Ohrid region, which applies only to the part of the heritage in the Republic of North Macedonia, is based on the version of 2017 and also incorporates the comments and recommendations from the Report of the reactive monitoring mission 2017. Additionally, for the development of the Plan in 2019 a working group was nominated by the Government including experts from key relevant institutions at national and local level.

The draft management plan for the natural and cultural heritage in the Ohrid region is a result of active participation of a large number of stakeholders and the same will be subject to further extensive public consultation which will include representatives from Albania, given the need for cross-border cooperation in terms of implementing integrated safeguards in the Ohrid region. The final text of the Plan will integrate the essential contributions that will be obtained in the period of 60 days in which the public will have the opportunity to submit comments.

5. Management of natural and cultural heritage in the Ohrid region

The main goal of the management of World Heritage in the Ohrid region is the establishment of a balance between protecting the outstanding universal value, management of natural resources, social development and economic growth within the protected heritage. Successful management of World Heritage must be based on the full understanding of the heritage.

5.1. Strategic framework

The heritage is managed and protected based on a number of relevant policy documents and plans.

As for the management of natural and cultural heritage in the Ohrid region, the following relevant strategic and planning documents are relevant:

- Space Plan of Macedonia (2004-2020)
- Space Plan for the Ohrid-Prespa region (2005-2020)
- Biodiversity Strategy of the Republic of Macedonia with an Action Plan;
- Management Plan for the National Park Galicica (2010-2020).
- National strategy for development of culture in the country (2018-2022);
- Strategy on Waste Management of the Republic of Macedonia (2008-2020);
- Draft Strategy for Agriculture and Rural Development (2015-2020);
- National Strategy for Sustainable Development in the Republic of Macedonia (2009-2030);
- Regional Development Strategy of the Republic of Macedonia (2009-2019);
- Strategy of Culture of the Municipality of Struga (2017-2022);

At the local level out of the adopted planning documents as relevant to the management Plan are the following:

- A revised strategy and an Action plan for local economic development of the Municipality of Ohrid (2013-2014);
- Strategic Development Plan of the Municipality of Struga 2007-2011;

Currently being prepared are the following planning and strategic documents:

1. Management Plan for the watershed of Lake Ohrid (the draft of this plan is predicted to be ready in December 2019);
2. Local Action Plan for the Environment (LEAP) for the Municipality of Ohrid (initiated with planned completion deadline for the end of September 2019);
3. Strategy on sustainable tourism development in the Ohrid region (pending tender procedure);
4. Traffic study for the city of Ohrid (already started, with a planned deadline for completion in January 2020);
5. Study on valuation of Studenchishko Marsh (already started, with a planned completion deadline for the end of September 2019);
6. The draft Local Environmental Action Plan (LEAP) for the Municipality of Debarca (2019-2026)
7. National Strategy for the Protection and Use of Cultural Heritage (2020-2025);

The provisions of the management Plan for the natural and cultural heritage in the Ohrid region respect and fully comply with the guidelines and recommendations contained in the above planning and strategic documents. Following the adoption of the Plan by the Government, its provisions will be integrated into legislation and sectoral strategies relevant to the Ohrid region.

5.2. Legal framework

Management of natural and cultural heritage in the Ohrid region based on the mechanisms of protection laid down in several national laws:

- **The Law on Natural and Cultural Heritage Management in the Ohrid region** ("Official. Gazette" of RM "no. 75/2010), regulates the rights and obligations of the state, the municipalities of Ohrid, Struga and Debarca, and the rights and responsibilities of legal and natural persons in relation to the management of World Heritage in the Ohrid region inscribed on the World Heritage List of the UNESCO Convention. Also, the law defines the rights and obligations of the Commission to manage natural and cultural heritage in the Ohrid region. The Commission pursuant to this law, shall coordinate management measures. The Law defines the need for the sustainable management of world natural and cultural heritage in the Ohrid region. Additionally, the law preliminary determines the content, the process of preparation and adoption of the Plan, and the authorities responsible for its implementation.

New Law on managing World Natural and Cultural Heritage of the Ohrid region was prepared and adopted by the Government in July 2019 (pending until full adoption). This law aims to establish more efficient management system of the World Natural and Cultural Heritage by state and local authorities as well as to allow more direct involvement in these processes of scientific, professional and civic organizations.

- **Law on Protection of Cultural heritage** ("Official Gazette Republic of Macedonia "No.20 / 04, 71/04, 115/07, 18/11, 148/11, 23/13, 137/13, 164/13, 44/14, 199/14, 104/15, 154/15, 192/15, 39/16, 11/18 and 20/19) and the corresponding bylaws governing issues related to the protection of cultural heritage.
- **The Law on proclaiming the old urban core of Ohrid as cultural heritage of particular importance** ("Official Gazette of the Republic of Macedonia "No.47 / 11 and 154/15 establishes the boundaries of the protected monumental entity of the Old city core of Ohrid and the boundaries of its contact zone, as well as the protection regime that is prescribed individually -for the whole and its contact zone.
- **Law on Nature Conservation** ("Official Gazette of the Republic of Macedonia "No.67 / 2004, 14/2006 and 84/2007, 35/10, 47/11, 148/11, 59/12, 13/13, 163/13, 41/14, 146/15, 39/16, 63/16 and 113/18) regulates the protection of biological and landscape diversity and protection of natural heritage in protected areas and outside them. In accordance with the Law on Nature Conservation, the entities responsible for the protection and management of protected areas adopt management plans and annual programs for nature conservation, after prior approval from the Ministry of Environment and Physical Planning.
- **The Law on Environment** ("Official Gazette of RM "no. 53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 124/10, 51/11, 123/12, 93/13, 187/13, 42/14, 44 / 15, 129/15, 39/16, 99/18) regulates the rights and duties of the state, the municipality, the city of Skopje and the municipalities in Skopje, and the rights and responsibilities of legal and natural persons in providing conditions for protecting and improving the environment, and ensuring the right to a healthy environment.
- **The Law on Waters** ("Official Gazette of RM "no. 87/08, 06/09, 161/09, 83/10, 51/11, 44/12, 23/13, 163/13, 180/14, 146/15 and 52/16) regulates the legal status of waters and the method and terms of water management.
- **The Law on Inland Waterways** ("Official Gazette of RM "no. 55/07, 26/09, 22/10, 23/11, 53/11, 15/13 and 155/12, 137/13, 163/13, 42/14, 166/14, 146/15, 193 / 15 and 31/16) regulates inland navigation and safety of navigation on inland waterways in the Republic of North Macedonia, the conditions and

manner of use, maintenance and protection of navigable roads, ports, winter camps, berths and beaches.

- **The Law on the Protection of Ohrid, Prespa and Dojran Lake** ("Official Gazette"no. 45/77, 8/80, 51/88, 10/90 and 62/93) Ohrid lake was declared a protected area in the category of Natural Monument.
- **The Law on declaring the forest areas on Galicica Mountain as National Park**("Official Gazette NRM"no. 31/58 and 16/65) and **the Law on declaring part of the Galicica Mountain as National Park** ("Official Gazette of RM "br.171 / 10) establish the boundaries and regimes of protection and conservation of the National Park Galicica.
- **Law on Forests** ("Official Gazette"no. 64/09, 24/11, 53/11, 25/13, 79/13, 147/14, 160/14, 33/15, 44/15, 147/15 and 39/16) regulates the planning, management, business, forest, breeding, conservation and usage, preservation of forests as a natural resource and forest land, the exercise of public functions of forests, the rights and duties of forest utilization, financing, and other issues of importance to forests and forest land with a biological , economic, social and environmental acceptability
- **Law on Pastures** ("Official. Gazette"no. 3/98, 101/00, 89/08, 105/09, 42/10, 116/10, 164/13, 193/15 and 215/15) regulates the management, promotion and use of pastures in state ownership.
- **Law on Urban and Space Planning** ("Official. Gazette of R.M." no. 199/14, 44/15, 193/15, 31/16, 163/16, 64/18 and 168/18) defines the hierarchy of planning, types of spatial and urban plans , the method of their preparation and adoption, as well as public participation.
- **Law on construction land** ("Official. Gazette of RM" no. 15/15, 44/15, 98/15, 193/15, 226/15, 30/16 and 31/16), which regulates the rights and obligations in terms of building land , the arrangement of the construction land, conditions and manner of disposal of construction land, as well as other issues of urban land.
- **Law on building** ("Official. Gazette of the R.M." no. 130/09, 124/10, 18/11, 36/11, 54/11, 59/11, 13/12, 39/12, 144/12, 25/13, 70/13, 79/13, 137/13, 163/13, 27/14, 28/14, 42/14, 115/14, 187/14, 44/15, 129/15, 217/15, 226 / 15, 30/16 and 31/16, 39/16, 71/16, 132 / 16.35 / 1864/18 and 168/18) regulates and governs, the basic requirements of building, the necessary project documentation for obtaining a building permit, rights and obligations of participants in the construction, usage and maintenance of the building, as well as other issues of importance to the erection of buildings.
- **Law on Ratification of the Agreement between the Government of the Republic of Macedonia and the Council of Ministers of the Republic of Albania on Conservation and Sustainable Development of the Ohrid lake and its Basin** ("Official. Gazette "no. 46/05 – 99th session, 10.06.2005)

5.3. Institutional framework

Holders of activities for the preparation and monitoring of the implementation of the management Plan for the Ohrid region as a world natural and cultural heritage are the **Ministry of Culture - Directorate for Protection of Cultural Heritage** – as for the part of Cultural Heritage the Ministry of Environment and Physical Planning is responsible too – **the Directorate on Environment** – for the natural heritage, determined by the Government of the Republic of North Macedonia.

Ministry of Transport and Communications is the body responsible for conducting the affairs in the field of urban planning and as such grants approval of urban plans developed in the form of a draft plans, confirming that the plans are made under the provisions of the Law on Urban Planning and the regulations

adopted based on the same Law. The Ministry of Transport and Communications shall adopt an annual program for financing and development of urban plans.

The National Conservation Center – Skopje in coordination with the **Institute for Protection of Monuments of Culture and the Museum - Ohrid shall take care** about the protection of cultural heritage in the Ohrid region. **The National Museum "Dr. Nikola Nezlobinski" - Struga** is responsible for protection of movable cultural and natural heritage in the territory of Struga.

With regard to the management of the natural heritage of the Ohrid region the **Public Institution of the National Park Galicica** shall be considered as competent to integrally manage the natural heritage and to take care of preventing the degradation of the natural heritage and landscape of the national park caused by the performance of the activities and the other legal and natural persons within the national park.

Monitoring, scientific research on biodiversity and the provision of genetic material from species of the Ohrid lake and its catchment area, within the Ohrid region shall be conducted by the **Public educational institution - Hydrobiological Institute - Ohrid**.

JSC Macedonian Power Plants for electricity production can manage minimum (693.10 masl.) and maximum elevation of the Ohrid lake (693.75 masl.), by controlling the outflow of Black River Drim. The maximum and minimum elevation is determined by the water management permit issued by the Ministry of environment and Physical planning.

Concessionaire "LTDPTU LETNITSA-BELVICA Milorad, LLC Import-export Struga" from Ohrid manages the Ohrid lake according to the fishing grounds prepared by the Institute on Livestock in Skopje, under which the maximum allowable amount of daily catch of fish ponds for fishing from the Basin of Ohrid Lake amounts to 2 kg out of which, 3 trout samples, up to 15 samples of black barbell to 10 samples of skobal, 6 samples of common chub, 10 samples of common rudd, one sample of carp and one sample of eels.

Port Authorities - Ohrid (Ministry of Transport and Communications) has the following responsibilities: shall take care about the safety or reliability of the vessels, shall keep a register of swimming facilities and boats; may provisionally restrict or prohibit navigation and usage of the floating road, ports, winter camps, berths and swimming areas and prohibit navigation of defective vessels; required to remove damaged, or sunk vessels that obstruct or endanger the safety of navigation or pose a threat of pollution, give opinions on detailed urban plans for parts of the coast and water area of inland waters where ports can be built, winter ports, roadsteads and swimming areas and set sailing and swimming facilities and other. If an emergency happens on the vessel which shall endanger the safety of the ship or sailing, or if it's an emergency happens aboard, to the passengers and the cargo, or if one notices contamination from oils and chemicals floating on the road, the captain of the ship shall immediately enter information on the incident into the ship's log and report about it to the Port Authority within 24 hours at latest.

Municipalities of Ohrid, Struga and Debarca according to the legislation, have no responsibilities regarding the protection of natural and cultural heritage, except the possibility to initiate declaration of protected areas in accordance with the Law on Nature Conservation. However, the municipalities exercise their responsibilities with regard to the utility activities, urban planning and local economic development which can influence the outstanding universal values of World Natural and Cultural Heritage in the Ohrid region.

Civic organizations monitor the processes and activities that may negatively affect the outstanding universal value of the Region and respond to the public, by putting pressure on institutions at national and local levels and the private sector, to comply with the provisions of the laws regulating the issues of environmental protection, water conservation, cultural heritage and waste management.

5.3.1. Ownership

Cultural heritage and wealth upon which there is reasonable ground to be considered a cultural heritage which can be found in the ground or in the water, are considered as state property. Cultural heritage and the land on which the natural heritage is located in the Ohrid region may be state-owned, owned by the local government units in whose territory there is natural heritage in private ownership as well (individuals, religious communities). Holders of cultural heritage in the Ohrid region are held responsible for its maintenance, preservation, respect and proper use.

The protected species of flora and fauna and their habitats are in state ownership regardless of who owns the land on which the natural heritage is situated. The holder of the natural heritage in the Ohrid region can use it in a manner and under conditions determined by law. The owner of the land on which the natural heritage is located shall be obliged to take care of the species and their habitats in the manner specified by the Law on nature conservation and the laws of the respected areas. In order to achieve the objectives of conservation and enforcement regimes, it is possible to conduct expropriation of the land in private ownership.

5.4. System for managing natural and cultural heritage in the Ohrid region

The system for managing natural and cultural heritage in the Ohrid region rests on three basic pillars as follows:

1. Planning and Land Usage
2. Managing Natural Heritage
3. Managing Cultural Heritage

5.4.1. Planning and Land Usage

Planning and land usage in the Ohrid region is provided with the preparation, adoption and implementation of spatial and urban plans that are mutually harmonized.

The planning documents guiding the spatial development of the region are: Space Plan of RM ie the Space Plan of the Ohrid-Prespa region, General Urban Plan (GUP) of the cities of Ohrid and Struga, detailed urban plans (DUP), urban plans on villages, urban plans for uninhabited areas (UPVNM) plans for urban areas and buildings of national importance, urban planning documentation for buildings of special interest, state urban planning documentation (DUPD), local urban Planning Documentation (LUPD), urban planning documentation for tourism-development zones (UPTRZ), urban planning documentation for auto camps and infrastructure projects in the Ohrid region.

5.4.1.1. Space Plans

Existing Space Plans based on who manages with the assignation and use of land within the boundaries of the World Natural and Cultural Heritage in the Ohrid region:

1. Space Plan of the R.M. (2004-2020);
2. Space Plan of the Ohrid-Prespa region (2005-2020),
3. Plan on Urban Planning of the Galicica National Park (1988)

The Space Plan of the Municipality of Ohrid was enacted in 1988. but its validity has expired. The Draft Space Plan for the National Park Galicica (2010-2020) has not been elaborated yet.

Space Plan of Macedonia

The Space Plan of the Republic of Macedonia in 2004 is the highest long-term and integrated planning document for the area of the state, which provides guidelines for the utilization, protection, conservation,

assignment, organization and arrangement of space on the territory of the state as well as for the urban planning in that space. The Space Plan of RM shall not process the separate natural and cultural heritage in the Ohrid region. Biodiversity and its protection is treated under the old Law on Natural Rarities. In the chapter that treats natural heritage the protected areas identified for conservation have been established, as well as individual species in and out of protected areas (Table 1).

Table 1.Space Plan of RM: a review of protected areas proposed for conservation in the Ohrid region

Category	Name	Municipality	Status of Protection
National Park	Galicica	Ohrid	Protected
Scientific-Research reserve	Osoj	Ohrid	Proposal
Monument of nature	Macedonian oak	Ohrid	Protected
Monument of nature	Cave Samoska hole	Ohrid	Proposal
Monument of nature	Cave Jaorec	Ohrid	Protected
Monument of nature	Oriental plane/sycamore	Ohrid	Protected
Monument of nature	Cypress trees	Ohrid	Protected
Monument of nature	Aleppo pine	Ohrid	Protected
Monument of nature	Duvalo - v. Kosel	Ohrid	protected
Monument of nature	Sycamore	Struga	protected
Monument of nature	Cave Mlechnik	Struga	protected
Monument of nature	Vevcani springs	Vevcani	protected

Following the adoption of the Law on Conservation of Nature in 2005, the categories of protected areas were changed or adjusted to the categories defined by the International Union for Conservation of Nature - IUCN. At the same time, the conservation approach based on natural rarities in and outside protected areas has changed in terms of representative coverage of habitat types and ecosystems in the Republic of North Macedonia. ***In this regard, the Space Plan of RM does not provide adequate guidance for the management of natural heritage in the Ohrid region.***

Cultural heritage, according to the Space Plan of the Republic of Macedonia, is classified into two main groups: monumental sites and individual monuments. It was also identified as "Ohrid natural and cultural area of the old town of Ohrid, the protected Ohrid Lake and Galicica National Park as an area with a mixed value, with particular outstanding natural, historical, cultural and artistic values created by man over the centuries." By applying the Space Plan, an attempt was made to conduct the inventory of monumental sites and individual monuments, however, out of the partial field data, a decay was discovered for the period between 1998-2003 of cultural heritage, especially of the old city architecture.

The Space Plan adopts appropriate goals for protection of cultural heritage, such as: provision of planning conditions for the protection of cultural heritage, spatial integration and active use of monuments in

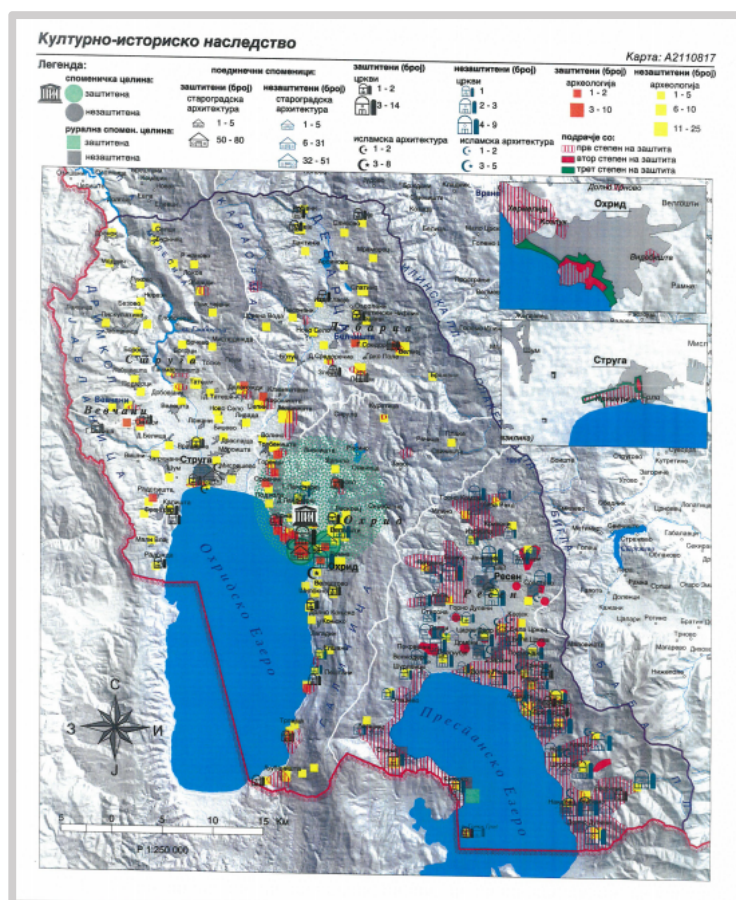
tourism industry and services as well as the establishment of a single methodology, criteria and procedure on valorisation of immovable cultural heritage.

Space Plan of Ohrid-Prespa region

Space Plan for the Ohrid-Prespa region (2005-2020) envisages the protection of natural and cultural heritage as the most expansive capital and stopping urban degradation.

Regarding the protection of natural and cultural heritage, a similar concept was applied as the Space Plan of the Republic of Macedonia, ie the natural and cultural heritage in the Ohrid region inscribed in the World Heritage List of UNESCO is not treated as an integral spatial whole.

Within this Space Plan the sites of importance have been mapped for the protection of cultural heritage in the Ohrid region (fig.25).



picture 25. Map of Cultural Heritage in the Ohrid-Prespa region

5.4.1.2. Urban plans

To implement Space Plans respective general, detailed urban plans and other types of urban planning documentation are adopted.

General urban plan (GUP)

- General urban plan of the city of Ohrid (1989 and 2006)
- General Urban Plan of the Municipality of Struga (2007)
- General Urban plan of the coastal area of the municipality of Ohrid (1989);

- General urban plan of the coastal area of the municipality of Ohrid in the East Zone 1, move Lagadin - Pestani changes and amendments (1997);
- Implementation plan for the resort „ St. Stefan - Ohrid "(1983)
- General urban plan for part of the coastal area, tourist location Gorica-St. Stephen Metropolis (2001)
- Amended part of the PMU for the coastal area of the Municipality of Ohrid (North Zone - Tourist locality „ Andon Dukov "(2001)
- DUP on coastal area „ Kaneo - Studencista "(2001)
- DUP on coastal zone Grasnica – in the valid part.

Detailed urban plans (DUP)

- DUP on villas complex „ Lagadin "(1987)
- DUP on settlement Trpeica (1990)
- Amendments to the part of the DUP „, Stephen Ohrid "-Block1 (1999)
- Amendments to the resort „ St. Stephen Ohrid "(hotel catering facility) (1999)
- DUP on the move Lagadin -Peshtani (1999)
- DUP on the coastal area „ Kaneo-Studencista "(2001)
- DUP on the coastal zone Grasnica - Daljan (2001)

Urban documentation for the inhabited settlement (UDNM)

- UDNM on Ljubanista (1999)
- UDNM on Podmolje (1999)
- UDNM on Eleshani
- UDNM on Peshtani

Urban plan outside the inhabited settlement (UPVNM)

- UPVNM on part of the tourist location Gorica-St. Stephen-Metropol Hotel, part of block 2 (2008)
- UPVNM on part of the tourist settlement Gorica - East (2008)
- UPVNM on Lagadin – Peshtani part of UB 9 (2008)

Prepared urban Plans for village / General Acts on places within the territory of the municipality Debarca that are within the borders of the protected heritage:

- Botun
- Lesani
- Meseista
- Trebenista
- Gorenci
- Orovnik

General urban plans of cities of Ohrid and Struga

General Urban Plan (GUP) of Ohrid was valid from 2006 to 2016, while the GUP of Struga was valid in the period 2007-2017. In 2013, the drafting of the new General Urban Plan for the city of Struga was initiated, but the process was stopped by the National Institute for Protection of Cultural Monuments and the Museum in Ohrid up to the preparation of protection and conservation basis for the planned coverage. In 2015 again, an attempt to restart the adoption of the new General Urban Plan for the city of Struga was made again, given that in the meantime several protection and conservation basis for detailed urban plans were drafted, or a complete inventory of buildings under protection was conducted. In 2018, the drafting of a new General Urban Plan for the city of Struga was initiated. The new preparation of GUP for the city of Ohrid is planned to begin.

It is necessary to adopt new General Urban Plans for the cities of Ohrid and Struga so as to implement the Convention on the Conservation of the World Cultural and Natural Heritage of UNESCO and to prevent activities which adversely affect the outstanding universal value of natural and cultural heritage in the Ohrid region.

5.4.1.3. Competent institutions for managing spatial and urban development in the Ohrid region

For adoption and implementation of appropriate spatial and urban planning in the Ohrid region with its world natural and cultural heritage, more institutions are considered to be competent (Table 2):

Table 2. Spatial and urban plans and relevant institutions for their adoption and implementation with its world natural and cultural heritage in the Ohrid region

Body / Institution	Purpose	Plan
- Ministry of Environment and Physical Planning	- Zoning of protected areas - Zoning of monumental units	- Space Plan of RM - Space Plan for the Ohrid-Prespa region - Urban Plan on the National Plan Galicica
- Ministry of Transport and Communications	- Purpose of land use of construction parcels beside roads of national importance - Running a road, railway, energy, water supply and telecommunications infrastructure	- DUPD - Project infrastructure
- Municipality of Ohrid - Debarca - Struga	- Purpose of land use on the construction site intercity quarter, urban block etc. - Landscaping of building plots inside and outside the construction area, beside roads of local significance	- GUP, DUP, UPVNM, UPTRZ, LPUD,

Planning and land use is an important factor in preserving the outstanding universal value of World cultural and natural Heritage in the Ohrid region. Therefore, as for the plans that could be potentially compromising for these values, Strategic Environmental Assessment must be carried out pursuant to the Environment Decree on strategies, plans and programs, including their changes upon which it is compulsory to conduct an Assessment procedure of their impact on the environment and people's health. As for the Infrastructure projects, depending on the type of planned infrastructure are usually conducted procedures for evaluation of the environmental impact, according to the Law on Environment.

Provisions of relevance for the management of urbanization in the Ohrid region, including the provisions under which the Ministry of Environment and Physical Planning implements appropriate administrative procedures are contained in several legal regulations concerning the protection of nature, environment, urban planning, etc. .

5.4.2. Managing natural heritage

Natural heritage within the borders of World Heritage in the Ohrid region is concentrated in the National Park Galicica and the Monument of Nature the Ohrid Lake, including Studenchishko Marsh. The Public Institution National Park Galicica *manages* with the natural heritage within the National park in accordance with the *Galicica National Park Management Plan (2010-2020)*.

The Natural heritage of Ohrid lake is managed by several institutions and organizations (Table 3), in terms of regulating the level of the lake's elevation by the outflow of the river Black Drim, the management of fish stocks (including restocking), monitoring of water quality, regulating inland waterways etc.

Table 3. Overview of the system of managing natural heritage in the Ohrid region

Good/heritage	Body / Institution	Law	Plan or program
National Park "Galicica"	- JUNP Galicica	- Law on Nature Conservation - Act on declaring the part of the Galicica Mountain as National Park - Nominations for "Emerald area", "Important Plant Area," "Primary area for butterflies" and potentially "Natura 2000 area"	- Management Plan for the National Park Galicica (2010-2020)
Forests outside the National Park	- PE Macedonian Forests	- Forest Law	- Forest management bases
Monument of Nature Ohrid Lake (including Studenchishko Marsh) ¹⁵	- Municipality of Ohrid, Struga and Debarca	- Law on the Conservation of Ohrid, Prespa and Dojran Lake	- No Plan for Management of the Monument of Nature-Ohrid Lake
	- Hydrobiological Institute - Ohrid	- Water Law - Law on the Protection of Ohrid, Prespa and Dojran	- Monitoring program of the Ohrid and Prespa
	- ELEM	- Energy Law - Water management permit	- Managing the outflow of the Black Drin and hydroaccumulations of the Black Drin
	-Letnica-Belvica Milorad (Brown trout,Bleak)	- Law on Fisheries and Aquaculture	- Fishing basis of Ohrid Lake
	- Public Health Center Ohrid	- Water Law	- Program for monitoring the quality of swimming water
	- MTV the Port authorities-Ohrid	- Law on inland waterways	- Register of swimming facilities and boats;

¹⁵ It is not yet established a body to manage

Good/heritage	Body / Institution	Law	Plan or program
			<ul style="list-style-type: none"> - Restriction or prohibition of sailing - Report on pollution from oil and chemicals floating on the waterways

A study on the revaluation of the Monument on Nature-Ohrid Lake and Studenchishko Marsh has not been prepared yet, as a basis for passing a Law on declaring of these protected areas, that is, there are no appropriate plans for their management. Accordingly, there is no institution that will be responsible for managing the Ohrid lake and Studenchishko Marsh. In 2018, a processed proposal-file was drafted to declare the Ohrid lake and the Studenchishko Marsh as protected according to the Ramsar Convention, by whose declaration the Ohrid region should receive higher priority.

Considering that for the management of the Monuments of nature the Ohrid Lake and Studenchishko Marsh there are no appropriately designated managing bodies, it can lead to further uncontrolled exploitation of natural resources and loss of biological and landscape diversity of the region.

5.4.3. Managing Cultural Heritage

Cultural heritage within the borders of protected heritage is concentrated in the cities of Ohrid and Struga, the coastal settlements Trpejca, Ohrid Region, Radožda and Kalista and the coastal belt. The National institutions - National Conservation Center - Skopje and the Institute for Protection of Monuments of Culture and the Museum - Ohrid are held responsible for undertaking protective measures and conservation of World Heritage in the Ohrid region each according to its respective competences.

The Museum "Dr. Nikola Nezlobinski" -Struga is responsible for undertaking measures to protect the movable cultural and natural heritage that is part of the collection of this museum.

The Protection and Conservation Services are included in the urbanization of the area in a way that before commencing with the preparation of any planning document every urbanization is determined by making the protection and conservation grounds as directions for further urbanization of the area of the Ohrid region. These include identification, inventory, borders of immovable heritage with contact zone, protection measures, need for intervention, remediation and potential for sustainable use of the heritage.

Table 4. Overview of the system of managing natural heritage in the Ohrid region

good /heritage	Body / Institution	Law	Plan or program
Movable cultural heritage	<ul style="list-style-type: none"> - Museum "Dr. Nikola Nezlobinski "- Struga - Institute for Protection of Monuments of Culture and Museum in Ohrid 	- Law on Protection of Cultural Heritage	- Work Program
Immovable cultural heritage	<ul style="list-style-type: none"> - Institute for Protection of Monuments of Culture and the Museum in Ohrid - National Conservation Center - Skopje 		- Working Program Protecting conservation grounds for adequate urban development planning documents
		<ul style="list-style-type: none"> - Legal and natural persons - owners of cultural heritage - Macedonian Orthodox Church - Islamic religious community 	
The old city core of Ohrid	<ul style="list-style-type: none"> - Institute for Protection of Monuments of Culture and Museum in Ohrid - Municipality of Ohrid 	- Act declaring the old urban core of the city as cultural heritage of particular importance	
Immovable cultural heritage in state ownership	<ul style="list-style-type: none"> - Directorate for Protection of Cultural Heritage 	- Law on Protection of Cultural Heritage	- DUP
The old city core of Ohrid	<ul style="list-style-type: none"> - Institute for Protection of Monuments of Culture and the Museum in Ohrid - Municipality of Ohrid 	<ul style="list-style-type: none"> - Law on Protection of Cultural Heritage; - Act declaring the old urban core of the city as cultural heritage of particular importance 	
The old city core of Struga	<ul style="list-style-type: none"> - Institute for Protection of Monuments of Culture and Museum in Ohrid - Struga 	- Law on Protection of Cultural Heritage;	

5.4.4. Commission on managing natural and cultural heritage in the Ohrid region

The management of World Heritage in the Ohrid region is complex and involves many stakeholders and disciplines. At the same time, it is necessary to coordinate the existing systems for planning and managing natural and cultural heritage. Over the past years a dialogue was promoted between different stakeholders in order to find the most appropriate ways of managing natural and cultural heritage.

The Law on management of natural and cultural heritage in the Ohrid region is formed to take care to prevent activities whose implementation could have a negative impact on the outstanding universal value for their transmission to future generations. The Commission consists of 21 members.

The new draft - Law on management of natural and cultural heritage in Ohrid region (which is in the process of adoption in the Parliament) will create formal and legal prerequisites to prevent and strengthen activities that adversely affect the outstanding universal value of natural and cultural heritage in Ohrid region, and to take measures for its active involvement in community life, as a factor of sustainable development. For this purpose the Draft law provides for the *existing Commission for management of natural and cultural heritage of the Ohrid region* to transform itself into **a Council for monitoring and coordinating the management of natural and cultural heritage in the Ohrid region** (hereinafter "Council"), **consisting of 14 appointed external experts and administrative officials** - representatives of the Government of the Republic of North Macedonia, the Ministries of Environment and Physical Planning, Ministry of Culture and Transport and Communications, the municipalities of Ohrid, Struga and Debarca, the National Institute for Monument Protection of Culture and the Museum - Ohrid, the Public Scientific Institution Hydrobiological Institute-Ohrid, Public Institution National Park Galicica and civil society organizations in the field of natural and cultural heritage.

The powers of the Commission are directed to secure efficient protection of natural and cultural values of the heritage through:

- Integration and implementation of planning at all levels;
- Interdepartmental and inter-institutional cooperation;
- Involvement of civil society organizations in planning and monitoring the implementation of relevant strategic and planning documents;

6. Risks and assessment of threats to the outstanding universal value

6.1. Identified risks and recommendations in the Report of the UNESCO's Reactive mission

With the report of the Reactive Monitoring Mission (2017) the risks and threats to the outstanding universal value of the World Cultural and Natural Heritage of Ohrid Region have been noted down with proposals for their elimination or reduction:

1. *Construction of Railways, European corridor VIII*: It is recommended to identify alternative routes (including the proposed route by ICOMOS) which do not enter the borders of world heritage, or are not approaching too close to the shore of the Ohrid lake (especially to avoid the natural landscape of the Albanian-Macedonian border at the area of Lin) and the study of alternative routes that should be delivered to the world heritage Center.
2. *Construction of highway A2 section Trebenishte Struga, European corridor VIII*: it is recommended to provide a sufficient number of crossings for people and animals, and to take account of possible archaeological sites during construction.
3. It is advisable to estimate the cumulative impacts of railway and highway roads, respectively the environmental impact of each individual project by conducting impact assessment on the environment. They should be analyzed during the implementation of the Strategic Impact Assessment of the management plan for the natural and cultural heritage in the Ohrid region.
4. Construction of Express road A3: realization of this road is unacceptable, and for reasons that will cause irreversible damage to the exceptional universal value of World Cultural and Natural Heritage.
5. Construction of *skiing center Galicica*: In conjunction with other development projects and recent changes in settlements and coastal areas, the project will cause irreversible damage to the exceptional universal value of World natural and cultural Heritage.
6. *Tourist development projects / zones*: Tourism development zones Krasta, Gradiste, Ljubanista 1 and 2, as well as tourist facilities of larger scope for the purpose of congress tourism are regarded as threats, without previously analyzed the individual and cumulative impacts of these projects. They should be analyzed during the implementation of the Strategic Impact Assessment of the management plan for the natural and cultural heritage in the Ohrid region.¹⁶

The changes caused by urbanization are also singled out as factors that pose a risk of endangering the outstanding universal value of the World Heritage of the Ohrid region (risk noted on the missions of UNESCO-ICOMOS-IUCN in 1998., The mission of ICOMOS in 2013 and the Reactive monitoring mission of the world heritage Center of UNESCO and the advisory bodies (ICOMOS and IUCN) from 2017).

The Mission from 2017 found that the general state of conservation of mixed World natural and cultural Heritage in the Ohrid region is threatened by a number of factors that may result in application of paragraphs 179 and 180 of the Operational Guide which will mean that the authenticity and integrity of this heritage may become vulnerable.

With the decision of the World Heritage Committee (43COM 7V.36) adopted at the 43 session (Baku, Azerbaijan, June 30 to July 10 2019), the progress was recognized in the implementation of the part of the recommendations of the Reactive mission relating to failure of the ski resort, tourist development zones and road A3, and the borrowings delegated by the Government to the competent institutions, but also noting the remaining risks and needs that the country needs to overcome or meet as follows:

¹⁶ In 2018 a Decision was made by the Government to abandon the projects for sections (a) and (e) of the expressway A3 and the implementation of the ski center on Galicica and tourist development zones Krasta, Gradiste Ljubanista 1 and 2.

- To analyze alternative routes of railway Corridor VIII, which will stretch beyond the boundaries of the protected area in the Republic of North Macedonia and will build up on the proposed route of the railroad in Albania that goes beyond the protected region in Albania;
- To conduct the assessment of impacts on cultural heritage of the route of the A2 motorway section Trebenista - Struga
- To establish a moratorium on urban and coastal transformation to the adoption of relevant planning documents and the adoption of legal and control mechanisms that would guarantee the necessary protection;
- To prepare an inventory of illegally constructed buildings; to conduct impact assessment on cultural heritage and assessment of the environmental impact of these facilities and to approach to demolition of the buildings that have negative impact; to implement adequate supervision to prevent further occurrence of illegal buildings;
- To complete the management Plan for the natural and cultural heritage in the Ohrid region and to submit a draft plan to the World Heritage Center and the advisory bodies, before it is finalized and adopted;
- To implement all other recommendations of the Committee of UNESCO contained in the Report of reactive mission from 2017;

6.2. Coastal transformation and threats to the sites with natural values

By monitoring changes in the satellite imagery the coastal transformation was analyzed for the period 2012-2018 concerning the construction work at the coastline and setting up platforms in the lake, and changes (decrease) in the reed range (Figure 23).

The recorded changes in the belt of reed during 2011 are due to the merging of the former smaller complexes in larger and extending them even to the land, and because of the complexes of reed that formerly were characterized with rare reed are now with greater density. Therefore, the total number of complexes of reed in 2011 (80) is less than that recorded 25 years ago (105), while the total area of the belt of reeds is increased. Namely, according to the measurements of 2011 the total area of the reed belt of Lake Ohrid is 77,15 ha, which is 2,8 ha higher than that recorded 25 years ago (despite the rampant destruction of reed cutting, burning, uprooting, piling land and construction waste).

Taking into account the current situation in 2019, of the reed belt and the inspection by the Hydrobiological Institute - Ohrid one can notice that in certain areas the reed is uncontrollable destroyed by man-cutting, burning, uprooting, piling land and construction debris in order to obtain so-called "Useful areas" for various purposes (farmland, places to deposit the dirt and rubble, beaches, hotels and other accommodation facilities, parking lots, etc..).



Picture 26. Concrete wall of belt Struga Kaliste and prefabricated house Radožda



picture 27. Stocking construction debris in the belt of reeds near Struga



Picture 28. Cultivated areas in the belt of reeds before Radožda

Sites with natural values that are under threat are as follows:

- *Podmolje, Municipality of Ohrid*; threat: cutting and burning reed, potential urbanization, tourism, potential contamination and pollution;

- *Studenchishko Marsh, Municipality of Ohrid*; threat: not valorized, fragmentation, accumulation of waste and debris;
- *Svetinaumski Springs, Municipality of Ohrid*; threat: mass tourism, usurping the space by building restaurants, possible contamination of feeding fish in makeshift improvised ponds, wastewater, driving by boats;

6.3. Risks as classified by the International Union for Conservation of Nature (IUCN) and the Global International Waters Assessment (GIWA)

Risk assessment is carried out in accordance with guidelines published by the International Union for Conservation of Nature (International Union for Conservation of Nature (IUCN)) and the Global International Waters Assessment (Global International Waters Assessment (GIWA)). The classification recommended by the IUCN refers to risks to endangered species of flora and fauna, while the risks identified by March GIWA apply the ecosystem approach.

Risks present in the basin of the Ohrid Lake include:

- impacts on water quality within the watershed of Lake Ohrid;
- diffuse pollution, erosion and changes in hydrology from agriculture and unsustainable forestry;
- pressure on protected areas from unsustainable tourism;
- introduction of non-indigenous species;
- change or habitat loss;
- unsustainable fishing, and
- climate changes.

The effects of impacts / risks on the Lake can include impairment of the quality, changes in hydrology, loss of habitats and biodiversity, etc., which could affect the economic and social aspects. It is particularly important to note that these risks and effects are present in the whole lake (Albania and North Macedonia).

Table 5 identified impacts and risks present in the basin of the Ohrid lake, the level of exploration / knowledge of the causes of these phenomena and gives a description of the root causes.

Table 5. Influences / risk level of knowledge of the causes and description of causes

influences	main risks	knowledge of causes	Description of causes
1. Impacts of water quality in the watershed of Lake Ohrid	Intake of nutrients	well-known	Sateska River and Lake Prespa
	Input of sediments	well-known	Estuaries of the Lake (Sateska nad Koselska River)
	Sewerage waters	well-known	Unfinished collector's system is in poor condition; Obsolete run-down station and inadequately dimensioned treatment plant on wastewaters in Vranista
	Pollution of heavy metals	insufficiently known	Discharge of waste water from industry and mines in a Crossboundary Context
	intensive farming	unknown	Bioaccumulated pesticides in fish

influences	main risks	knowledge of causes	Description of causes
2. Diffuse pollution, changes in hydrology and erosion from agriculture and unsustainable forestry	Watering	Well-known	HMS Ljubanista - Irrigation water in this system is supplied by pumping water from springs near St. Naum
	Impoundment	Well-known	Intakes of irrigation water from the river Sateska affecting fish stocks
	Cutting trees	unknown	Illegal logging in Velgoshti
	fires	unknown	Anthropogenically caused fires on Galicica; Burning of the reed belt
3. Pressure on protected areas from unsustainable tourism	Construction of houses, villas, hotels	Well-known	Construction of weekend houses in infrastructure in protected areas of the National Park Galicica and construction of hotels in the coastal band and maintainance of the "Bay of Bones"
	Landscaping beaches	Known to a certain degree	Incompatible buildings in the coastal band that disturb the landscape
	Water sports	well-known	Destruction of places of spawning fish; Oil spill outs
	Pollution	well-known	Burdening the collector's system and TP station
4. Entering non-indigenous species	Competition with native species	intermediately known	The rainbow trout is a threat to the Ohrid trout
	population changes	insufficiently known	<i>Elodea canadensis</i> in macrophyte communities
5. Change of habitats and losses	Coast transformation	well-known	Fragmentation of Studenchishko Marsh; urbanization in coastal zone
	Fragmentation of coastal macrophyte vegetation	intermediately known	Macrophyte belt in Pestani and Trpejca
	Change and capture of springs	Well known	Usurpation of Svetinaumski springs (construction of catering facilities) as capture of water springs for irrigation
	Impoundment of springs	well-known	Impoundment of the spring Bay Well
	Eutrophication	insufficiently known	Changing mikrobiofilm and algal communities especially the rocky shores
	excessive fishing	well known	Illegal fishing of the Ohrid trout

influences	main risks	knowledge of causes	Description of causes
6. Unsustainable fishing	Release of alien and invasive species of fish	insufficiently known	Detected non-indigenous species that are a direct threat to indigenous species of fish
7. Global change	Rise in average temperatures	insufficiently known	Enhanced eutrophication followed by anoxia in many parts of the lake causing fish-kill

6.3.1. Factors affecting water quality in the watershed of Lake Ohrid

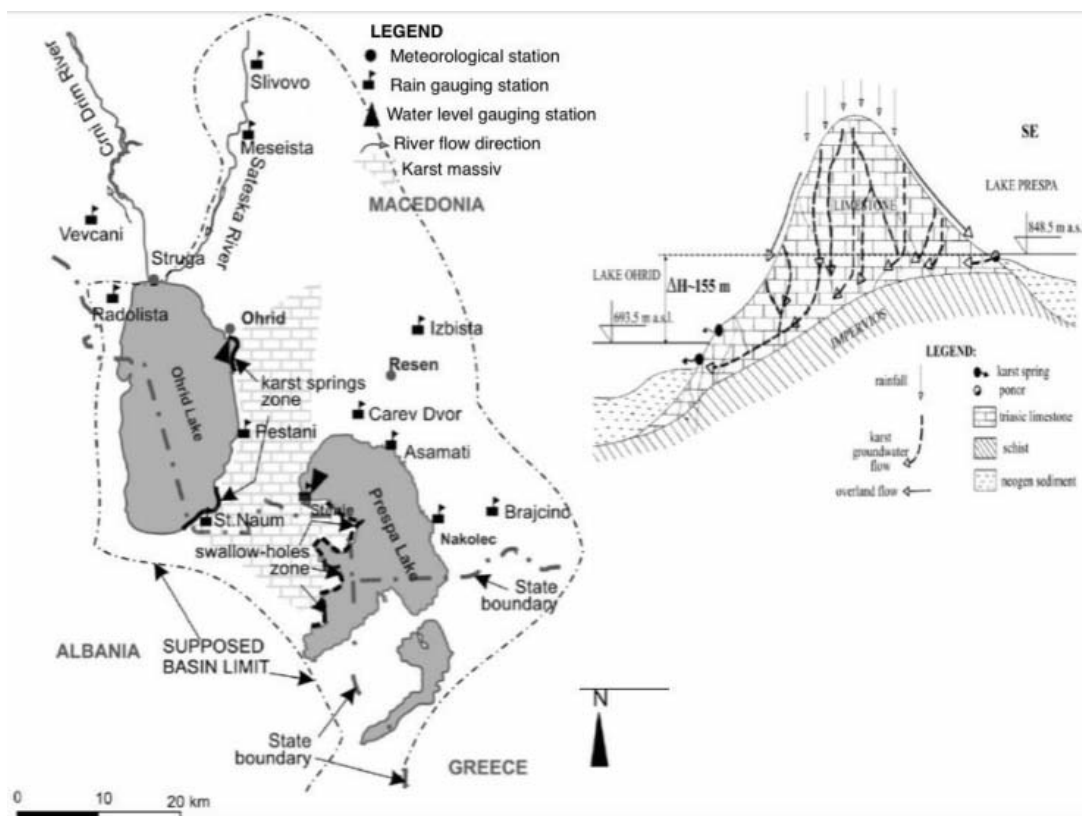
River Sateska has repeatedly confirmed negative impact on water quality of the Ohrid lake, as well as animal and plant communities that inhabit the Littoral. 5.28% or 53,96 km² of the territory is covered with high levels of erosion (*Blinkov et al.* 2004) that contributes for the River Sateska to deposit more than 100.000 m³ / of lake sediment in a yearly basis. In Total 38.1 tones of this material is phosphorus, which accumulates near the mouth of the river. The Sediment deposited in the Lake completely changes the shape of the Littoral at the entrance of the river (Figure 29).



Picture 29. Deposited sediment of the estuary of the river Sateska and changes over the years (satellite images from Google Earth)

These amounts of accumulated sediment from the mouth to the village Podmolje present a big threat to fish stocks in the Lake, because the fish do not lay eggs, and the sediment enters the gills of young fish and they die out.

Prespa Lake can affect the potential input of phosphorus into the Ohrid lake through the karst hydraulic connection between these two lakes (fig.30); phosphorus transported from eutrophic lake could threaten water quality in the Ohrid lake (Matzinger et al., 2006a).

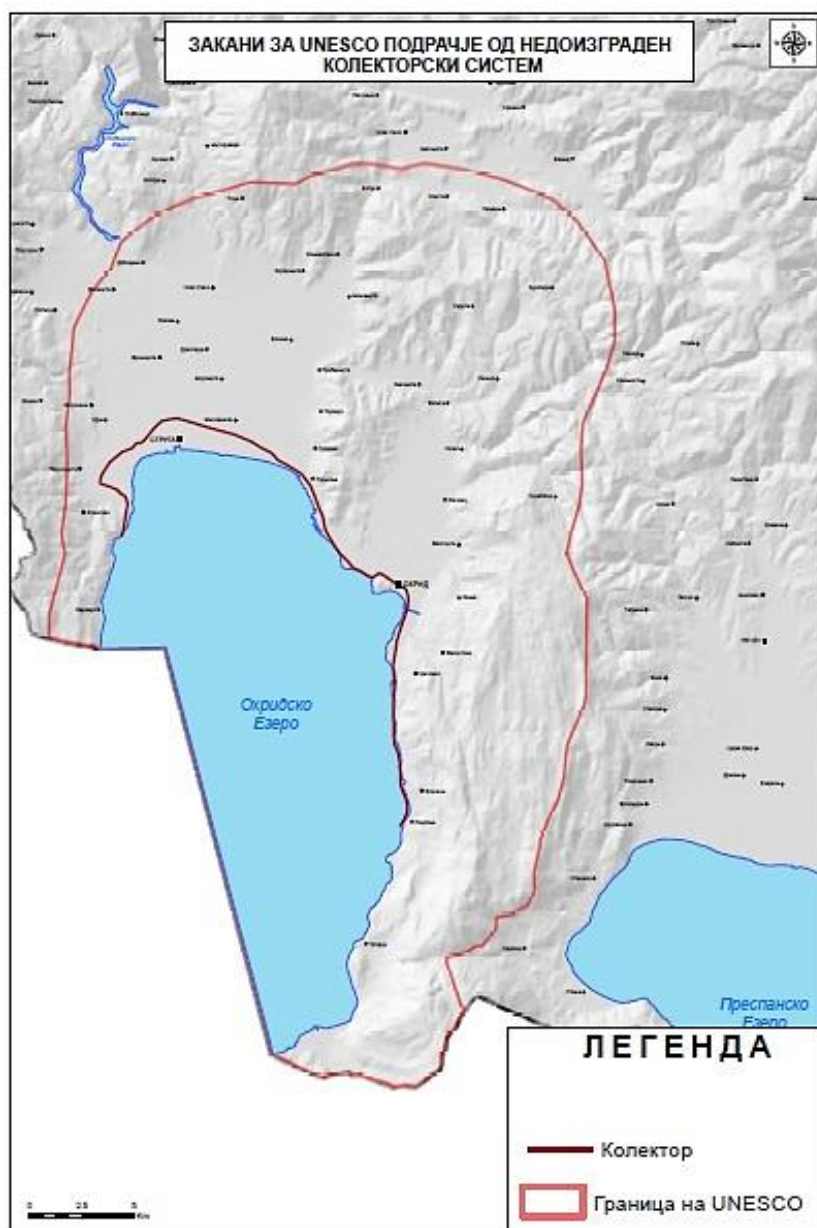


Picture 30. Waterways of Lake Prespa and rain waters that run down from the mountain Galicica into the Ohrid Lake (Popovska and Bonachi 2007)

Agriculture can be a source of diffuse pollution with various chemical compounds and heavy metals. In agricultural production different chemicals are being used that are insufficiently controlled. Conducted research shows traces of banned pesticides found in samples of tissue from fish, which means they can also endanger the human health. Uncontrolled and excessive use of fertilizers leads to intake of nutrients and thus eutrophication.

The water quality of the Ohrid lake is threatened by direct discharge of wastewater, industrial wastewater discharged partly into the river. Grasnica from erosive sediment through the river Sateska containing organic pollution from washing the soil layers that contain fertilizers and chemicals too for pest control.

Wastewater from the settlements, industry and tourism facilities is mainly collected in the collector's system and than treated at the station for waste water treatment in Vranista. 35% of the wastewater created in Ohrid - Struga are not treated and is discharged directly into the lake. The Collector's system is not completed (Figure 31) and also its inadequate maintenance led to damage to piping and equipment, which further reflects negatively on its functionality.



Picture 31 The degree of connection to the sewage network with the Collector's system (source: The Study to collect data in order to improve the environment of the Ohrid lake and the techniques for rehabilitation of the collector's system, JICA, 2015)

Wastewater Treatment plant is also in poor condition and can not achieve a satisfactory level of treatment of wastewater treatment. Partially treated wastewater is discharged in the Black Drin. The capacity of the station is not sufficient and requires its urgent upgrading. It is necessary to built 44 km of sewage and reconstruction of the station for waste water treatment.

In most inhabited places in rural municipalities around the lake, there is no construction of fecal and atmospheric sewer system. At higher precipitation and heavy rainfalls it comes to mixing of fecal and atmospheric wastewater and because of insufficient capacity of the sewage network that leads to outpouring of sewage water from manholes and thus flooding parts of the settlements. Also, when such occurrences happen, it comes to overload of the collector from the protection System of the Ohrid Lake,

because of which the wastewater is discharged into the lake without being treated properly. In Podmolje the overflow of sewage wastewater stimulates the growth of reed, but also causes pollution to the lake and unpleasant odor.

Waste which is collected from legal entities and households in Ohrid by the Public Enterprise "Ohridski Komunalec" is disposed at a non-standard municipal landfill Bukovo. It functions since 1972; the surface amounts to 60,000 m² and it is about 25 km distanced from the center of the city of Ohrid. With the National plan on waste management (2009-2015) this landfill has been assessed as a high risk to the environment and therefore it needs to be closed no later than 2020. Koselska river can transport pollution in the Ohrid lake which would potentially transfer from the landfill "Bukovo" which does not meet the standards.

The unsustainable fishing of the lake reduces fish stocks, where many valuable endangered species such as the endemic Ohrid trout have been endangered (*Salmo letnica*).

The Industrial facilities in the municipalities of Ohrid and Struga do not create a large amount of industrial wastewater. Overall, wastewater from these facilities is discharged into septic tanks. It is therefore considered that wastewater from the industry does not perform significant pressure on the water quality of the Ohrid lake.

The annual hydrological balance is achieved by regulating the outflow of Black River Drin and the diverting of River Sateska. The discharge of the Ohrid lake is regulated according to the harmonized elevations of the lake - natural minimum of 693 m asl and a maximum of 694 m asl

Although the Ohrid lake was declared a world natural heritage protected by UNESCO, it has been used for decades as a reservoir for the production of electricity by AD ELEM based on obtained water management permit.

The company for production and distribution of electricity AD ELEM is responsible for the regulation of the water level of Lake Ohrid. The regulation of the water is done by releasing water from the lake into the river. Black Drin which is still performed manually by wooden partitions.

Along the river Drim there are two hydropower plants on the territory of the Republic of North Macedonia HPP "Spilje" - Debar and HPP "Globochica" near municipality of Struga and three hydropower plants on the territory of the Republic of Albania. Large fluctuations in the water level in the lake, which are often the result of improper management, have negative impacts on the ecosystem of the Ohrid Lake because of the withdrawal of water and corresponding impacts on biological diversity (Figure 32), or the overflow of the lake which takes place at high water level and washing out of fertilizers and pesticides from agricultural surfaces.

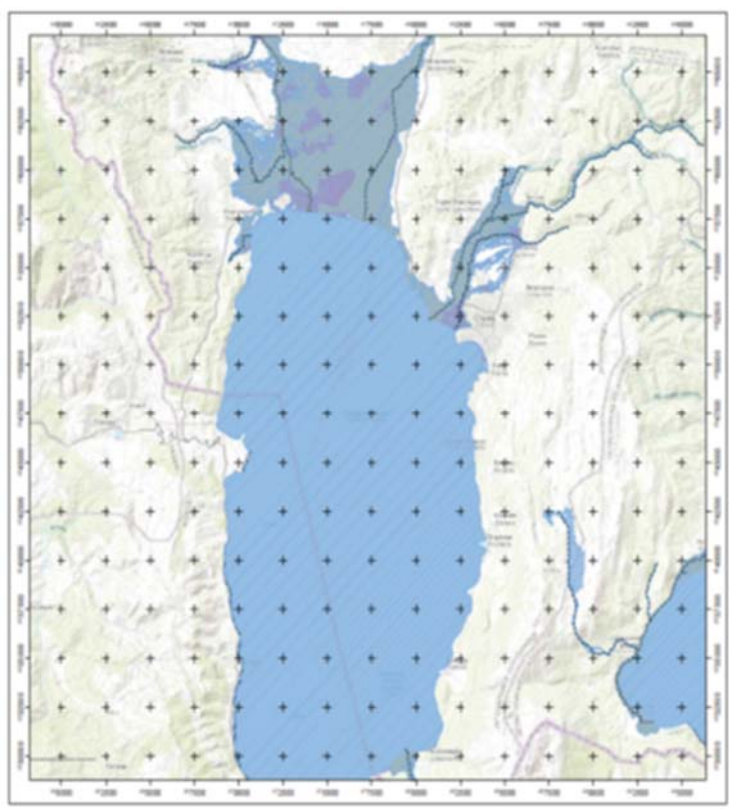


picture 32. Appearance of the Ohrid lake when the level is below the minimum allowable natural elevation (left) and above the maximum permissible natural elevation (right)

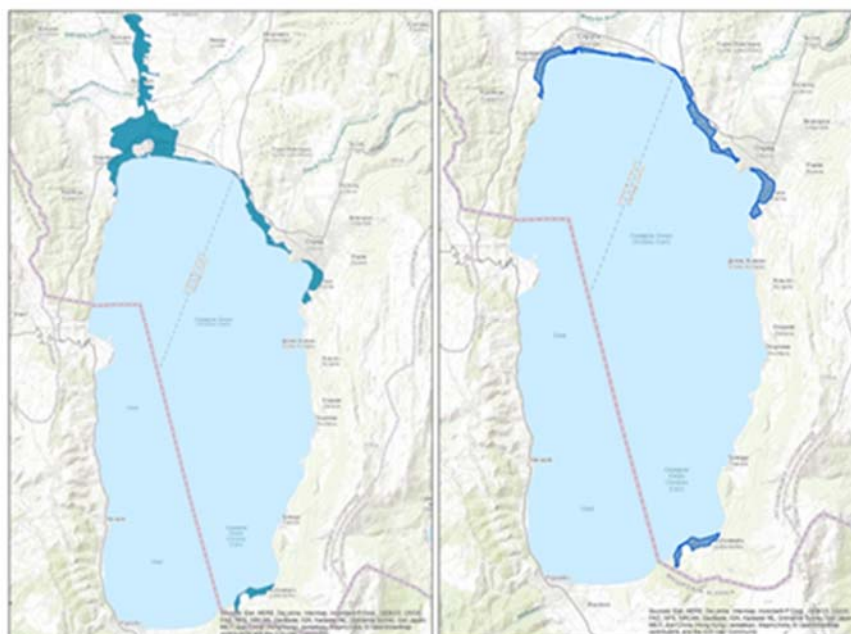
Data on the oscillation of the water level in the Ohrid lake for the period 1951-2000 (Popovska and Bonacci 2007) show changes in the level of 1.6 meters, with the height of the lake between 693,0 and 694,6 m m altitude and an average elevation of 693,5 m above altitude.

Leveling the lake last was conducted in the second half of the 20th century, which clearly indicates the need to re-analysis. By diverting the river bed of r. Sateska in the Ohrid lake, altered the natural water oscillations in the lake about 50 centimeters. The Elevations that are set in the early 1960s must be reviewed, due to the fact that the same in the previous period can be moved where effect of possible changes is unknown. It is also necessary to revise the agreement with Albania to discharge a certain amount of water for its energy needs.

For the purposes of Preliminary assessment of the risk of flooding in the basin of the river Drin / Drim - Buna / Bojana [1] (within the project "Adaptation to climate change in transboundary management of flood risks for the Western Balkans", GIZ, Eschborn, Germany) hydrological modeling of flooding has been made of the surface water region (Fig. 33)and of groundwater flooding and flooding of coastal areas (picture.34).



picture 33. Hydrological modeling of flooding from surface water



picture 34. Hydrological modeling of flooding from groundwater (left) and flooding of the coast as a result of the outbreak of the Lake (right)

The Lake is a major factor for the condition of the **Studencishko Marsh too**. There is no doubt that the waters of the Marsh communicate with the Lake and it is the level of the Lake that acts as a regulator of the groundwater level in the Marsh. It is certain that high Water-Lake levels make greater barrier of the water outflow to it and increase the groundwater level in the Marsh and at high Water levels-as they were in 1963 and in the spring of 2010, it becomes an integral part of the Lake. The Sustainable development and in general the survival of the Marsh consists precisely of how the linkage with the Lake will be built, or how the constant communication of the water from the Marsh with the waters of the lake will be sorted out.

Irrigation: The waters of the tributaries of Lake Ohrid and of the spring st. Naum have been used for irrigation too. Namely, irrigation of areas in the Ohrid region is carried out through the following hydro systems:

1. Hydromeliorative Systems (HMS) with natural streams and rivers

- HMS Leskoec
- HMS Kosel - Lakocerej
- HMS Velmej
- HMS Lesani
- HMS Sateska (Volino, Meseista)

2. System with pumping out water

- HMS Ljubanista

3. Irrigation system with an artificial reservoir

- HMS Slatino

HMS Ljubanista uses water for irrigation which is supplied by pumping out water from springs near St. Naum. The water is discharged to a height of 15 meters, then watering is done by gravity. Pumping of irrigation water poses a risk to the preservation of resource, but also to the values of these springs as well.

6.4. Factors that endanger the cultural heritage and urban architectural values

Cultural heritage is an important component in the overall values of the Ohrid region. The Recognizable architectural structures that make up the urban matrix of urban centers, the multi-layered historical periods confirm the role of immovable cultural heritage and the need for its adequate protection. But despite the large number of buildings that underwent the necessary conservation and restoration interventions, we are still facing a number of factors that threaten cultural heritage:

- Incomplete expert evaluation of space and lack of studies to protect architectural heritage for all settlements (valorization has been finalized and the revaluation of the most secular buildings, religious buildings in the municipalities of Ohrid, Struga and Debarca.
- Insufficient awareness and knowledge on the historical development of the region, ie, the characteristics of the historical epochs that influenced the look and conditioned many transformations of space that adversely affected the possibility of recognizing the values and potentials;
- Underdeveloped general awareness of the values and potentials of the area as a whole, and insufficient awareness of the architectural and artistic values of the building and other cultural heritage;
- Building many facilities at the coastal area of the Ohrid lake leading to continuous change the existing structure of the coastal settlements of the very landscape and the coastline;
- The maladjustment of the concepts on development of individual industries with spatial potentials of the Ohrid region and with the restrictions set out with the criteria for protection (traffic and other infrastructure, large tourist complexes, manufacturing plants, various plants and facilities, stations, warehouses, storage facilities);
- The Maladjustment of standard tools for planning the improvement of the situation of the architectural heritage with the prescribed criteria for protection;
- Insufficient training and inadequate number of professional staff to perform work on the planning, design and execution of construction and other activities in the Ohrid region in terms of knowledge and integration of mechanisms for protection of heritage;
- Absence of any benefits or incentives and assistance to owners / users of rehabilitation, restoration and conservation of their facilities;
- Insufficient number of qualified personnel to perform work in traditional craft techniques.
- Insufficient number of qualified personnel to carry out work for the study, conservation, restoration and protection of cultural heritage.
- The lack of consistent and reliable sources of funds and continuous way to finance the protection and improvement of the condition of the building and other cultural heritage.

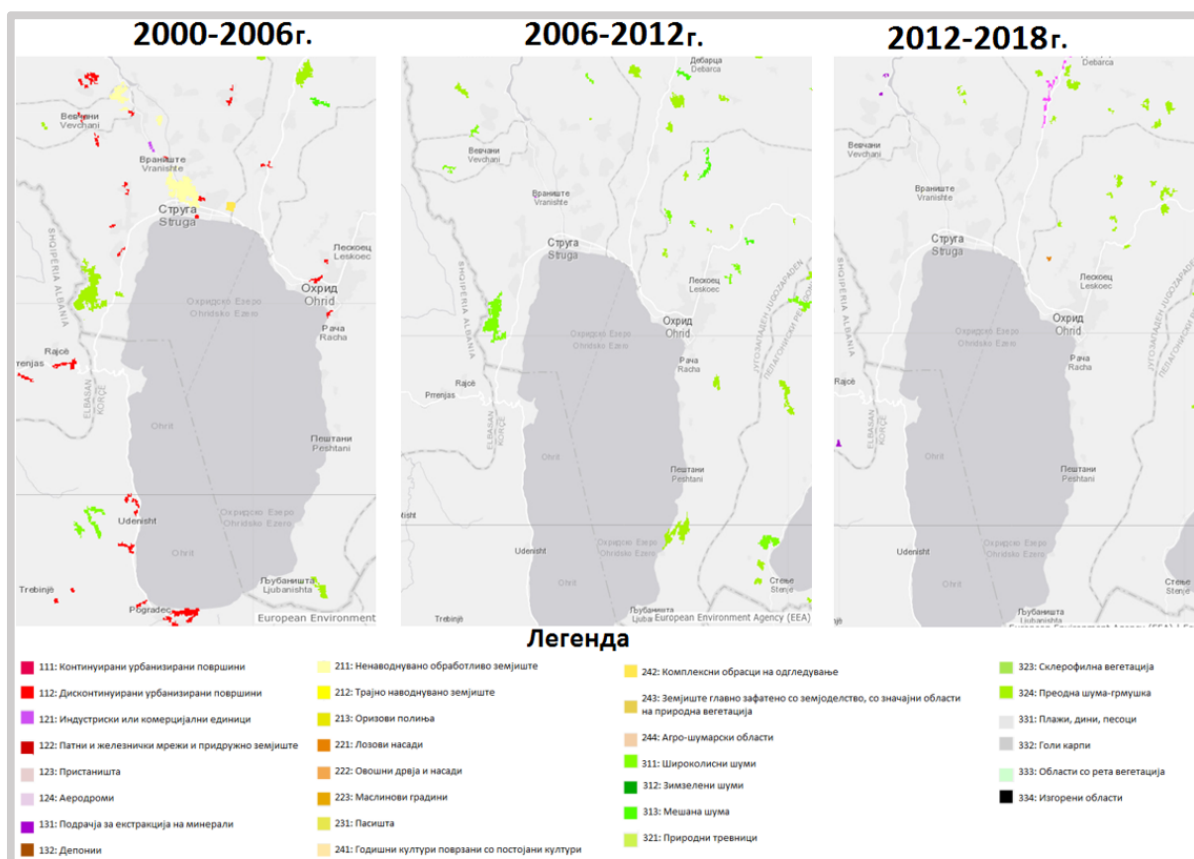
6.4.1. Urbanization and illegal buildings

The urbanization of the Ohrid region started in the middle of the XX century, and particularly intense urbanization is present in the new parts of the cities and tourist complexes in the coastal part of the lake; historical cores in larger or smaller changes remain in its historical framework and current cultural landscape.

Excessive and uncontrolled urbanization negatively affect the preservation of: the structure of the old city cores of Ohrid and Struga with old city architecture, the structure of the coastal settlements and other areas where cultural goods can be found.

Through different time periods since 2000 and onwards, the intensity of the conversion of productive land varies as it depends on the possibilities for spatial development which are correlated with the amendment of the Provisions of the Law on Space Planning and suitable relevant bylaws.

The change of land use in the Ohrid region by periods, according to CORINE Land Cover (CLC)¹⁷ is shown in Figure 35.



picture 35. Change of land use (Source: www.land.copernicus.eu/pan-european/corine-land-cover)

The increase in urban area coverage by way of conversion of productive land into construction land has been provided for the time series (2000-2006; 2006-2012 ; 2012-2018). In fact, in the period of 2000-2006 it is noted that a large percentage of the land in the municipality of Struga is changed into discontinuous urban land (according to CLC classification marked in red) as well as in agricultural land which is not irrigated (marked in yellow).

¹⁷ Corine Land Cover is an inventory of uses of land use which are classified into 44 classes. <https://land.copernicus.eu/pan-european/corine-land-cover>

Apart from the conversion of land for the purposes of urbanization, the increased density of population is a recognizable feature, ie the percentage of completion. The number of storeys and traditional characteristics of architecture in urban areas have been changing.

The coastal transformation was analyzed for the period 2012-2018 by monitoring the change of satellite images relating to construction of buildings at the coastline and setting up platforms in the lake, and changes (decrease) in the areal of reed.

Larger problems with rising urbanization in the coastal area occur with the annulment of the **General Urban Plan on the coastal area of the Municipality of Ohrid**, which was repealed in 2005., with the Law on Urban and Space Planning ("Official. Gazette of R.M." no. 51/05), where it was for the first time defined that the **General urban plans are made only "for the City of Skopje and the cities that are seats of municipalities. "** The transitional and final provisions of this Act state that the general urban plan for economic and other developments brought before the date of entry into force of this Act shall apply in Urban plans outside the populated area (and the same will be complied with the provisions of this law within one year from the date of its entry into force).

Later, with the adoption of the Law on Urban Planning from 2009. ("Official. Gazette" no. 91/09), there was an even greater increase in urbanization, enabled with the types of urban documentation like: State and local urban planning documents and with the Urban planning documentation for the tourism development zone, the urban planning documentation for the auto-camp etc. This kind of planning documents and especially in the Urban planning documentation for buildings of particular interest, introduced with the amendments of the legal decision of 2014. (Law on Urban Planning "Official. Gazette of RM" No. . 199/14), is **the fragmentation of planning**, because the plans were drafted and passed without defining a framework of spatial development to a higher level. Article 50 (Urban planning documentation for buildings of special interest) was later repealed by the Constitutional Court, at the session held on July 5, 2017., but urban documentations such as: local urban planning documentation; state urban planning documentation; urban planning documentation for tourism development zone; urban planning documentation for the car-camp and urban planning documentation for buildings of particular interest, are still in force, with the existing Law on Spatial and Urban Planning ("Official Gazette of RM" no. 199/14, 44/15, 193 / 15.31 / 16, 163/16 and 64/18).

Particularly big problem was created with the Law on Treatment of Illegally Constructed Buildings (which invariably refers to the entire territory of the country) from 2011 ("Official Gazette of RM" no. 23/11), which not only enabled legalization of illegally constructed buildings, but also the local government units were responsible for their inclusion in the relevant planning documents and with the amendments of this Act ("Official Gazette" no. 23/11, 54/11, 155/12, 53/13, 72/13, 44/14, 115/14, 199/14, 124/15, 129/15, 217/15, 31/16 and 190/17), the deadlines for legalization were repeatedly extended, so that with the last amendment of 2017., submitting request for determining the legal status of an illegal object It has been defined to 31.12.2018.

6.5. Other risks on the conservation of outstanding universal value of natural and cultural heritage in the Ohrid region

The system for managing natural and cultural heritage in the Ohrid region is based on the appropriate legal and institutional framework, which is constantly reviewed and improved. However, despite the fact that there are legal and institutional mechanisms for protection, the characteristics of natural and cultural heritage have been deteriorating, due to impact of natural and anthropogenic factors, such as:

1. Are being built or there is a planned construction of facilities in the coastal zone, which leads or may lead to a deterioration of hydrology, water quality of the lake, biodiversity, landscape values and can

be reflected negatively on conservation of: the old city architecture, the structure of coastline settlements, the structure of the old city core of Ohrid and Struga and the surrounding areas where there are historical monuments.

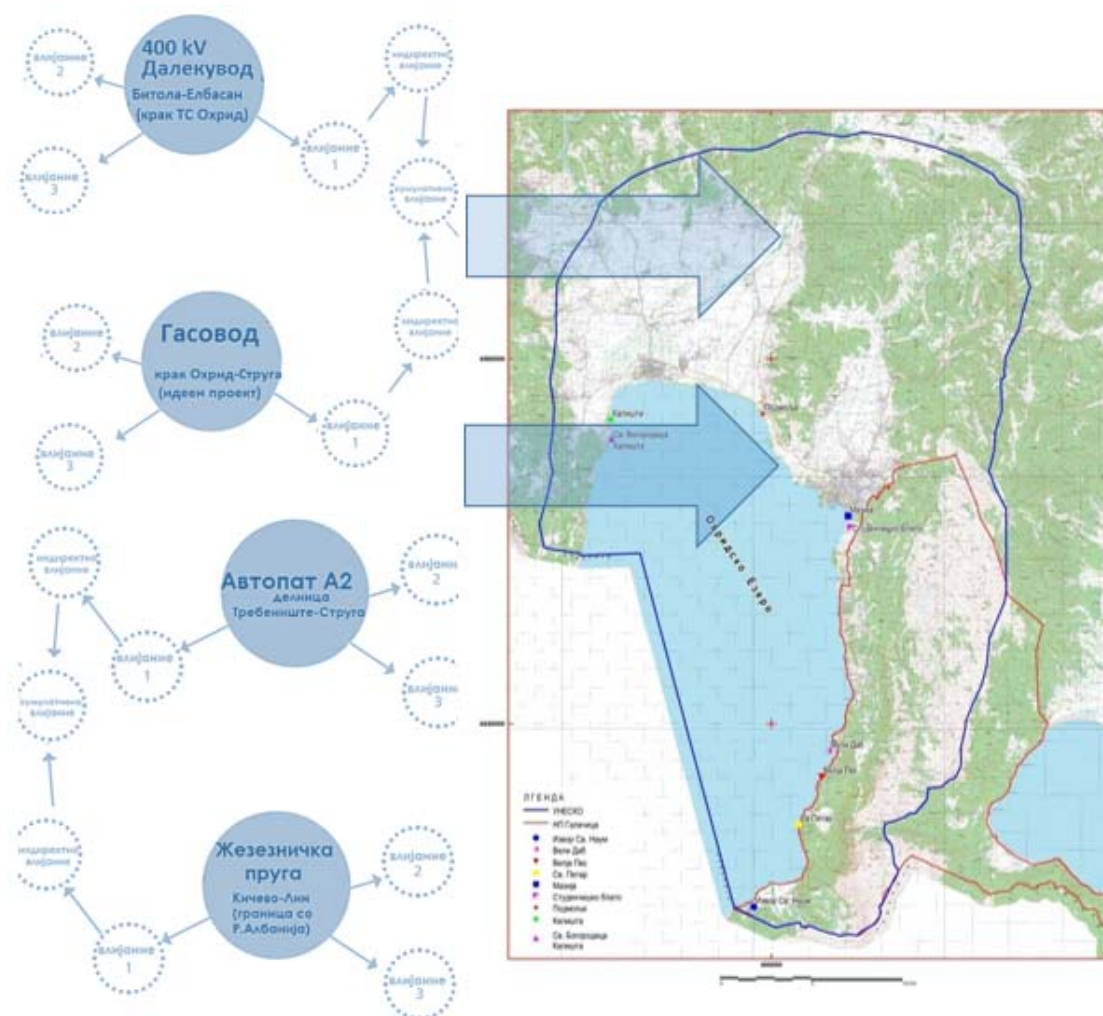
2. The construction of new facilities does not take care to preserve the visual characteristics and the architectural values; on the other hand, not enough care is given to separate objects from immovable cultural heritage.
3. Some settlements are not connected to the collection system, the collector and the wastewater treatment plant are in poor condition due to their inadequate maintenance and obsolete equipment.
4. Waste is inadequately treated in terms of inefficient collection of waste in populated areas or waste disposal at the landfill "Bukovo" in a way that is detrimental to the environment.
5. Heavy traffic (especially during the tourist season) causes congestion, pollution and negative impact on ambient values in the cities of Ohrid and Struga.
6. Due to the planned road, rail, pipeline and energy infrastructure it may lead to fragmentation of habitats and disruption of natural values, habitat fragmentation, etc.
7. Mass tourism in protected areas may put pressure on the values of the region.

6.5.1. Infrastructure facilities

Within the natural and cultural heritage in the Ohrid region it is planned to have construction of line infrastructure including:

- Railroad Kicevo-Lin (at the border with the Republic of Albania)
- Highway A2, Section Trebenishte- Struga
- Interconnective 400 kV overhead transmission line SS Bitola 2 - Macedonian-Albanian border and SS 400/110 kV Ohrid
- National gasification system, section Ohrid-Struga

Undeniable is the need for the implementation of this type of infrastructure, but the routes, applied technologies of construction and maintenance, may adversely affect the exceptional universal value of the heritage (Figure 36).



picture 36 Impacts / risks of planned infrastructure projects

The route of the **railway line Kicevo-Lin** (border with the Republic of Albania) had been elected at the stage of pre-feasibility study based on the technical, traffic, exploitation and economic criteria without analyzes of environmental and social criteria. Two alternatives were considered (Figure 37)

- **1 SA 1** - that the connection with R. Albania is accomplished through a longer tunnel (where the impacts on biodiversity and the landscape are reduced to a minimum) and at a greater distance from the shore (therefore the impacts on water quality of the lake is reduced to a minimum) and
- **1 SA 2** – the second, to which the route of the railway approaches the lake shore while at the same time intersecting in the foothills of Mount Jablanica (which is a potential Natura 2000 area).



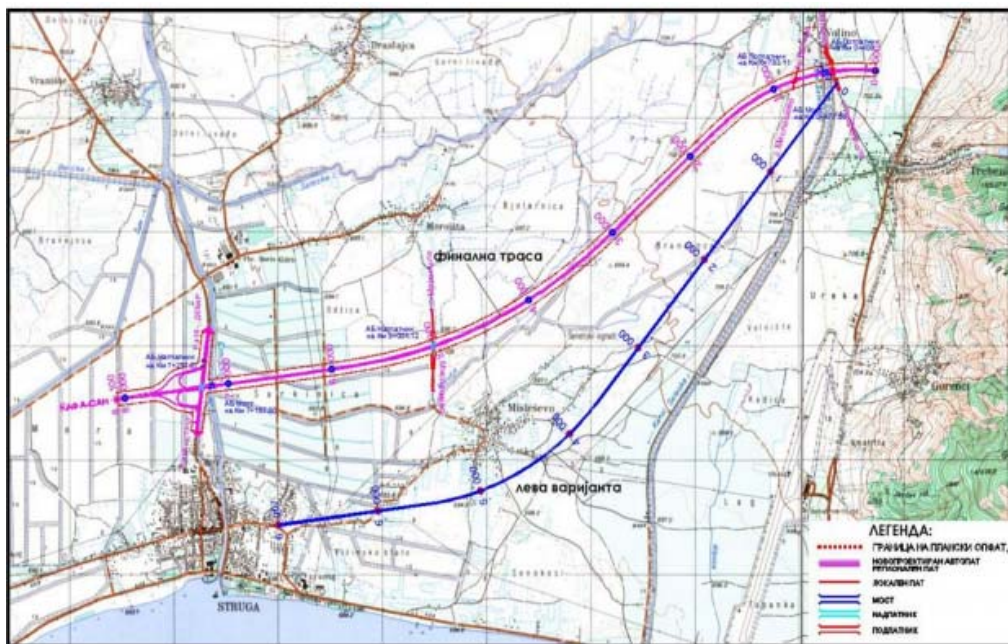
picture 37 Analyzed routes of the railway line Kicevo-Lin

During the implementation of the Assessment of the environmental impacts, the route that leads to the tunnel was not considered at all; out of the two alternative solutions (zero alternative to prevent building and alternative route **1 SA 2** which goes down at the foot of Jablanica and goes closer to the lake) there is no room for an objective selection or the environmental criteria are not equal in importance to the technical and financial ones. The route that is selected, in conjunction with the road Struga-Kafasan can commit violations of the landscape and permanently impair the outstanding universal value of the environment. So, before you finally decide on the selection of the route of the railway that will be financed by European funds (IPA), it is necessary to consider the alternative tunnel crossing the border with Albania. The Consideration of at least one alternative (which will also include ICOMOS's proposal during the April 2017 reactive mission) remains an obligation to be fulfilled before submitting the report to the World Heritage Committee in February 2020.

As for the A2 motorway, section Trebenishte-Struga, an Environmental Impact Assessment (EIA) was realized, at the request of the European Bank for Reconstruction and Development (EBRD) and the following is also prepared:

- Assessment of Biological Diversity (Biodiversity Assessment)
- Plan on the impact assessment over cultural heritage (Heritage Impact Assessment Report)

During the process of selecting a location on the route of the Highway A2 (European Corridor VIII, section Trebenishte-Struga) in the EIA study three alternative solutions were reviewed (zero alternative - not to build, left and right alternative route). When selecting the final route, the technical, economic and environmental criteria are taken into consideration. In terms of preserving the heritage, the final (right) route is more advantageous than the investigated left variant that is unfavorable due to the immediate vicinity of the Ohrid lake and river Sateska which could affect on water pollution in the region as being the most sensitive ecosystem. In addition, a sufficient number of passages for animals have been predicted in the road body. Thus, the recommendation by UNESCO has been fully applied. (Figure 38).



picture 38. Considered alternative routes of section Trebenishte Struga (source: EIA for the project)

EIA study and social aspects: 400 kV overhead transmission line SS Bitola 2 - Macedonian Albanian border and SS 400/110 kV Ohrid.

During the selection two main strategic alternative transmission line corridors were taken into account.

- Alternative corridor 1 of the transmission line passes through 11 km long section through central areas of the National Park Galicica also identified as Emerald areas (future Natura 2000). The proposed project for the transmission line is not in accordance with the status of a protected area - NP Galicica.
- Alternative corridor 2 of the transmission line passes through a peripheral northern region declared a World Heritage by UNESCO - the Ohrid region, away from the main area with natural values and the Ohrid Lake. The affected area mainly consists of farmland, pastures and forests and the occasional suburban settlements that gravitate to the cities Ohrid and Struga and avoid any impact on the natural values or their protection status. The Alternative corridor 2 of the transmission line avoids all categories of protected areas in Ohrid, including NP Pelister and NP Galicica.

In the area of connection with Albania, two variants were analyzed (sub-corridors) of the alternative transmission line corridor 2:

- For corridor 2A: corridor of the transmission passage to Albania Kafasan site near the current border crossing. It passes through the peripheral south-eastern area of the proposed NP Jablanica in

approximately 2 km long section. The area is urbanized and includes numerous manmade interventions settlements, roads, housing and commercial buildings, etc. Hence, it is unlikely to have significant effects over the proposed NP.

- Sub-corridor 2B: OHL corridor of transmission line with crossing into Albania over Jablanica. This sub-corridor passes through the central area of the proposed NP Jablanica in approximately 5 km long section. It is most likely to have significant impacts on environmental and landscape values of the proposed NP. This option passes at altitudes greater than 1.500 m asl making the access and construction as well as the operational control and maintenance very difficult.

2B variant of the corridor of transmission line (connection point with Albania at Kafasan site, which avoids the central areas of Jablanica) is considered as the most favorable alternative to the proposed transmission line.

The route of the pipeline Kicevo-Struga Kafasan and Prilep, Bitola, Ohrid has not been determined yet. In its definition will have to take into account the cumulative impacts with other infrastructure and other anthropogenic structures.

All potential threats to the area are shown with cartographic images fig. 39 /



picture 39. Potential risks on outstanding universal values

6.5.2. Newly constructed buildings in the old city cores

In Ohrid region the contemporary urbanization affects free spaces along the Ohrid lake and filling the vacant green areas in the old city core of Ohrid and Struga. Mostly they build single family houses that are often of inappropriate sizes and heights and inappropriate architectural form. These structures are

changing the recognizable silhouette of the cities and threatening the features of the urban matrix. This leads to disruption of the original spatial organization within the traditional units.

The Vulnerability of cultural heritage is enhanced by the permanent loss of the original characteristics of the individual elements, in particular by:

1. Replacing etc. old Turkish wileramida/tile with other materials of roof coverings;
2. Changing the appearance of windows and doors, with wooden joinery that is being replaced with a plastic or aluminum, thereby drastically modifying the architecture of the buildings; Use of new building materials during construction of a built traditional stone ground floor of buildings thus losing the authentic traditional look of the walls and damaging the original setting;
3. Use of various shades in the facade processing facilities (instead of the typical white) by private owners as well as using various materials unsuitable for existing architecture without the use of wooden horizontal and vertical stitching elements;
4. Failure to comply with the characteristic architectural form of wall playful surfaces where buildings often end up either with protruding wooden roof or a corrugated roof that enriches the architecture of the building and above which immediately begins roof construction and roofing;
5. Changing paving squares and streets, with new modern construction materials that do not fit the original setting;
6. Billboards, and other items of equipment (including waste containers placed in the old city core) disturb the line of sight to the buildings and thus violate the environmental and aesthetic values of natural good .;

Risk factors that contribute to reduction or loss of the values of cultural heritage are:

1. The demographic growth and population migration from rural areas to urban centers, leading to social change and distortion of historical centers where commercial buildings receive function, and living spaces are often overcrowded;
2. increased motorized traffic and its penetration into the parts that were never intended for use of vehicles that produce atmospheric pollution and destructive vibration;
3. Construction of tall buildings that "suffocate" historical urban centers, changing its microclimate;
4. Change of the type and scope of commercial activities affecting the economic functions of the historic area;
5. No proper maintenance of the old buildings and misunderstanding of their cultural and functional values, which increases the risk of decay and demolition;
6. Numerous transformations of space that adversely affect the possibility of recognizing the values and potentials;
7. Underdeveloped general awareness of the values and potentials of the area as a whole, and insufficient awareness of the architectural and artistic values of the building and other cultural heritage;
8. Building many facilities at the coastal area of the Ohrid lake leading to continuous change of the existing structure of the settlements, and the landscape of the coast;
9. Maladaptation of the development concepts of individual industries with the spatial potentials of the Ohrid region and with the restrictions setting out the criteria for protection (traffic and other infrastructure, large tourist complexes, manufacturing plants, various plants and facilities, production lines stations, warehouses, storage facilities);
10. Maladaptation to standard tools for planning the improvement of the situation of the architectural heritage with the prescribed criteria for protection;
11. Insufficient training and inadequate number of professional staff to perform work on the planning, design and execution of construction and other activities in the Ohrid region in terms of knowledge

and integration mechanisms for heritage conservation and insufficient number of qualified personnel for the works in traditional craft techniques.

7. Vision and goals of protection

7.1. Vision

The significance of the natural and cultural values of good is deeply embedded in the tradition and awareness of local communities and citizens from around the country.

Because of the urban architectural and natural values of the Ohrid region, the spatial development will be guided by the principles of integrated care, ie, the respect for traditional urban models on conservation of natural and cultural heritage, the cultural landscape of the region of Ohrid and its wholeness and integrity, as well as establishing a balance between the needs of modern life and the preservation of traditional and universal values.

Considering the urbanization that affects or may affect the natural and cultural heritage, one will establish appropriate zones of protection throughout the territory of the protected good . These protective zones and corresponding modes of care will provide on medium and long term notice full recovery of the functionality of the coast of the lake.¹⁸

The Ohrid region as a World heritage is an attractive destination for all. Therefore, with a wide consensus of all stakeholders, special care will be undertaken of the promotion and preservation of cultural values, their multiculturalism, numerous traditional cultural events, ancient spirituality and character. Old crafts will be restored and will again revive.

Because of the unique natural values of the Ohrid region, the protection and conservation of its biodiversity and geological diversity will be planned and realized with utmost attention. By undertaking measures to protect species and habitats that are included on the national and international lists of protection will ensure the stability of ecosystems.

Ohrid region will continue to be active and alive place that will wisely use its status as a World Heritage Site of UNESCO for its wide recognition and appeal as a unique cultural and natural value.

The outstanding universal value of natural and cultural heritage of the Ohrid region will become the starting point for establishing bridges of cooperation with neighboring countries and with the countries of the wider region.

7.2. Objectives

Realization of the Vision included in the Management Plan is only possible with the implementation of the following general goals:

1. Controlled urbanization;
2. Protection of natural heritage;
3. Protection of cultural heritage;
4. Sustainable economic development that is not contrary to the outstanding universal value of the protected good;
5. Strengthening the management capacity of the institutions;
6. Raising awareness and education;

¹⁸ The shoreline of the lake, if it is in its natural state (with a high degree of functionality) can carry out its positive features on biodiversity and water quality of the lake including: filtering of sedimentation and pollution; protection from erosion; removing nutrients; Control of water temperature; establishing and maintaining natural habitats; protection and maintenance of high value to the landscape, which is formed by natural and cultural attributes that have historical value.

8. Zoning and protective measures within the natural and cultural heritage in the Ohrid region

8.1. Need to establish protected zones within the natural and cultural heritage in the Ohrid region

The plan envisions the future spatial development of the Ohrid Region to be directed to the protection of his Outstanding universal value. The zoning is done with defined measures of protection on natural and cultural heritage in each of the zones. By applying the system of values and the establishment of relations between environmental, social and economic balance, the criteria for zoning have been defined.

8.1.1. Properties' values as a basis for zoning

The criteria for zoning and natural heritage are based on the natural values of the region. Despite the criterion (vii) required for registration in the World Heritage List which means "... *exceptional natural phenomena or areas of special natural beauty and aesthetic importance*" ... defining the criteria concerning the properties of the natural characteristics too, based on which zoning has been done, such as:

1. *Authenticity* expressed as the degree of conservation of the source or natural and cultural values which confirms the exceptional universal value of natural and cultural heritage of the Ohrid region as a World Heritage of the UNESCO.
2. *Rarity*, expressed as a representation of the type of less than five sites in the Republic of North Macedonia, usually with small areas within its wider area.
3. *Degree of endemism* Expressed as the presence of a species or subspecies whose distribution is limited to a certain area. Stenoendemic species shall mean species or sub-species whose distribution is limited to a very narrow area (top of the mountain, canyon, etc..).
4. *Diversity*-Expressed as variation between plants, fungi and animals with their habitats, and their genetic material and ecosystems; Elements of geological diversity.
5. *Integrity*, expressed by the degree of uniformity of functions and forms, the compliance with the structures or content, interaction with the environment, linkage of the parts in the whole, and the like.
6. *Conservation status of natural habitats*-Expressed as a sum of factors acting on the natural habitat and its typical species that may affect its long-term natural distribution, structure and function, as well as the long-term survival of typical species.
7. *Relics*-Expressed as the presence of species that are kept at the specified area (mostly refugium) of some past geological epoch (period), when they were far more widespread and more specific.
8. *The presence of species and habitats of European importance*(Emerald species, Natura 2000 species of draft national reference lists of Annex I and II of the Directive on Habitats Annex I and the Directive on Birds). Based on the presence of habitats and species in these annexes in one area, the identification of potential areas for ecological network Natura 2000 has been identified.
9. *Degree of involvement of the species* (A vulnerable species, Endangered and Critically Endangered) according to IUCN Global Red List of IUCN and the European Red List.

10. *Threat*-Expressed through negative impacts on the outstanding universal value from:



- a) infrastructure projects
- b) Sewerage waters
- c) Solid waste
- d) New buildings in old urban cores
- e) heavy traffic
- f) agricultural activities
- g) Urbanization and illegal constructions

11. *Index of functionality of coastal area (SFI)* as an indicator of how the coastal area can perform its many different environmental features

The results of the Index of Coast functionality (SFI) can be used to easily identify the locations where it is necessary to streamline the activities oof strict protection or potential areas for restoration of coastal band¹⁹.

8.2. Coast functionality of the Ohrid lake as a criterion for strictest protection

The shoreline of the lake, if it is in its natural state (with a high degree of functionality) can carry out its positive features on biodiversity and water quality of the lake including: filtering sedimentation and pollution; erosion; nutrient removal; control of water temperature; establishing and maintaining natural habitats; protection and maintenance of high value of the area, which is formed by natural and cultural attributes that have historical value.

Understanding and assessing the functionality of the lake's coastline provides a basis for establishing a set of indicators that can be used to assess the functionality of this area and also to support and guide the planning policies of land use. This approach stems from the EU Water Framework Directive (WFD) 2000/60 / CE, according to which, in order to determine environmental quality, they consider the evaluations of parameters. Research carried out within the project "Conservation and sustainable use of biological diversity in Prespa, Ohrid and Skadar Lake" in 2017, by the Society for International Cooperation (GIZ) gave data on the index of coastal functionality of Ohrid Lake.

Parameters that are used to determine the index are: usurpation of coastline, land coverage, interruptions of the coastline due to infrastructure, slide of the shore, the presence of a reed band, the presence of arboreal species, the presence of road infrastructure, heterogeneity of arboreal vegetation and presence of nehigrophillic species.

The results for the status are shown in Figure 40, while Figure 41 and 42 show land use and tourism infrastructure along the coastal belt.

¹⁹ Publication Shorezone Functionality Ohrid Lake Implementing the EU Water Framework Directive in South-Eastern Europe, GIZ 2017;



picture 40. Index functionality of the coastal area of Ohrid Lake



picture 41. Tourism-related infrastructure (Range: 0 = not even one to 1 = 100% on the entire length) (0.1 = hiking path; 0.2 = a hotel; 0.5 = cycling path along the lake; 1 = beach or tourist infrastructure)



picture 42. Purpose of use of the coastal area of the Ohrid lake (0 to 50 meters of coastline)

8.3. Criteria for determining the boundaries of protected areas

Based on the criteria for zoning, spatial characteristics of the region were taken into consideration, namely:

1. Hydrological characteristics (catchment area of the Ohrid lake);
2. Spatial distribution of Ripariski habitats²⁰ and belts with indigenous reed
3. Topographical features of the terrain-altitude;
4. Established boundaries of the identified protected areas (NP Galicica);
5. Natural boundaries, roads and similar;
6. The interaction of cultural and natural heritage in a crossboundary context with Albania.

²⁰ Coastal area - vegetation belt of trees, shrubs and herbaceous plants along both sides of the water bodies, which is in contact or is affected by the water body. It is a transition boundary between land and aquatic environment. It includes coastal and surrounding lands, and areas subject to major floods. Typical examples are river coastlines, Alluvial fans, lake shores and swampy edges.

8.4. Boundaries of the zones for protection of natural heritage and safeguards

8.4.1. Zone boundaries to protect the natural heritage in the Ohrid region

So as to achieve better management and maintenance of the Exceptional universal value, or control over certain activities that may have negative influences, three protection zones have been established, each of which contains additional sub-zones. These sub-zones are introduced to reflect special safeguards that apply in these areas.

The boundaries of the zones for protection of natural heritage are defined on the basis of:

- Index of coastal functionality of Ohrid Lake (SFI)
- morphological topographic characteristics of the terrain,
- height diversifications,
- land use according to Corine Land Cover,
- protected areas and spatial representation of the same,

The first protection zone is formed in a belt of 50 meters starting from the border of cadastral plot 1/1 (CP Ohrid Lake) and it has three sub-zones (I a, I b and I c). The first protection zone is broken along the coast where urban settlements are formed, with the exception of the area covered by the urban coverage of Struga.

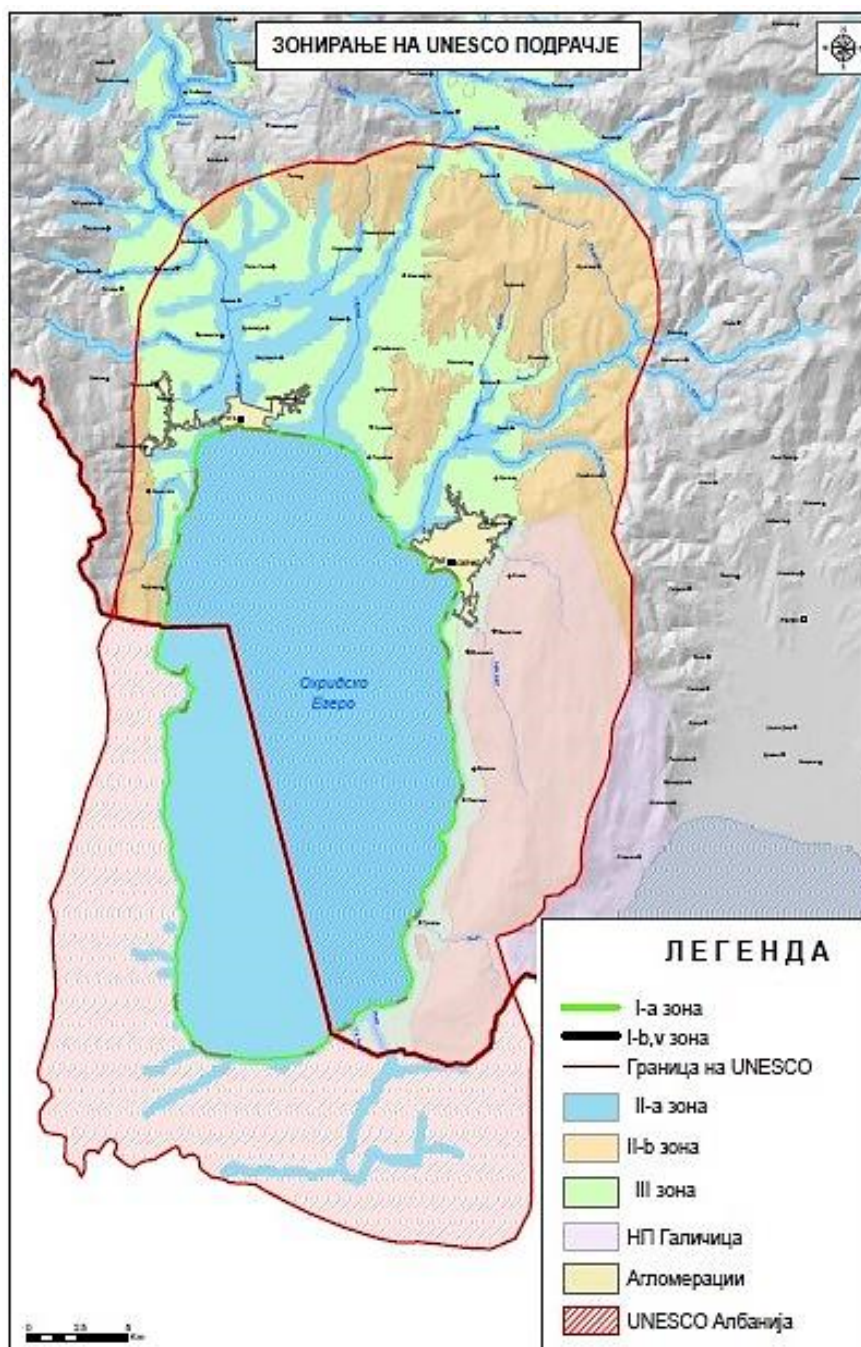
The second protection zone has two sub -zones (II a II b) organized the following areas:

- II a - covering coastal (ripariski) habitats along rivers
- II b covering natural and semi-natural habitats located above the elevation 866²¹ asl

The third protection zone was established on parts below elevation of 866 meters, ie an area intended for unproductive purposes or mainly used for agricultural production.

Protection zones established in protected areas (eg. Galicica National Park, Monument of Nature the Ohrid Lake and Studenchishko Marsh) are applied in full and in accordance with the relevant management Plans adopted pursuant to the Law on Nature Conservation.

²¹Elevation 866 m asl It is established as the boundary between anthropogenic and natural / semi-natural habitats with nominational file on Biosphere reserve Ohrid-Prespa



• picture 43. Protected areas within the natural heritage of the Ohrid Lake

8.4.1.1. First protection zone

The first protection zone covers the lake with high natural values and its coastal belt in horizontal projection with a width of 50 m starting from the border of KP1 / 1 Ohrid Lake. This zone in places extends in CP 1/1 Ohrid Lake so as to include beaches.

It covers parts of sites with natural values of the Ohrid region registered as a World Natural Heritage. This zone includes areas which encountered high concentrations of populations of species that are on the IUCN

- red list of species that are threatened by global and European level, the Berne Convention including stem populations of endemic and relict species, and sublacustrine springs, places for fish hatchery of carp.

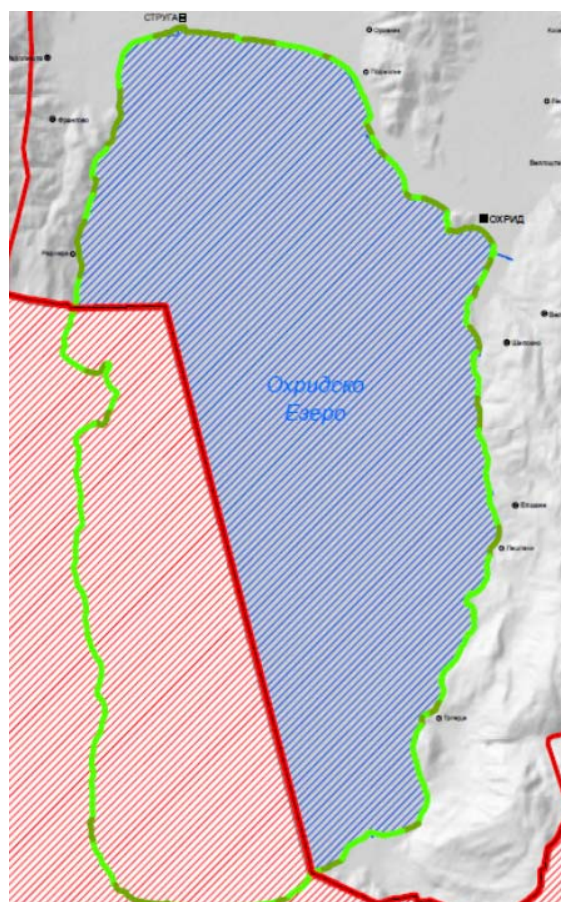
The first protection zone is broken along the coast where urban scopes of the city are formed, coastal settlements and some places outside the urban areas where there is a valid urban planning documentation. Thus, the coastal area within the CUP on Ohrid, ie coastal settlements in the municipalities of Ohrid and Struga, no measures to protect the natural heritage will be applied, that is, measures to protect cultural heritage will be applied.

For coastline within the CUP of Struga, as an exception, the measures to protect the natural heritage will be applied. The reason for this exception is the condition of the coast or high coefficient of functionality that must be retained (construction of facilities is possible only if the applied method and materials for construction, percentage of construction of the building plot and the number of floors, allow maintaining the high coefficient of functionality of the coastline and the landscape values).

The boundaries of this zone can be adjusted after the draft of the Study on valorization of the Monument on Nature-the Ohrid Lake and to adopt a Law on the re-proclaiming the Ohrid Lake as a Monument of nature as well as the management plan for the Ohrid Lake.

The first area contains three sub-zones:

- **I-a** zone of original natural areas, with SFI index 1 and 2 (according to the WFD, it would mean a great and good status);
- **I-b** zone of areas with limited intervention and an SFI index 3, 4 and 5 (moderate, weak, poor performance status);
- **I-c** zone of beaches - beaches that are defined in the scope of the CP 1/1 CM Ohrid Lake and beaches whose range include bordering with CP 1/1 CM of Ohrid Lake, and the land is owned by the Republic of North Macedonia that currently exist, or they are going to be provided with *special documentation on urban beaches*. The ranges of the same will be defined by special urban documentation on beaches (*for this it is necessary to amend the Law on Urban Planning and Construction Law, Law on Construction Land, the Strategy on Sustainable Tourism, bylaws and others.*). In the area of beaches it is allowed to set just movable urban equipment, namely, sunshades, cabins for changing swimsuits, showers, observation towers for lifeguards on the beaches, water signs for notices and prohibitions space for providing first aid and waste bins. The Recommendations for materials used to make urban equipment on the beaches will be given in the Strategy on Sustainable Tourism.



picture 44. First protection zone

In the first zone scientific research and monitoring of biological diversity are permitted, that are not in contradiction with the primary objectives of protection of the region. In order to maintain the characteristics of the zone, the entity which manages the protected region is obliged to provide constant monitoring. It is expected that the application of appropriate safeguards, and in the interest of protecting the region, the space within these limits will continue to maintain its original state and purpose. They can organize recreational visits in controlled mode. For this protection zone one will have to apply principles that are of more stringent nature of the standards and norms for urban planning that comply with the existing law; the harmonization of the Law on urban planning, Law on Management of Natural and Cultural Heritage of the Ohrid region will need to happen before or immediately after the adoption of the Plan. Of course, there should be exceptions about the activities in this area, as hunting fish, marine transport, the interests of defense and the like.

For each of the planned zones appropriate safeguards have been determined. Below you are given the description of prohibited activities for each area that should be regulated by appropriate legal act.

Prohibited activities in I-a protection zone of the coast

- Entry of (foreign) plant and animal species;
- degradation and destruction of natural habitats, especially in places where animals migrate, proliferate or stay; specifically prohibiting the illegal logging, removal of riparian vegetation, burning the reed etc. ;

Prohibited activities in I-a protection zone of the coast
<ul style="list-style-type: none"> ● pouring oil and petroleum products to vessels, except in locations designated for that purpose;
<ul style="list-style-type: none"> ● opening borrow pits for extraction of sand;
<ul style="list-style-type: none"> ● compaction of coarse or fine buffer and backfilling of sand, and construction of concrete and stone walls (breakwaters) unless on the existing locations designated for that purpose;
<ul style="list-style-type: none"> ● construction of buildings of a permanent character, except infrastructure for supporting tourism in the vicinity of urban centers and urban reconstruction of the collector's system;
<ul style="list-style-type: none"> ● placing temporary structures that can impair the landscape or carry negative impacts on the natural processes in the lake;
<ul style="list-style-type: none"> ● installation of fish farms;
<ul style="list-style-type: none"> ● conventional farming using animal, chemical fertilizers and pesticides that pollute surface and groundwater;
<ul style="list-style-type: none"> ● discharging untreated urban and industrial wastewater;
<ul style="list-style-type: none"> ● underground tanks and / or drainage of sewage, except watertight septic tanks, the locations of which there is no sewage treatment system;
<ul style="list-style-type: none"> ● waste disposal;
<ul style="list-style-type: none"> ● navigation by vessels and installations fed by internal combustion engines in the protected zones of springs.

● Prohibited activities in I-b protection zone of the coastal area
<ul style="list-style-type: none"> ● degradation and destruction of natural habitats, especially in places where animals migrate, proliferate or stay; specifically prohibiting illegal logging, removal of riparian vegetation, burning the reed etc .;
<ul style="list-style-type: none"> ● pouring oil and petroleum products to vessels, except in locations designated for that purpose;
<ul style="list-style-type: none"> ● opening borrow pits for extraction of sand;
<ul style="list-style-type: none"> ● construction of objects of permanent or temporary character, except infrastructure facilities construction and reconstruction, adaptation and conversion of existing buildings of a permanent nature, with preservation of the size and the number of floors in accordance with the Vision of the Plan;
<ul style="list-style-type: none"> ● setting ponds;
<ul style="list-style-type: none"> ● Conventional farming using animal, chemical fertilizers and pesticides that pollute surface and groundwater;

<ul style="list-style-type: none"> ● discharging untreated urban and industrial wastewater;
<ul style="list-style-type: none"> ● underground tanks and / or drainage of sewage, except watertight septic tanks;

Prohibited activities in I-c protection zone of coastal area
<ul style="list-style-type: none"> ● degradation and destruction of natural habitats, especially in places where animals migrate, proliferate or stay; specifically prohibiting illegal logging, removal of riparian vegetation, burning reed etc .;
<ul style="list-style-type: none"> ● pouring oil and petroleum products to vessels, except in locations designated for that purpose;
<ul style="list-style-type: none"> ● building new ports, except for reconstruction and maintenance of the existing in accordance with the recommendations of the Strategy for Sustainable Tourism;
<ul style="list-style-type: none"> ● construction of buildings of a permanent or temporary character;

8.4.1.2. Second protection zone

The second protection zone applies Measures which include preservation of nature in those habitats where anthropogenic influence has been started, in order to be reduced / minimized. In this respect this zone is divided into sub-areas - II-a and II-b. II-a zone covers the riparian habitats outside the urban area whose function is to provide protection from impacts on water quality in the basin of the Ohrid lake. II-b protection zone will stretch conditionally on the spaces which are located outside the urban area and they must not be subdued to urbanization. In the second protection zone prohibiting activities are those that have a negative impact on the landscape and environment, and exceptions will be established if you need to implement projects of national importance. Recreational activities are allowed with insignificant impact on nature, backed by the simplest infrastructure. The zone of active management of the National Park Galicica is part of this zone. NP Galicica applies the zones and protection measures defined in the Management Plan of NP Galicica.

Prohibited activities in the protection zone II
<ul style="list-style-type: none"> ● exploitation of mineral resources;
<ul style="list-style-type: none"> ● construction of facilities for mass tourism;
<ul style="list-style-type: none"> ● construction of infrastructure buildings, except when projects are of public interest and when strategic assessment is being carried out for them and / or evaluation of the impact upon the environment and social aspects;

8.4.1.3. Third protection zone

The **third protection zone** will cover areas that are urbanized or will be urbanized, excluding the protective zone of the Ohrid lake. This zone will allow the development of settlements, tourism and infrastructure, but it will define specific conditions.

Prohibited activities in III protection zone	
·	● Conventional farming using animal, chemical fertilizers and pesticides that pollute surface and groundwater;
	● increase in the urban settlements of no more than 20%;
·	● other activities that can disturb the landscape and endanger exceptional values;

8.4.2. Measures for the protection of cultural heritage in the Ohrid region

The cultural heritage consists of various types of goods caused by the diversity of their environment that not only includes significant monuments but also their immediate surroundings forming a whole. It can have different values, depending on the context, and therefore the treatment may vary from case to case. In this regard the purpose of protection is to preserve the quality and value of cultural heritage, to keep its material content and ensure its integrity (includes individual buildings, open spaces and parks, streets, coastline, archaeological remains, etc.). for future generations.

Increasing pressure from urbanization of areas within protected good can easily run into a problem much larger than the restoration of the architecture fund, because it is inadequate urbanization which creates a completely opposite effects. The degree of urbanization is moving in the direction where the values for which the region is inscribed on the List of World Heritage could be seriously threatened.

The Measures to protect cultural heritage means providing immediate protection in a manner that would preserve the original, historical, urban-architectural, artistic and aesthetic values, ie preserving the exceptional universal value of the region. In a broader sense, protection measures will provide input and new content within the region in accordance with the modern needs of commercial, tourist, cultural and other activities, but with maximum respect of outstanding universal value. But to achieve the benefits and ensure that the Ohrid Region preserves its outstanding universal value, it is required for the new developing processes within the boundaries of the good to be well managed and controlled. The Strategy of protection of cultural heritage should be based on several principles:

- Provision of reversibility;
- Preserving the authenticity (to allow maximum preservation of the original building material, not to allow new interventions to dominate over the original tissue, but to observe its potential);
- In Space Plans for settlements with protected monumental units it is necessary as far as possible to maintain and revitalize the historical matrix of the whole, while modifying the structure and typology of existing buildings with their functional connectivity in larger spatial units, due to the loss of spatial identity is not justified.
- Urban planning should aim at achieving harmony, avoiding unwanted functions and keeping the current size of the buildings, as well as their functional and cultural values on the principle of integrated protection;

- The protection applies to activities necessary to create conditions for the survival of the area / monument / site including the visual threat.
- **Required drafting of the impact Assessment on cultural heritage (HIA) when you plan new infrastructure projects in the region**

Essential for cities with World Heritage Site, recognized for its outstanding universal value, is to ensure the preservation of their authenticity and cultural value appropriately. Considering the complexity and diversity of the cultural heritage, with the aim of adequate protection of cultural heritage, sustainable development and controlled urbanization in Ohrid region several zones of protection are defined with their specific conditions and measures for preservation of the listed properties:

- City urban centers,
- Religious heritage
- Towns and coastal settlements
- Archaeological sites

8.4.2.1. City urban centers

In urban cities main criterion for establishing a system of safeguards is the ascertained concentration of individually protected goods and ambient objects. Due to this reasons three zones have been defined with its own specifics:

The first zone refers to monumental complexes (in Ohrid²² Struga²³) containing important cultural and historic buildings. With these measures in this area complete protection has been provided of all cultural and historical values with the greatest possible respect for tradition and function of the space and its contents. The area of this zone should strictly control the intake of new structures and content unnatural for cultural values. The adapting of existing historical features and content to the needs may be acceptable with minimal physical intervention in the historic structure. Acceptable methods of protection are rehabilitation, conservation, restoration, conservation and presentation of the reconstruction. Any such intervention should be based on the preparation of detailed documentation by the competent authorities for protection.

In the old city core of Ohrid the measures for the protection of cultural heritage will be pursued thoroughly and according to defined parameters given in detailed urban plans rezoning of Article 6 of the Law on proclamation of the old city core of Ohrid as cultural heritage of great importance ("Official gazette of RM" no. 47/11 and 154/15) as well as by specially designed protection and conservation bases;

Protection measures in the first protection zone are:

- Preservation of urban structure: the boundaries of urban agglomerations as part of the organic urbanism, road network, access to Ohrid lake and all the green areas, which means a population and density associated with controlled interpolation at new sites of free spaces (in exceptional cases);

²² The boundaries of the First zone in Ohrid are determined by the proclamation of the Old city core of Ohrid as cultural heritage of great importance as an Old city core;

²³ The boundaries of the first zone in Struga are defined under Protection and conservation grounds (no.13-1640 of 01.12.2009);

<ul style="list-style-type: none"> ● Save the height and appearance of the façade of individually protected goods and ambient buildings;
<ul style="list-style-type: none"> ● Preserving the overall dimensions of the individually protected goods;
<ul style="list-style-type: none"> ● Preserving individually protected monument heritage in its original condition through conservation, restoration, rehabilitation;
<ul style="list-style-type: none"> ● Keeping the facade of the ground floor and high ground floor of semi-stone and the floors plastered and whitened with lime;
<ul style="list-style-type: none"> ● Retaining the authentic color of buildings erected between the two world wars . Keeping and maintaining the existing core functions of the Old city core of Ohrid and Struga, with the possibility of restoring some original functions (old crafts), or giving new modern functions that are compatible with the nature and character of the monumental units and do not affect the distortion of the authenticity and integrity of the good (with supervision provided by the institutions for protection of cultural heritage);
<ul style="list-style-type: none"> ● Restore Lost fund of buildings (through their reconstruction or typological renewal) at locations that are free and for which there are old urban plans, remains of buildings or technical and photo documentation, can be acceptable only on the basis of a complete expert analysis and studies;
<ul style="list-style-type: none"> ● Restoring the facade authentic look of those buildings that have lost that façade look and for which there is sufficient information about the authentic look;
<ul style="list-style-type: none"> ● Values and the Ambient image of the protected core / unit to preserve the characteristic elements of the traditional architecture of the region (wooden flashings, bay outlets, bevels, bulging or profiled eaves etc.).
<ul style="list-style-type: none"> ● A possible adaptation of the interior ambient buildings, roof windows can be allowed only on the side that is not visible from the main street, after prior approval of the competent institution for conservation;
<ul style="list-style-type: none"> ● The recovery of lost items and content of the ambient buildings that contribute to the values and ambient image of the whole heritage must contain the characteristic elements of traditional architecture and the period of erection, but the justification for intervention should exclusively be supported by information from historical sources and documentation and It is with the consent and supervision of the competent institution for protection of cultural heritage;
<ul style="list-style-type: none"> ● The implementation of the Conservation projects should be in harmony with the established legal criteria and procedures;
<ul style="list-style-type: none"> ● There is no need to bring new content in monumental complexes without assessment of their capabilities to receive, use and maintain, any content that cause noise and pollution of the environment (there is a need to recognize that uncontrolled tourism can cause a negative impact on the local population in terms of loss of privacy for the local population, more traffic jams, damage to goods as well as disruption of lifestyle);

<ul style="list-style-type: none"> ● Hiding all sorts of lines of infrastructure and installations in the area of the protected old city core of Ohrid and Struga;
<ul style="list-style-type: none"> ● Unification of inscriptions of firms and other signs, billboards, neon and other advertising, road signs, monumental signalitics, lighting, urban equipment of open spaces in a way that does not violate the sight and ambiental value of the area;
<ul style="list-style-type: none"> ● Sun protection of public spaces to be mobile (sunshades) and attachment of awnings should be with strict control and approved by the institution for protection;
<ul style="list-style-type: none"> ● Given the high concentration of archaeological remains in the old city cores, each reconstruction, construction or other work must be conditioned by previous archaeological research and monitoring;
<ul style="list-style-type: none"> ● Corrective and preventive measures against destructive effects of noise, shocks and vibrations caused by machines and vehicles;

Prohibitions in the first protection zone:

<ul style="list-style-type: none"> ● The number of stairs of the buildings and the specifics of the buildings in the old city cores of Ohrid and Struga will be defined by making the protection and conservation grounds (before drafting the urban plan), but it is forbidden to construct buildings higher than the P + 2 floors (in the Old city core of Ohrid protection and conservation bases will be developed for each of the 19 urban complexes separately, and for each complex specific parameters will be defined) ;;
<ul style="list-style-type: none"> ● In the Old city cores of Ohrid and Struga it is prohibited to build new facilities, which in height have a gallery or subroof with or without roof windows or chimneys, or covered by a flat terrace;
<ul style="list-style-type: none"> ● It is forbidden to build garages as separate facilities on a construction plot;
<ul style="list-style-type: none"> ● It is prohibited to place buttresses, television antennas, repeaters, large billboards, solar panels and the like;
<ul style="list-style-type: none"> ● Dumping waste is forbidden and containers should be placed near the protected goods;
<ul style="list-style-type: none"> ● No parking is allowed and establishing parking areas adjacent to the protected goods should be predicted;
<ul style="list-style-type: none"> ● The size and the amount of existing ancillary facilities must not be expanded;
<ul style="list-style-type: none"> ● The processing of hiking paths and roads of stone slabs and granite blocks must not be changed;
<ul style="list-style-type: none"> ● It is forbidden to use paver - elements (for paving) as processing of the pedestrian areas;

Other protection measures in the first protection zone are:

<ul style="list-style-type: none"> ● It is allowed on the public spaces to, besides the basic functions related to city communication occasionally perform commercial, cultural and other activities and events, with responsibility for their completion to remove the waste, equipment, etc .;
<ul style="list-style-type: none"> ● Commercial activities must not endanger pedestrian line of sight communications and cultural good, and should be restricted exclusively to strictly certain locations with prior approval by the Municipal Council with criteria laid down by the competent authorities for the protection of cultural heritage;
<ul style="list-style-type: none"> ● The activities should not jeopardize the architectural heritage, the presented archaeological site, nor to impede the safety and movement of citizens;
<ul style="list-style-type: none"> ● In tourist visits to strive to ensure the existence of the necessary measures to protect the heritage;
<ul style="list-style-type: none"> ● Reduction (preferably ban) on vehicle traffic in strictly protected areas;
<ul style="list-style-type: none"> ● Ads can be placed on public places in the urban core in accordance with special regulations for placing ads that adopted by the competent institutions, and with the consent of the competent institutions for protection;
<ul style="list-style-type: none"> ● Advertising signs should not be placed on individually protected buildings, on the stone frames and the stone decoration;
<ul style="list-style-type: none"> ● Front facades of commercial spaces in the area of strict protection should retain the traditional look of the openings; It is prohibited to display goods and other items on the doors or windows of the premises, as well as at the front facade of the building thus hiding the architectural values of the good;
<ul style="list-style-type: none"> ● It is needed to regulate the noise and to ensure a daily rest period;
<ul style="list-style-type: none"> ● Setting other urban equipment and elements of urban equipment should be carefully designed, and their installation requires approval from the relevant municipality and approval by the competent municipality for protection of cultural heritage;
<ul style="list-style-type: none"> ● External units of air conditioners should not be placed on the street facade, nor shall be allowed to impair / damage protected buildings for the purpose of their setting;
<ul style="list-style-type: none"> ● By "presentation of archaeological sites" are considered those parts of the public areas where archaeological heritage is presented, regardless if we are talking about remains or historic architecture which with conservation interventions is presented in a way so as to emphasize their archaeological and architectural value;
<ul style="list-style-type: none"> ● It is forbidden to allow issuance of building permits without strict control by the competent institutions of the architectural expression of buildings;

The second zone²⁴ represents an area that contains significant elements of historic architecture and heritage with varying degrees of preservation. With these protection measures in this zone, protection is implemented of the fundamental elements of the planned-urban matrix and the characteristic groups of buildings, individually protected goods, primarily in terms of volume, size and historical content. On the territory of this area interventions will be conditioned in terms of adjusting the function and content of modern needs, but without significant changes to the preserved architectural and aesthetic elements of the protected goods. Acceptable methods of protection are conservation, reconstruction, interpolation reposition and integration in terms of connectivity of cultural goods with new structures and the content arising from new needs. On the territory of this zone, in terms of the specific historical context of development, all interventions (land/construction) are conditioned with archaeological research and oversight. In terms of the number of floors in the second zone it is prohibited to construct higher than T + 3 floors and a greater percentage of completion of 50%.

The third zone is a zone with a rare concentration of cultural heritage. On this territory all interventions with are acceptable with adherence to basic principles of protection of cultural heritage. Within this zone one should apply the measure of urban reconstruction or establishing a condition that will improve the living conditions and working conditions as well. In landscaping, it is acceptable to apply the methods for Reconstruction of existing and construction of new buildings by respecting the ambient characteristics of the units, traditional forms, the characteristics of the landscape and harmonious conformity of the units.

With regard to individually protected goods which are located in the **second and third zone** from urban agglomerations it is foreseen the following:

Protection measures in the second and third protection zone:
● Save the height and facade appearance as individually protected goods and ambient buildings;
● Preserving the overall dimensions of the individually protected goods;
● Preserve the original state of individually protected goods by implementing activities such as conservation, restoration, rehabilitation, etc .;
● It is not allowed to carry out interventions that could threaten the integrity of the individually protected goods;

New developments in the second and third urban area must meet the specific aspects by which the cultural values and traditions of the historic district will be honoured as well as the terms of existing structures. Within this zone, **land consolidation is prohibited, that is, creation of an artificial combination of several plots in order to build a big building.**

²⁴ The boundaries of the second zone in Ohrid are determined by the proclamation of the Old city core of Ohrid as cultural heritage of particular importance as a contact zone of the Old city core; The boundaries of the Second zone in Struga are defined under Protection and conservation grounds (no.13-1640 of 01.12.2009.) as the contact zone of the monument unit;

New buildings should have:
<ul style="list-style-type: none"> ● Rhythm that is in harmony with urban rhythm and morphological pattern of the surrounding buildings if they are individually protected as heritage or possess ambiantal values;
<ul style="list-style-type: none"> ● Dimension that is consistent with the context - not too large, to disrupt intimate human dimension of the historic center, and shall not undermine the visual perception of the Old city core;
<ul style="list-style-type: none"> ● Street boundary line that follows the line of existing facilities;
<ul style="list-style-type: none"> ● The silhouette which respects traditional local character and silhouette of the space where they are being built;
<ul style="list-style-type: none"> ● High quality construction and design, which is achieved with particular attention to proportions.

According to the needs of urban development, in order to achieve the above mentioned aspects but with maximum respect for the values of cultural heritage which they possess, the third protection zone is divided into three sub-zones within the scope of CUP (shown in the graphic attached) as well as two additional areas outside the city: III-d zone (covered villages) and III-d area (urban coverage outside the city and outside the villages). New urban coverage (III-D Zone) to form a logical unit on sready existing facilities with the urban plan out of the populated area.

Prohibited activities in III-A protection zone
<ul style="list-style-type: none"> ● Construction of buildings higher than T + 3 floors and a greater percentage of completion of 50% within the limits of the CUP;
<ul style="list-style-type: none"> ● Intensive farming with excessive use of pesticides / fertilizers that pollute;
<ul style="list-style-type: none"> ● other activities that can disturb the landscape and endanger exceptional value;
Prohibited activities in III-b protection zone
<ul style="list-style-type: none"> ● Intensive farming with excessive use of pesticides / fertilizers that pollute;
<ul style="list-style-type: none"> ● construct buildings higher than Q + 4 floors and a greater percentage of completion of 50%;
<ul style="list-style-type: none"> ● other activities that can disturb the landscape and endanger exceptional value;
Prohibited activities in III-protection zone
<ul style="list-style-type: none"> ● Intensive farming with excessive use of pesticides / fertilizers that pollute;

<ul style="list-style-type: none"> • construct buildings higher than Q + 5 floors and a greater percentage of completion of 50%;
<ul style="list-style-type: none"> • other activities that can disturb the landscape and endanger exceptional value;
Prohibited activities in III-d protection zone
<ul style="list-style-type: none"> • Intensive farming with excessive use of pesticides / fertilizers that pollute;
<ul style="list-style-type: none"> • building facilities intended for family housing higher than the P + 2 floors and a greater percentage of completion of 50%, except for the villages of compact type;
<ul style="list-style-type: none"> • construct buildings higher than T + 3 floors and a greater percentage of completion of 50%;
<ul style="list-style-type: none"> • increasing the urban villages for more than 20%;
<ul style="list-style-type: none"> • other activities that can disturb the landscape and endanger exceptional value;
Prohibited activities in III-e protection zone
<ul style="list-style-type: none"> • Intensive farming with excessive use of pesticides / fertilizers that pollute;
<ul style="list-style-type: none"> • construct buildings higher than T + 3 floors and a greater percentage of completion of 40%;
<ul style="list-style-type: none"> • other activities that can disturb the landscape and endanger exceptional value;

Target planning of protection, especially when the region is considered as World Heritage, is to give priority to the conservation of existing historic buildings with their context. The new buildings are needed to establish the functional and architectural continuity, but that is no excuse for demolishing old buildings. They should express the spirit of today, and their design should take into account their historical context founded on clear and systematic analysis of the historical morphology of existing urban structures and their function.

In the context of urban planning, revitalization can be used to improve the social and economic activities on the part of the cultural and historical area of the city, which had lost its original functional life, and as a result, the architectural heritage and urban areas began to lose its meaning. The goal of rehabilitation in this region should be the establishment of balance between protection and development.

8.4.2.2. Religious heritage

Religious heritage / complexes have an important role in the history of the region. The artistic value of architecture, wall painting, coupled with the spiritual values of the space, require a special approach in their treatment, care and rehabilitation. In this context, **in the zone of religious heritage / complexes** (churches, monasteries, tekkie, mosques and other holy religious places ...) conservation measures are based on both acceptance and respect for cultural and spiritual value:

Conservation measures:
<ul style="list-style-type: none"> • Change of the overall dimensions of the religious complexes is not allowed;

<ul style="list-style-type: none">● Conservation measures are to be implemented in accordance with internationally recognized principles of conservation and restoration, and in cooperation with the competent institutions for conservation;
<ul style="list-style-type: none">● Timely performance of commercial activities (selling souvenirs, books, religious objects ...) can be performed in religious facilities and their immediate surroundings, precisely defined locations and conditions which do not violate the integrity and spirituality of the complex;
<ul style="list-style-type: none">● In order to preserve and prolong the spirituality of these holy places, certain interventions are acceptable, but they should exclusively be supported by information from historical sources and documentation and should be sold with the consent and supervision of the competent institution for conservation of cultural heritage;
<ul style="list-style-type: none">● Regulating the noise taking into account the spirituality of this region / sacred sites;

8.4.2.3. Villages and coastal settlements

In the revitalization of **rural and coastal areas** with ambiental values one must apply the forms of conservation so as to achieve educational, environmental and tourism effects, and to enhance care of the heritage among local population. This applies to rural settlements, and settlements of coastal area that require an integrated approach to the conservation and preservation of the landscape against aggressive purposes.

8.4.2.4. Archaeological sites

In the zone of archaeological sites conservation measures apply to:

- Planning of new buildings, roads, infrastructure projects and conducting land or other construction work can not be realized without performing archaeological excavations on the territory of which one is aware that there are archaeological sites;
- The arrangements on implementing conservation measures in accidental discoveries of archaeological sites are regulated by the Law on Conservation of Cultural Heritage;

Out of urban areas (outside the scope of CUP) may, according to the guidelines and criteria laid down in the Space Plan of RM and the Space Plan of the Ohrid-Prespa region, plan the following:

- Infrastructure construction (primarily using existing routes and corridors in order to protect forests and agricultural land, or destroying the integrity of natural structures created by man);
- Residential and social facilities for its own needs and the needs of rural tourism (with prior consent of the competent authorities);
- Reconstruction of legally built residential buildings in their existing dimension;

When building out of urban areas it is not allowed to:

- Establish new settlements on undeveloped building land (space which includes the protection zone 2 6 in the section of Natural Heritage);
- Capture of the coastal area of Lake Ohrid;
- Using quality agricultural land for land conversion/relocation;

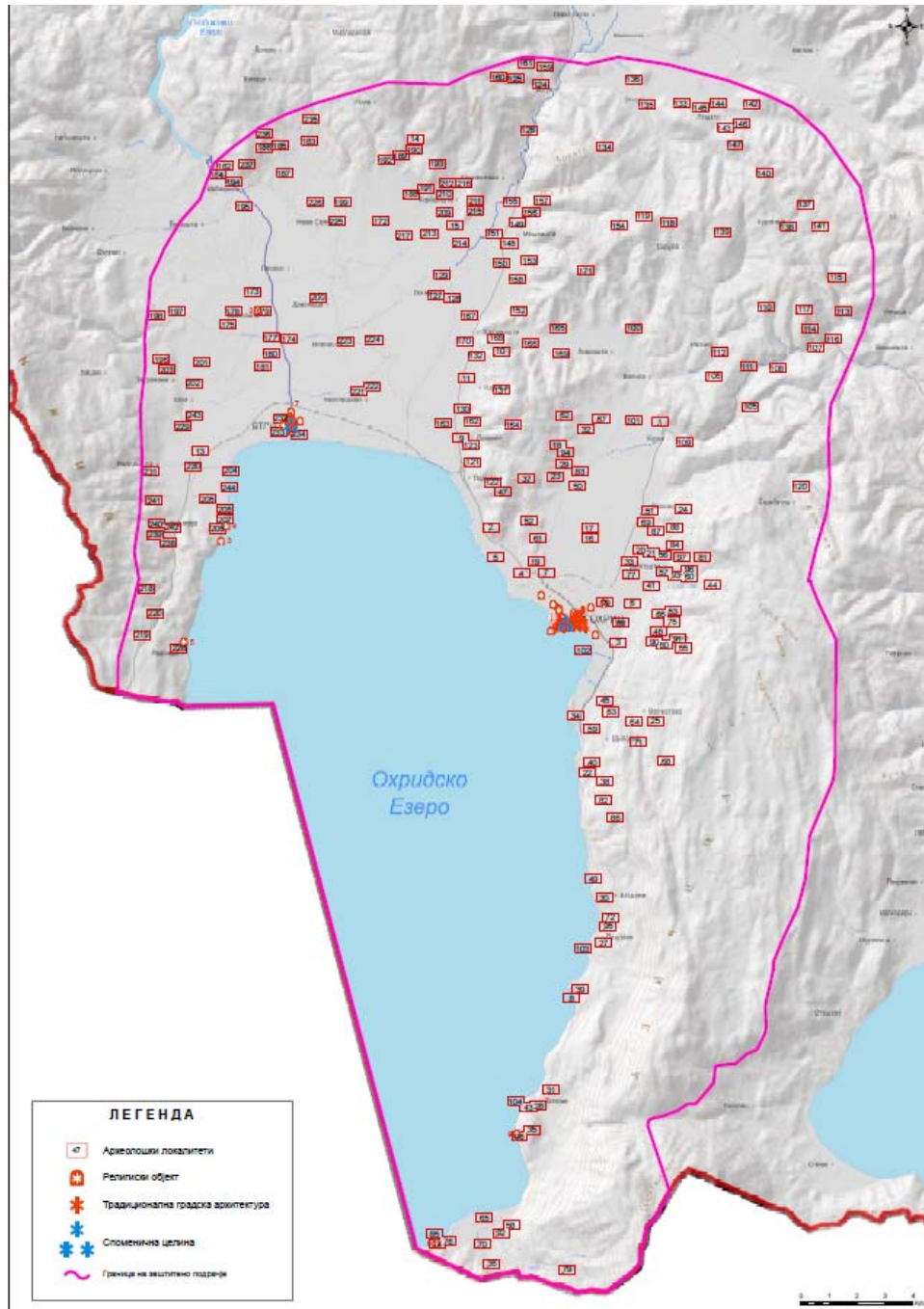
At the mountain and water areas, activities should be carried out exclusively with the purpose of limited and controlled economic use of natural resources (forestry, hunting, recreation and eco-tourism);

In general, the measures for conservation of the coastal area should ensure sustainable land conservation of natural and cultural values and prevent significant changes to these values through the following activities:

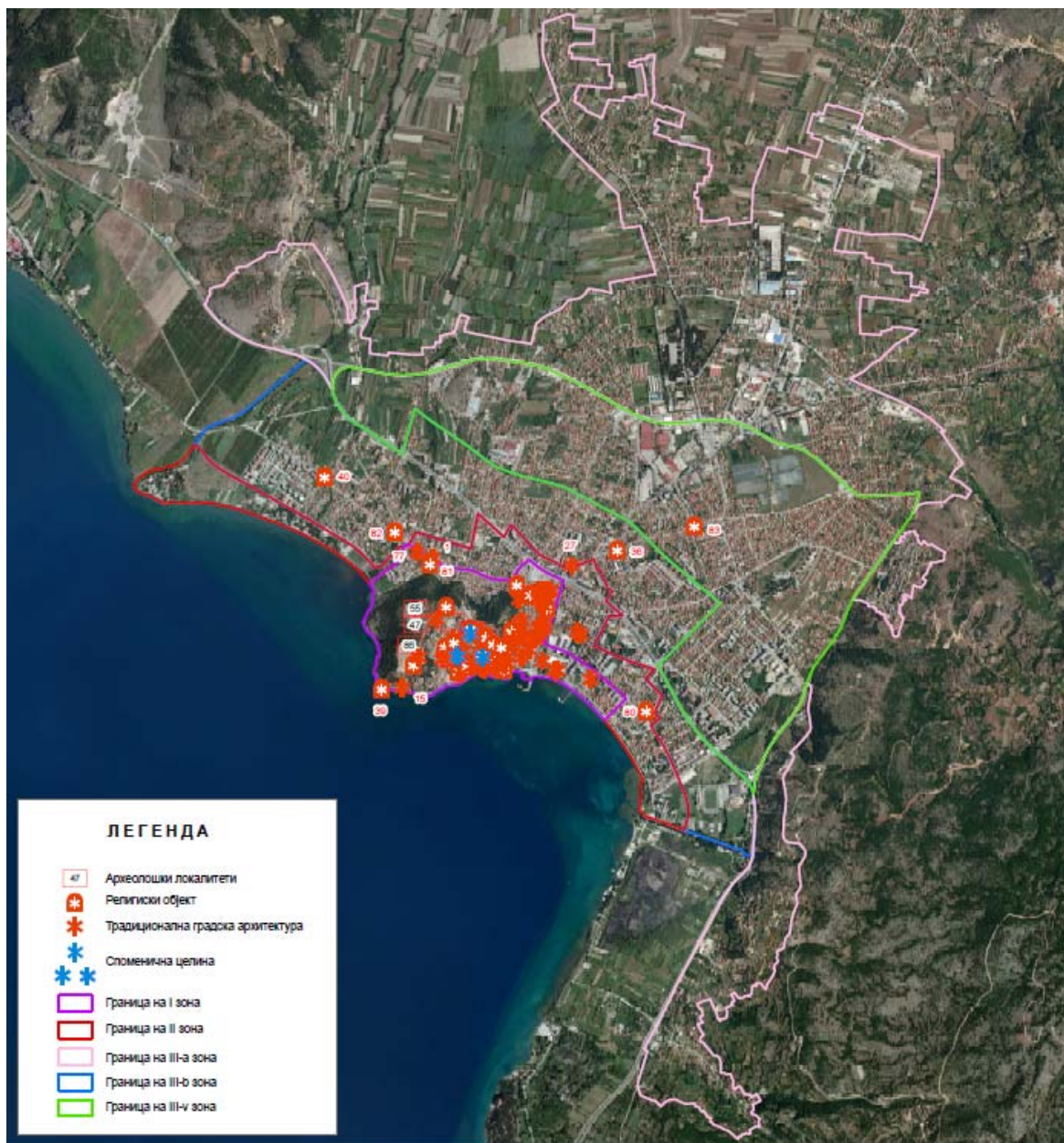
<ul style="list-style-type: none">● To preserve the natural environment and prevent land conversion and undertaking these parts for construction activities that might disrupt the coastal landscape; To this it should be added that the views from the panoramic sights/vistas greatly improve the understanding of character, position and general appearance of the good;
<ul style="list-style-type: none">● To prevent the construction capturing of relief hills, dominant places where with the construction of facilities the coastal landscape will be disrupted;
<ul style="list-style-type: none">● Construction of facilities outside of the boundaries of urban areas should be by controlled dimension; In shaping the buildings one needs to use materials and colors adapted to the natural characteristics of the surrounding area and traditional architecture;
<ul style="list-style-type: none">● You need to protect important visions or sights against building of larger buildings;
<ul style="list-style-type: none">● The planned routes of infrastructure (roads, etc.) should be along the natural relief morphology of the terrain, and if major morphological changes are needed (embankments, cuts, etc.) it is recommended for the construction elements to be separated from the ground to ensure the integrity and cohesion in the area;
<ul style="list-style-type: none">● Typology, volume and height to build a catering-tourist and recreational facilities outside the settlements should be determined based on the analysis of visual structure and incorporation in the existing natural environment;

In order to protect World heritage and preserve the authenticity and values of World Heritage (fig.44,45,46), it is necessary to define priorities in the selection of physical protection in accordance with international recommendations. Each Signatory Party, to ensure the correct measures for conservation of cultural heritage located in its territory, should apply the principles laid down by the UNESCO.

The conservation of the protected good from the World heritage List must have a priority at all levels of urban planning, starting from the master plans at local level to the national level strategies.



picture 45. Conservation zones (cultural heritage)



picture 46. Conservation zones in the old city core of Ohrid (Cultural Heritage)



picture 47. Conservation zones in the old city core of Struga (cultural heritage)

9. Action plan

To achieve the aims of this Plan, it will be necessary to intervene in the legal and institutional framework, to strengthen the management structure and oversight of law enforcement, to improve coordination between institutions at national and local levels and to raise awareness of all concerned countries of the importance of exceptional universal value, as well as the risks to its protection.

The existing system of urban planning that applies throughout the country could lead to fragmentation of space, increasing population density, the expansion of settlements, disruption of the landscape and the traditional and cultural values. The trend of illegal construction may continue. The development of infrastructure projects is implemented on sectoral level, without taking into account the cumulative impacts that may arise from the mutual interaction and their dispersion in space. Coastal transformation can exert a negative impact on water quality of the lake and the biodiversity. Some sites are threatened with natural values as determined by the nomination record.

To direct the development and compliance of all the needs and purposes of land use it is necessary to design a Space Plan for the region. In terms of the subordinated urban planning, for Ohrid region it is necessary to provide specific standards and norms for urban planning that will provide controlled urbanization. It is necessary for the coastline to plan integrally along its entire length and the same should be subjected to appropriate protection regimes. As a result of that, it will be necessary to intervene in the legislation so as the Provisions from this Plan can be applied.

The powers of the institutions on managing natural and cultural heritage in the Ohrid region are fragmented and do not provide adequate protection. There is no adopted legislation on declaring the Ohrid lake, the Studenchishko Marsh and the National Park Jablanica as protected areas, nor are bodies created to manage these areas that with its natural values contribute to the outstanding universal value of the region. It is necessary to intensify the activities for protecting these outstanding areas and to strengthen the capacities for management and mutual coordination, which will ensure the involvement of relevant institutions in Albania too.

Cultural heritage may be considered as heritage only when it is recognized by the communities, groups or individuals who create, maintain and transmit this heritage to future generations. In this regard the protection based on the community as the core of future sustainable development is guaranteed.

The Action Plan is presented below, and it is structured in a way that for any identified impact / problem and each corresponding goal, measures have been identified, competent institutions have been appointed for implementation, the necessary financial resources have been assessed and their potential source and an indicator has been set following the success of the implementation.

NOTE: The Action Plan is attached.

10. Implementation of the management Plan and the conservation measures and activities

The implementation of the management Plan should ensure continuous cooperation of all parties involved in the process, who are expected to undertake their responsibilities and functions in order to comply with the objectives of the plan. In implementing the objectives of the Plan a large number of institutions and individuals have been included who have the potential to contribute to the implementation of the plan, with a special emphasis on the involvement of local government.

In order to have coordinated execution of activities defined in the Plan and conduct supervision of its implementation, the Commission is responsible for managing the natural and cultural heritage in the Ohrid region as an advisory body whose status is particularly important for the protection and management of the Region. The scope of the work of the Commission is governed by *the Law on Management of the World Cultural and Natural Heritage of the Ohrid region*.

The Municipalities of Ohrid, Struga and Debarca and their bodies and public services with the state administration are responsible for the affairs of the conservation of nature and the state administration is responsible for the affairs in the interest field of culture and they are responsible for the management and implementation of measures and activities for the protection and promotion of world heritage in the Ohrid region within their competencies determined by this or another law.

The Holders of world natural and cultural heritage in the Ohrid region are responsible for the maintenance, preservation, respect and proper use of natural and cultural heritage.

National institutions - National Conservation Center - Skopje and the Institute for Protection of Monuments of Culture and the Museum - Ohrid are responsible for undertaking protection and conservation measures of World Heritage in the Ohrid region each according to its competences.

Museum "Dr. Nezlobinski" - Struga is responsible for undertaking measures to protect the movable cultural and natural heritage that is part of the collection of this museum.

The public educational institution - Hydrobiological Institute - Ohrid is responsible for proposing and implementing measures to protect the world's natural heritage in the Ohrid region, its scientific research and the promotion and provision of genetic material from species.

The Public Institution – The National Park Galicica is responsible for undertaking measures for the protection of World Heritage within the area of the National Park Galicica and prevent degradation of the natural heritage and landscape of the national park caused by the performance of activities and other legal and natural persons that are conducted within the area of the national park.

Crossboundary management will be implemented by establishing a governance structure - a mechanism (governing body) that will primarily ensure full and comprehensive functionality and protection of the lake system of the lake and the cultural heritage in its entirety. In this way the values will be strengthened and the integrity of the protected good as World Heritage.

As for national and cross-border cooperation on integrated management of heritage it is necessary to have cooperation of the responsible management structures. It is required to have constant cooperation, including the routine exchange of information, meetings, conferences and joint participation in projects.

The authorities for managing the heritage should ensure integrated management and regular communication with those responsible for managing the Albanian part of the Ohrid lake.

11. Monitoring Plan

The Management plan is a dynamic process and does not end with the preparation of the Management Plan. It is therefore particularly important that the implementation of the Plan is regularly monitored and updated. To ensure effective protection of the outstanding universal value of the good, the state of the conservation should always be followed, and the results of such monitoring should be reflected in the process of plan revision. The implementation of the Plan will enable monitoring of good management, and lessons learned will also allow customization and management of activities in the future.

In order to ensure that the measures stipulated in the Action Plan are applied, it is necessary to conduct regular monitoring that will contribute to providing the necessary data on monitoring what is the status of water bodies, what is the size of the individually concerned species preservation and interaction of ecosystems, etc. and the state of cultural goods. The monitoring and measuring progress in implementing the management Plan is essential and to be able to update, adapt and improve it as well.

This way the values of the good for which it was designated as heritage will be documented, and it will be proved whether they are properly maintained and updated. The monitoring will additionally provide information needed for regular reporting to the bodies of UNESCO.

This Plan for monitoring the selection of parameters / indicators that will be the subject of monitoring as follows:

- They are important, ie with their monitoring is possible to identify significant changes in the values of the protected area;
- They can be continuously monitored, that is, there are no obstacles that would cause discontinuity of measurements;
- They may be quantified and are sufficiently simple that does not require special qualifications of the persons who will perform the monitoring or require expensive or sophisticated equipment;

The parameters / indicators chosen for monitoring are divided into physical (nature: numbers of endemic species, culture, authenticity or preservation of cultural monuments by type, their number, density in a certain area, etc.) and monitoring of human activities (eg visitor's management, wastewater discharge, quantity of disposed waste, use of pesticides for plant protection, number of illegally demolished constructed buildings in the protected area etc.).

Physical parameters to be monitored to assess the degree of implementation of this Plan are the following:

1. **Natural heritage** - environmental and landscape parameters:

- Monitoring of protected areas according to the monitoring programs and management Plans for these protected areas that determine the parameters and frequency measurement;
- Monitoring the risks that are likely to have a negative impact on the natural values as follows:
 - Discharge of untreated wastewater (with frequency measurement that will align with the Hydrobiological Institute);
 - Reconstructed collection system (km.) (With frequency monitoring once a year);
 - BOD5 of treated wastewater discharge into the Black Drin (with frequency measurement once per day);
 - Quantities of improperly disposed waste (frequency of measurement once per month);
 - Number of illegally demolished constructed buildings in protected areas (frequency of monitoring once a month);
 - Erosive sediment of river Sateska (m3) with frequency of measurement once annually;

2. **Cultural heritage:** Ohrid region is an area rich in different types of buildings and monuments with its own specifics in terms of architecture, ambience and aesthetic context and it is needed for each of them to be monitored in a special way. To ensure quality protection not only of the cultural heritage, but also its natural environment it is necessary to undertake continuous activities in terms of follow-up, including:

- The state of cultural heritage will be followed by monitoring once annually as part of the annual program of institutions for conservation, and it will include:

- monitoring of the physical condition of buildings;
- monitoring of possible ambient disorders;
- impact of the good by the visiting tourists;

- Any monitoring should result in reporting on progress and identifying about the priorities for the following year;

Monitoring will focus on progress with:

- protection of cultural heritage;
- conservation of cultural goods;
- presentation of cultural heritage;

Monitoring of human activities will include:

1. Monitoring carried out in the course of implementation of infrastructure projects, according to the monitoring Plans which will be outlined with the studies to assess the environmental impact.
2. Monitoring of visitors:
 - Number of visitors in national parks, museums, beaches, visitors using boats etc. (Measurement once per month)
 - Number of overnight stays by type of accommodation (hotel, camping, private accommodation in the city, private accommodation in the village etc.). (Measurement once per month)
 - Quality of interaction with local service providers and the general public (SEM annually).

12. Management Plan on visitors

Key steps in the preparation of the Plan for the management of visitors are defined in the Guide to UNESCO²⁵, Namely:

- Identifying current and future demand of the tourist destination by visitors;
- Identify critical sites for natural and cultural heritage due to overwhelming attendance;
- Identifying seasonal peaks and troughs of attendance destination;
- Monthly and daily analysis of the number of visitors;
- Analysis of the number of visitors during national holidays or events (festivals, etc.);
- Analysis of the number of visitors during the day;
- Prediction of long-term and short-term trends in terms of the number of visitors and the pressures on the legacy for a period of 5-10 years;

Improving the availability and accessibility for all categories of visitors to individually protected goods and to significant areas of good will improve the visitor's experience and the understanding of the values of this world heritage.

This Visitor's Plan will also focus on providing high quality content for visitors, proper promotion of World Heritage and the need to increase the benefits of tourism to the local economy with maximum respect of the outstanding universal value of the good.

To enable the production of a detailed Visitor's plan it is necessary to establish mechanisms for data collection. It is necessary to assess the state of the facilities for visitors and if there is a need to make plans for possible improvement.

In the absence of available data, it is recommended as a short term measure to develop a Plan for managing visitors.

13. Education program

One of the basic questions of protection of natural and cultural heritage of the Ohrid region is raising public awareness of the values of the region in all civil and political structures, the local community and national level, so one could properly assess the needs and possibilities of development in terms of its values.

Due to insufficient knowledge of outstanding universal value of the Ohrid region the need of education is being imposed. Its purpose is to reach suitable target groups and increase their awareness of the importance of values in the region, the possible risks and the role of the individual in the preservation and maintenance of the outstanding universal value of the region.

To access the corresponding target groups and to convey the necessary message, as well as to engage them in the protection of values, it is necessary to develop a communication Plan which will include:

1. Mapping of stakeholders and target groups by education, gender, age, interests etc.

²⁵<http://whc.unesco.org/sustainabletourismtoolkit/sites/default/files/UNESCO%20toolkit%20PDFs%20guide%208C.pdf>

2. Behavior of a group or individual that needs to change:
 - Interest in construction in the protected region
 - Using boats powered by fossil fuel
 - Illegal dumping of waste
 - Lack of motivation for learning about natural and cultural values
 - Other
3. Defining the message or messages:
 - slogan
 - secondary message
4. Means of communication:
 - electronic media
 - alternative media
 - Social networks
 - Roundtables, conferences, tours, picnics
 - Brochures, leaflets

13.1. Youth education

World Heritage is also used as an educational resource. Preservation of natural and cultural heritage for present and future generations is a very serious task. Fostering awareness of their relevance is the key to their conservation, and for this purpose the most powerful and most efficient means is the education of youth. Young people are those who in the future will make decisions and will have the task to preserve the values of the heritage. Education of youth in the field of our common heritage gives them the opportunity to better know themselves and their origin. It also helps them to learn more about others. Sense of identity and fulfillment which we can attain through the culture which we belong, is essential for evaluating the wide variety of worldly goods that must be transmitted from generation to generation. In this regard, schools have an important role to play in encouraging young people to understand the wider meaning of World Heritage goods, as well as the impact that individuals can have on the condition and future of the good.

The outstanding universal value and importance of preserving the world heritage for future generations, offers many unique and often multidisciplinary and interdisciplinary opportunities for teaching and learning. Given that in most schools the curricula are already overburdened, and the teachers are constantly facing with growing demands, those who want to develop a sense of importance with regard to the conservation of World Heritage so far have opted on an integrated approach.

Therefore, in 1999 UNESCO prepared the Educational teaching aid "World Heritage in the Hands of the Young"²⁶ whose purpose is to introduce the concept of education in the field of world heritage within the educational system. The training aid aims at involving young people in education on heritage and activities for its preservation in and out of the classroom, the local and national sites, in cooperation with all stakeholders, such as managers, municipalities, civil society and relevant local and central government / administration.

The teaching aid is of great value because it is made on the basis of practical experience and is intended for teachers in secondary schools:

²⁶ www.unesco.org/whc/education; *World Heritage in the Hands of the Young* - Skopje: Ministry of Culture of the Republic of Macedonia, the National Commission of UNESCO 2012

- who teach around the world in completely different conditions, including those that are very difficult (lack of school infrastructure, inaccessible instructional materials and equipment, many students in the class, overburdened curricula, etc.) as well as for those working in schools equipped with the latest technology in education (access to the Internet etc.).
- those that teach to students aged 12-18 years different subjects: geography, history, language, science, mathematics, art, etc.,.

Through innovative educational approaches on supporting the preservation of World **Heritage**, and **thus enabling the youth / students with the following:**

- to find out and learn more about the cultural and natural sites in the region inscribed on the List of World Heritage possessing outstanding universal value;
- to acquire new skills needed to help preserve these World Heritage Sites;
- to build new attitudes and a permanent commitment to the preservation of our local, national and world heritage for present and future generations;
- play a key role in keeping the exceptional cultural and natural diversity of the world through international cooperation.

The teaching aid through various forms of activities, site visits and similar allows young people to acquire the necessary knowledge and skills in recognizing and preserving the world heritage.

13.2. Raising public awareness of other target groups

The bodies of state administration and the municipalities of Ohrid, Struga and Debarca each within its jurisdiction are obliged to take measures to encourage the education and implementation of information programs in order to familiarize the population with the values of the region, the need and importance of respect and conservation of natural and cultural heritage of the Ohrid region. The state administration bodies, municipalities, as well as legal and natural persons are obliged to inform the public about the values of natural and cultural heritage and of the dangers that threaten the natural and cultural heritage, as well as about the undertaken measures for its protection.

13.3. Training of tourist guides

Tourism is one of the fastest growing industries in the Ohrid region as a major source of income for the local population. As an industry oriented towards people, tourism also provides many jobs helping to revive the local economies. However, like other forms of development, tourism can also cause some problems, such as social dislocation, loss of cultural heritage, economic dependence and environmental degradation. That is why, it is necessary to raise awareness among tourist guides about the possible impacts that are potentially performed by the mass tourism and how they affect as educators upon the tourists aimed at reducing the pressures on natural and cultural values of the tourist visits. For that purpose, there is a UNESCO program²⁷ which helps to identify ways in which sustainable tourism can get closer to all those involved in the tourism sector.

²⁷ http://www.unesco.org/education/tlsf/mods/theme_c/mod16.html

13.4. Training of administrative officials and public employees

The lack of a system in the education system for continuing education and specialization and professionals in the field of protection of cultural and natural heritage, contributes to a pronounced atrophy of services for conservation of natural and cultural heritage.

Within the Institute for Conservation of Cultural Monuments and the Museum - Ohrid (responsible institution for the protection of cultural heritage in the region) there is an architectural department that is equipped with the necessary equipment for carrying out research works, preparation of studies and programs for the promotion of world cultural heritage. There is a center for documentation - INDOK, where all the documentation is located that the institution has in disposal for movable and immovable cultural heritage in the territory of the protected region.

With the establishment of the Faculty of Tourism and Hospitality in Ohrid staff is being formed which is necessary for the operation of hospitality and tourism. This is a condition for the development of all forms of tourism, in which local authorities and the population see the chance for development.

The existence of a Public educational institution - Hydrobiological Institute - Ohrid is established in 1934.) It proves the fact that science has always been interested in the situation of biodiversity of the lake and its closer surroundings.

Appropriate information and promotion of real values contributes to raising public awareness, especially of local population as main factor for the preservation of values. The goal is protection, conservation and presentation of the integral good in the function of everyday life and its international affirmation.

During the preparation of the Plan, and in communication with various stakeholders, it was determined that burning the reed by the local population and the services is considered a traditional way to remove biomass after drying the reeds in the fall. It is necessary to convey the message of the hazards associated with this type of practice.

The main goal is to improve the level of awareness, education and promotion of the values, conducting research and raising public awareness, especially in the municipalities of Ohrid, Struga and Debarca in order to engage the target groups at national and local level and raise their awareness of issues relating to the protection of the Good.

Due to the importance and concentration of cultural heritage in this region a separate National Institution for Conservation is established, Institute for Conservation of Monuments of Culture and the Museum - Ohrid, which in coordination with the National Conservation Center have jurisdiction in the segment of conservation of cultural heritage. That is why, the National Institute for Conservation, Institute for Protection of Monuments of Culture and Museum - Ohrid will be responsible for developing activities to raise public awareness of the importance of cultural heritage by organizing educational events and publications that will affect the sustainable behavior of the public towards cultural-historical monuments.

Promotion of natural values will be performed by the employees in the Public Institution National Park of Galicica. For this purpose there are info points and educational materials that occasionally need to be restored so as to follow the trends of communication tools and to keep up with the results of the latest scientific research related to biodiversity and ecosystem services.

13.5. Training of farmers on environmental acceptable production

Due to the risk of eutrophication of the Ohrid lake driven primarily by conventional agriculture, it will require education of owners of agricultural land. Education would refer to the possibilities of organic farming without the use of agrochemicals, efficient and sustainable methods of fertilization, irrigation,

organized collection of agricultural waste and the possibility of promoting / selling such products. Besides holding lectures, it is necessary to hold info sessions and forums which will be attended by representatives of the agricultural sector, farmers and producers, representatives of collection centers for agricultural products and companies producing agricultural products in the region.

Development of rural areas and preserving the environment requires educating farmers in the use of IT technologies, following the example of SMART VILLAGES in Slovenia and other countries. In smart villages traditional and emerging of new networks and services would be enhanced through digital telecommunication technologies, innovation and better use of knowledge for the benefit of citizens and businesses. Digital technology and innovation can support the quality of life, higher living standards, public services to citizens, better use of resources and thus less impact on the environment and new opportunities for rural value chains in terms of products and improved processes²⁸.

By developing programs to coordinate the activities of farmers in areas of common interest so as to preserve and promote variety of biodiversity that will enable sustainable development.

13.6. Mechanisms for citizen's involvement

Raising public awareness will have no prospect of success only with professional, expert and political engagement of the public sector, because the meaning of natural and cultural heritage in general, applies to all aspects of daily life of citizens - jobs, services, public areas, public facilities, public service, economic terms, culture, etc. So all this must not be inconsistent with the objectives of the civil environment. The need for constant communication with citizens and civil society is seen as very important. The manner of cooperation and involvement in all activities contains a set of measures (such as operating model offered in "the Study for integrated protection of the Old city core of Ohrid"²⁹) and that is:

- Involving citizens in the activities of the public sector (municipal, state) for gaining insight and active participation in decision making in various stages of preservation of cultural heritage;
- Opportunity in each phase of the revitalization process of heritage to assess the degree of acceptance of individual projects by the citizens and their ability to participate in them.
- Democratic mechanisms must be established from the very beginning so as the process will become collective and sentenced to success;
- You will need to include all ethnic, social, cultural and religious communities within the process, in line with the principle of non-discrimination;
- Mechanisms will concern not only the participation of a broad and ad-hoc citizenship, but all stakeholders - owners, consumers, retailers, caterers, NGOs and so on.
- Other economic actors who could participate in investment or other type of display and promotion of cultural values;
- Citizens' participation will have to be organized in all phases of the revitalization process (analytical - diagnostic, strategic planning, implementational). This will require continuous communication with citizens and civil society.

Mechanisms for participation will have to be designed so as to provide continuous and reliable communications in both directions (population towards professional - operational teams and professional

²⁸ <https://biznisregulativa.mk>

²⁹ Plan - Study of integrated protection of the Old city core of Ohrid, Ohrid Municipality and the Institute for Protection of Monuments of Culture and the Museum - Ohrid, Ohrid 2015;

- operational teams towards population) through public discussions, consultations, harmonization of positions, contracts, surveys, interviews, workshops, exhibitions, newsletters etc.

According to the Environment Program of the United Nations (UNEP), "Music is one of the most powerful mediums for conveying messages about environmental conservation to billions of people around the world - regardless of race, religion, income, gender or age" (2014). In summer in the Ohrid region there is a tradition of holding major festivals with world famous performers who attract many visitors as the four day's event "Ohrid calling festival", with a minimum of 20,000 visitors per day from all over Europe; two-day "Green beach festival" in Struga with 10,000 visitors. Festivals have many aspects where they can involve education for the conservation of natural and cultural values through: influencing their suppliers, discussions with the organizers, sponsors, engagement of influencers who through the social media will become a role model for the attendees of the event etc.

13.7. Mechanisms for raising awareness through social media

Nowadays the power of digital media is undeniable, with special emphasis on the social networks in the exchange and dissemination of information and raising public awareness. According to studies, social media is the most sophisticated and most practical way to successfully use the knowledge and to create a strategy for progress.

Social media come into many forms, among which the most popular are: blogs, microblogs (Twitter), social networks (Facebook, LinkedIn, Instagram), media-sharing sites (YouTube, Flickr, Pinterest), social-selecting and voting sites (Digg, Reddit), review sites (Yelp, Trip advisor), forums and virtual worlds (Second Life).

The development of social networks has led to the emergence of digital influencers - people who create content on social media or blogs and have gained a number of followers, they are advisers to the new generation. Through the development of innovative social marketing campaign on natural and cultural heritage, the vision of this Plan may be interactively conveyed to all.

14. Disaster Risk Management Plan

Disasters and risks of accidents are an inevitable factor that can affect the disruption or destruction of values of the Good. Accidents are resulting from the dangers that can be defined as a natural or man made caused by human action.

The Disaster risk is understood as a function of "risk" and "vulnerability".

Therefore, the Disaster risk management plan should take into account the types and sources of hazards that could affect the good and susceptibility to natural and cultural goods of these hazards of varying degrees.

The effective implementation of this plan will strengthen the protection and conservation of natural and cultural components of the good. Disaster Risk Management Plan periodically will need to be reviewed / revised in order to bring new measures in response to evolving events and future needs.

15. Finasing the implementation of the management Plan

The activities proposed in the plan will be coordinated and conducted by various entities in accordance with their responsibilities. In most part of the activities the funds will be allocated from the budgets of the municipalities of Ohrid, Struga and Debarca and the national budget. The funds for the planned activities may alternatively be provided from funds obtained by using natural and cultural heritage in the Ohrid region as well as from other sources of funding - donations, grants, loans, gifts, legacies and other.

16. Revision of Management Plan

The Management Plan for Natural and Cultural Heritage of the Ohrid region is adopted for a period of 9 years.

Given that the vision contained in the Plan on the long run envisages management of World Natural and Cultural Heritage of the Ohrid region, and consequently the objectives of the plan are relevant for a longer period of time.

The new findings, the changes of socio - economic circumstances can influence on the change in the governance priorities and require undertaking additional measures by the involved parties, especially given the fact that the principle of management is evolutionary and a dynamic process that does not end with the adoption Plan for the management of natural and cultural heritage of the Ohrid region.

In this regard the audit of the plan is required to be performed every 3 (three) years, and the audit of the contact zones in their determination will be made at every six (6) years.

The revision of the management Plan is performed by the Commission on Management of Natural and Cultural Heritage, Ministry of Culture-the Department for Conservation of Cultural Heritage and the Ministry of Environment and Physical Planning-the Department of Environment (each within the scope of their competences) based on updated data on the implementation of the objectives and implementation of the Action plan of the management Plan

ABBREVIATIONS

MK	Ministry of culture
MEPP	Ministry of Environment and Physical Planning
MES	Ministry of Education and Science
LSGO	Local self-government Ohrid
LSGS	Local Self-Government Struga
LSGD	Local Self- Government Debarca
ICMCM	Institute for Conservation of Monuments of Culture and Museum - Ohrid
MS	Museum of Science „ Dr. Nikola Nezlobinski "- Struga
MTC	Ministry of Transport and Communications
ME	Ministry of Economy
MAFWE	Ministry of Agriculture, Forestry and Water Management
MI	Ministry of Interior
CMA	Crisis Management Agency
HOTAM	Hotel Association of Macedonia
ATAM	Association of Travel Agencies of Macedonia
METS	Ministry of Economy – Sector of Tourism

MLS	Ministry of Local Government
NCC	National Conservation Center - Skopje
ELEM	Macedonian Power Plants
MOC	Macedonian Orthodox Church
ICM	Islamic Religious Community
FTU	Faculty of Tourism and Hospitality - Ohrid
NPG	PI National Park Galicica ,, "
HBI	Hydrobiological Institute - Ohrid
GRM	Government of Republic of Macedonia
CA	Customs Administration of the Republic of Macedonia
MF	Ministry of Finance
DCCH	Directorate for Conservation of Cultural Heritage
DE	Directorate of Environment
SPA	Spacial Planning Agency
RECA	Real Estate Cadastre Agency
RPPSA	Real property and Personal Security Agency
MI	Ministry of Interior

RF	Road Fund
APST	Agency for Promotion and Support of Tourism
NGO	NGOs-Non-governmental Organizations
BS	Business sector
CCRM	Chamber of Commerce of Republic of Macedonia
Commission	Commission for management of cultural and natural heritage of the Ohrid region

Appendix 1: Natural values

World Heritage in the Ohrid region contains multiple natural values that make up the geographical ambient properties in the region that comprises of united motifs of primeval nature, primarily the Ohrid lake. Particularly important for science are the 212 endemic species, of which 182 are animal species. A number of them are living fossils, almost unchanged from the tertiary period, such as the endemic sponge, the relict species of snails and from fish the Ohrid trout and the Belvica (*salmo ohridanus*).

The Ohrid Lake with its 212 endemic area of 358.2 km² probably represents a lake with the greatest diversity in the world, taking into account its surface.

The most explicit expression of endemism in Lake Ohrid is registered in groups of benthic fauna where there are whole evolutionary lines: leeches (Hirudinea), crustaceans (Crustacea), mussels (Bivalvia), snails (Gastropoda) and flat worms (Turbellaria). In some of the mentioned groups despite the large biodiversity, a particular feature is even their endemism, which ranges from 54% for class (Hirudinea) to 79% of class gastropods (Gastropoda). One should also consider numerous relict species of algae, among which the most numerous are diatoms.

The recorded taxa in the pelagic zone of the Ohrid lake belong to the following types of algae: Cuanophuta, Bacillariophuta, Chlorophuta, Chrusophuta and Purrophuta.

With the largest number of species (but with small numbers) are the green algae, followed by the blue-green algae and absolutely dominant in their quantitative representation are the endemic diatoms *Cyclotella fottii* and *Cyclotella hustedtii*, which make up just over 40% of the total phytoplankton density.

In the littoral zone there is a significantly greater diversity of species in the phytoplankton community. With the largest number of species are represented the diatoms, followed by green algae.

Studies of the zooplankton, as an important constituent in food chains of pelagic aquatic ecosystems play a significant role in determining water quality and stability of aquatic ecosystems.

The total quantity of zooplankton and according to biomass dominate the representatives of Copepoda.

On the second position according the quantitative representation are the representatives of the type Rotifera, but they have an insignificant share in the total biomass of the zooplankton.

Cladocera group accounts for a small fraction of the total zooplankton. However, given their extensive individual biomass, and their quantitative representation, particularly in the summer period when in the zooplankton are present two non-indigenous species: *Diaphanosoma birgei lacustris* and *Leptodora kindtii* (recorded in the last decade), they have an important part in the total biomass of Cladocera, respectively, in the total biomass of the zooplankton.

The Endemic Species of Lake Ohrid are: *Arctodiaptomus steindachneri* Rich, 1897, *Cyclops ochridanus* Kiefer, 1931 and according to Lova and Starobogatov (1982) and larval stages of species *Dreissena (Carinodreissena) stankovici*.

Macrophyte vegetation of the lake is zoned into three zones: the first is the belt of reed (*Phragmites*), the second is the type of lokumica (*Potamogeton*) and the third is the belt.

The flora of the lake is characterized by floristic versatility in three distinctive groups of macrophytes: emergent, floating and submersive (immersed) macrophytes.

Of the total number of registered macrophytes with the biggest percentage of present submersive (immersed) macrophytes (about 75%), then followed by emergent (about 16%) and floating with only 9%.

From the emergent plants dominate the reed, *Phragmites australis* which forms a discontinuous belt around the lake with a total area of approximately 74 ha (0.31% of the total area of the lake) and from the submersive plants dominate the tree covering lokumica, *Potamogeton perfoliatus* (1021,13 ha - 4.28%) and *Hara Chara tomentosa* and other types of hara (1,049.16 ha 4.39%), which together are covering approximately around 2,070.16 ha - ie 8.67% of the total area of the lake.

Within the Lake Ohrid dominate the macrophyte species that are indicators of water from the second category (*Nuphar lutea* (L.) Smith, *Polygonum amphibium* L., *Potamogeton perfoliatus* L., *Muriophyllum spicatum* L., *Myriophyllum verticillatum* L., *Ceratophyllum demersum* L., *Elodea canadensis* Rich. & Michx., *Najas major* All. and *Lemna trisulca* L.).

Typically, the littoral zone is the most densely populated. It is the habitat of most species of benthic fauna excluding the profound forms. Thus, in this area representatives of the following classes are present: Turbellaria, Oligochaeta, Hirudinea, Bivalvia, Gastropoda, Amphipoda, Isopoda and Insecta.

In the sublittoral zone quantitatively the most abundant is the species of *Dreissena prespensis*. This area is the home to the following types of macrozoobenthos: *Ochridospongia rotunda*, *Dendrocoelum lychnidicum*, *Peloscolex stankovici*, *Asellus arnautovici*, *Polinskiola polinskii* and others.

In the profound zone the following types are encountered: *Criodrilus ochridensis*, *Macedopyrgula wagneri*, *Micropyrgula stankovici*, *Stankovicia baicaliiformis*, *Nimphargus foreli ochridanus* and others.

In terms of percentages of individual categories in total benthic fauna, of the profile CKD-v.Radozhda it was determined that (in all three depth zones), Amphipoda features with the highest percentages, ie 31%. The follow the Oligochaeta 24%, Bivalvia 20%, Insecta 9%, Hirudinea 8%, Isopoda 5%, Gastropoda and 3% Turbellaria least covered with only 1% (Trajanovski, S., 2004).

Because of the long and continuous simultaneous existence of the Ohrid lake from the tertiary to the present, in a natural, evolutionary way, the exceptional fish fauna is formed and stabilized in its composition. Namely, in the context of the aforementioned we have to emphasize that most of the species are endemic, that is they exist only here and nowhere else in the world. Among them are the relict species too which are observed as life forms from the time of their settlement in the lake.

The recorded native species belong to four families of bony fish as it follows: *Salmodae*, *Cyprinidae*, *Cobitidae* and *Anguillidae*. The family *Salmonidae* (trout) contains two types, ie *Salmo letnica* (Karaman) Ohrid trout and *belvica* - *Acantholinqua ochridana* (Steind.). Horse family *Cyprinidae* (carp) belonging to 12 species, namely: *Cyprinus carpio* (L.) - carp, *Rutilus rubilio ochridanus* (Karamana) – common roach, *Pachytilon pictus* (Heck. Et Kner) - moranec, *Phoxinellus minutus* (Karaman) – common roach, *Leuciscus cephalus* (Bonap.) - carp, *Phoxinus phoxinus* (L.) – common minnow, *Scardinius erythrophthalmus scardafan. ochridanus* (Vlad. et Petit) – common rudd, *Chondrostoma nasus ochridanum* (Karaman) – skobal-Chondrostoma nasus, *Gobio gobio ochridanus* (Karaman) - mre nec, *Barbus meridionalis petenyi* Heck. - barbell, *Alburnus alburnus alborella* (Filippi) – white bleak, *Alburnoides bipunctatus ochridanus* (Karaman) - whitefin gudgeon).

Family of grab shells (Cobitidae) two types are represented: kamnarot - *Nemachilus barbatulus sturanyi* (Steind.) And eel *Cobitis taenia meridionalis* (Karaman).

Anguillidae family is represented by one species, ie eel *Anguilla anguilla* (L.).

In the Ohrid lake, in addition to indigenous there are several non-indigenous (introduced) fish including: rainbow trout *Oncorhynchus mykiss* (Wal.) And its albino form (gold), Karas *Carassius carassius* (L.), *platiche Rhodeus sericeus*, *soncharka Lepomis gibbosus* (L.), *rasbora Pseudorasbora parva* (L.), and *Ribnichka form of carp (nacked carp)*.

In terms of biodiversity the site is very important³⁰ - Studenchishko Marsh, valorized as a natural phenomenon preserved for millennia that not long ago constituted an integral part of the Ohrid lake.

On the space of Studenchishte Marsh in the last decade five wetland communities have been registered:

1. Association of Scirpeto-Phragmitetum W. Koch 1926
2. Association of Oenantheto- Roripetum Lohm. 1950
3. Association of Sparganio-Glycerietum fluitantis Br.-Bl. 1925
4. Association of Caricetum elatae W. Koch 1926
5. Association of Cyperetum longi Mic. 1957

With the completed evaluation of the site Studenchishko Marsh in 2012 and, on the basis of the existing scientific data set is the presence of 89 siliceous types of algae (diatoms). Most of these species, or about 62 belong to the group of species with a cosmopolitan distribution. It is established the presence of 11 and 4 endemic and rare species in the flora of Macedonia (with 2 to 5 sites known), and a type for which this first marsh is the first finding for Macedonia.

The flora is represented by widespread wetland species, which would underline the rare species such as *Ceratophyllum submersum* L., *Nuphar lutea* L., *Polygonum amphibium* L., *Cyperus longus* L. and others.

The flora of the underwater meadows can find data in the studies of Talevska (2005) and Trajanovska (2002, 2009). According to Talevska (2005) on these sites 11 vascular hydrophytes and 6 cylindrical catkins can be found.

Out of the spineless fauna of the site Studenchishko Marsh according to (Filevska 1954; Peters & Hackethal 1986; Jović & Mihajlova 2009) and the field research one may list 34 types of dragonflies. In the Ohrid region throughout the year 138 species of daily butterflies can be found, representing 68% of the total number of species in the country, (Scheider & Jakšić, 1989; Krpač & Mihajlova, 1997; Melovski, 2004; Verovnik & Micevski, 2008). As major types of species found in the Ohrid region one can find: *Gegenes nostradamus*, *Cupido argiades*, *Cupido alcetas*, *Polygonia egea*, *Melitaea diamina* and *Neptis rivularis*. For Studenchisko Marsh are important the following types of daily butterflies (*Lycaena dispar*, *Maculinea arion*, *Parnassius mnemosyne* and *Zerynthia polyxena*) of special conservation interest for the EU. In 2010 the family of runners (Coleoptera, Carabidae) 39 species are registered, but some of them are rare fauna of the Republic of North Macedonia. As rare species: *Agonum lugens*, *Apiceum*, *Amara convexiuscula*, *Stenolophus skrimshiranus*, *Brachinus elegans*, *Stenolophus proximus*, *Pterostichus elongatus* *Oodes*

³⁰ The Sites with natural values in the Ohrid region are marked on the map with the boundaries of the natural and cultural heritage of the Ohrid region (in attachment)

helopioides and *O. Gracilis*. The Springs close to Studenchiste Marsh are familiar for nine known species of planar (Plathelminthes, Turbelaria, Tricladida).

Because of the immediate vicinity of Studenchiste Marsh and its direct connection to the Ohrid lake, the fauna of vertebrates of the marsh has always been considered as part of the lake. In the Studenchishte Channel as one of the water suppliers of the Marsh nowadays, in certain periods of the year, there are 14 (out of 17) indigenous fish species of the Ohrid lake, as well as three non-indigenous (introduced) species. From amphibians, there are at least nine species, all included in Annexes 2 and 3 of the Berne Convention. The most important at European level are Macedonian newts (*Triturus macedonicus*), **The yellow frog** (*Bombina scabra*), both widespread throughout the country. From the reptiles in Studenchiste Marsh one can meet at least four species. The draw (*Elaphe quatorlineata*) comes into the swamp from the surrounding fields looking for prey and it may be the case with several other snake species. The Marsh turtle is the most important kind of reptiles that can be found in the Marsh, but it is widespread in the country as well. There are encountered about 50 species form the birds in the Marsh, but with a small number of individuals or couples (usually only a few). With the exception of a few species, the marsh chickens and little bittern, virtually no other birds nest in the marsh, and there are data on nesting of the Readcrested swan (*Cygnus olor*). When talking about Mammals, the most significant is the presence of the otter (*Lutra lutra*), and probably more species of rodents are present, fox (*Vulpes vulpes*), skunks (*Mustela putorius*), White Slender (*Martes foina*) and others. The birds in the swamp encountered about 50 species, but with a small number of individuals or couples (usually only a few). With the exception of a few species trskari, barskite chickens and little bittern, virtually no other nests in the marsh, and data on nesting and Crvenoklunestiot swan (*Cygnus olor*). Mammals, the most significant is the presence of the otter (*Lutra lutra*), and probably contained more species rodents, fox (*Vulpes vulpes*), skunks (*Mustela putorius*), Slender (*Martes foina*) and others.

The values of biodiversity of Lake Ohrid are listed in tables attached.

The territory of the Ohrid region as a World Heritage identified the following sites with natural values:

1. St. Bogorodica Kalishka - sublacustrine springs;
2. Kalista - the only habitat of the yellow water lily (*Nuphar lutea*) of the Ohrid Lake;
3. Podmolje - widest band of reed (*Phragmites australis*) of the Ohrid Lake, a natural habitat of endangered bird species and hatchery of carp;
4. Mazija - revitalized natural habitat of the yellow water lily (*Nuphar lutea*), carp hatchery and habitat and nest of birds;
5. Studenchishko Marsh - macrophyte vegetation and hatchery of carp fish;
6. Veli-Dab – sublacustrine springs, hatchery of trout and biodiversity of benthic fauna;
7. Velja-Pes- sublacustrine springs hatchery of trout and biodiversity of benthic fauna;
8. St. Peter - coastal and sublacustrine springs, hatchery of trout and biodiversity of benthic fauna;
9. Svetinaumski Springs – the richest spring of Lake Ohrid, trout of hatcheries and carp and biodiversity of benthic fauna.

Sites with natural values in the Ohrid region are marked on the map with the boundaries of the natural and cultural heritage of the Ohrid region.

Values of the National Park Galicica

The Inland Ohrid region covers more than 2/3 of the National Park of Galicica or 18,000 ha and features with a large diversity of species, habitats and ecosystems.

Forests

The forests in the park have great environmental importance and include more types of habitats that are considered endangered or rare in Europe, that are important for the preservation of many types, which are also seen as key values.

According to EUNIS³¹ classification of habitat types since 2004, the park brings together ten habitat types (with a total of 13 plant communities) that are protected by the EU Directive on the conservation of natural habitats and of wild fauna and flora. Among them, by their significance stand out the wild juniper forests (forests Peoniski foya, EUNIS 2004: G3.933) that within the park include three plant communities: Pruneto-Celtetum (Em 1989), Biaro tenuifolii-Juniperetum excelsae Em, and Querco- Juniperetum excelsae Matevski et. all. (Prov.).

Shrubby vegetation

The park brings together two types of habitats with shrubs that are considered endangered or rare in Europe, that are important for the preservation of some key species. These include habitats with bushes of boxwood (habitats with bushes of *Buxus sempervirens*, EUNIS 2004: F 3.12) and scrub habitat of blue spruce (pre-mediterranean scrub habitat of blue spruce, EUNIS 2004: F 3164).

Pastures

In the park, according to EUNIS classification from 2004 brings together four types of these habitats, with a total of 8 plant communities that are considered threatened or rare in Europe. Among them, hilly pastures (Elin-Balkan steppe with *Satureja montana*, EUNIS 2004: F 21.1) are particularly important for many species of orchids in the park. Pastures have socio-economic importance for the population in the park and beyond.

Chasmophytic vegetation and the vegetation of Sippar

According EUNIS classification in 2004 two types of vegetation chasmophytic are found (EUNIS 2004: H3.2A1 and EUNIS 2004: H3.2A11 with four plant communities) and one type of vegetation Sippar (EUNIS 2004: H2.6, a plant community) that are considered threatened or rare in Europe.

Wetlands

Due to the limestone nature of the mountain, aquatic ecosystems in the park have great environmental importance for a number of key species. Among them there are two types of habitats that are rare or threatened in Europe (Temporary surface flows (wet phase) - EUNIS 2004: C2.26 and Vegetation of oligotrophic rapid streams rich in limestone - EUNIS 2004: C2.5). Beside them you can meet at least 5 types of wetlands that are of particular importance for the preservation of a number of key species and vertebrates and invertebrates. Of these, it is particularly important the spring Ss. Naum Crvena Lokva, other natural and artificial pools, as well as mountain and coastal springs.

³¹ EUNIS - European nature information system (European Information System for Nature).

Caves

The limestone nature of the mountain is the reason for the abundance of underground geomorphological forms such as caves which are important habitats for a number of key species.

According to EUNIS classification from 2004 in the park meet you can meet three habitat types that are rare or threatened in Europe (EUNIS 2004: H1.1, H1.221 and H1.231). From the caves there are important habitats apart from Meckina dupka, Voila, Leskoska Cave and others.

The above habitats contribute part of the park to be declared as a special area of conservation under the European ecological network NATURA 2000.

Globally Threatened Species

According to the criteria of IUCN in the park there are several types that are considered as globally threatened (status "endangered") of which 4 invertebrate species and 13 vertebrate animals. This group can be complemented with 19 tall trees of the park that are among the globally rare species of plants and 15 species of fungi with global importance.

Significant populations of species that are rare or affected in the Republic of North Macedonia in Europe or globally

Out of the algae 7 taxa that are rare in our country and the park are represented with significant populations. Of higher plants you can meet 56 taxa that are rare in the country (10 sites). To these the local endemics can be added. From the funghi in the park you can encounter 47 species that are rare or endangered not only here but also in Europe. Of these 38 have national importance, 22 are of European importance and 10 with global importance.

Of invertebrates that are protected in Europe in the park you can find 11 species whose populations are important nationally. Among them there is one of a species whose population in the park has European importance. When it comes to Rare invertebrates in the park you can encounter 15 species whose populations are important nationally. Among them there is one of a species whose population in the park has European importance. To these the local endemics should be added.

Of vertebrate animals which are protected in Europe in the park one can found 77 taxa whose populations are important nationally, and 8 of them have European or global importance. To this group two bird species should be added whose populations are considered important because of their relict character.

Appendix 2: Cultural values

According to the general principles of the Convention for the Protection of the World Cultural and Natural Heritage, the outstanding universal value of the cultural - historical region where the monumental complexes of the cities Ohrid and Struga belong to, the most important spiritual centers such as St. monastery complexes. Archangel Michael - St. Naum St. Bogorodica Zahumska, St. Mary - Kalista and St. John the Theologian - Kaneo, and the large number of settlements, are contained in the quality of the specific architecture and the successful achievement of unity between cities, settlements and the natural environment of the lake.

Considering the rich historical, architectural, archaeological and ethnological values that give the region its distinctiveness, uniqueness, representativeness, authenticity in their conservation, diversity and integration, have created opportunities for the region to present good of highest national importance with universal and value for humanity and its history, culture, art and science.

Cultural landscape

The territory of the Ohrid region as a World Heritage is an integral good of the integrated natural and cultural values in which diverse and rich architectural heritage is intertwined with nature and is indivisible from it. It is this feature that ranks the protected area in the category of cultural landscape where history, continuity of cultural traditions, social values and aspirations with the pristine natural beauty of the region are unbreakably linked. Value of this type is identified especially near the monastery St. Bogorodica Zahumska, the Roman castrum, the coastal settlements Trpejca and Peshtani and the settlement Kaneo above which there is a church St. John the Theologian – Kaneo, the monastery complex Kalista etc.

Cultural heritage

The main monumental values of the Ohrid region represent harmony of protected historic urban cores, natural urban structure, lake - shores, spiritual centers and organic urban structures located along the lake with specific lifestyle and rural settlements located in ecologically preserved natural environments. The Defined urban matrix of the old city core of Ohrid abounds with numerous archaeological sites, spiritual centers and specific residential architecture typical of this region (resulting in a timeframe of prehistory until the XIX century) and architecture erected under the influence of European neoclassicism. Within the protected monumental unit of the city of Ohrid as monumental goods were proclaimed 23 Christian sacred buildings, 74 profane buildings, 7 objects of Islamic architecture and 10 archaeological sites, and within the boundaries of the protected monument unit of the city of Struga- 24 profane objects, 3 objects of Islamic architecture and 1 Christian sacred object.

Cultural and artistic values

Cultural and artistic values of the protected good, with all its attributes recognized worldwide that include:

- Painting, mosaics, frescoes, icons, wall decorations, illuminations of manuscripts, prints, paintings on canvas;
- Sculpture and carving, sculptures, stone sculpture, iconostasis, bishop's thrones and other church mobilier, carved wooden ornaments;
- Applied Arts: items of pottery, glass, wood, metal, textile, leather, paper and various other works of traditional art crafts;
- Intangible cultural heritage, traditional customs and religious and cultural events.

Urban and architectural values

The territory of the Ohrid region consists of urban areas that create specific organic urbanism with the establishment of two urban cores, several offshore settlements, more significant spiritual centers and more rural settlements placed in arrays of primordial nature which is still intact by the action of man.

Analyzing buildings, ranging from prehistory to the existence of large number of pile palafite dwelling settlements whose remains are visible today on the lake bottom through antiquity, until today, one highlights the urban planning which is not regulated by plans and regulations. It is an organic urbanism where urban tissue grows and develops according to the strict laws and human needs.

In contrast, the location of the spiritual centers was conditioned by the great values of the natural landscape enriched with unparalleled scenic views of the lake using rich green slopes of the mountains, natural springs, the bases of steep rocks and mystique of space.

More recently, when urbanization aggressively attacks the coastal area around the Ohrid lake the only one that remains intact is the vertical projection of the Old urban core of the city of Ohrid that ends with the Citadel of Samuel's fortress on the top of the hill, as well as the preserved perimeter's fortification wall with city gates that have been preserved and the undeveloped forested terrain under which after Isohypes terrain the urban core is being developed theatrically going down towards the lake coast.

As most outstanding representatives with architectural and urban values are the old urban cores of Ohrid and Struga, Monastery complex of St.. Archangel Michael (St. Naum) on the southern part of the Ohrid coast, Monastery of St.. Bogorodica Zahumska-Zaum, at v. Trpejca and the monastery complex St. Mary/Bogorodica - Kalista, on the western shore of the Ohrid lake.

Coastal rural settlements (Trpejca, Ohrid Region, Radožda and Kalista)

Trpejca is located 17 km south of Ohrid and is located at the foot of the mountain Galicica, in a natural cavity between rocks on the eastern shore of Lake Ohrid, at an altitude of 695-750 m. Besides the village passes the road from Ohrid to St. Naum. For centuries the population was engaged in fishing as a major source of income. Animal husbandry plays an important role too, and agriculture is limited to a small farm land in dry trpejchko field. The village has 370 residents - Macedonians. Near the village, the oldest preserved church is situated St. Bogorodica Zahumska from the XIV century.

12 km south of Ohrid, at the foot of the mountain Galicica on the eastern shore of the Ohrid Lake, at an altitude of 966 meters, on the road Ohrid - St. Naum, the village Pestani is situated. For centuries these people were engaged in fishing and farming, but the last few decades they are oriented towards the development of tourism with well-developed services of trade and catering. This imposed to the old rural households to readapt in modern contemporary facilities for the needs of tourism and hospitality and now they are revitalized rural areas.

Radožda village is a typical fishing village, located in the plains end by the lakeshore which gradually grows into a rural tourist settlement, with ideal opportunities for developing rural tourism. The village is gradually transformed into a modern tourist resort with the development of service industries: trade, catering and tourism. Above the village it is situated the cave church Archangel Michael with preserved valuable paintings.

Near the town of Struga, in addition to the lake shore it is located the village Kalista. It is a typical fishing village where in recent years more and more small restaurants are being built and hospitality and tourism is being developed. Near the village is the monastery complex of St. Bogorodica with the cave temple of the Virgin Birth. The monastery church and hospices were built recently and are active today.

Appendix 3: Other values:

Social values

Social values of the Ohrid region are associated with traditional social activities and its modern use, which includes the care and the high awareness of the environment by encouraging the process of protection and promotion of natural and cultural heritage. They have an important role in establishing social and cultural identity, both locally and nationally. These values are generated by the very cultural and natural heritage and the processes of their conservation. Alignment between protection, conservation and good management of the Ohrid region, guarantee sustainable development.

Scientific - educational values

Long civilized existence of Ohrid through the ages as a spiritual and cultural center left a special mark in educational activities with the establishment of the first Slavic university or the work of the famous Ohrid Literary School (St. Clement's University).

The rich fund of Greek and Slavonic church manuscripts handled by the city for various reasons, the texts of the XVIII, XIX and early XX century seriously impoverished the Ohrid collection of manuscripts, but the city owns an enviable stock of manuscripts and copies of old Slavic epigraphic monuments.

With the decline of the power of the Ottoman Empire on the social scene appeared the revival period and the time of national awakening, as an element of the new European understanding of the concept of national states. The educational values of the city of Ohrid are seen through the prism of the works of more Ohrid intellectuals and artists in this period that are also considered as part of the scientific and educational values of the region. In the past of Ohrid the high church dignitaries coming from the major Christian centers as Constantinople or Thessaloniki always had a dominant role in the local process for the formation of social, educational and spiritual values of the city. Their sacred deeds also fall into this category.

Ohrid region has extremely great potential for research in the natural sciences, history, archeology, architecture, ethnology and art history.

Economic values

In the ancient Ohrid (Lychnidos), thanks to its geo-political position as one of the main stations of the Via Egnatia, there was a steady flow of goods, people and ideas from the West to Salonika and Constantinople (and vice versa) over the centuries.

Ohrid during its long history had its ups and downs according to the economic and social relations and political developments on the restive Balkans. Main source of income of the population in the Ohrid region has always been fishing, agriculture and livestock, but it was not enough for survival, so that migrant workers had serious positive implications on economic development of the region.

The diversity and dynamics of natural phenomena and processes in the region enabled the creation of a number of natural resources through the application of appropriate technology that can be put into the overall development of the border region.

Mining

The contact zone of North Macedonia with the neighboring countries of Albania and Greece by metalogenetics belongs to the mining region of Shara-Pindski array. Promising mineral deposits are: coal deposits in Piskupstina-Struga and Lavci in Resen, limestone bearings in Struga (Labunishta, Tashmarunishta, Kalista, Struga), Ohrid (Leskoec, flat, Kuratica and Trpejca), travertine in Velmej-Ohrid and breccia conglomerates of Jablanica.

Forestry

Forest surfaces under the municipalities in the border region occupy 107,470 ha. The total timber volume is 195,989 m³ annually, which represents a solid foundation for the development of small wood processing capacities. With especially high qualities feature the tall beech forests of Jablanica (beech) and Baba Mountain (fir and beech). However, due to historical and economic conditions (development and survival of villages) and the natural conditions expressed through the dynamics of relief, geological basis, hydrological and meteorological conditions and vegetation cover of most of the low areas (edge parts of the valleys Debarca Struga Field, Prespa Valley) are expressed with erosion processes. As a consequence of these processes a number of torrential flows appear and high production of alluvial material in the lower course of the rivers Sateska, Golema River and a large number of small rivers that directly flow into the lakes.

Agriculture

In the scope of this analyzed space are situated Prespa Field and Struga Field which have highly productive farmland, and according to hydro-climatic conditions are suitable for growing fruit crops and vineyards, as well as numerous industrial crops. The total area of agricultural land is 75,000 ha, and the cultivated area is 39,000 ha. The areas under pastures occupy 35,000 ha of which we have to highlight the alpine pastures of Jablanica, Galicica and Baba with a total area of 24,836 ha. Special convenience represent the lakes for the development of commercial fishing.

Tourism

Tourism and catering services besides commercial activities are the main economic activities. Lately, the development of cultural tourism is seriously increased in particular with the neighboring countries and with Western Europe too, given the rich cultural and natural heritage of the Ohrid region. Tourism development allows economic benefit through the ability to create new jobs, create new businesses, development of creative industries etc. Also the development of cultural tourism plays a huge role in promoting cultural and natural heritage of the region and the entire country in the world. In this direction in recent years significant investments in improving the state of conservation of protected goods and in promoting the necessary tourist infrastructure have been made. Also, it has been approached towards a policy of subsidizing tourist workers, thereby facilitating and increasing the influx of increasing foreign visitors.

