

# **GEOGRAPHY CONTRIBUTION IN RAPPORTS BETWEEN NATURAL HERITAGE AND THE SOCIETY**

## ***(Case of Southern Region in Albania)***

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### **ABSTRACT**

Assessment of natural heritage in the conditions of planet’s extreme humanism, it gets more value and a high importance as a protector, propagator and practical one when it is taken in consideration scientific, touristic and didactical use of them.

In this framework, geographers give their contribution through analyses, assessments, studies and public discussion that are made evident through respective publications.

Such contribution is represented through this study, which is focused in assessment of the natural monuments in Southern Region of Albania, introducing its situation, problems and measures that should be undertaken in the future, in order to protect such natural heritage. The methodology which is used to realize such kind of study it has combined: primary data with secondary data; field work with office work; formal analyze with conclusive and recommendation syntheses. As primary data have served the institution data and field data, results of surveys etc. Among the secondary data, an important place it belongs to modern literature of geographical studies on natural heritage in general and specifically on natural monuments, researches in the websites updated information etc.

Based on the specifics of such natural monuments, the research work has taken in consideration their categorizing in:

- Bio - Monuments , where attention it is focused to some specific trees in our region based on their dimensions and their age:
- Geo -Monuments, among which are made evident caves and stones in specific shapes
- Hydro –Monuments where are assessed the water resources with highlight esthetical and touristic values.

Conclusions pay attention to the importance of rapports between geographers, society and natural heritage (natural monuments) such a case is this research study.

### **Introduction**

*Environmental Issues* last decades have created a global concerning problem and have drawn attention of geographers to preserve the balance from one side of the need of human being for wellness and from the other side of well managing of natural resources. Environment is a term that is used very often in daily conversations, this because actually Albanian society is facing with problems such are: well managing of resources, food security, energy problems, quality of air and water, protection of nature etc. What can we understand with the term environment?

According to Allaby (1994: 138) the environment is:

*The complete range of external conditions, physical and biological, in which an organism lives Environment, includes social, cultural and (for humans) economic and political considerations, as well as the more usually understood features such as soil, climate, and food supply.*

Similarly, Collin (1995: 83) defines the environment as:

*The environment is anything outside an organism in which the organism lives. It can be a geographical region, a certain climatic condition, the pollutants or the noise which surrounds an organism.*

During the meetings, conferences, scientific researching projects, publications etc, geographers always have increased their efforts to protect environment, but this kind of concept is very wide, but within it we can distinguish some nature values, which are very prominent and people do efforts to inherit them from one generation to generation. Bases to provide an administrative legal framework were settled in 1972 from UNESCO (*United Nations Educational, Scientific and Cultural Organization*) with the approval of Convention “To protect Cultural and Natural World Heritage”, according to Web page of UNESCO (2014). Convention defined the concept of World Heritage which consisted in cultural heritage and natural heritage. Definition of the concept for the world heritage facilitated and oriented the geographer work for their research studies.

Increase of natural risks in Albania, as elsewhere in the world, and the increase of sensitivity toward the nature protection served as a motivation to undertake an initiative to give our concrete contribution for concrete protection in the terrain to protect the natural heritage in Southern Region of Albania. Among such specific phenomena that are part of natural heritage, an important role is played by natural monuments so the objective it was focused to the study of all natural monuments in districts of Gjirokastrë, Sarandë, Delvinë, Tepelenë and Përmet, districts which are part of Southern Region of Albania. Such objective till now is realised for some districts (Gjirokastra, Saranda and Delvina) and it is aimed that in the future to be realised even in other districts (Tepelenë and Përmet). Among the research work it was aimed that through the publications, brochures and local media to aware population for the importance of protection such monuments and make propaganda for scientific, didactical and touristic values possessed from such monuments. Introduction of the work results done up to now we assess that is very wide, and for this reason in this research study it was selected to be introduced assessment of natural heritage, concretised with the research study work done for the natural monuments in Gjirokastra district as one of the most prominent spaces in the south of Albania.

Diversity of the nature in all Southern Region and complicated evolution of it, have conditioned specific phenomena, which are unique for geologic construction, specific forms of terrain, among them even relics of glacial period, superficial waters and underground waters, diverse wild life etc.

In comparison to many other districts of Albania, district of Gjirokastra is distinguished for a great number of them, even the specific nature of this district have more natural monuments as are made evident or declared up to now. They are waiting to be explored from the researchers, among them even geographers, in order to give their contribution to make them evident, assess and propose to competent governmental bodies, to give the proper status.

Despite the fact that monuments have such unrepeatable scientific, ecologic, cultural, didactical, religious and also economical and touristic values, they are still unknown or studied superficially, assessed from the responsible state institutions and local community. In such conditions, in most of the cases, they are left to destiny and in this case they are damaged or are in risk to be disappeared.

### **Actual concept on natural heritage and monuments of nature as part of this heritage**

Natural Heritage of Albania, after the social-economic changes of 1990, faced the pressure of uncontrolled interventions of human beings on this environmental asset. Based on the policies and predefined strategies of UNESCO for the protection of World Natural Heritage, Albania as any other state has designed policies and strategies for the evaluation, protection and management of national heritage. For this reason, to areas with specific values of biodiversity and panoramic ones is given status “protected areas”, as a necessity to protect such inherited values and to pass them to next generations.

At the beginning the concept of protected area included only biodiversity, while actually more specific environmental values such are: biodiversity, panorama beauties, rare geological formations, specific forms of relief, hydrographic values, rich cultural traditions, architectural values, archeological assets etc.

Protected area is defined as a land or water space with specific biodiversity, landscape values, cultural and natural assets protected by law, specific rules that limited the presence and the human activity on it and managed through scientific methods.

Selection criteria for a protected area are connected with: naturalism, uniqueness, diversity and providing of life minimal values of ecosystem, ecologic fragility and informative and educative values.

According to the definition of the Convention “For the protection of Cultural and Natural World Heritage”, natural heritage consist in alive and non alive components such are biodiversity and geodiversity of the world inherited from the human beings. Concept of natural heritage consists in several values starting from values of existence up to social values. According to the convention natural heritage consist in natural elements (physical, biological and groups with such elements) geological and area which have habitats for species in danger and natural sites. According to the Convention of World Heritage (according to Web page of UNESCO: 2014), natural heritage will be called:

- Natural environments which consist in physical or biological formations or a group of such formations, which have universal extraordinary values from the esthetical and scientific point of view.
- Geological and physiographical formations and areas which are habitats of species in risk or plants with universal extraordinary values from the scientific and conserving point of view.
- Natural sites or area with universal values from the scientific, conserving and beauty point of view.

Countries can have common values of natural and cultural heritage. These values might have relations with each other and sometimes is very difficult to divide them. These sites are known as mixed sites as it is the case of National Park of Butrint in Albania.

In the List of World Heritage there are three sites of Albania (Butrinti, Gjirokastra and Berat) which are part of Cultural Heritage and also mix heritage. Two of these sites, Butrinti and Gjirokastra are situated in the Southern Region of Albania.

### ***Classification of protected areas in Albania***

It is raised a common question when we speak about the values of protected areas: which is the protection level supposed to be? Since the areas do not have the same values, but are qualified like this and are not populated uniformly, are created different categories of their protection, with which is related even the character of their activity and of human being interventions.

In order to define the protection level and management of natural heritage, are processed diverse systems to classify the protected areas. In Albania as in many other countries is noticed the tendency of their unification.

Before 1990, in Albania existed only three categories, of protected areas:

1. Natural Park;
2. Natural monument
3. Hunting preserved areas.

They consisted in 3% of the country surface, according to Qiriazhi P., Tavanihi V. (2013: 78).

The most wide spread qualification system is given from World Center of Natural Conservation Union (IUCN- *International Union for Conservation of Nature*).

This system provides: facilitating of communication and information in the world level; exchanging of point of views between researchers, planners, environmental and development policy makers, groups of citizens in different countries of the world; creates suitable conditions for the creation of ecological circle in country level and further more.

Proposed system from IUCN consists in 6 categories from one in six. The most protected is the first category, while the sixth one is the less protected area, and in it is allowed even the human being values, but with a condition that should be controlled and do not damage the environment and their specific values. The above mention system it was adapted even in Albania, through the approval of Protected Areas Law (Nr. 8906, date 06.06.2002), where are defined its categories. Actually in Albania we have such status of protected areas according to the Ministry of Environment (2014):

- I. 2 strict preservation areas. These preservation areas in Albania possess 4,800 ha of protected areas and are managed mainly for scientific purposes and conservation of wild fauna.
- II. 15 National Parks. Their surface in Albania case it goes up to 210,501.4 ha.
- III. 750 Natural Monuments. Actually in Albania are declared like these 349 bio-monuments and 401 geo-monuments, which all together consist in 750 natural monuments. In whole Albanian territory they possess a surface of 3,470 ha according to Ministry of Environment (2014: 2-3).
- IV. 23 Natural Managed Preservation Areas/ Natural Parks. In Albania there are 127,180.1 ha.
- V. 5 Protected landscapes. Among the most prominent in this category is mentioned Ohri Lake, that represent an alive museum of relics and diverse endemic types of Flora and Fauna. In this lake live round 17 different kinds of fishes. In its coastlines the most attractive areas and the most picturesque ones of the regions. The surface possessed from the protected landscapes in Albania goes up to 95,864.4 ha.
- VI. 4 Protected Areas of Managed Natural Resources. In Albania this category have a surface of 18,245 ha.

In total the surface possessed from protected areas in Albania, based on the above categorization is 460,060.9 ha, making only 16, 04% of all territory surface. In 2015 is predicted that surface of protected areas will reach up to 20% of all Albanian territory, according to Qiriazi P., Tavanxhiu V. (2013: 78).

List of Ramsar Area, in national level have 98,180.6 ha or 3.42% of Albanian surface according to Ministry of Environment (2014: 3.).

### **Southern Region and the Case study– Gjirokastra District (General Natural Assessment)**

Southern Region of Albania taken in consideration in our research study is distinguished for the natural diversity, which make it rich in natural monuments, but Gjirokastra District. Districts which are included in this region are distinguished for the high number of them and each of them have its originality, but the district of Gjirokastra in which we are focused in this research study, is prominent for the high number of monuments, and at the same time represent the most important administrative, social and economical centre of the region. According to districts which are part of Southern Region in Albania, number of Natural Monuments is spread as following: Saranda District 19, Delvina District 18, Gjirokastra District 47, Tepelena District 29 and Përmet District 30 based on Decision nr. 676 (20.12.2002)

**General natural features of Gjirokastra District.** District of Gjirokastra is situated in the southern part of Albania. It is bordered with six districts: district of Tepelena; district of Përmet, districts of Delvina and Saranda, in the eastern and south eastern part is the state

border with Greece. Border length goes up to 181 km, all land borders, from which 55 km is border with Greece. District of Gjirokastra has a surface of 1137 km<sup>2</sup> and from its size is ranged in ninth rank in our country, after the district of Fier.

District of Gjirokastra has a favourite geographical position: is situated in the centre of Southern part of Albania and in border with Greece; is crossed from Drino Valley, one of the most important of Southern Albania, one of the most populated one and the main economic- industrial region of the South, where are concentrated main industrial and administrative centres. Favourite geographical position and natural assets have led to early population of this region and today it's distinguishing and assessing as one of the most perspective districts for the development of Southern part of Albania.

Free flow with other parts of the country, north-south and eastern-western part, closeness with the port city of Saranda, opening of border check point and custom points in Kakavia and Sopik, construction of motorways, presence of ancient historical centres, architectonical heritage and cultural heritage etc, many natural beauties are a full guarantee for the priority development of tourism in Gjirokastra district. This will be realized even through conversances, assessing and managing for touristic issues very rich natural part of this district.

Nature of Gjirokastra district offer an attractive and interesting landscape and urge to explore and find out more from its elements.

It has a geological construction in general very simple one, represented mainly from lime stones and terrigen ones.

Dominance of carbonic rocks has defined specific features of natural conditions of this territory expressed in distribution of carst relief, hydrographical features, plants and land features. These components are evident specific phenomena and some of them having the status of Natural Monuments.

Territory of Gjirokastra district is characterized from a hilly- mountainous relief, in which are dominant hills, mountains and valleys. The most morph graphic characteristic feature of it is the interrelation of mountainous ranges and valleys. This reflect interrelation of anticline structures in which are formed mountainous ranges , hills with synclinal structures , in which are formed valleys between the mountains.

Mountainous ranges and valleys have a general orientation toward southeast- northwest direction. Mountains that are part of them are divided from each other from the deep narrow necks which give to the relief a mountainous feature, rough and very fragmented one.

Necks are several in number and most of them are predominated from those with tectonically-erosive origin such are: Neck of Muzina, Neck of Dhëmbel, Neck of Çajup, Neck of Skërfica etc. Among most typical and most interesting gorges is transverse gorge of Selcka between mountain of Lunxheria and mountain of Bureto.

In the morphology of mountains, the most characteristic feature is the frequent ridges and steep slopes. Mountainous ridges are in general very wide, plain, and frequently waved, rounded and with monotonous scenery. This is related to the hutching feature of the structures and the remains of the former plain processes, in which is developed powerfully the carst process. There are evident also ridges with craggy scenery bare ones with branched sharp peaks impassable ones which are consequence of dissociative tectonic processes of differentiating neo-tectonic movements in collaboration with morph-gen processes of gravity, carts, glacial, erosion etc.

Average altitude o the relieve for our district it goes up to 829 m, which is 120 m over the average altitude of Albania . Highest altitudes of the relieve are situated in the south eastern direction of the district, in the mountain of Nemercka, where is situated the peak of Paping (Drita) with altitude of 2485 m over the sea level according to the Centre of Geographical Researches (1991: 348) Hypsometric Amplitude of the district it reach over 2300 m. This is consequence of changes in neo-tectonic evolution, in the litho-logical composition and external morph -dynamic part of the

relief. From its part this high hypsometric amplitude is conditioning evident changes in the vertical orientation of all phenomena and geographical landscape of Gjirokastra district.

Complexity of relief formative factors have defined the diversity of relief genetic types, among them most prominent are: type of structural relief– erosive, erosive –fluvial, carstic and glacial ones.

Very diverse is also the climate, and in its formation have affected several factors, but we can stressed here the role of relief, especially its orientation, considerable altitude above the sea level. Gjirokastra district is situated in the climacteric range of Mediterranean, hilly, pre mountainous and mountainous type of climate.

Annual average temperature is 14, 5°C. Hottest months are July and August with a temperature of 23, 8°C and 23,9°C. The coldest month is January with a temperature 5, 2°C. The highest temperature is registered in 14/8/1957 and reached the value 42°C; while the lowest temperature is registered on 27/12/1986 and reached the value – 17,1°C, according to Rogo N. (2000: 40)

Precipitations are numerous and with an irregular space and period of time distribution, frequently in the form of cloudbursts. Annual average is 1708 mm, according to Rogo N. (2000: 41).

Hydrographical net is represented from the underground and superficial waters. The wide spread of carbonic favourite the presence of several springs, which are concentrated in the western slopes of the mountains. Among such springs we can mention: Springs of Hosi, Libohova, Nepravishita, Manxife, Viroi, Picari etc. Specific values are attributed to Glina Mineral spring for industrial and curative impact, because it helps to treat the recovery of many diseases.

The biggest river of the district is Drino River, left branch of Vlosa river and its branches; River of Kardhiq, River of Suha, torrent of Nimica etc.

In Gjirokastra district they are wide spread in all vertical areas of the land. This is related to the Pedi-genetic conditions which have their activity in the district territory. Several natural factors through their actions affect or condition the advance level of land degradation. Among them we can mention: wide spread of limes stones, very fragmented and rugged landscape with steep slopes, with irregular precipitations, poor flora etc. A big role and very determinative one is played from the anthropogenic factors with a continuous and powerful pressure that is exercised over the land and flora.

Among the types of lands, the most wide spread belong to ash-brown lands and brown lands, but are evident also the gray forest lands and mountainous meadow in lands. In the Flora cover are predominant those with Mediterranean origin but generally flora is very poor and rare especially on the altitude of mountains and in general has evident xerophytes features, Mountainous terrain have predefined vertical ranking of Flora.

The composition of Flora covering is found several plants with curative features. There are round 50 types from which the greatest number is that of herbaceous plants. Among the main plants we can mention: mountainous tea, Oregon, sage, gram, nettles, poppy, blackberries, endive, and chamomile, wild rose, red juniper, elder flower, sloe etc.

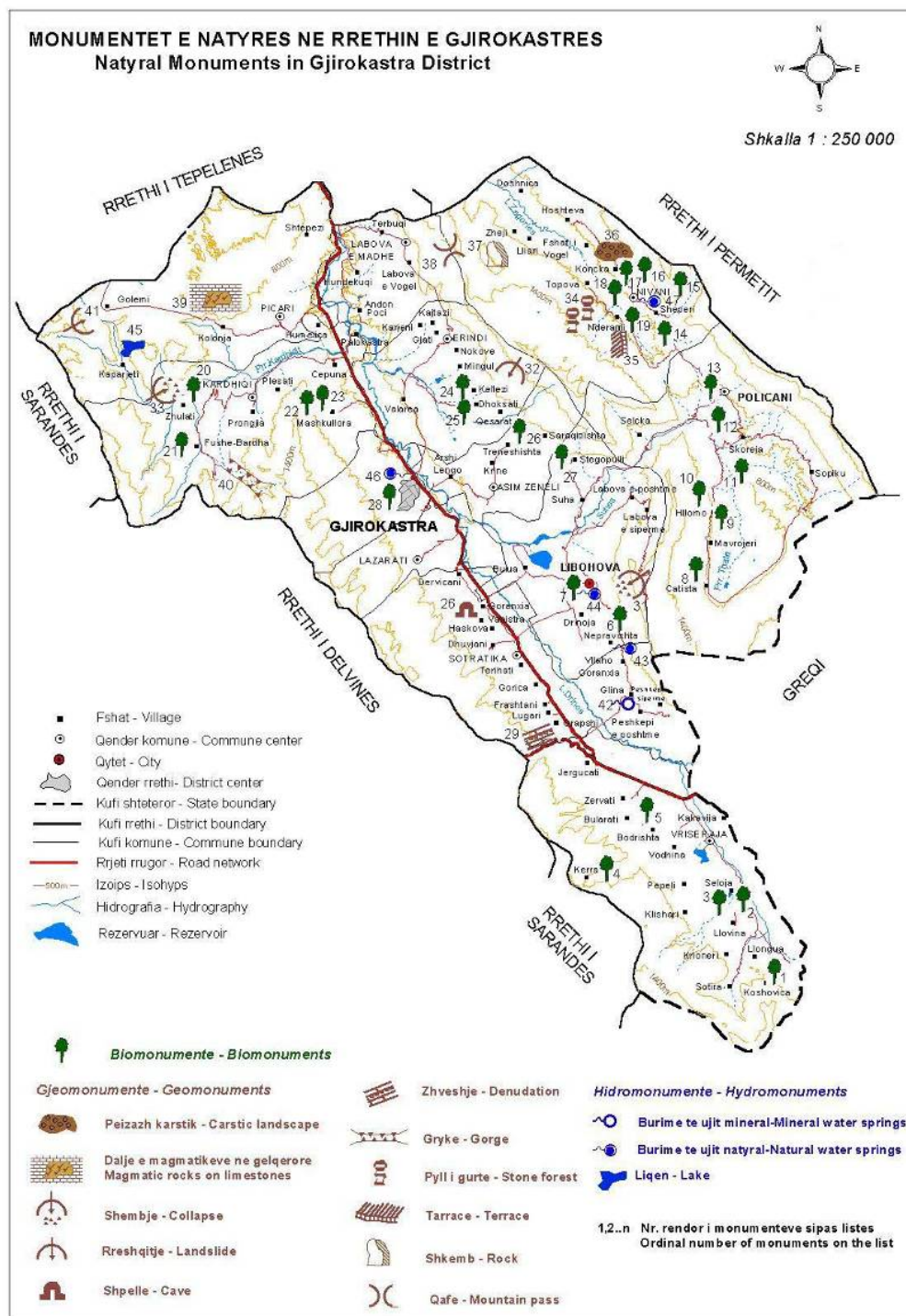
**Fauna** is represented from the herbivorous and carnivorous animals, diverse birds and those which are found in sweet interior waters

### **Natural Monuments of Gjirokastra District**

Through the proposal of researchers, among them even geographers, Albanian Council of Ministers declared 516 new objects as “Natural Monuments”, based on decision nr. 676 (20.12.2002) Based on this decisions to Gjirokastra District were added 20 new Natural Monuments, increasing their number in 47 Natural Monuments in total. From 20 new monuments that were added to the list two of them are of B category (with national value) and 18 belong to C category ( with local value),

while 27 other Natural Monuments declared like this before 1990 belong to C category, with local value (Fig. 1).

**Figure 1 Map of Natyral Monuments in Gjirokastra District**



**Table 1. List of Natyral Monuments: a) declared as Natural Monuments; b) proposed to be added to the list of Natural Monuments c) proposed to be exctrated from the list of Natyral Monuments in Gjirokastra Districts.**

<b>Actual List of Cultural Monuments</b>	<b>Natural Monuments proposed to be added to the list</b>	<b>List of Natyral Monuments proposed to be removed from the list</b>
1. Plane Tree of Zhulat	1. Gorge of Selcka	1. Plane Tree at Çerçizi Square in Gjirokastra
2. Plane Tree of Fushëbardha	2. Circuses of Lunxhëria	2. Plane Trees of Mashkullora
3. Plane Tree of Mashkullora	3. Long Stones	3. Spring of Zhepa - Libohova
4. Plane Trees of Mashkullora	4. Neck of Dhëmbeli	4. Mineral Spring of Glina
5. Plane Tree at Çerçizi Square in Gjirokastër	5. Plane Tree of Dervician	5. Spring of Vrisi – Nepravishta
6. Plane Tree of Libohova	6. Plane Tree of Topova	
7. Chestnut Tree of Nepravishta	7. Oak tree in Tërbuq	
8. Plane Trees of Këllëz		
9. Plane Tree of Dhoksat		
10. Plane Trees of Monastiry in Stegopul		
11. Plane Tree of Tranoshishta		
12. Plane Trees of Selo		
13. Plane Trees of Milling in Selo		
14. Kermes Oak Tree of Bodrishta		
15. Pine Trees of Kërra		
16. Plane Trees of Koshovica		
17. Cypress Trees of Church in Hllomo		
18. Plane Trees of Çatista		
19. Oak Trees of Poliçan		
20. Cypress Trees of Hllomo		
21. Plane Tree of Poliçan		
22. Plane Tree of Ndëran		
23. Oak Trees of Skorrea		
24. Oak Trees of Çarroq - Sheper		
25. Plane Trees of School in Sheper		
26. Oak Trees of Monastery – Nivan		

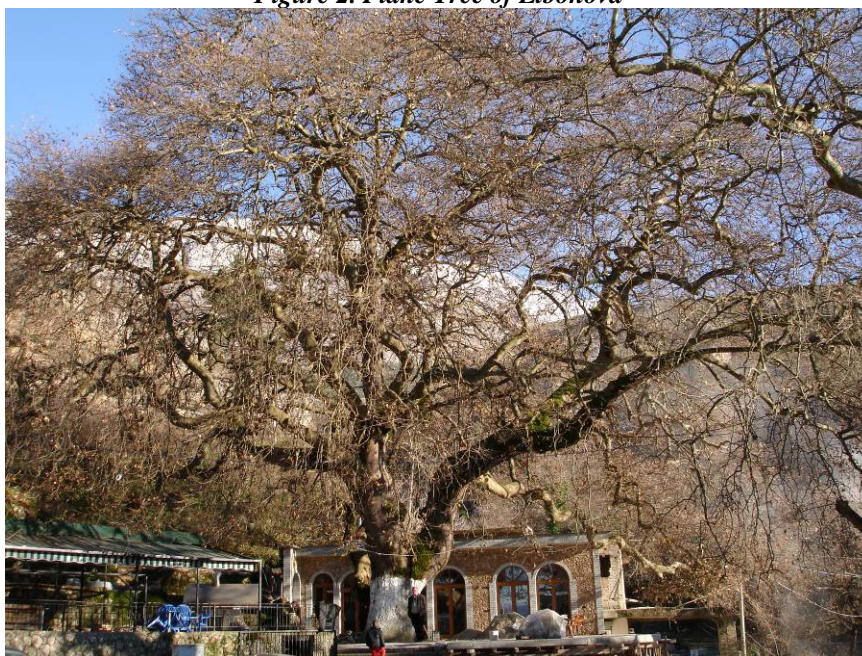


27. Plane Trees of Nivan		
28. Viroi Lake of Gjirokastra		
29. Petrified Forest – Ndëran		
30. Cave of Vanistra (Skotini)		
31. Canyon of Piks		
32. Terrace of Ndëran		
33. Contusion of Zhulat		
34. Spring of Nivan		
35. Contusion of Këllez		
36. Contusion of mountain in Kapariel		
37. Spring of Zhepa, Libohova		
38. Mineral Spring of Glina		
39. Spring of Vrisi, Nepravishta		
40. Neck of Çajupi		
41. Rock of Zheji		
42. Denudation of Muzina		
43. Exit of magmatic into limestone close to Picar		
44. Lake of Kacojthi		
45. Stinking Juniper		
46. Contusion of Bureto		
47. Holes of Koncka		

For study facilities natural monuments were divided into some subcategories such are:

**A. *Bio-monuments.*** In this category there are 28 natural objects where are prominent trees with special forms and shapes and esthetical attractive for the visitors. Under the space that is taken in consideration for this research study are plane trees, based on their parameters, values and spreading surface. In some cases their height goes over 35 m; the diameter of the trunk goes over 300cm; perimeter of the trunk goes over 800cm and its crown over 70m. Such trees in most of the cases have an age over 500 years old, in general have average vegetative status and are prominent for such values as are: esthetical, didactical, touristic and biological values based on local features. In the figure 2 is represented plane tree of Libohova, which is situated in the centre of the city that held the same name (Libohova is situated 21, 6 km far from city of Gjirokastra, round 26 minutes drive). Despite its age is round 220 years old and is classified as average one, its parameters and shapes are really great and very attractive for the visitors. The phenomenon which is really interesting is that of reunion of the branches which gives to this tree special biological values.

**Figure 2. Plane Tree of Libohova**



**B. Geo-monuments.** In the territory of this district there are 13 geo-monuments , where are prominent canyons , rocks with special shapes or caves created from limestone layers and carst processes. Within such caves are prominent stalactits and stalagmits which frequently are interrelated with their historical character, turning such environments in a very rich touristic offer.

One of the most interesting geo-monuments of Gjirokastra District is the Cave of Vanistra or so called Skotinia (Fig. 3.). Cave is situated close to Vanistër village, 220 m above the sea level. It is a carstic cave formed from the limestone of upper layer. It has a length of 150 m a width of 10 m and a height up to 25 m. Within it is created a real labyrinth with a lot of turns extensions and narrowings. Cave is full of raw materials and has scientific values (geological, geo-morfological, hydrologic values), didactical, ecological and cultural ones. Its values have a local character.

Despite the fact that in '70 of XX century, this cave was damaged from the Water Public Enterprise of that time which used the water of the lower floor demolishing calcium raw materials, but again it have several scientific and touristic values. Underground water part need to be explored in details because still there are a lot of unknown spaces with scientific and touristic values. In order to visit this monument should be followed up the main road Gjirokastrë – Vanistër 11.7km (13 min by car) and after that need to be walked for more 500 meters.

*Figure 3. Cave of Vanistrës (Skotinia)*



**A. Hydro-monuments.** Represents monuments which are created from the activity of water flows. In the territory of Gjirokastra District there are situated 6 hydro monuments and one of the most prominent ones is the Viroi Spring. This spring is situated near Gjirokastra City, in its north western section round 3.7 km far from it (6 min by car) , in the eastern slope of Wide Mountain, in the left side of main road Gjirokastër – Tepelenë; in an altitude 195 m over the sea level (Fig. 4.). It is a big and temporary carstic spring, which exit in the Tectonically –Litho logical contact between the limestone of upper layer and flish layer.

The spring is of siphon type, has cold pure water and the water it comes out from a cave in the shape of a hinge with a length 6 – 8 meters, width 3 – 4m and depth 22m. The maximal flow from the spring reaches  $17 \text{ m}^3 / \text{second}$ ; annual average water temperature is  $13 - 14^\circ\text{C}$  and level of minerals 290 mg/l. In its exit section is developed a very rich and diverse Flora and Fauna. Spring has scientific values (geological, geo-morphological, hydrologic ones), cultural, didactical and touristic values, which have started to be used when it was constructed a touristic area. Spring of Viroi has national values.

*Figure 4. Viroi Spring*



One of the most concerning problems related to the natural monuments in Gjirokastra District we will stress the following:

1. *For natural reasons* (aging of bio-monuments, thunder lights on them, erosion etc) some of the natural monuments are damaged losing their values. Among them we can mention: Plane Tree of Çerçizi Square in Gjirokaster city, Plane Tree of Mashkullora etc.
2. *Artificial interventions* have changed the character of natural monuments and have damaged their values leading to denaturalisation. Among them we can mention:

Based on observations and surveys made in the field, it was noticed that list need to be reviewed. So to the list of natural monuments should be added new proposed objects such are: Gorge of Selcka, Circes of Lunxhëria, Long Stones, Neck of Dhëmbel, Plane Tree of Dervician, Plane tree of Topova and Oak Tree of Tërbuq.

At the same time from these observations it was noticed that some of the natural monuments have lost their values for which they were holding the status of natural monuments such are: Plane Tree of Çerçizi Square in Gjirokastër, Plane Trees of Mashkullora, Spring of Zhepa – Libohovë, Mineral Spring of Glina and Spring of Vrisi – Nepravishtë. Fr this reason we proposed to the authorities of Ministry of Environment in Albania to be removed from this list.

Many of monuments are damaged and in risk from the uncontrolled cuttings and burnings such are: Oak Trees of Çarroq, Plane Trees of Këllez, and Oak Trees of Poliçan etc. Also in risk from interventions and operations to use the water is: Cave of Skotinia, Springs of Nivan etc.

With a special value is mapping of natural monuments and repeated studies on the situation of natural monuments, over the problems and risks that are threatening them. Based on this issue are proposed even protective and regenerative measures.

Based on the new concepts for natural monuments, studies and consultations with specialists of the field, during the research were become evident and assessed specific issues and it was proposed to Albanian authorities of Ministry of Environment changes in the list of natural monuments in Gjirokastra District.



## Conclusions and Recommendations

In Gjirokastra District, the very first monuments of nature became evident from the forests workers, who in Gjirokastra District made evident and attributed such status to 27 objects with values of natural monuments, and all these objects got this status after the approval of the Law nr. 4927 date 24.02.1971 "For Protection of Cultural Monuments and Rare Natural Assets". In accordance to the time concept for the natural monuments and ideological limitations, list of natural monuments in Gjirokastra included only bio-monuments which represented some trees and small forests with special scientific and ecological values. Among them in 1976 Kardhiqi got the status Stricts Preservation Protected area and as we stressed above, as a protected area it was declared also the Sotira and Zhej Fir Trees.

### ***From the research work are evident some important conclusions:***

- *Still natural monuments are unknown*, values and their entire importance; they are unknown not only for the humble people but also for the local and central governing bodies. This obligates the researcher of nature (geographers, geologists, biologists etc) and environmentalists to aware community and institutions for such valuable assets of the nature and to organise activities on the framework of their protection with all the democratic forms allowed from the law. For this reason should be increased the number of warning activities and to start publishing of study and propaganda materials.
- *With a special value is mapping of natural monuments*, defining of proper borders of their spreading; indicator of them (tables, indicators of values, risks which threaten them etc).
- *Researchers should do repeatable research studies* on the situation level of natural monuments, on problems and risk which threaten them. Based on this they have to propose protective or regenerative measures.
- *Need to be a detailed plan of the research studies and explorations*, which are part of the district's nature. The final aim of them should be evident of other values of the nature and following all predicted procedures by the law in use, to propose them to get the right status from the competent governing bodies.
- *Yet none of their values is included or it is in very low level, for touristic use*. Firstly, it belongs to the researchers to define strategies and action planes for the assessment and touristic use of them (see the following).
- *A big obstacle is also the lack of legal acts and regulations* to give for touristic use natural monuments; to solve the problems of their ownership and especially to solve the problems of private owner rights and protection of natural monuments values.
- *In order to know better and in a sustainable way all other categories of protected areas should be included in the programs and curricula of pre university system of education.*

***Recommendations in function of touristic use of such natural monuments.*** Actually when all conditions are existent and suitable, it can be taken in consideration the strategy problem of how to use scientifically all natural monuments on the framework of touristic purposes. This strategy should solve the problem of funds, national and regional suitable policy making and support institutionally and legally such developments.

### *Preparation and implementation of such strategy will require:*

- *Preparation of a detailed program how to know and to manage in a touristic perspective these natural monuments, this is recommended to be realized through the following measures:*
  - Detailed studies from group of specialists to make evident other nature values with touristic interest;

- Inventory and complete assessment of natural monuments, areas or administrative units (districts, and communes). This can be done from the researchers in collaboration with local government and local specialists;
- Creation of computerized cadastre for all monuments of nature and introduction of this cadastre to all interested people;
- Repeated Explorations of evident values in order to know the situation, raised problems and determining of protective measures;
- *Preparation of marketing values for natural monuments of our district:* preparation and distribution of posters and leaflets about the values of each of natural monuments; preparation and promotion of touristic tours to visit natural monuments of our district; organizing and promotion of such tours etc;
- *Warning of community,* local community will benefit directly, businessmen, decision makers and governors awareness about the values of natural monuments. For this reason will be prepared and published, leaflets, posters and will be organized conversations, seminars, workshops etc;
- *Including of natural monuments in regulatory territory plans and touristic use of them.* For this reason should be insisted with forms and different ways to introduce it to those who prepare such plans, in order to have in consideration even the nature values for the development of tourism
- *To be designed projects in order to prepare and use natural monuments for touristic reasons.* This will be done implementing the law of protected areas, criteria of protection of such natural monuments values.
- *To provide collaboration with local governance and to get financial support from tourism businessmen;*
- *To prepare the managing staff and objects used for touristic reasons*

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