



INTERREG EUROPE

“Sustainability of the Land-sea System for Ecotourism Strategies”

REGIONAL POLICY ANALYSIS
REGIONAL ADMINISTRATION VARNA





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Executive summary

The analysis of policy presents the official review of the Bulgarian partner. The purpose of this document is to evaluate and individuate the regional existing policies concerning the issue tackled. The document is developed with the aim to achieve a mutual knowledge of the different states of play in the Bulgarian North East region and to arise a common understanding for the recommendations on the policy instrument targeted. The policy analysis brings to the detailed knowledge of the local state of play and the mutual sharing of key issues, approaches, and concepts.

At the end of this stage, the partners decide the kind of “knowledge exchange” expected for the set of policy instruments based on the wide investigation in progress and procedures. These procedures will be developed in compliance with a practice-collection framework of valuable experiences and practices and will include a focus on the “context peculiarities”.

A wide range of public and private stakeholders - mayors, tourism development experts, ecologists, regional coastal protection experts, users, auditors, regulators, academics, national and regional policy makers will be involved and engaged in the development process. Together with the Bulgarian partner, they will participate at the inter-regional learning process to overcome the consequences of landslides and flood in Varna region.

Overall at the end of the project, the policy analysis and all project documents will represent a summary of the main issues raised from stakeholder submissions during the project lifecycle regarding the issues tackled. In response, the project documents and the analysis itself will bring an added value for the further development of policy recommendations.

Moreover, the creation of institutional competencies and skills for the development of a sustainable coastal system, able to preserve natural habitats and to support the development of regional eco-tourism strategies received during the project activities is one of the assets from the process of interregional learning, based on the exchange of experience and knowledge.



I. Territorial Context

1. Geographical location of the area

Varna District is one of the 28 districts of Bulgaria. It is the third largest and the twelfth in size. There are 159 settlements, distributed in twelve municipalities.

Varna District is located in the eastern part of the Danube Plain. It includes parts of South Dobrudzha, the easternmost parts of the Balkan Mountains. It is located on the Black Sea coast and occupies an area of 3820 km² or 3.44% of the country's territory. The balance on its territory is 60.0% agricultural, 28.1% forest, settlements - 6.8%, roads and ports - 2.3%, water areas - 1.9% and for mining - 0.9%.

The geographic location, the built infrastructure, the bio-climatic potential, the Black Sea coast, as well as the economic and human resources predict an excellent opportunity for prosperity in the region.

The city of Varna is one of the oldest in the world. On the territory of the present Varna municipality remains of settlements of 12 thousand years ago were found.

The true urban history of Varna began in AD 572, when emigrants from the ancient Greek city of Miletus founded Odessos as their colony.

Factors influencing the choice of the city's location are:

- the deep-sea bay, suitable for a port,
- The favourable for constructions terrain in the northern half of the Devnya valley, with a suitable south exposure and a slight slope for natural swelling of the surface waters,
- The rich agricultural hinterland, which provides the opportunity to feed the city's population.

2. Relief

The Varna Lake and the artificially dug "Gulf Sea" divide the municipality to the north and south. A vast low is formed around them. It is almost flat and only in some places is complicated by pronounced hills. The average and altitude are 20-40 meters.

The slopes of the terrain are from 5 to 10 ° slopes and 11-20 ° slopes, to steep and very steep over 30 °. In the southern and south-eastern part there are places with an altitude of 20-40 meters and slopes 5-10 ° and slopes 11 -20 ° terrain.

Territories located along the coastline have east exposure. The coastal zone almost all along it is a tall and steep, somewhere almost vertical skate formed by the sea abrasion.



3. Natural resources and conditions

Geophysical studies indicate the presence of prerequisites for the discovery of oil and gas in the sea shelf near Cape Galata. Coal, manganese ore, rock salt are also among the most important natural resources of the area. Of great interest are also the waters rich in iodine, bromine, boron and others. Significant are the deposits of limestone, large quantities of sands.

Real wealth of the Varna region are the thermal springs being of national and regional importance as well. A major feature of the economic development of the regional economy is the high degree of concentration and specialization of production.

The climate in the area is entirely influenced by the Black Sea - the summer is warm with many sunny days and no rainfalls, the spring is cool and the autumn is longer and warmer due to the slower cooling of the seawater. Winter is characterized by a thin snow cover that usually lasts for about 2 to 4 weeks, but sometimes strong winds are observed during the season.

The favourable climatic and geographic conditions have established Varna and the nearby tourist complexes as first-class sea and spa resorts.

4. Tourism, culture, education and health

Within Varna area are some of the most prestigious resort villages on the Black Sea coast.

The tourist complexes Golden Sands, St. Constantine and Helena, Riviera and Sunny Day share the reputation of the world's most renowned resorts.

"Chernomorets" is an area south of Varna with steep banks covered with thick forests. The complex has many bungalows, chalets and holiday homes. The resort complexes located near Varna have more than 50 000 beds, which represents one third of the hotel base of the country. The tourism business accounts for about 10% of the national income generated in the area.

Cape Galata is an attractive geographic location with high rocky cliffs. Nearby is Galata, where there are many private hotels and holiday houses. Around the Asparuhov Bridge, near Asparuhovo, there are the remains of Asparuhovo stronghold. The bridge itself is mostly popular with bungee jumps organized there.

In Varna District there are 5 higher education institutions, 3 colleges with 31 123 students and 5 major research institutes. The population security in the region with general practitioners (7.35 per 10,000 people) is above the national average.

5. Landmarks

On a territory of about 4000 sq. km. in Varna there are 39 natural reserves, parks and protected areas, 1466 monuments of cultural heritage, 44 museums, museum collections and galleries. The area boasts unique natural phenomena such as Pobiti Kamani and Wonder Rocks, traces of ancient civilizations and others. At the same time, unique monuments and



natural monuments of the country and Europe of the Varna and Northern Black Sea coasts remain away from the traditional tourist routes and from the scope of the national campaign "Wonders of Bulgaria".

There are 41 nature protection areas in the District of Varna, including one reserve, four protected reserves, 28 protected areas, one natural park and seven natural landmarks.

Organized tourist activity in Varna region is carried out in 10 protected areas, such as "Wonderful rocks", "Longoza", "Slaveikova gora", "Snezhinska kuria", "Vodenitsite", "Aladzha monastery", "Pobiti kamani" Yata ", " Liman "and Golden Sands NP.

The area has many testimonies that these lands have been inhabited since ancient times - perhaps due to its proximity to the sea.

Besides the famous landmarks in the district of Varna, there are a number of other sites that attract the attention of tourists from near and far: the remains of the ancient city of Marcianopolis - the second largest in ancient times after Philippopolis (nowadays Plovdiv) and the only one of its kind in Bulgaria " Museum of mosaics "in Devnya, the palace in Evksinograd, the ancient fortress Ovech near Provadia and an early Christian basilica in the area of Djanavara.

Natural beauties along with the rich cultural and historical heritage in the area offer a variety of opportunities for recreation and ecotourism.

II. Population and area

Region/Municipality	Area km ²	Population 1.2.2011	Cities	Villages	Total
VARNA REGION	3827,428	475 074	11	148	159
Avren Municipality	353,776	8574	–	17	17
Aksakovo Municipality	460,536	20 426	2	21	23
Beloslav Municipality	60,079	11 023	1	3	4
Byala Municipality	161,842	3242	1	5	6
Varna Municipality	238,495	343 704	1	5	6
Vetrino Municipality	292,333	5415	–	10	10
Valchidol Municipality	472,518	10 052	1	21	22
Devnya Municipality	121,052	8730	1	2	3
Dolni Chiflik Municipality	489,093	19 360	1	16	17
Dalgopol Municipality	440,945	14 389	1	16	17
Provadia Municipality	520,882	22 934	1	24	25
Suvorovo Municipality	215,877	7225	1	8	9

There are General Consulates of the Russian Federation, Ukraine and honorary consuls of Germany and France, Italy, the United Kingdom of Great Britain and Northern Ireland, Sweden, Hungary, Denmark.



III. Economic Context

1. Economy and Infrastructure

Varna District is the center of the North-East seaside area. Gross domestic product per capita in Varna region is 4794 BGN, which is higher than the average for the country - 4416 BGN (2003) The gross domestic product (GDP) produced in the region in 2002 is over 6% of the total GDP. The maritime industry in 2003 provided 11% of the revenue in the regional economy. The region is characterized by the existence of intra-regional economic differences between the Municipality of Varna and the other municipalities. In the Municipality of Varna there are 87% of the enterprises, 70% of the tangible fixed assets and 83% of the income from the activity and 80% of the profits for the area.

2. Tourism

Tourism provides 6% of revenue in the regional economy. The total number of beds in Varna region is 60,428 beds in 370 hotels (2005). The overnight stays with 32%, overnight stays by 22%, overnight stays by 125 519 868 leva or 29.3% of those in the country. In 2003, the total amount of foreign investments in the accumulating area was 433 394,7 thousand USD - second place after Sofia city district. In 2004, the region attracted 8.6% of the investments in Bulgaria. (All data is from NSI publications.)

3. Transport

Varna is a multifunctional transport hub combining the four modes of transport and is of international importance. Varna International Airport connects with 35 countries and 101 cities around the world. Port Varna occupies a key position and is a major logistics and distribution center.

IV. Geological conditions

Varna is one of the cities in Bulgaria, where the constant growth of the population and resort areas cause serious housing and construction problems. Unfortunately, the areas close to the city, suitable for industrial and residential development, are significantly limited by the natural relief, the sea or by their impact on modern or ancient landslides.

The oldest geological formation in the region of Varna Municipality, which is revealed only by deep borehole drilling is of Valange age. Separate or and common aquifers are formed in its limestone sediments as well as these higher occurring Middle Eocene and Sarmatian formations. A geological formation in the region with the earliest age revealed on the surface includes the sediments of the palaeogen. They are represented by a powerful complex with a depth of about 120 m, covering beige-clayey sandwich alleles and gray alluvial clays.

The most widespread in the area under consideration are the sediments of the neogene.



The Quaternar sediments are represented by conglomerates, medium to large-grained sands, and loess-like sediments.

1. Tectonics

In tectonic terms, the Varna region has a complex and varied tectonics, which encompasses different style and character structures. The main megastructures reflected in the region are the Missionary Platform and related structures of the Lower Stonechamping.

Against the backdrop of the Missionary Platform in the region, the southern part of the Varna Monocline and the Provardian Syncline separated from the Venelin - Tolbuhin dislocation, were developed. To the west, the Varna monocline is limited by Venelin - the Tolbuhin fault zone, which has an older settlement with several faulty movements. It is a bundle of faults located in a sub-directional zone with a width of 3-4 km to 15-20 km. The Lower Stone Valley is located to the south of the Varna Monocline from which it is separated by a fault or a bundle of faults passing approximately to the valley of Kamchia river.

2. Engineering and geological conditions

On the basis of physico-mechanical properties of the rocks on the territory of the Municipality of Varna, the following engineering and geological complexes can be specified:

Rock and semi-rock. These are the limestone, sandstone and marl formations. They are located in many places in the city of Varna, most of them being boulders and separate horizons among the clay-sand complexes of neogene.

Clay-sandy soils. These occupy most of the territory of Varna District. They are represented by sandy, limestone and limy clay, clayey sands with Quaternary and Neogene age, without any regularity of the occurrence in the horizontal and vertical directions. Loess-like sediments are classified as low to medium subsiding soils when wetted.

Cranky. this engineering-geological type has sea-lake sands, gravel with clay-sand filler, marsh clays and peat. They occupy the low lands parts located near the sea and the lake. The marsh clays and peat beds are found in many places near the lake.

All the engineering and geological complexes described here fall into the seismic processes of the seventh and seventh seismic processes of the Medvedev-Sponhoer-Karnik scale according to the seismic division of the Republic of Bulgaria since 1987.

- Engineering geological zoning

Depending on the engineering and geological complexes of the Varna area, their suitability as a ground base, the availability of ground water, the following three Engineering Geological Regions can be identified:

- *Engineering and Geological Region "A"*

To this area terrain from the territory is taken, affected by old, stabilized and modern active landslides.



Based on the landslide activity, the steepness of the terrain and the potential danger of activating the landslide processes, within the boundaries of the region two engineering and geological sub-regions - "a" and "b" are distinguished. There are broad landslide terraces, slightly sloping terrains and very steep terrain in the area of the landslide head, the slopes between landslide terraces and the slopes of deep gutters that cross the territory. The steepest terrains are unfit for construction.

- *Engineering and geological area "B"*

Covers terrains located near the sea and the lake. The engineering and geological area "B" offers good foundation conditions. In swamps, detailed engineering and geological surveys and special foundation methods are required - sand pillars, pile foundation and others.

- *Engineering-geological area "B"*

To this engineering-geological area are all the terrains built up by the sediments not involved in landslide processes. Depending on the materials that make up this area, it is divided into 2 sub-regions - "a" and "b". The foundation of buildings and facilities in sub-region "a" can be carried out without restrictions after constructive and water-proofing measures are taken. The groundwater in this sub-region is of varying depth depending on the proximity to the water basin. Typical of sub-region "b" materials is that they exhibit rapid facial change in the horizontal and vertical directions. Deposits offer good conditions for each category of buildings and facilities.

- Hydrogeology

The exceptional diversity in the lithological nature of the sediments that make up the Varna region and its structural features determines the existence of different groundwater types and aquifer characters. From a hydrogeological point of view, they refer to the so-called Varna artesian basin. The most important are the underground waters formed in several aquifers and the complex. By thickness, by static dynamic and exploitation resources, the Malm-Valanginian aquifer is the most water-rich and perspective horizon.

In the coastal area are the thermal groundwater deposits. They do not have natural outcrops but are revealed only through deep drilling or as spillage along faults in the Black Sea. The temperature of the thermal waters ranges from 30 ° C to 55 ° C.

1. Natural risks (landslides, collapses, erosion, abrasion, etc.)

- Landslides

- *Factors for landslide processes.*

Large-scale landslide processes have occurred in the territory of Varna District. They are the result of the combined impact of natural and anthropogenic factors (geo-tectonic development and morphology of the area, precipitation intensity, marine abrasion, the state of WSS networks and especially their exploitation in potentially hazardous areas, poor exploitation



and maintenance of the drainage, anti-landslides, water supply and anti-abrasion structures, lack of rainwater and household sewerage in some parts of the summer houses' zone, illegal construction and others.

2. Territories with landslide processes on the territory of Varna Municipality.

Extensive landslides cover the eastern slope of the Frangene plateau - from the edge to the sea. To the north of Varna, in the north-south direction are formed the following ancient landslides complexes: "Dulgiya Yar", "Zl.pyasytsi", "Aladja Monastery", "Vinitsa" and "Varna". Ancient landslides have arisen under conditions different from the present and are assumed to be conditionally stabilized.

To the south of Varna the landslides have been developed along the eastern slope of the Avren Plateau. Here the Black Sea slope is lower and built of Neogene sandy-clayey sediments. So the landslides are smaller in scope and less active.

Against the background of the ancient stabilized landslides, due to the complex impact of natural resources and technogenic activity, modern active local landslide processes arise.

The coastal slope of Varna District is made of, alternating sediments with different properties, which are subjected to the direct action of the atmospheric processes. On the slope drain large amounts of groundwater, surface water flows smoothly into the bay and creates natural conditions for landslide and rockfalling processes.

3. Segments with risk processes on the coastal zone

The coastal zone of the Municipality of Varna differentiates into several sections with different types of coast: accumulatory; abrasive; landslide; landslide abrasion; active cliffs.

The existence of a specific geological structure and the existing hydro- and lithodynamic conditions and processes are a prerequisite and an opportunity for the development of different for artificial islands after detailed research on their impact on the coastal zone.

- *Riviera Resort - International House of Journalists*

The sliding and abrasion shore type predominates in this area. The beaches of the Riviera and the MRGs have a dynamic profile that is unsustainable and of local origin. The drainage and drainage systems in the 1970s did not function and did not fulfill their purpose, although active abrasive and landslide processes took place here. No anti-abrasion and anti-landslide measures have been performed except for several private properties. Since 2005 there have been observed landslide processes that affect the underwater coastal slope.



It is imperative to adopt a general reinforcement scheme that takes into account the existing conditions and the future exploitation of the territory. It is possible to implement a "reef barrier" by constructing artificial islands or underwater reefs.

- Section/plot International Journalists' Home - Cape Kavaklar - Bouna 117

In this area, in 1997 a massive catastrophic landslide occurred. The area is characteristic of landslide. Here is a "Kabakum" beach, which characterizes the area as a storage area. It is located south of the MJC and north of Kavaklar. The length of the stretch is 1250 m. The beach is of local origin. It is made of large quartz sand. The beach area has a seasonally changing width of 15.00 m in average and reaches 50 to 60 m in places. After the catastrophic sinking of April 1997 on the bulk of the beach there was a sliding shaft with a height of 2-3 m.

Particular attention should be paid to the utilization of the territory of the territory to ensure the operation of the implemented anti-landslide facilities. The vertical planning of the terrain is part of the anti-landslide measures.

- Kavaklar Cape - cape "St.George"

This region is characterized by strong dynamics of the ongoing landslide and abrasive processes.

The built-up shorebuilding facilities, which are mainly fence-harbor malls, define the area as a separate lithodynamic unit. The shore is formed with small noses, between which the beaches are formed. Several beaches are formed. After the construction of the hydrotechnical facilities of the complex, this strip underwent changes in the profile of the dynamic equilibrium. These beaches are fed by the abraded material on adjacent stretches and the seabed.

- Abrasive sections

This type of beach is located in the exposed parts of the nasal forms. The most abrasive processes in St. Constantine and Elena resort are among the beaches - Sunny Day, Chernomoretz, Albatros and Riviera. Here are realized the port "Sunny Day", port "Grand Hotel Varna" - partially and the dam at Cape "Kavaklar", groyne Cape "St.George"

It is possible to execute remote protection and in the buoyant forms implementation of artificial sandy beaches.

- "St.George" Cape - "Trakata"

This is the area of residence "Evksinograd". The whole area of the areas with active abrasive processes has a complex of shorebuilding facilities. At the bottom of the bay is the "Evksinograd" beach with an approximate length of 650 m and an average width of 40 m, made of medium quartz sand. The area of Evksinograd residence has local landslides. The state of the hydro-technical equipment requires repair and restoration work.

- "Trakata" Gorge - "Holiday"



The area is subject to active abrasion and clearly manifested processes - an active cliff along the whole length. Here, partial shorebuilding activities are being carried out, including bumps, dams, strengthening of the Trakata Gorge. The state of the hydro-technical equipment requires repair and restoration work.

It is necessary to carry out anti-abrasion measures. The zone is suitable for the implementation of combined coastal protection by constructing a longitudinal shoreline dam to provide a promenade linking an existing alley with a groyne # 9. The passive type of coastguard facility in combination with remote protection will allow an artificial sandy beach.

- "Pochivka" gully - Wavebreak of the port of Varna

This area is characterized by great diversity and strong urbanization. The area is characterized by an active area, where degressive erosion processes and retreating landscapes occur. The beaches are fed by abraded material on the neighboring stretches. The "Ofickerski" beach is L ~ 500m, B - 20 - 40m and is fed by erosion material. The central Varna beach L ~ 1500m, B - 50 - 90 m. The beach was formed after the construction of the port mall. In this area are built a system of shorebuilding equipment Buna-101, Buna-102, Buna-1026, Buna-103, a stone-bulk dam at the base of the cliff and artificially constructed sandy beaches in the space between the booms. The state of the hydro-technical equipment requires repair and restoration work.

- Section – Sakama gully - Cape "Galata"

The coastline is heavily dismembered. In the accumulation zone of Asparuhovo beach a wide beach strip is formed over 1000 m long. Asparuhovo beach is made of medium and medium quartz sand with an average width of ~ 70 m. The underwater coastal slope is covered with sand in front of the beach and with exposed or minimally covered root sandstones in front of the abrasive areas.

After Asparuhovo beach to cape "Galata" the shore is subjected to active sea abrasion. The abrasive area is active and threatens to destroy the coastal road - cape Galata. The nose made of sandstone with lime bond is also abstracted because of the divergent wave action and the concentration of energy in nasal shapes due to the waves refraction. Under the impact of coastal processes before the cape is formed blockade of stone blocks and currency, and around the water line - currency and single stone blocks. The underwater coastal slope is steep to the nose and slopes towards the bay. Southeast of Cape Galata is the small beach of Galata, which is narrow, flooded and difficult to access.

There are partial exploratory design works but reinforcement of the section is not performed.

It is necessary to carry out anti-abrasion measures - longitudinal coastal passive protection with a coastal promenade, in front of the zone of the division There is an opportunity to build a marina south-east of cape "Galata". It is necessary to reinforce and partially restore the nasal shape, which is subjected to active marine abrasion and is a prerequisite for new landslides.

- "Galata" Cape - "Sakama dere"

Abrasive-crushing zones predominate in this area. Here are two accumulative forms - Fichoza beach and Chernomoretz beach. The first one is about 1100 meters long and the average



width is from 7-8 meters to 30 meters, and the second one - 25 meters in average and 1100 meters in length. The shore-abrasion shore occupies the coastline between Galata cape and Veteran hut. The rest of the sea abrasion is an active cliff beach. No exploratory design works have been carried out and no general consolidation scheme has been adopted to take into account the new status of the coastal zone from Cape Galata to Veteran hut. Partial anti-abrasion equipment has been implemented. There is no developed and approved general scheme for coastal consolidation of the territory. In this area there are plazaforming fractions, the abraded material of which nourishes the beaches south of the nose.

For the coastal zone of Varna, a reduction of the coastal stripes has been observed under the influence of complex factors, which necessitates their periodical artificial feeding with sandy material.

When formulating development decisions, it is necessary to take into account the possible manifestations of the risk processes determined by the geological structure and other natural factors. For further assimilation, arrangement and safe use of the territories affected by ancient or modern stabilized and conditionally stabilized landslides, the necessity of events related to:

- Construction of coastal and anti-abrasion facilities in areas subject to active marine abrasion;
- Maintenance, control and repair of the built-up anti-seismic fortification and drainage facilities, providing technological roads and access to them;
- Construction of external plumbing networks according to the requirements for landslides;
- Prohibition of discharging of domestic water into abusive septic tanks;
- Vertical landscaping to ensure safe drainage of surface water;
- Cleaning, correction and provision of normal runoff on existing gullies on the territory of the Municipality;
- Strict observance of the technical requirements of the regulations for the design of geo-protection structures, buildings and facilities in landslide areas.
- Adopt common anti-wear protection schemes as an integral part of infrastructure schemes.

In connection with the large-scale landslide processes on the North Black Sea coast and the catastrophic consequences for the engineering infrastructure, a construction ban was imposed by Order No. RD-02-14-300 of 21.04.1997 of the MTRS. It is time-consuming to carry out durable fortification measures for the individual plots and to take into account the effect of them.

4. Natural risk processes (landslides, collapses, erosion, abrasion, etc.) on the territory of the other municipalities of Varna District

4.1. Avren Municipality



Introduction of a system / mechanism for early warning and prevention of the risk of landslides, floods and others in the designated areas and areas of the municipality with problems of a natural nature.

6.2. Aksakovo municipality

- Continuation of gully correction - inflow of the Batova river at Dolishte village
- Gorge correction in the village of Slanchevo
- Correction of a gully in the village of Ignatievo
- Coastal and anti-landslide facilities and events in the "Cocar-Punar" section - no. Kranevo
- Rehabilitation of an existing coastal protection dam on the territory of the municipality.

6.3. Beloslav Municipality

- Anti-erosion protection on unsustainable slope - part of property with identifier 61741.51.11, in the territory of Razdelna village.
- Separation - Rehabilitation of a tourist route (eco path) from the village of Razdelna to the fortress "Petrich Kale"
- Beloslav - Construction of a tourist area for recreation at the foot of the Chukata area and rehabilitation of a tourist trail to the "Cross"
- Coastal south coast of the shipping channel №2 Beloslav - property with identifier 03719.502.6043
- Observation site of the Yata area

6.4. Byala Municipality

- Strengthening the "Sergurna" area, Byala
- Silver Beach Beach - Central Beach
- Completion of a coastal protection dam between Cape St. Atanas and White-South beach (formerly Luna)
- Coastal and anti-erosion protection from Cape St. Atanas to the central beach
- Completion of Chaika fishing port and Yacht terminal
- Coastal dam from White Belt to White Cape
- Correction of "Glicko dere"



6.5. Vetrino Municipality

- Restoration of the eco path Nevsha village
- Restoration of the capacity of the Yaztepenska River in the area of the village of Gaburnitsa

6.6. Municipality of Valchi Dol

- Kosh Bair Eco-path - Restoration and designation of ecological landmarks and landscapes

6.7. Municipality of Devnya

- Padova village correction
- Restoration and fortification activities on a gully passing through the town of Devnya - Protection from floods of a region with cultural and historical heritage and the Mosaic Museum

6.8. Municipality of Dolni Chiflik

- Ecological route Solnik - Solnik waterfall - Restoration and designation of ecological landmarks and landscapes
- Ecological route of the village of Goren Chiflik - Orlov Kamak Falls - Restoration and marking of ecological landmarks and landscapes
- Ecological route of Dolni Chiflik - Marin tepe area - Restoration and designation of ecological landmarks and landscapes

6.9. Dalgopol Municipality

- Bike route connecting Velichkovo village, Debelets village, Sini Vir village, natural phenomenon Wonderful rocks, Asparuhovo village and Tsonevo dam
- Velo aley, connecting the coastal strip in the village of Asparuhovo with the Tsonevo Dam
- Eco paths:
 - *Center of the village of Asparuhovo - a place of honor of Christ. Petrev;*
 - *City of Dalgopol - Rock Monastery in the village of Royak;*
 - *City of Dalgopol - a place of death for Christo Petrev;*
 - *Village of Arkovna - Cale*
 - *Eco train from the village of Asparuhovo - the Chudnite rocks*
- Correction with repair and restoration of the conductivity of a central gully with a covered part of the town of Dalgopol. Protect the archive of the Historical Museum in Dalgopol by flooding



6.10. Provadia Municipality

- Reconstruction of a road link to the historical monument "Ovech Fortress", Provadia
- Construction of road infrastructure (access road with parking) and information center at the "Mogila" archaeological site
- Strengthening the western rock wreath of Provadia
- Correction of the Provadiyska river from the bridge on "Sergey Rumyantsev" Str. To the regulation of the town of Provadia

6.11. Municipality of Suvorovo

- Cleaning and extension of the Banski Dol gully in the section at Suvorovo dam from km. 1 + 400 to km. 2 + 339
- Cleaning and extension of a gully passing through Nikolaevka village, Suvorovo municipality from km. 0 + 000 to km.0 + 773

The problem plots and sections mentioned indirectly or directly have a negative impact on the development of ecotourism in the areas. This requires local administrations and regional governors to take action to manage the risk of natural disasters in order to:

- reduce the vulnerability of socio-economic systems;
- reduce or prevent the dangerous consequences for the population in the threatened areas;
- Respond to the hazard through Early Warning Systems;
- conduct tailored land use;
- keep the specialized helpdesks in place and carry out the disaster recovery activities.

Achieving these goals requires assessment and analysis of the risk of natural disasters.

Risk assessment includes the whole process of risk assessment of natural disasters:

- Systematization of available information;
- Risk and possible damages identification;
- Mapping of the threatened territories in relation to dangerous phenomena, flood or other natural disaster in order to determine the probability of its implementation within the boundaries of the respective municipality or settlement and which will be the most endangered areas;



- Mapping the vulnerability of these territories - ie. how many sacrifices and what kind of material damage can cause the event if it occurs in a specific time with a certain intensity at a given location;
- risk assessment and the extent to which it is acceptable.

Risk management at national, regional and municipal level has its own peculiarities. At national level, management is based on highly aggregated statistics on the hazard, risk and vulnerability of socio-economic systems. Risk management at the municipal level is directed to a particular dangerous phenomenon or group of phenomena that affect a specific territory with specific functions within the municipality. Risk management in regions at risk of the same phenomenon allows the implementation of successful practices by one municipality and other municipalities with similar problems. Such a regional approach to managing the risk of natural disasters will have a positive effect, both at local and national level.

5. Influence of natural processes (landslides, collapses, erosion, abrasion, etc.) on the development of tourism, ecotourism and the environment

As a whole, the Black Sea coast of Varna region, and in particular the coast, is characterized by complex geodynamic conditions. Almost every year in this contact area significant material damage is recorded as a result of landslides and collapses of land masses, coastal abrasion, erosion, floods and other adverse events. In this respect, the coast is particularly vulnerable, given that there is a high concentration of outbreaks and areas with increased endogenous and exogenous activity.

Too often here due to the activation of individual landslides, a manifestation of

storms, high speed of abrasion, etc. major damage to engineering infrastructure, buildings, natural parks and recreational and sports areas is being caused.

The risk areas and districts of Varna District listed above may be subject to pilot sites in the future. Both zones are affected by coastal erosion.

A noticeable effect of climate change is the accelerated erosion of the coast over the last decade. The coastline and the intact coastline are affected by stronger impacts due to storms and floods. Therefore, it is imperative to systematically monitor and collect data to identify new trends in coastal processes.

All the processes mentioned above are of particular importance to the local economy and tourism. The share of the Bulgarian economy, produced through direct, indirect and induced tourism, is significantly higher than in Europe - about 14% and about 9% respectively. This means that for the Bulgarian economy tourism is 50% more weight. It is clear that the role of our seaside resorts is of utmost importance for the sustainability of Bulgarian tourism. Given that the oldest Bulgarian Black Sea resorts in 1903 are located in the municipality of Varna, the future of our beaches is a priority.



Urban coastal erosion is increasing along the urban north coast. Chronic erosion is a fact for 20 years in a sequence already due to drastically reduced ejection of the terrible beach material. During the last decade, several but extreme storms have changed the probability of storm parameters exceeding, which may represent new trends for accelerated coastal erosion in the near future. The built-up coastal structures would be exposed to more impact than is supposed, and therefore the damage will become more likely. To the south of Cape Galata, where the shores are not urbanized and the coastal structures do not exist, there are signs of erosion everywhere. There are clear indications that status is changing, and deeper coastal monitoring and surveillance is a must.

Future pilot projects could provide for a systematic approach to studying, monitoring and mitigating coastal erosion to be deployed in coastal communities' administrative systems.



1. Regional policies

Nevertheless, the Bulgarian coast has a rich coastal morphological structure. It's a great favoring diversity of the territory. Preserving the coastal line and its landscape as a cultural heritage is a future tourist asset for regional development.

Ministry of tourism has a main priority to create the necessary conditions for stable tourism growth in the Republic of Bulgaria and to carry out the country's tourism policy in a lawful and advisable way. The institution strives for the country's tourism development based on the foundations of sustainable production, increased productivity and competitiveness, that is based on advanced technologies, innovation, and modern industrial policies. The institution develops both traditional sectors and sectors with potential for future global growth in order to create sustainable industrial clusters. The development of tourist destinations is directly related to the environment, cultural identity, social interaction, security and welfare of local communities. The institution strives to create a less bureaucratic, investment-friendly environment, with simple and transparent procedures for tourism business and effective management for the benefit of entrepreneurs. In an environment of increased competition, both at European and world level, the Bulgarian tourism sector faces the challenge of increasing its competitiveness while at the same time adopting and implementing the idea of sustainable development, with the understanding that in the near future, competitiveness will depend almost entirely on sustainability. Bulgaria as a tourist destination should evolve in line with the new requirements that the environment and tourists impose. Achieved growth in 2016 and good performance in 2017 are the aftermaths of the consistent tourism policy and active work of the Ministry of Tourism, Tourism Business, and Stakeholders in recent years.

Focusing on sustainability issues in a socially responsible way will help the tourism industry to refresh its products and services and enhance its quality and value.

The ambition of the Ministry of Tourism is to make Bulgaria an all-year-long destination whose development is based on the principles of sustainability - optimal use of resources, respect for the socio-cultural authenticity of host communities, ensuring reliable economic activity and an even distribution of socio-economic benefits. Ministry of tourism works for positioning Bulgaria as a tourist destination with clearly identifiable national identity, authentic culture, and nature, occupying a leading place among the tourist destinations in Central and Eastern Europe. Ministry efforts will be focused on the development of specialized types of tourism, improving the quality of the national tourism product and its competitiveness, and attracting more tourists. The strategic goal is to strengthen the competitiveness and efficiency of the tourism sector in Bulgaria through the optimal use of available natural and anthropogenic resources, in line with market requirements and consumer expectations for sustainable tourism development.

In addition, *The Tourism Act* regulates the social relations associated with the implementation of governance and control in tourism, the interaction of the State and municipalities in the implementation of activities related to tourism, as well as the participation of not-for-profit legal entities and natural persons in the said activities. **The National Strategy for Sustainable Development of Tourism in the Republic of Bulgaria for the period 2014-2030** aims at defining the direction of development of the Bulgarian tourism in accordance with the changes in the environment and the attitudes and



characteristics of the tourists and to provide a reliable basis for sustainable destination development. The strategic framework sets out objectives and actions, the realization of which is based on the possibilities for financing overcoming the regional landslides and erosion issues under operational programs.

The Ministry of Tourism is a direct beneficiary under the Operational Program (OP) "Innovation and Competitiveness" 2014-2020. Concerning OP "Innovation and Competitiveness" 2014-2020, the strategic framework presents project capabilities that meet the scope and objectives of investment priority 2.2 "SME Growth Capacity". The strategic framework seeks to balance the economic, ecological and socio-cultural aspects of tourism development and takes into account the main sustainability principles. The mission of the Ministry of Tourism (MT) is to pursue a clear and transparent tourism policy protecting the state and the public interest on the basis of the European Union principles. The National Strategy for Sustainable Tourism Development in the Republic of Bulgaria, 2014-2030, the Ministry of Tourism adopts the European and national commitments in terms of sustainable development and presents a plan for their achievement in the sphere of tourism. This will lead to the future sustainable development of the country as a whole and implementation of sustainable development strategies at local and national level.

The strategic framework reflects the Strategic Tourism Roadmap developed under the initiative of the Ministry of Tourism, which aims Creating and managing an attractive and highly competitive tourist destination requires a well-planned institutional environment that supports and allows for development. From this point of view, the quality of strategic planning and strategic tourism documents are key factors for improving the competitiveness of the destination. s to outline the Ministry's strategic priorities.

Based on a public procurement the National Strategy for Sustainable Development of Tourism in the Republic of Bulgaria has been updated and has been developed an Action Plan to it. A public discussion took place between 28 April and 28 May 2017. The documents were examined at a meeting of the National Tourism Council, held on July 22, 2017. A coordination procedure under Art. 32, para. 4 of APPSA and their adoption by the Council of Ministers. Forthcoming coordination procedure under Art. 32, para. 4 of ORMCA (Organic rules of the Ministerial Council and its Administration) and their adoption by the Council of Ministers.

However, a sustainable approach requires broad and committed participation in decision-making and practical implementation by all those involved in the final outcome. So let's work together for Bulgarian tourism.

The National Tourist Council (NTC) is a governmental consultative body under the authority of the Minister of Tourism. It aims to assist in the implementation of the national tourism policy. The members of the National Tourist Council follows to approve the national funding support for tourism marketing including the annual program for national tourist advertisement, to coordinate the implementation of the national tourist advertisement, to make analysis s of the implemented promotional activities and appraisalment of the efficacy of tourist seasons, to make recommendations on designed concepts and programmes for tourism development, as well as proposing measures for improving the control in tourism sector with respect to raising the overall quality of the whole range of tourist services in



Bulgaria. Moreover, giving an opinion on draft regulations with regard to the provision of tourist activities in order to discuss the issues related to tourism development such as infrastructure, foreign investments in tourism, fulfillment of charter programmes, consumer protection. **The annual program for development of tourism in the Municipality of Varna is in line with the Regional Strategy for Regional Development in Varna region for 2014-2020, with the National Strategy for Sustainable Development of Tourism in the Republic of Bulgaria 2014-2030, with the European Union's policy in the field of tourism by 2020, as well as local tourist resources and needs.** The program of the municipality for the development of tourism has been prepared on the basis of the Law on Tourism, by systematizing the objectives, measures, and projects, whose realization will lead to the establishment of sustainable development and management schemes for tourism activities of the Municipality of Varna. In the Tourism Development Program, realistic goals are set which can be realized with the identified available and potential financial, physical and human resources. The main objectives of the Annual Tourism Development Program are to increase the attractiveness of Varna Municipality and its establishment as a tourist destination in Bulgaria, the European Union countries and other major foreign markets, increasing the attractiveness of the municipality's total tourist product through infrastructure development, servicing tourism, enrichment of the cultural life in the municipality and construction and maintenance of tourist sites.

The program is with the main aim to involve public administration, essential tourist association and professional private sectors and business sector from Varna region in the the joint work on its implementation of the programme that will improve the joint action of the municipality and the active business in forming a common policy and actions for development of the sector in the context of the National Tourism Development Strategy for improving the infrastructure serving tourism, preserving, improving security and expanding tourist product and advertising Varna as tourist destination.

The Ordinance № ПД-02-20-1 of 19th June 2014 on the conditions and procedure for entering and maintaining a register of landslide areas on the territory of the Republic of Bulgaria, the areas with abrasive and erosion processes along the Black Sea and the Danube coast and their monitoring. This Ordinance regulates the functioning, submission, introduction, and receipt of information from a register of landslides on the territory of the Republic of Bulgaria, of the areas with abrasive and erosion processes along the Black Sea and Danube coast and for monitoring them. The registrar is an information system with periodic an up-to-date electronic database providing information on the landslide areas on the territory of the Republic of Bulgaria and on the areas with abrasive processes in the Black Sea and erosion processes on the Danube coast. The information from the register is used by the central and or territorial authorities of the executive branch, institutions and citizens in connection with the formation of a policy in the field of geo-protection activity, spatial planning, and investment design, issuance of preliminary permits under Art. 96, para. 3 and 4 of the State Territory Act the prevention, limitation and/or liquidation of damages from unfavorable geodynamic processes and others, as well as planning of the disaster protection at municipal, regional and national level.



The activities for the registration and monitoring of the landslide areas on the territory of the Republic of Bulgaria, incl. the abrasive and erosion processes on the Black Sea and Danube coasts, as preventive measures for prevention of accidents and damages are carried out by the Ministry of Regional Development and Public Works through state-owned geo-protection companies. The terms and procedure for entering and maintaining the register under para. 2, as well as for carrying out the activities under para. 3 shall be determined by an ordinance of the Minister of Regional Development and Public Works. The coordination between the different agencies for limiting landslides on the territory of the Republic of Bulgaria, incl. the abrasive and erosion processes along the Black Sea coasts and the prevention of accidents and damages are carried out by the Ministry of Regional Development and Public Works through the State property act, the Ordinance № 12 of 3.07.2001 for the design of geo-protection constructions, buildings, and facilities in landslides

The Environmental Protection Act regulates the social relations with regard to protection of the environment for the present and future generations and protection of Human health, conservation of biological diversity in conformity with the natural biogeographic characteristics of Bulgaria, the conservation and use of environmental media, the control and management of factors damaging the environment, the exercise of control over the state of the environment and over the sources of pollution, the prevention and limitation of pollution, the economic organization of environmental protection activities, the rights and the obligations of the State, the municipalities, the juristic and natural persons in respect of environmental protection.

The Law on Protection of Biodiversity regulates the relations between the state, the municipalities, the legal and physical persons for the conservation and sustainable use of the biodiversity in the Republic of Bulgaria. Biodiversity is the diversity of all living organisms in all forms of their natural habitat, the ecosystems and the processes that take place in them. Biodiversity is an integral part of national wealth and its preservation is a priority and an obligation for state and municipal authorities and citizens.

The Protected Areas Act aims at preserving of the protected territories as national and universal human wealth and property and as a special form of protection of the local nature, contributing to the development of culture and science and to the wellbeing of society.

Strong linkages between legislation regarding landslide prevention, tourism, and environmental management are important. Because of importance have links regarding not only the extensive use of the landscape but also the development of tourism sector has the potential to affect and be affected by. With respect to the environment, many linkages exist legislation and policy. The Bulgarian policy aims to enhance the multifaceted nature and to strengthen the linkages between tourism and other sectors of the economy and the environment. This is particularly significant in the region where tourism relies on environmental resources and there is a critical link between landslide prevention and tourism management.

There is also a THE INTERMEDIATE RECOMMENDATION COMMISSION TO THE COUNCIL OF MINISTERS, which has also the instruments to:

1. Finance preventive activities under the National Program for Disaster Protection under Art. 18 of the Disaster Protection Act, included in the annual plan for its implementation;



2. Provide for funding in case of unforeseen expenses for rescue and emergency disaster operations for integrated rescue measures through regional operational centers;
3. Finance urgent restoration works;
4. Provide for restorative aid;
5. Organize and finance control checks on the implementation of the Commission's decisions;
6. Conduct complaints and alerts inspections;
7. Compensate natural and legal persons for actual damage caused to them in connection with with the implementation of statutory actions for protection against disasters.

II. CONCLUSION

The Black Sea coast of Varna region is characterized by a complex of geodynamic conditions. Almost every year in this contact area significant material damage is recorded as a result of landslides and collapses of land masses, coastal abrasion, erosion, floods and other adverse events. In this respect, the coast is particularly vulnerable, given that there is a high concentration of outbreaks and areas with increased endogenous and exogenous activity.

Too often here due to the activation of individual landslides, a manifestation of storms, high speed of abrasion, etc. major damage to engineering infrastructure, buildings, natural parks and recreational and sports areas is being caused.

The risk areas of Varna region listed above may be subject to severe pilot actions in the future. Both zones are affected by coastal erosion.

A noticeable effect of climate change is the accelerated erosion of the coast over the last decade. The coastline and the intact beaches are affected by stronger impacts due to storms and floods. Therefore, it is imperative to systematically monitor and collect data to identify new trends in coastal processes.

All the processes mentioned above are of utmost importance to the local economy and tourism and especially the co-tourism strategies. The share of the Bulgarian economy, produced through direct, indirect and induced tourism, is significantly higher than in Europe - about 14% and about 9% respectively. This means that for the Bulgarian economy tourism has 50% more weight. The role of our seaside resorts is of utmost importance for the sustainability of Bulgarian tourism. Given that the oldest Bulgarian Black Sea resorts, built in 1903 are located on the territory of the Varna Municipality, the future of our beaches is a priority.

Urban coastal erosion is increasing along the urban north coast. Chronic erosion is a fact 20 years ago due to drastically reduced ejection of the terrible beach material. During the last decade, several but extreme storms have changed the probability of storm parameters exceeding, which may represent new trends for accelerated coastal erosion in the near future. The built-up coastal structures would be exposed to more impact than is supposed, and therefore the damage will become more likely. To the south of Cape Galata, where the shores



are not urbanized and the coastal structures do not exist, there are signs of erosion everywhere. There are clear indications that status is changing, and deeper coastal monitoring and surveillance is a must.

In future pilot projects, a systematic approach to studying, monitoring and mitigating coastal erosion to be implemented in coastal communities' administrative systems can be envisaged.

Special attention is being paid to coastal areas in Europe, which are not only areas of significant natural heritage. At the same time, they are important for business and commerce, priority areas for industrial and energy processing operations, points of reference for the exploitation of marine and underwater resources and areas particularly attractive to mass tourism. Since multifocality concentrated on a relatively narrow coastline could give rise to numerous conflicts, integrated territorial development policy for coastal areas is a necessary condition for ensuring the sustainable character of both coastal stripes and their hinterland. The concept of Integrated Coastal Zone Management should take into account the interaction between economic and social activities and the demand for natural resources in these coastal stripes and thus support investment processes. Cross-border and transnational cooperation between maritime spaces is of particular importance.

Achieving these goals requires assessment and analysis of the risk of natural disasters.

At the next stage, it is necessary to make a consolidated analysis of the natural conditions of the whole territory of Varna Region, integrating the presented analytics. In accordance with them, to develop a comprehensive ACTION PLAN with financial evaluation of the planned activities and facilities for the territory and the individual municipalities is needed.