LAND-SEA PROJECT

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

STRATEGIC MEASURES FOR THE LANDSEA ECOTOURISM

THEMATIC PAPERS II | proposal

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1. Introduction

The development of eco-tourism places the focus on the need for protection of the untouched and delicate environment. On the other hand, an ecotourism practitioner is more demanding, seeking a higher quality of service and undisturbed contact with nature. As ecotourism is a relatively new sector in the tourism industry, it is which has caused both considerable interest, disputes and discussions, many of which still remain on different issues. The use of the notion of ecotourism is widely attributed to Ceballos-Lascurrain, who created the word in the early 1980s, although, according to some other authors, the notion of ecotourism was associated with Hetzer, who introduced the term in 1965.

Although the reference and explanation of ecotourism can be traced back to more than 20 years ago, the controversy over a precise, and very well-defined definition has not stopped all this time. The term ecotourism is open to many misinterpretations by the policy makers, tour operators, managers, tour guides, tour operators and tour media operators, as a result, the term is used to describe a range of products, which do not fall within the definitions given by these authors. This widespread use leads to debates everywhere in the sphere of the tourism industry and society, and in turn leads to the creation of a large number of other terms, including "minimal impact", "community-based", "soft", "green", "sustainable" and "responsible" tourism, and also the related "endemic" tourism.

The most significant effort to ensure a global consensus on the concept of the ecotourism was carried out during the World Ecotourism Conference in Quebec in 2002, declared by the UN. The conference recognized ecotourism as covering the principles of sustainable tourism as regards the economic, social and environmental (ie ecological) impacts of tourism. Also, the following specific principles, which distinguish ecotourism from the wider concept of sustainable tourism:

- Contributes actively to the preservation of natural and cultural heritage;
- Involves local communities in their planning, development, progress, and exploitation as well as contributing to their well-being;
- Explains to visitors the natural and cultural heritage of the given destination;
- Presents himself better by focusing on the self, free-traveling and independent tourists, as well as to organized excursions and tours for small groups.

There is a definition that includes the description of ecotourism, formulated during the World Ecotourism Conference and is broad accepted and used as a reference when it comes to ecotourism. It is the definition given by the International Ecotourism Society - The International Ecotourism Society (TIES): Ecotourism is a responsible trip to nature (territories, areas, areas), which preserves the environment and maintains the well-being of locals.
The International Ecotourism Society (TIES) also includes the following set of principles for ecotourism development:

- Limits minimizing negative impacts;
- Builds ecological and cultural awareness and raises respect for environment;
- Provides a positive experience and presents good practices for both visitors and hosts;
- Provides direct benefits from environmental protection;
- Provides financial benefits and provides rights and opportunities for local people;
- Causes sensitivity in host country to "the political, social and environmentally friendly environment climate".

The International Ecotourism Society is in the process of renewing this Code of Conduct to join principles that set out a commitment to reduce carbon emissions. Interest in ecotourism arises as a result of the combination of rising searching for authentic tourist experiences and rising interest in protection of the environment. Ecotourism occupies a special niche within tourism. It includes tourist forms that are compatible with natural, cultural and cultural heritage public values and dignities, as well as promoting cultural and cultural heritage ecological interactions in authentic and untouched natural environments and conditions.

Ecotourism is at the forefront of the overall green apple" of tourism, in which environmental aspects are a top priority. The main benefit of promoting ecotourism is that it combines tourism and conservation (including the preservation and conservation of the environment) and thus provides an economic incentive to protect the environment. Also, the value of growing awareness and appreciation of the relationship between the natural environment and the diverse range of cultural perspectives for the community (respectively the local community) is beneficial. The key challenge is to ensure a balance so that ecotourism as an economic sector can be commercially viable, ecologically sustainable and culturally responsible.

The tourism sector as a whole must be sustainable - ecological, social, cultural and economic. Ecotourism differs from other forms of tourism because of its own dependence on the protection of natural ecosystems, so that they and the related cultural values can be visited and interpreted (interpreted, explained).

The challenge for tourism as an industry is to develop and maximize it develop ecotourism capacity and the quality of its eco-product without harm the environmental impact that ecotourism itself depends on. This engaged providing such kind, location, and level of ecotourism consumption that is not damaging the natural territories and such management that are adequate to the respective one sustainable ecotourism levels.

2. **Normative framework**

In numerous European countries, governmental ministries have intersecting responsibilities regarding the development, planning and marketing issues relating to coastal
ecotourism which may be a problem since such bodies have contradicting agendas. However, in most coastal ecotourism destinations, the natural environment is the primary attraction. Thus, for developing a proper coastal ecotourism, European environmental Directives are imperative, among them the Birds Directive1; the Habitats Directive2; the Water Framework Directive3 and the Marine Strategy Framework Directive4 with particular importance for the coastal environment (see Thematic paper I; forth semester Interreg Europe project Land-Sea) for details) in addition to the Environmental Impact Assessment directive (EIA Directive).6 Both the Birds and the Habitats Directive are directly related to valuable and vulnerable ecosystems and species and may thus be crucial for ecotourism. Thus, a guideline for the application on the Habitats Directive and the Birds Directive for tourism activities was released in 20057 as a contribution to solve possible conflicts between Natura 2000 sites and tourism-related interests and at identifying ways of cooperation between environmental protection and tourism.

Beyond European Union borders, the WTO intended early to establish a framework on ecotourism by “A Practical Guide to the Development and Use of Indicators of Sustainable Tourism”8 that defines a set of core indicators, which would help all destinations to develop ecological improvements, supplemented by indicators for specific types of destinations (e.g., coastal resorts and sites). Another evaluation of ecotourism, set up by UNEP/WTO/UNESCO is the Tour Operator’s Initiative for Sustainable Tourism Development9 whereas ecology is only one action among others.

Beside guidelines like the examples abovementioned, legal regulations may be necessary to help reduce the negative impacts of ecotourism. Governments should provide leadership, coordinate planning and set the legislative and regulatory framework underpinned by tools

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9 The Tour Operators Initiative. 2003. The Tour Operators’ Initiative was developed and is supported by UNEP, UNESCO, WTO/OMT.
for controlling and monitoring, combined with certification and accreditation, which contribute to improve quality of ecotourism.

On the international level, the Convention on Biological Diversity (CBD) presents guidelines on Biodiversity and Tourism Development that are promoting legislation and control measures that are related to sustainable tourism development e.g. in vulnerable coastal ecosystems and habitats of major importance for biological diversity and protected areas. Existing national legislation and regulatory tools, e.g. land-use planning, protected area management plans, environmental assessment, and building regulations are crucial. Legislation and control measures could consider the enforcement of existing laws, including the participation of all stakeholders, licensing processes for tourism development, controlling the planning and construction of tourism facilities and infrastructures and general management of tourism in relation to biodiversity, ecosystems, including vulnerable areas. Ideally, national standards for tourism have to be consistent with national or regional plans for sustainable development and national biodiversity strategies and action plans, and the UNEP/CBD “Guidelines for Biodiversity and Tourism Development” should be integrated e.g. into Natura 2000 management plans at regional level.

The review of the policy framework for the development of ecotourism in Bulgaria includes eight national strategies or national plans in the field of biodiversity, forest policy, entrepreneurship development, regional development as well as ten laws of national legislation and a number of international conventions to which Bulgaria is a party. They are all integrated as a good prerequisite for the development of ecotourism, given its interdisciplinary and crosssectoral nature. The experience of creating an ecotourism strategy has clearly demonstrated the need for the development of a national strategy for development as well the sustainable tourism. This is the most imperative need of the tourism sector at this time. Its development will be successful if all the opportunities of the industry are covered in a comprehensive way.

First in Europe, Bulgaria has a National Strategy and Action Plan for Ecotourism Development (NS APED). The National Strategy and Action Plan for Ecotourism Development is the result of the work of a wide range of Bulgarian specialists with the support of the United States Agency for International Development, the United Nations Development Program, the World Bank, the Swiss Government through the Regional Environmental Centre. Bulgaria has the necessary preconditions for the development of ecotourism - natural and cultural values and the unique opportunity to turn them into a starting point for a profitable business.

The main stakeholders in ecotourism are: State institutions, non-governmental and nonprofit organizations and the business sector (tour operators, investors, etc.) Branch tourist associations

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such as Bulgarian Association of Travel Agents, Bulgarian Tourist Chamber, Bulgarian Hotel and Restaurant Association form an important basis for creating ecotourism products for their marketing and information management.

To the above, with active position and activities in the field of ecotourism can include also the Bulgarian Association for Alternative Tourism, the Bulgarian Association for Rural and Ecological Tourism, the Bulgarian Tourist Union, a number of regional associations.

3. **Integration between nature biodiversity and infrastructures**

During its long history, Bulgaria has managed to preserve its rich cultural and nature conservation traditions. Bulgaria has always been part of Europe. In recent years, it has proven this by accepting the challenge of being one of the leading countries on the old continent in the field of nature conservation and sustainable development. The greatest wealth of Bulgaria is the combination of diverse and preserved nature with valuable cultural and historical heritage, traditions, lifestyle, and hospitality. Preserved nature is our green gold.

In recent years, legislation and actions on nature conservation were mainly geared towards preserving and maintaining biodiversity. An expanding network of protected areas demonstrates the support and contribution of government and local communities to nature conservation values. The development of ecotourism is based on a good balance between the government's environmental, economic and social policies. This is in line with European policy in this area and a guarantee for effective implementation in Bulgaria of the principles of sustainable development. The National Strategy and Action Plan for Ecotourism Development are set by the Bulgarian position of a model for ecotourism development in the Balkans and in Europe. These documents are based on the need for our people to appreciate and understand the essence of our Bulgarian pride - our nature, traditions and customs, its history our way of life - have a great value for our country and for the world. Must we begin to regard these values as a comparative advantage of Bulgaria to the world that suffers from permanent loss of the riches.

Bulgaria is the first European country to develop and adopted its own national strategy for biodiversity conservation in 1995. Since then, the Bulgarian state has consistently developed the basic legislation needed to implement modern nature management practices. Both prerequisites are of particular importance to ensure the sustainability of these achievements. The first is the management of protected areas to provide benefits for the local population, and the second - the financial mechanisms to be developed so as to provide funds for both nature conservation activities and improvement of the livelihoods of people in the natural areas. The Cultural Heritage of the country faces the same challenge.

It should provide benefits for the people who protect it and there must be financial mechanisms and incentives, which help preserve the diversity of this heritage. Bulgaria is also one of the first countries in the world to adopt and use the Guidelines for activities related to the development
of sustainable tourism and the biodiversity of the Convention on Biological Diversity in the development and planning of the National Ecotourism Strategy.

A network of healthy ecosystems often provides cost-effective alternatives to traditional ‘grey’ or ‘hard’ infrastructure and offers many other benefits for both citizens and biodiversity. The European Union promotes the use of nature-based green infrastructure solutions.

**Green infrastructure in Europe**

In practice green infrastructure is a strategically planned network of natural and seminatural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation. Green infrastructure planning is a successfully tested tool to provide environmental, economic and social benefits through natural solutions and help reduce dependence on ‘grey’ infrastructure that is often more expensive to build and maintain.

Green infrastructure must accomplish two fundamental conditions: 1) be multifunctional, a quality that makes it compatible with agricultural, livestock and forest productive activities, and at the same time generate multiple ecological functions or ecosystem services for society; and 2) ensure the ecological, structural and functional connectivity of the territory, protecting existing connections and restoring those that have been degraded.


**Green infrastructure in Catalonia**

In order to comply with the European recommendations, the Catalan Government has a Green Infrastructure Program that analyzes the various points in the territory that have suffered the effects of unsustainable development, and proposes and develops actions to recover capital natural. Two of them are the following:

Dune restoration

Recovery project for dune systems on the beaches of the Empordà region to reduce their degradation factors, recover their natural morphology, eliminate invasive flora and recover dune habitats by promoting native vegetation.

**Improvement of the natural harbor of L’Estany**

Project to clean the seabed from the port with the removal of sunk boats and old mooring systems, which have been replaced by ecological anchors.
The project also includes the demolition of buildings and part of the breakwater, improvement of accesses and roads, improvement of the port dock, elimination of exotic vegetation and placement of information panels.

**Underwater hard infrastructures acting as artificial reefs**

An artificial reef is a man-made underwater structure built to promote marine life in areas with a generally featureless bottom. Artificial reefs have numerous holes, tunnels and a good rough surface to provide attachment to algae and invertebrates such as barnacles, corals, and oysters. The accumulation of attached marine life in turn provides intricate structure and food for assemblages of fish.

However other artificial underwater structures built for other purposes can be used for marine life promotion acting as artificial reefs: surf reefs, semi-submerged breakwaters to prevent coastal erosion or structures to hold sediment on beaches. In this case is important not to use potential pollutant materials, avoid plain surfaces, provide holes and tunnels and increase spatial heterogeneity.

**Elevated cycling paths as flooding protection**

Within the framework of the Integral Plan of the Ebro Delta, the Spanish Ministry of Agriculture, Food and the Environment has begun the construction of the “guard path”, a soft structure that must protect the inner part of the Alfacs Bay and the regression suffered by the Delta. Structurally is an earth bank with a flat surface (4 meters wide and 1.5 high) that covers about 14 kilometers of coastline.

The guard path is constructed as a barrier to restrain the erosion of the inner coast of the bay and it must also be a tourist infrastructure for bicycles and pedestrians.

**4. Contribution of each expertise to the main LAND-SEA project topics**

Strategic measures to develop eco-tourism are key stages in the development of 5-year action plans. In order to identify the measures, their expertise and expertise of the partners on the main themes of the LAND-SEA project are needed to help analyse the state of each partner country and to develop the concrete key measures for the development of the action plans.

**a. Biology Science**

Land-sea ecotourism planning and management have to take into account biodiversity key resources. These resources are important in terms of aesthetic value, functional values and not least in terms of economic value (e.g., ecosystem services). In Italy important actions on the coast had been carried out in Molise Region with the implementation of LIFE/NAT/10/000262 Maestrale and other important actions in the “Costa dei Delfini” which include 9 municipality (4 coastal and 5 close to the coast) acted to make the life actions be effective on the long term. Biology
science can be helpful to highlight the fragilities that need to be preserved and that have an important revenue in terms of ecotourism. For example in the Molise coast all the areas that maintain the dunes in a good conservation status has a huge importance because people can benefit the wild area and the heritage this dunes give to the landscape.

All the actions implemented in the Life project were focused in reducing threats intensity on habitats and species of community interest in the coastal Natura 2000 sites of Molise using an integrated approach. These was obtained improving the conservation status of Molise coastal habitats, promoting its natural heritage, mitigating conflicts with stakeholders and implementing a huge campaign for dissemination and environmental awareness. Specific actions were performed for the conservation status of priority habitats (pine forest, dune system and temporary ponds) and target species (Hermann’s tortoise, European pond turtle and bats):

1) Propagation and ex-situ conservation of native plants of coastal maquis and woods with a total of 10,000 native plants from Mediterranean maquis were further on grown and planted in the areas with the support of the Regional Forest Nursery “Le Marinelle” (Petacciato). These Forest Nursery following the experience acquired with the project is currently developing an optimal protocol for the germination of juniper’s seeds, in collaboration with the University of Molise;
2) Restoration of the wooded dunes with *Pinus pinea* and/or *P. pinaster* (2270*) through the eradication of the invasive species *Acacia saligna* and planting of native species; 3) Protection of the Cisto-Lavanduletalia dune sclerophyllous scrubs (2260) through boardwalks and bars, planting of native plants, stakes delimiting the first dune formations, installation of footbridges as protection of the dune vegetation and the maquis from trampling and access bars on the road to limit passage of motor vehicles directly on the dunes of Petacciato;

4) Restoration of coastal dunes with *Juniperus* spp (2250*) carried out through the implantation of *Juniperus oxycedrus* subsp. *Macrocarpa*, the removal of deadwood material caused by 2007 fire (to reduce the fire risk) and planting of 3,600 seedlings of native species;

5) Restoration of the Mediterranean temporary ponds (3170*-1510*) through the enlargement of the ponds to re-establish the original wetland and the natural flow of water from a drainage channel favoring the reinstatement of the original hydrological conditions of the ponds and the improvement of environmental conditions for the priority habitats 1510* (Mediterranean salt steppes) and 3170* (Mediterranean temporary ponds). Fascines in plant material were installed parallel to the coastline in order to promote the accumulation of sand carried by the wind to mitigate coastal erosion and a boardwalk for ecotourism purpose was constructed;

6) Production and placement of 400 bat boxes in wooden natural areas, anthropic areas such as gardens, farms and schools to increase the refuge availability for bats.

All these habitat restoration actions benefited the target animal species, Hermann’s tortoise, European pond turtle and bats. The great ecological efficiency of the project was evaluated through monitoring actions both for habitat status and animal target species status and a great increase of favorable conditions both for priority habitats and species was evidenced after the monitoring period of the project. Specifically, focal and ruderal species increased in the restored dune habitats whilst invasive species reduced consistently. In the temporary ponds the typical habitat vegetation was completely restored with an evident increase in focal species of habitat 3170* and 1510* such as *Limonium narboreense* and *Juncus acutus*.

Concerning bats 9 species were confirmed in the restored habitat in the whole coastal area and bat boxes colonization rate evidenced as in the anthropic area the colonization was very high (57.14%) confirming that in human altered areas, artificial shelters can compensate the lack of natural ones.

Sixteen individuals of European pond turtle were collected in proximity of the natural ponds suggesting that colonization of restored ponds will likely occur in the short term. In the restored dune habitat for the Hermann’s tortoise was estimate the abundance in 2 individuals/ha. It is important to underline as the monitoring actions are still ongoing in the 5 years post life program.
All these important natural values have to be valorised by the touristic implementation. In Life Maestrale project a fundamental aspect of its integrated approach was the direct involvement of citizens and tourists in the actions that were carried out with lots of public events to get these stakeholders be able to appreciate the efforts done to preserve these important and beautiful coastal habitats and understand the benefit that these produce. Indeed, these communication actions were specifically focused on the natural heritage and environmental issues of the Molise coast, promoting a prudent and informed management of these vulnerable and valuable ecosystems. Entering in the details of the environmental campaign it is important to underline how important is the formation of the new generation oriented to seed a responsible awareness on the ecosystem preservation and the importance of a sustainable tourism able to make these ecosystems last in the long term. Indeed, an environmental education program addressed to schools was carried out by the no-profit organization “Ambiente Basso Molise” involving about 5,000 students of primary and secondary schools of Molise. 15 roll-up (80 x 200 cm) on the conservation actions, target species and results of Life Maestrale were used to implement a travelling exhibition which contributed to directly disseminate the good practices of the project in 9 municipalities. Numerous ecological tracking were organized with wildlife experts, as well as recreational activities and workshops with children and student, and theme events like the “Batnight”. Most of the activities were organized at the Center for Environmental Education of Petacciato.

All these dissemination actions set the basis for an ecotouristic development of the area. This paragraph highlights how is of fundamental importance biology science and biodiversity preservation to implement ecotourism strategies in an effective manner.

b. Hydraulic and Coastal Engineering for the LAND-SEA system (Michele & Pasquale)

While the traditional thematic scenarios are helpful to illustrate the dimension of the problems to the managers responsible for flood and erosion defence, they are incomplete when it comes to envision the possible options for the (sustainable) development of territory, i.e. cities and their surrounding areas. The modern hydraulic and coastal engineering, supported by interdisciplinary approaches, can provide this perspective of new “multipurpose hydraulic defences”, increasing their economic and social value. New options for dealing with future elevated storm surge levels or river flood are required. For instance:

- a new strategy related to an integrated management of additional polders/controlled flooding areas to be flooded during severe storm surges or river inundations to cap the peaks of such floods;
- Multifunctional Spaces for Flood Management, like traffic, recreational or other appropriate urban areas, activated as flood control measure for short-term storage, retention or infiltration of (surface) runoff to avoid flood damage at sensitive urban infrastructure;
o Additional dissipation of tidal (and surge) energy by narrowing the mouth segment or by adding artificial islands or sandbanks in the mouth of the estuary;

o The uses of breakwaters integrating wave energy converters to control wave/tidal power and coastal erosion, providing clean energy to the coastal zones;

o optimizing the sediment management considering the whole system.


c. Coastal zone

Integrated Coastal Zone Management (ICZM) is a new way of conceiving the management of the coast using an integrated approach that leads to an overall control of the territory. Tangible objectives of ICZM are, for example, supporting fisheries, protecting the community from storm ravages, attracting tourists, promoting public health, preserving coral reefs. One of the major aims of the ICZM is the controlling of the impacts of human intervention on the environment, allowing a sustainable use of coastal natural resources and maintaining it perpetually. In this scenario a relevant importance is assumed by eco-tourism; making decision considering all the aspects of a coastal zone, it would be easier takes into account the environmental quality, the equipment, the attraction, and the maintenance of the area interested by the project, which are essential for the increasing of visitors’ number. By creating a wellorganised area, secured and adapted for allowing different kind of activities in contact with nature and surrounded by it, the attractive of the sites would enhance and the eco-tourism would increase, leading to a more respective way of considering nature by tourists and to economic returns for locals.

d. Ecotourism Management

When approaching ecotourism planning and management in land-sea areas, there are several cross-sectorial key issues to take into account. Such key issues have been implemented in Catalonia within the NaturCAT202012 Plani, a strategic plan to foster nature-based tourism in natural areas.

1. Resources and destinations with ecotouristic potential

When considering a touristic destination, having a relevant cultural and natural heritage, it is not equivalent to have a huge amount of ecotouristic resources. Indeed, some of this heritage does not have the potential to be managed under a touristic perspective, due to its fragility, difficulty to be shown to the public (e.g. underwater or nocturnal species), or lack of facilities or services to be explored (e.g. cliffs or dunes).

So, having a detailed and prioritised analysis of resources (and destinations) and its ecotouristic potential is a compulsory action to manage properly the ecotouristic resources, mainly if those resources are in natural protected areas. In this sense, such natural and cultural assets require a specific conservation policy, to preserve them from current or future impacts or degradation.

2. Facilities and Public Services

Ecotourism management requires an extensive network of public facilities and services for welcoming visitors and signposting of heritage. Some examples are visitor centres, museums, information points, viewpoints, observatories and hides, signposts, natural itineraries and paths, among others. We must optimize those facilities to make them attractive and synergic with the private services (ecotourism providers).

It is particularly important the effort to have a sustainable transport system (public transport, parking areas, etc.) and adapted facilities to people with special needs to make accessible the contact with nature.
3.- Optimising the ecotouristic offer: Providers and products

Particularly important when considering the management of a ecotouristic destination is having a diverse range of activities and experiences that put into value nature and culture assets that can be enjoyed throughout the year. They are a good complement to other mainstream touristic modes and services (sun&sand, etc.). As much as possible these experiences should be combined in packages that integrate various services and activities (transport, accommodation, activities, meals, etc.).

To get this integration among products and private ecotourism services, it is important to have a well-connected and organised network of nature tourism providers. Normally, ecotourism sector is established by micro-companies very specialised. In this sense, to offer a complete ecotouristic experiences are essential networking and collaboration strategies. At the same time the increase of professional skills (in marketing, sustainability and customer support) are very important.

4.- Reaching the demand: Marketing and communication

An Eco-touristic destination need clear and common commitment and shared vision of all stakeholders with responsibility on that area to consider it as a sustainable destination. Marketing actions (claims, advertising, etc.) have to define an integrated message focused on experiences and heritage values and rewarding sustainable behaviours.

It is important reaching the demand you are looking for, not only in figures (number of visitors; amount of expenses per visitor, etc.) but in profile and behaviour, starting from local markets. So, every action of marketing should be target-oriented.

Beyond this, communication among stakeholders (NPA managers, business sector, local communities, etc.) should be reinforced, prioritising the user’s vision, and not the administrative structure conveying sustainable values.

5.- Planning & Market intelligence

The European Charter of Sustainable Tourism (ECST), a voluntary certification system for NPA, is a valuable method for nature tourism planning and management, and to reinforce linkages among local stakeholders.

Towards market intelligence: There is an urgent shortage of relevant data quantitatively and qualitatively regarding ecotourism (status and impact over natural resources and destinations, market preferences, etc.). Implementing observatories, polls and questionnaires would bring very useful information for decision making and management.
6.- Cooperation and public-private partnerships

Cooperation platforms (flexible and efficient) at different levels are essential to strength ecotourism sector and to improve its management at destination scale. They should involve public authorities (planning, marketing, NPA management) and private sector (businesses, associations, etc.) related to ecotourism.

It is needed well-organised professionals and companies oriented to nature tourism based on sustainability principles and values. They have to share a common vision and goals and to strength their network linkages.

e. Landslide control

The territory of Bulgaria is characterized by a high degree of landslide and erosion-abrasion activity and a wide variety of geomorphological and geological construction and relief forms. This is predetermined by the intrusive protracted tectonic and seismic processes in the past geological period, some of which continue up to nowadays. The complex geological structure and the intensive tectonics have determined the development of erosion-abrasion processes in the contact zone between surface water and drought, and the manifestation of variations in type and mechanism of landslides. The evasive, collapsing, abrasion and other unfavourable geodynamic processes in the country act in a dramatic and destructive manner, difficult to predict and suddenly occur. With its unpredictability, the security of settlements, resorts, residential, industrial and industrial buildings, and the technical infrastructure.

The Ministry of Regional Development and Public Works is responsible for carrying out registration and monitoring activities in the country and in the areas with erosion and abrasion processes along the Danube and the Black Sea coast as preventive measures through state-owned companies for geo-protection, formed on a territorial basis. The territorial control directorate - “Geozashchita” Ltd. - Varna, Pleven and Perkin, as well as geo-protection measures and activities for limiting the extractive, erosion and abrasion and to prevent accidents and damages. The main purpose of geo-protection measures and activities is to protect the life and health of people, to reduce the consequences of the destructive effects of the abrasion, the time and the evasion on the material funds and the historical heritage, to ensure the normal functioning of transport and other communications and to protect the environment.

Landslides, as part of general geodynamic processes, are gravitational processes associated with disturbing the stability of natural slopes and slopes and moving piles of earth on different deep surfaces. Landslides appear in sloping terrain - river valleys, seashores, hilly lands, plaza peripherals, and mountain ridges. They are a natural phenomenon with dangerous consequences for society. On the territory of the country there are various types of diversity, mechanisms, activities, and activities, which act in a dramatic way, lead to disastrous and catastrophic situations, and endangering the health of people, the security of inhabiting
settlements and resorts, destroy residential, industrial, touristic buildings, cultural assets, interrupted roads, n. lines, water pipes and other technical infrastructure, destroying agricultural, coastal land and forest areas, worsening environmental components. The landslide processes are not evenly distributed throughout the country. They are concentrated in separate areas characterized by specific geological and tectonic structures and are divided into several landslides - Black Sea, Danube, Pre-Balkan, Sub-Balkan, Sofia, Southwest and Rhodope landslides.

Taking into account the necessity of a strategic document that outlines the vision in the development of the policy for geo-protection activity, a National Program for Prevention and Reduction of Landslides on the Territory of the Republic of Bulgaria, erosion and abrasion on the Danube and Black Sea coast 2015-2020., which includes landslides registered as of 31.12.2014. In connection with the emerging disastrous and emerging situations from the beginning of 2015, due to heavy rainfall and activated and newly emerged landslides on the territory of different parts of the country, which represent a real threat to the life and health of people, their property and the built infrastructure, was updated on April 15, 2015 with the data of the activated and newly emerged landslides.

The National Program was examined and adopted at a meeting of the Expert Advisory Council on Geo-Protection Activities in the Republic of Bulgaria to the Minister of Regional Development and Public Works and approved by Decision No 22 of the Council of Ministers meeting held on 03.06.2015. By Decision No 476 of the Council of Ministers of 8 July 2014, with an approved draft of the Partnership Agreement between the Republic of Bulgaria outlining the assistance from the European Structural and Vocational Funds for the period 2014-2020, as amended by Decision No 505 of 15 July 2014 and Decision No. 532 of 21 July 2014 of the Council of Ministers. The updated version of the Partnership Agreement reflects the comments of the European Commission and provides for the transfer of planned investments to prevent the risk of landslides (within thematic objective 5) from the Operational Program "Regions for Growth" 2014-2020 to the Operational Program "Environment" "2014-2020, in accordance with Annex 2 of the partnership - "Complementarity between programs funded by the European Structural Funds".

This Methodology for Prioritization of Landslides in the Republic of Bulgaria was prepared for the purposes of the Operational Program Environment 2014-2020 and represents an updated version of the Method of Prioritization of Landslides in the Republic of Bulgaria, approved by Order № PД-02- 14-951 / 02.10.2013 of the Minister of Regional Development. The permissible and specific assessment criteria were updated in order to achieve the indicators for people at risk of landslides and the fortified area in the Operational Program Environment 20142020. As of October 15, 2015, 2064 were registered in the territory of the Republic of Bulgaria. The landslide area is with a total area of over 215,000 decares. The active / periodically active
landsides are 908 pcs. In 2015, 207 landslides were newly created and landslide processes were activated in 73 registered landslides.

According to the "Landscape Risk Analysis on the territory of Bulgaria" developed in 2013 for the purposes of the Operational Program "Regional Development" for the period 2014-2020, the concentration of landslides in the North-North region is the highest (28.8%) and the North Central Region (25.2%). The greatest concentration of landslides is observed in the municipalities along the Black Sea coast - Varna, Balchik, Nesebar, Aksakovo, the Danube coast - Oryahovo, Gulyantsi, Svishtov, Nikopol, Predbalkana - Veliko Tarnovo, Lovech, Gabrovo, Zlataritsa, Tryavna. A large number of landslides also exist in separate municipalities from the Southwestern landslide region such as Pernik and the Rhodope landslide region - Smolyan. The municipalities with the largest areas affected by landslides are Varna (33.6 sq km), Lom (45.7 sq km), Oryahovo (18.8 sq km).

The most active landslides are located in populated areas and endanger the life and health of people and the technical infrastructure. Experts estimate that about one-third of Bulgaria’s population is affected and threatened by landslide processes. From unfavorable geodynamic processes, which are of a random nature and are difficult to predict at time, location and scope, urban areas are destroyed annually, material assets are being destroyed: buildings, technical infrastructure, cultural assets. Life and human health are endangered. The main factors contributing to a different step of emergence and activation of landslide processes are as follows:

- Natural factors:
  - complex geological construction, which determines the development of unfavorable geodynamic processes - species diversity of the rocks, the slope of the layers, the presence of clayey layers, weak layers, physico-mechanical properties of separating lithological species;
  - intensive tectonic processes - folding, patching, tearing and displacement of the stratospheric layers, the formation of breakaway zones, ancient landslides and processes etc.;
  - precipitation intensity affects the surface and subsurface regime of waters; - marine abrasion, storm introspection, erosion and fumigation processes, determine the development of landslide-abrasion and landslide-erosion processes.

- Technological factors:
  - location of water supply and sewerage networks and exploitation in potentially dangerous areas, leading to frequent accidents and leaks;
- lack of a sewerage system for secure water supply - construction of unregulated pipelines, etc.;

- insufficient maintenance of the built drainages, anti-deforestation, watering and antiabrasion equipment;

- elaboration of spatial plans without regard to geological conditions and overall sustainability? on-site and unregulated construction;

- vertical landscaping, inconsistent with their overall stability - deep trenches and trenches when constructing buildings and linear structures without the necessary geological data;

- extraction of useful sculptures and inert materials;

- congestion of slopes from the construction of buildings and facilities, inconsistent with the overall resistance of the terrain;

- Dynamic impacts, etc.

Usually, there are several factors at the same time, a clear distinction is difficult.

Performing engineering geology, district area zoning, investment projects, construction and maintenance of fortification, drainage and coastguard facilities to reduce and prevent the build-up of landslides, abrasion and erosion processes will contribute to the sustainable development and reduction of the risk of disasters in the affected areas.

e. Town planning

Two intersecting trends of the times—the growth of the $2.75 trillion world tourism industry and the growth of environmentalism as reflected in the high level of international participation at the 1992 Earth Summit—focus attention on the ideals of sustainable development and ecotourism and create a new niche for landscape architecture and urban planning. These overlapping fields have long attended to problems of conflicting values, aesthetics, recreation, and leisure. Many of the activities and products traditionally associated with design and planning are appropriate to tourism projects. Guidelines for enhancing this framework to treat directly the special problems of ecotourism include early investigation of sociological and ecological features, involvement of broker and local populations in the planning process, and extrasensitivity to issues of site selection, design, scale, and monitoring. In responding to the ecotourism challenge, landscape architects and urban planners will need to hone their abilities to work with multidisciplinary teams and to converse productively about preservation and development ethics (Grenier et al., 1993). The integrated planning approach, combining drainage, traffic, environmental and landscape planning, offers the chance to implement a nature sensitive urban design into the existing urban districts.
5. Strategic measures

Strategic measures should encourage the sustainable development and environmental impact mitigation strategies in tourism areas and the economic exploitation of natural areas. The educational character in eco-tourism is a key element that distinguishes it from the rest of nature-oriented tourism, thus makes it recognizable. Environmental education and interpretation (including environmental education) are important tools for creating a pleasant and meaningful ecotourism experience. Ecotourism attracts people who: want to interact with the natural environment and wish to interact with the natural environment, and to varying degrees (various degrees of fusion, the feeling to be a part of nature); who wish to develop and refine their knowledge, their consciousness, as well as to evaluate, understand and comprehend the ecotourism; who want to develop and perfect their knowledge, their consciousness, as well as to appreciate and understand ecotourism. As a continuation, ecotourism should naturally lead to positive action for the natural environment by promoting increased conservation, ecological and cultural awareness.

The creation and management of attractive and highly competitive eco-tourism requires a well-planned environment that supports and allows for development. In this sense, the quality of strategic planning and strategic documents in tourism are key factors for their development. The Strategic Framework takes into account the guidelines and management practices for the sustainable development of eco-tourism and seeks a balance between the economic, environmental and socio-cultural aspects of tourism development. It takes into account the main principles of sustainability:

» Optimal use of natural resources, which are a key element in tourism development, maintenance of basic ecological processes and protection of natural heritage and biodiversity;
» Respect for socio-cultural authenticity of host communities, preservation of their cultural heritage and values, tolerance and contribution to overcoming multicultural differences;
» Ensuring viable, long-term economic operations with socio-economic benefits for all stakeholders who are fairly distributed, including stable employment, income and social services for host communities, contribution to combating poverty.

a. Governance

A lot of cities have begun to launch initiatives to try and develop the concept of linking social demand, economic needs and environmental requirements. Although the scope will be different, and will be determined by the nature of the particular task, there is a ‘sameness’ about the governance process whether the strategy is for an entire country, a region within that, or localities within a region, or even to sites within defined localities. The thoroughness of the step-wise approach will be a significant determinant of the appropriateness of the eventual strategy.
There is a considerable base of literature and experience upon which to draw for the creation of a purpose-designed strategic planning process; the key issue is that the generalities of a planning process need to be fine-tuned to fit the special circumstances of the agency and community for which the plan is being prepared, and the context into which the plan must fit. It is important that planning process is suited to the plan-making circumstances, and especially that it is not too elaborate (requiring the input of information and other resources which are not available), but also that it is not so simplistic that it avoids addressing the critical issues which may eventually determine the implement ability, success or failure of the plan.

It is important that, no-matter how narrowly-focused is the intended plan (i.e., whether it is a tourism strategy, or an ecotourism strategy), the eventual plan is integrated with other sectors of the national/regional agenda. The consultative processes, for which there are many different styles and mechanisms, should be directed towards finalizing, at least as a preliminary set, statements about the preferred scale, nature and distribution/location of the intended development, with the nomination of targets (mainly quantitative), performance criteria and standards (both quantitative and qualitative), responsibilities, and expected implications.

b. Tools and infrastructures

Each country which embraces a strategy of ecotourism will do so for its own purposes. Those purposes might include, for example:

- the creation of a new tourism attraction;
- the diversification or expansion of an existing spectrum of tourism attractions and activities, to offer new tourism experiences;
- to divert attention away from already-pressured attractions;
- to seize business opportunities, particularly to engage local communities and entrepreneurs;
- the creation of a focused marketing strategy;
- a contribution to biodiversity conservation (a philosophical motivation);
- a commitment to ecologically sustainable development (a ‘principled’ strategic commitment);
- an increased national profile (because of, for example, compliance with international advice, the creation of a competitive product).

It is necessary to clarify what is being planned for (and why it is being planned) before the strategic exercise reaches an advanced stage; the purpose will influence the strategic process and the outcomes (Fagence, 2001).

An important strategic issue is whether ecotourism should (can) be a ‘stand-alone’ strategy or a sub-strategy within a broadly-based tourism strategy. The balance of opinion would
probably be that ‘ecotourism’ should be a sub-set (even if it is the principal sub-set) of a broadlybased tourism strategy, not least because it will be dependent upon many of the components of a general tourism strategy.

In recent years, resources assessments have adopted opportunity spectrum methods. There is a group of opportunity spectrum methods which includes various orientations and refinements; this group includes:

- ROS (Recreation Opportunity Spectrum),
- TOS (Tourism Opportunity Spectrum),
- LAC (Limits of Acceptable Change),
- TA (Threshold Analysis, and more recently UET – ultimate environmental thresholds),
- ECOS (Ecotourism Opportunity Spectrum).

Focus on the ECOS model - developed especially to cope with the peculiar needs of planning for ecotourism - the capture of ecological base-line data is the important first step. This data is then assessed or measured in terms of the capacity to be used in ecotourism, with the assessment focusing on eight important factors (Fagence, 2001):
Refinements to ECOS assessments could include:

- Landscape assessments (to differentiate geographical sectors according to their principal ecotourism resources, stages of ‘naturalness’/change, levels of ecotourist interest);

- Attractiveness indices (to differentiate according to uniqueness, international drawing power, primacy – a measure of comparative attraction);

- Resource status (to differentiate according to the degree of disturbance of the natural resource, and any circumstance which might impede its sustainability or cause its attractiveness to be forfeited – a form of carrying capacity assessment);

- Conservation potential (including rehabilitation potential);

- Marketing assessments (combining some of the other assessments according to an aggregation of attractiveness for particular consumer/tourist market segments – to interpret the feasibility of capturing and sustaining tourist interest).

c. Management

If ecotourism is a realistic development proposition, it is important that the resources are managed so as to achieve a state of sustainability. Various types of management regime have
been developed and advocated by, for example: protocols and agendas from international meetings and reports such as the Rio Agenda 21, the SIDS agenda, UNEP Principles, UNCSD advocacies, UN and NGO guidelines; tourism industry groups.

Amongst the most common advocacies have been:
- industry self-regulation;
- government-imposed regulations;
- government technical assistance packages;
- industry-based codes of practice for ecotourism operators;
- reward systems (for good practice);
- government accreditation programs;
- industry accreditation programs;
- rapid assessment models;
- financial assistance programs (for approved development forms, styles);
- partnership programs;
- community-based programs;
- codes of practice (behaviour) for (eco) tourists.

Each of these management forms has its own characteristics, and each is dependent upon supportive structures and pre-requisite resources (human, finance, skill, knowledge, and organization). Each circumstance will determine which of the form is appropriate, and may determine whether one or more forms may be implemented concurrently. There may not be an easy transferability of a form successful in one episode of ecotourism management to another; although there may be similarities, each episode will have to have its own purpose-designed management regime, not least to cope with the localized political, cultural, economic, and organizational factors.

d. Monitoring

Taking into consideration the fragility of the environment in conjunction with the sensitivity of ecotourism visits to sites, the use of environmental auditing is important. Environmental auditing concentrates its application on identifying the present and potential environmental impacts on the ecosystems. Starting with a description of the basic environmental elements (water, waste etc) environmental auditing progresses to detail the impacts to each element through the use of environmental indicators. In overall terms, this technique can assist the resources’ managers to safeguard their assets within the sites, and to implement their ecotourism strategies. The need to exercise environmental auditing as a technique which monitors the environmental impacts throughout the tourism life cycle of a site while safeguarding and sustainably managing the resources it seems a key factor which must be supported everywhere.
6. **Staffs exchange preparation**

The overall objective of the Land-Sea project is to support efficient and efficient regional governance processes to enhance and encourage the creation of institutional competencies and skills to develop a sustainable coastal system capable of conserving natural habitats and, in the context of supporting the development of regional ecotourism strategies.

The approach is based on a process of expert participation in interregional learning based on the exchange of experience and knowledge culminating in the creation of four action plans to be implemented over the last period, mainly within the Operational Programs of the Structural Funds of the regions concerned. This contributes to increasing the administrative capacity, giving each expert the field for professional expression and motivating them.

Staff exchange preparation is also essential part of the interregional learning. From an organizational point of view, the staff exchange will lead to a creation of new collaboration models, improvement of local regional productive by using the exchanged expertise of partner region and will promote greater impact on the local actions and communities.

The development of each staff exchange programme makes it possible to improve knowledge of the stated needs, the development and implementing a set of common steps for implementing strategic measures and how to transfer of good practices. In certain aspects, partners which will be engaged in the exchange process will strengthen administrative capacities by using local practices, studies and experience which are merely local.

The process should lead to greater efficiency and effectiveness in the project activities and as a result, the interregional learning will have value-added on a synergy between project partners involved in the process and support their work in the development of the action plan.

**Supplement to the detailed programme proposal detailed in Thematic Paper I**

Since the Hamburg Staff Exchange Programme will be developed in an iterative procedure, we try to consider the wishes of our guests regarding the topic and method, timetable and participating people as much as possible.

We would like to hold on to the two selected topics “Multipurpose flood protection infrastructure” and “Managing ecotourism in protected areas”. In the preliminary exchange programme, we will start at the upstream city border and follow the river through the city districts (Bergedorf, Hamburg Mitte, Harburg, Altona) that cover the Elbe estuary as already detailed in the Thematic Paper I, fourth semester Interreg Europe project Land-Sea. The programme will comprise both study visits and discussions with the persons in charge regarding the selected topics.

As a supplement to the already detailed proposal with a selection of possible activities for the Hamburg staff exchange programme, we would like to focus on the recent flood-prevention programme.
The Hamburg dike line in a length of 76 km will be elevated by about one meter in a period of 20 years. The first dikes to be elevated are located on the Hamburg Elbe islands Wilhelmsburg and Veddel. Two of them have been improved since 2017. Thus, a visit to the reinforced “Klütenfelder Hauptdeich” may be of particular interest. During the severe storm surge of the year 1962, when more than 300 people died, the dike was bursting at this location and an extended flooding of the Elbe island Wilhelmsburg occurred. Thus, there is a particular public interest in the flooding-prevention programme on this Elbe island. Unfortunately, due to the centuries-long embankment, no further sedimentation occurred on the Elbe island. The embanked area is now settled and elevation decreased compared to the foreland of the Elbe estuary. Some scientists are even expecting that permanent pumping will become necessary by 2050 regarding the effects of projected sea level rise. If there is an interest, we are planning to invite the person in charge for the flooding-prevention programme or eventually attend a flooding prevention routine. Since unsealed areas will be used for dike reinforcement, the federal nature conservation act requires ecological compensation. We will visit the compensation measure, where the dike will be relocated and about 20 ha foreland will evolve containing more than 8 ha tidal forest and 5 ha mud and sand flat.

This supplement of the already detailed programme may be integrated in the time table of day two of the study visit since all destinations are neighbouring objects located on the Elbe island Wilhelmsburg which is destination for ecotourism activities.

7. Economical aspect

Revenues generated by ecotourism should be used to support environmental sustainability by providing such supporting infrastructure, to avoid damage to the natural environment, such as walkways (soil, wood, eco, etc.), emergency rooms (toilets) and accommodation (campsite, camping, bivouacking, etc.). Infrastructure can also educate and educate visitors on how to minimize the harmful effects (impacts) on the surrounding environment - for example through explanatory (interpretation) walks and interpretation centers. Various management techniques, such as different access conditions (gaps, permits), infrastructure provision, and ways and types of area presentations, may be taken into account in maintaining or increasing visitors' consumption within the site. Sometimes, however, it must be required Restrictive access to and use of sensitive natural areas ecotourism risky actions and adventures to avoid overuse, for preserving bio-systems and ensuring the existence of all types and forms of ecotourism. Here are some of the main elements and principles of the right, wellfounded and tested ecotourism:

- The natural, undisturbed natural environment;
- Ecological and cultural sustainability;
- Contribution to preservation;
- Education and interpretation;
- Providing local benefits and participation;
- Visitor satisfaction;
- Responsible Marketing.

The satisfaction of the tourists should be considered as an important driver for the economic development derived by eco-tourism. In their frenetic lives, an attention to the natural environment would be appreciate, but often this possibility likes really far. By creating new perspectives for tourists, new ways of living their own territory, the development of the same would be assured.

The first economical aspect derived by eco-tourism should be founded in retraining of abandoned and degraded sites along the land-sea; this leads to several positive implications, both for local communities and neighbouring sites. For local communities, who manage sites for conservation purposes, the creation of alternative employment and revenue is a real opportunity. By this way a growing interest for conservation of natural environment and cultural heritage develops in locals, who are primed in exploring parts of their territories; the retrained sites became a pride. For the neighboring sites the increasing economic revenues are closely related to the ones derived by the retrained sites. Having a controlled territory, which has been previously adapted and secured to accommodate tourist, the flow of visitors could increase. An example should be the fixing of paths leading to beaches that are not used because of their ruin, or the same paths are not well equipped (by signal, services for visitors etc.); guided tours, should be organized by locals for tourists. Walking tours or bike tours need appropriate paths to be performed; the more the paths are in well-conditions and attractive the more eco-tourism increase reaching a larger number of visitors.

Another important economical aspect should be founded in the utilization of the territory, of the land-sea all over the years, without being influenced by the seasons. Providing alternative way of living the winter season in the coastal zone, for example by creating new promenade or repairing the existing ones, by equipping beaches with minimal services, by offering relaxing and attractive activities to visitors, the tourism would surely increase.

It is worth to consider that the work of organization and adjustment of places requires investment, not only in money but also in workers, who should be find among locals, exploiting local companies.

All this aspects, moving from the implementation of measurements aimed at the improvement of sites which are not in good state, passing for the contribution of local companies and people in who a sense of belonging and a major attention to the conservation of natural environment grow up, and arriving to the greater satisfaction for the tourists, both locals and not, a virtuous circle of improvement for allover the aspect is engaged; particular benefits are derived in economic field.

To conclude the ecotourism has impacts in three domains which are social, economic and environmental sectors. Nowadays this trend is becoming a necessity. In point of fact, tourists are looking for new ways to discover territories. Therefore, ecotourism is the key to meet their expectations as well as a sustainable development related to the vision of a better future. Small initiatives can have big impacts in the land-sea development. They should be encouraged by the
regional authorities or city municipalities to attract more (and better) tourists. However, it is not a matter of funds rather a matter of motivation.

REFERENCES