

ACTION PLAN FOR COASTAL STATE PARKS IN LITHUANIA (IMPACT – INTERREG EUROPE PROJECT – ERDF POLICY INSTRUMENT 2)

PART I – GENERAL INFORMATION

Project: Innovative Models for Protected Areas: exChange and Transfer

Partner organisation: EUCC Baltic Office

Other partner organisations involved (if relevant): _____

Country: Lithuania

NUTS2 region: Lithuania

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PART II – POLICY CONTEXT

- The Action Plan aims to impact:
- Investment for Growth and Jobs programme
 - European Territorial Cooperation programme
 - Other regional development policy instrument

Name of the policy instrument addressed: European Regional Development Fund.
Environment and Resource Efficiency

PART III – DETAILS OF THE ACTIONS ENVISAGED

ACTION 1. Application of research-based models for site management to extend the summer season in the Kuršių nerija (Curonian Spit) National Park

1. The background

The two main lessons learnt from the IMPACT project that constitute the basis for the development of the Action 1 are:

- **Lesson 1.1. Landscape monitoring in transboundary parks between Romania and Serbia.** The specifics of Central and Eastern Europe in this lesson is addressed by using the best practice provided by the National Institute for Tourism Research and Development of Romania (Partner 5 of the IMPACT project).

The main lesson learned is that first of all both partner parks need to be involved into the same cross-border collaboration project, or, even better, into a series of collaboration projects in order to build a mutual understanding of problems and challenges. There is also a need for more than one training to apply the methodology in order to achieve satisfactory results. Only as a result of collaboration in one or several projects, the coherent cross-border monitoring methodology can be developed as a common management measure of the two neighbouring parks.

Another important aspect of the lesson learned is that during and after the implementation period it is critically necessary to have regular joint evaluation rounds involving all stakeholders in order to see the faults and bottlenecks of the progress and duly amend them in a timely way. As a result, now the transboundary landscapes are periodically evaluated and partners on both sides of the border can take management measures to improve the ecological status of them, where it is necessary. Therefore, in our Action 1 we have also included regular self-evaluation actions to ensure a smooth and timely implementation of the action.

- **Lesson 1.2. Pond management for the conservation of amphibians in Catalonia.** The lesson learned, provided by the EUROPARC Federation (Partner 2 of the IMPACT project), focuses on additional benefits of eco-engineering measures for increasing the biodiversity, mainly of freshwater amphibians, in the national park. Recent decades have seen important declines in amphibian populations around the world, mainly as a response to a combination of factors mostly related to habitat fragmentation, destruction and alteration caused by humans. Hence the need to take active measures for their habitat improvement.

In the Collserola Natural Park (Catalonia, Spain), efforts at conserving amphibian populations have focused on improving the quantity and quality of standing freshwater habitats. The small artificial pond created beside the park's Biological Station has proved itself to be a very successful breeding site for endangered species of amphibians. The presence of temporary seasonal pools is essential for the breeding of certain species such as the natterjack toad (*Epidalea calamita*), which is also critically endangered in Lithuania.

As well as naturally occurring freshwater bodies, in Mediterranean landscapes, amphibians have long relied on the use of small artificial ponds as suitable breeding sites. For the natterjack toad, it is important that these ponds should be filled with water during the spring breeding season, and the regular removal of invasive species from such ponds forms an integral part of their ongoing maintenance. As a result of this lesson learned, the Action 1 of the IMPACT project Action Plan focusing on the Curonian Spit has also included an additional action to investigate possibilities for increasing the population of the natterjack toad in the vicinity of the project target area – in temporary ponds on the outcrops of the lagoon marl, at the foot of the mobile dunes.

Action 1 focuses on the Lithuanian part of the Curonian barrier spit which separates the Curonian Lagoon – the Europe’s largest lagoon – from the open Baltic Sea (Fig. 1). The length of the Curonian Spit is 94 km (*sensu stricto*), almost equally divided between Lithuania and the Kaliningrad Region, which is an exclave territory of the Russian Federation. The width of the spit varies from 380 m to 4 km. It is the largest accumulative barrier sand spit in the Baltic Sea Region. Four mobile dune strips stretching along the lagoon coast of the Curonian Spit are protected as strict nature reserves within the Kurshskaya Kosa National Park on the Russian part of the spit (est. 1987), and the Kuršių nerija National Park on the Lithuanian part (est. 1991). Due to its unique blend of nature and culture values, in 2000, the Curonian Spit was included into the UNESCO World Heritage List as a single cultural landscape of outstanding international importance.

Within the Lithuanian part of the Curonian Spit, our area of interest is Neringa, a seaside resort that administrates the better part of the Curonian Spit on the Lithuanian side. The Neringa municipality comprises four settlements (from north to south): Juodkrantė, Pervalka, Preila, and Nida, all located on the coast of the Curonian Lagoon. A central focus of Action 1 is on Nida, which is the largest settlement of Neringa, and the administrative centre of the municipality, located close to the Lithuania-Russia border.

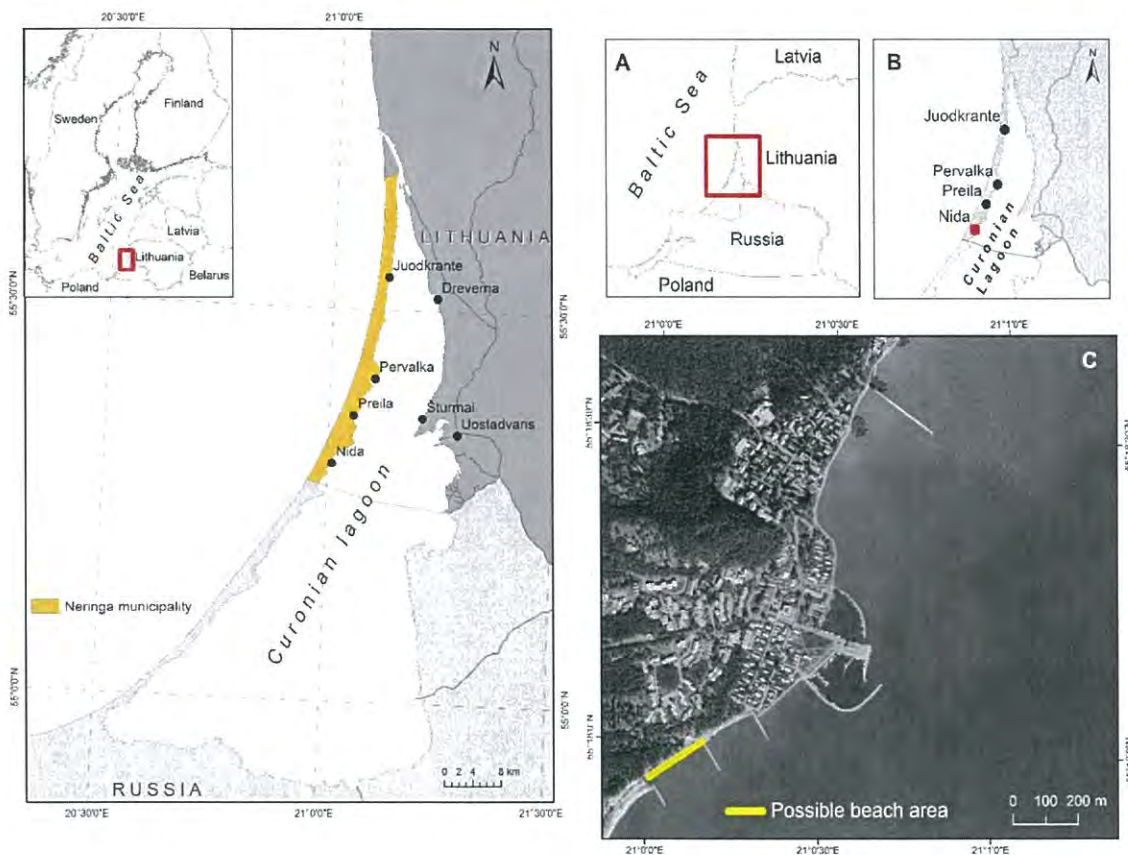


Fig. 1. Location of the Curonian Spit, Neringa seaside resort and the Action 1 site
(Source: the BaltCoast project consortium of the EU BONUS Programme)

The Curonian Spit (Neringa) is one of the most popular domestic and inbound tourist destinations in Lithuania with ca. 2 million overnights in 2016. Tourism provides a major source of income for Neringa, but it is currently featured by extreme seasonality with roughly 72% of overnight stays taking place between the Midsummer holiday (June 24) and the Assumption holiday (August 15). It is mainly due to a very short bathing season in the Baltic Sea, which starts in the beginning of July, when the nearshore water temperature reaches 16 to 17°C – although not every year – becoming attractive for diehard seaside visitors to take short dips into the water, and lasts till the end of



August, with nearshore water temperature almost never exceeding 20°C.

About 12km out of nearly 50km of the Baltic Sea beaches along the Lithuanian part of the Curonian Spit are used for recreational purposes. They are featured by excellent bathing water quality meeting the criteria set by the EU Water Bathing Directive 2006/7/EC, and are regularly awarded the Blue Flag international beach quality award. Although Neringa boasts clean and wide sand beaches and good bathing water quality, cold water in the Baltic Sea is one of the major hindrances preventing the extension of the summer season on the Curonian Spit.

The main negative impact of such a brief summer season is temporarily overexploited tourism infrastructure, and hence high prices in the peak tourist season resulting in an overall poor annual utilization of the infrastructure, prevalence of seasonal jobs, and social imbalances. Due to the short tourist season, the infrastructure of Neringa (wastewater treatment system, roads, ferries etc.), as well as the natural, fragile dune environment, and biodiversity become strongly affected by an almost tenfold increase in population of the municipality in July and August. As a result, the main challenge for the sustainable development on the Curonian Spit is to extend the tourist season in Neringa, primarily, by its earlier start. The extension of the tourist season also gives the possibility for the inhabitants and small-scale tourism businesses to have a more stable income and better paid jobs.

A radically new idea was proposed by the administration of Neringa to extend the summer season by opening a bathing beach on the Curonian Lagoon side of the spit. As the nearshore water in the shallow Curonian Lagoon warms up to 20°C already in May, opening of a new beach on the lagoon side could prolong the tourist season on the Curonian Spit. Hence it could positively affect all business sectors on the spit (accommodation, restaurants, etc.). The idea to open the beach on the lagoon coast at a major tourist destination, e.g., at Nida, could lead to a longer tourist season and better distribution of visitors throughout the year.

The new beach could be very attractive for families with small kids in the very beginning of the summer season (from the mid-May to the beginning of June), when the water quality in lagoon is still good enough (no algal 'blooms'). The possible beaches on the lagoon site are shallower and water conditions calmer compared to the beaches on the seaside. This is the main reason why it is more convenient for the families with small kids. Another advantage would also be an easy access to the lagoon beach by the visitors from the downtown Nida compared to the Baltic Sea beaches that are 3km off the downtown.

The issue of water quality, its suitability for bathing, and its aesthetic appeal is the pivotal one for opening an attractive bathing beach on the lagoon coast of the Curonian Spit. According to the EU Bathing Water Directive, the microbiological quality of the nearshore water in terms of *E. coli* is the main problem to open the lagoon beach for bathing, although most visitors, and potential bathers, primarily consider the aesthetic appeal in terms of algal and cyanobacteria 'blooms' when deciding upon the suitability of beaches for bathing (Fig. 2). Hence the need to take care that the beaches with a good water quality and high aesthetic appeal are chosen as possible new bathing sites on the lagoon coast of the Curonian Spit.

The Curonian Lagoon is a fresh water system mostly influenced by the Nemunas river. The main ecological component is pollution with nitrogen and phosphorus, as well as faecal microbial contamination, which is used as a parameter for bathing water quality evaluation. The water quality of the Curonian Lagoon is heavily influenced by the quality of inflow from the Nemunas. According to the newest data, the decrease of *E. coli* flux during the years 2010 to 2014 in the Nemunas entering the Curonian Lagoon was observed. Still some higher amount of *E. coli* enters the system during the summer season (July and August) and can affect the bathing water quality in the lagoon.

Also, there might be a transboundary longshore transport of *E. coli* from the neighbouring settlements on the Russian part of the Curonian Spit, particularly from Morskoy, which is just 7km south from Nida. The wastewater from Morskoy, which is also a seaside resort, is void of any

treatment, and *E. coli* could reach Nida in the cases of northbound water flow in the Curonian Lagoon along the coast of the Curonian Spit. The external hazards causing the negative aesthetic appeal to potential bathers are mainly physical and resulting ecological ones: flash floods, storm surges, and hot spell events causing cyanobacteria and algal 'blooms', and dead fish onshore.

This is not only an environmental, but also a socioeconomic problem, as it undoubtedly brings along negative effects to recreational values (e.g. quality of beaches) or real estate prices in local communities. Hence the need for application of innovative, research-based models for site management to extend the summer season on the Curonian Spit, with high practical relevance for end-users. It means, that parallel to the long-term aim of the overall improvement of the water quality in the Curonian Lagoon both, regarding the EU Bathing Water Directive and the EU Water Framework Directive 2000/60/EC, there is a need to seek for a 'low-hanging fruit' and try to improve the bathing water quality in a semi-isolated nearshore of the bathing beach on the lagoon side of the Curonian Lagoon at Nida.



Fig. 2. Cyanobacteria 'bloom' on the lagoon shore of the Curonian Spit (Photo: R. Povilanskas)

In Action 1, we focus on so-called in-basin measures, which are much smaller in scale, but could bring immediate result for the local stakeholders, especially ones interested in recreational values or habitat protection. The central idea of Action 1 is application of the so called 'living barriers' to semi-isolate one of the lagoon beaches south of Nida, located between two groynes (see Fig. 1). These barriers are formed by floating islands (Fig. 3) that actively filter the nearshore water absorbing nutrients and facilitating degradation of *E. coli*. There are several commercial applications called 'living' or 'active' barriers (e.g. life rafts, BIOHAVEN® LIVING SHORELINE) aimed at both restoration and rehabilitation of coastal habitats and local enhancement of water quality by nutrient absorption and removal. It is not development of a totally new technology but rather an adaptation of the already existing and even commercialized one (mostly US and China) to environmental and social conditions of the Curonian Spit.

The envisaged results of Action 1 include small scale local improvement of water quality (pilot installation) at a single location south of Nida, but, most importantly, increased awareness of local stakeholders interested in water quality and tourism and innovations (SMEs) of the tested technological application. The cross-border co-operation will allow us to test both technological and socio-economical methodology in a cross-border case study as the 1st lesson learned from the IMPACT project. We aim to enhance the capacity of local communities to improve and protect their environment and to make use of sustainable tourism growth opportunities based on innovative

green technologies and by identification of most promising scenarios for biodiversity conservation.



Fig. 3. Floating emergent macrophyte islands (Source: A. Razinkovas-Baziukas)

Action 1 will not only adapt, implement and demonstrate the approach itself, but will also enhance the capacity of local and regional decision makers and managers to deal with forthcoming challenges for the environment related to the global climate change. These outcomes will not only contribute to minor reduction of nutrient and *E. coli* concentrations in the lagoon waters, but will also provide legal and economic basis for further developments in the area that could also benefit local innovation-focused SMEs.

Action 1 will also deliver a direct environmental benefit from cross-border research-based cooperation among the public and private lagoon stakeholders, research institutes following the 'Triple Helix' principle. The main output of Action 1 is introduction of new innovative and economically sustainable small-scale green technologies which have not yet become market-driven or integrated into governmental policies. It will be accompanied by a small-scale practical improvement of water quality by nutrient removal and *E. coli* degradation in a semi-enclosed lagoon beach nearshore of a major tourist destination in a national park and a UNESCO World Heritage site. Of additional value for the application of innovation models in biodiversity conservation will also be the investigation of possibilities for increasing the population of the natterjack toad in the vicinity of the project target area – in temporary ponds on the outcrops of the lagoon marl, at the foot of the mobile dunes – relying on the 2nd lesson learned within the IMPACT project.

The expected results and changes resulting from Action 1, and contributing to the overall expected results and changes of the IMPACT project, among others, are:

- increasing competences of different target groups;
- enhancing local opportunities to use Natura 2000 values as development assets;
- increasing tourism flows in low and medium season;
- assessing possibilities for improving breeding habitats of the natterjack toad in the area.

2. Action

The specific objective and its related result will be achieved in three sub-actions: (i) instalment of the living barrier at the selected pilot site south of Nida; (ii) assessing possibilities for improving breeding habitats of the natterjack toad in the vicinity of the target area; (iii) evaluation of the progress to ensure a smooth and timely implementation of Action 1

Sub-action 1.1. Living barriers will be used for small-scale nutrient removal and *E. coli* degradation in the lagoon nearshore and will serve as an example of such installations for other coastal protected areas in Europe with lagoon or enclosed marine waters facing eutrophication problems. The investment will be based on site-specific technical solutions.

This sub-action will contribute to the main output of Action 1: small scale removal of nutrients, and degradation of *E. coli* in the Curonian Lagoon nearshore at the potential bathing beach south of Nida. Secondly, the construction, physical placement, monitoring and maintenance experience is the main source for delivering the reliable green technology for the specific use of floating structures for nutrient removal in the physical and socio-economic environment of other similar coastal protected areas.

Local stakeholders responsible for the installation will have to acquire necessary permissions for the installation of floating islands and nets to meet legal requirements pertinent to the status of the Curonian Spit as a national park, a UNESCO World Heritage landscape, and as a seaside resort. First, they will make review of national legislations related to floating small-scale installations on water. Next, the analysis of existing and predicted hydrodynamic and meteorological conditions will be performed.

Based on the analysis of hydro-meteorological conditions, as well as on the review of existing technologies, the best technical solutions for the study area will be determined and installation design for the location will be developed in terms of selection of proper plants for water purification. Prior to installation of the living barrier, the stakeholders will perform site preparatory works like bottom clean-up and other necessary works required for proper installation. All these activities will start within the first year of the Action 1 implementation.

Sub-activity 1.1.1. Acquisition of permissions for installations. Acquisition of necessary permissions for the floating islands and nets installation from the State Service of Protected Areas of Lithuania and from the Neringa municipality administration.

Sub-activity 1.1.2. Design of the installation. Technical design of the installation based on the review of the best existing technologies and solutions. Plants selection. Site preparation: bottom clean-up and other necessary preparatory works. Assessment of possible impact of the installations on coastal zone.

Sub-activity 1.1.3. Physical installation of floating structures. Acquisition of materials and installation of floating structures.

Sub-activity 1.1.4. Preparation of Best Practice Guidelines for the installed structures. Development of the guidelines for effective installation of floating barriers and their maintenance.

Deliverable 1.1.1. Installation of floating islands and nets.

Deliverable 1.1.2. Best Practice Guidelines for installation and maintenance of the floating islands and the nets.

Sub-action 1.2. The main objective of the Sub-action 1.2 is to assess possibilities for improving breeding habitats of the natterjack toad in the vicinity of the target area, i.e., in temporary ponds on the outcrops of the lagoon marl, at the foot of the mobile dunes south of Nida. For this aim, the biodiversity experts from the Kuršių Nerija (Curonian Spit) National Park administration will first assess the current population of the natterjack toad in the mobile dunes and their lagoon coast at the Parnidžio managed nature reserve, and the Grobšto strict nature reserve. Also, the hydrological regime of the temporary ponds on the outcrops of the lagoon marl, at the foot of the mobile dunes

south of Nida will be monitored in the spring time in order to assess their suitability as an artificial breeding habitat for the natterjack toad. Finally, the integrity of the potential breeding and dwelling habitats of the natterjack toad in the Parnidžio managed nature reserve, and the Grobšto strict nature reserve, as well as the perspectives for improving the integrity of the habitats will be jointly assessed by the interested regional and national stakeholders coordinated and facilitated by the EUCC Baltic Office.

Sub-activity 1.2.1. Stocktaking of the current population of the natterjack toad. Counting of the current population of the natterjack toad in the mobile dunes and their lagoon coast at the Parnidžio managed nature reserve, and the Grobšto strict nature reserve.

Sub-activity 1.2.2. Assessment of the integrity of the potential breeding and dwelling habitats. The integrity of the potential breeding and dwelling habitats of the natterjack toad in the Parnidžio managed nature reserve, and the Grobšto strict nature reserve, as well as obstacles and perspectives for improving the integrity of the habitats and their suitability as breeding and dwelling habitats for the natterjack toad will be assessed using remote sensing data and *in situ* investigation.

Deliverable 1.2.1. The report evaluating current population of the natterjack toad in the mobile dunes and their lagoon coast at the Parnidžio managed nature reserve, and the Grobšto strict nature reserve.

Deliverable 1.2.2. The guidelines for improving the integrity of the temporary ponds on the outcrops of the lagoon marl, at the foot of the mobile dunes and their hinterland as breeding and dwelling habitats for the natterjack toad and on further actions to be taken.

Sub-action 1.3. The main objective of the Sub-action 1.3 is to evaluate the technical feasibility and effectiveness of the living barriers for nutrient removal and *E. coli* degradation in the shallow Curonian Lagoon foreshore. Regular evaluation of the progress in Action 1 will start in the first year but will be completed at the end of Action 1, supported by the coastal monitoring data collected within the Action 1. The effectiveness of the investments in terms of their safety and efficiency will be monitored until the end of Action 1 under supervision and with advice of the EUCC Baltic Office staff. Two main benchmarks will be assessed: technical reliability and efficiency in nutrient removal and *E. coli* degradation. This sub-action will be essential for delivering practical guidance for the application of the 'Living Barriers' technology for nutrient removal and *E. coli* degradation in other coastal protected areas of Europe with enclosed marine waters facing eutrophication problems.

The technical conditions of the installations, water quality parameters and nutrient removal capacity will be monitored directly at the study site. Evaluation will be carried out from April till October every year and samples will be collected monthly during this period. The water and floating structure vegetation samples will be delivered to Klaipeda ensuring the same methodology and processing technology applied to all samples, while Klaipeda University, together with other stakeholders responsible for the installations will provide monthly technical condition and maintenance reports.

Sub-activity 1.3.1. Evaluation activities. Evaluation of the environmental parameters will start before the structures are placed for the comparison. This activity will continue after the installation will be in place including the assessment of the produced biomass and technical conditions.

Sub-activity 1.3.2. Environmental and technical evaluation data analysis. The collected data on water quality as well as the nutrient removal and *E. coli* degradation capacity of the installation will be analysed and evaluated.

Deliverable 1.3.1. Evaluation report on nutrient removal and *E. coli* degradation efficiency. The report evaluating the effectiveness of pilot installations based on the seasonal assessment of water quality conditions and practical nutrient removal in the target area will be prepared.

Deliverable 1.3.2. The assessment report on overall applicability and technical sustainability of the living barriers will take into account technical sustainability issues based on both installation and

maintenance experience of the pilot installation. It should take into account the target groups addressed later in the technical guidelines.

3. Players involved

- **Kuršių Nerija (Curonian Spit) National Park administration** will be the key player in the implementation of Action 1. It will be responsible for acquiring all necessary permissions, as well as constructing and maintaining the living barrier installation in good condition throughout the 2nd Phase of the IMPACT project implementation and beyond the closure of the project. Another task of the national park administration will be to assess possibilities for the improving breeding habitats of the natterjack toad in the vicinity of the target area.
- **Klaipėda University** having the highest competence in estuarine ecology research among the stakeholders will be responsible for the environmental monitoring structure and technical sample analysis of the living barriers and the nearshore water quality at the bathing beach. Additionally, Klaipėda University will be responsible for the organisation of the technical monitoring of the installation.
- **EUCC Baltic Office** will supervise, advise upon, and report the activities of Action 1 within the framework of the Phase 2 of the IMPACT project.
- **Neringa Municipality Administration** will facilitate the promotion of the newly established lagoon beach at Nida as a safe and clean bathing site suitable for families with kids as early as May.
- **Ministry of Environment of the Republic of Lithuania** will facilitate timely issuing of necessary permits by the State Service of Protected Areas.

4. Timeframe:

Activities and deliverables	04-09.2018	10.2018-03.2019	04-09.2019
Sub-activity 1.1.1.			
Sub-activity 1.1.2.			
Sub-activity 1.1.3.			
Deliverable 1.1.1.			
Sub-activity 1.1.4.			
Deliverable 1.1.2.			
Sub-activity 1.2.1.			
Deliverable 1.2.1.			
Sub-activity 1.2.2.			
Deliverable 1.2.2.			
Sub-activity 1.3.1.			
Deliverable 1.3.1.			
Sub-activity 1.3.2.			
Deliverable 1.3.2.			

5. Costs: 300,000.00 €

Action 1 will be implemented within the framework of the Phase 2 of the IMPACT project as part of a cross-border co-operation project *LiveLagoons: The use of active barriers for the nutrient removal and local water quality improvement in Baltic lagoons*. The LiveLagoons project was jointly

developed by the EUCC Baltic Office staff, external experts, and regional stakeholders of the Kuršių Nerija (Curonian Spit) National Park as a result of the IMPACT project activities in Phase 1. It will be implemented by the consortium of regional stakeholders partly funded by ERDF (Interreg South Baltic Programme 2014-2020), partly by the consortium partners themselves, and partly by the Government of the Republic of Lithuania. The activities of Action 1 will be supervised, advised, and reported by the EUCC Baltic Office within the framework of the Phase 2 of the IMPACT project.

6. Funding sources:

i)	ERDF	255,000.00 €
ii)	Government of the Republic of Lithuania	21,000.00 €
iii)	Klaipėda University	19,500.00 €
iv)	Kuršių Nerija National Park administration	4,500.00 €

PART III (CONTINUED) – DETAILS OF THE ACTIONS ENVISAGED

ACTION 2. Integration of mobile dunes and other heritage assets into sustainable tourism system of the Kuršių nerija (Curonian Spit) National Park

7. The background

The good practice to be shared deals with mobile dune management on the Curonian Spit, which is a cross-border UNESCO World Heritage landscape. The main challenge is to integrate mobile dune conservation with the use of other heritage assets for sustainable tourism relying on the application of advanced planning tools, as well as knowledge available within and lessons learned from the project partnership.

The four main lessons learnt from the IMPACT project constitute the basis for the development of the Action 2:

- **Lesson 2.1: Geological heritage ambassadorship and marketing tokens in a UNESCO Geopark of Romania.** The specifics of UNESCO designations in this lesson is addressed by using two coherent good practices provided by the National Institute for Tourism Research and Development of Romania (Partner 5 of the IMPACT project). Geoparks are UNESCO designated territories which use geological heritage and other heritage to create a sense of place and to bring economic benefits to local community. The ambassadorship program was designed to be mutual beneficial for both the young local volunteers (named 'ambassadors' of the Hațeg UNESCO geopark) and the host organisation – the University of Bucharest. The main benefit is a deeper local community engagement, but also the contribution to strengthening institutional capacity in the geopark conservation activities.

The success of the ambassadorship programme was achieved in three ways:

1. The ambassador's work is used to develop tourism infrastructure, events, educational activities which all contribute to local welfare by creating new opportunities.
2. By investing in local youth, in their training and experience, the partners invest in the community's future generations.
3. Raising awareness for problems like geological heritage conservation, sustainable tourism development, risk management, climate change and other problems on the agenda of the geopark management has received a boost along with the ambassadorship programme.

The activities done by the volunteers *aka* ambassadors cover a wide topical area. These young people find or create themselves their position in the Geopark's team.

Some of the main activities of the ambassadors are:

- Organising events.
- Tourism interpretation.
- Mobilities and exchanges.
- Communication with members of the UNESCO Geoparks Network.

Another good practice from Partner 5 of the IMPACT project is of sharing a very efficient approach in using mascot (token) characters for education and networking in the Hațeg UNESCO geopark. In order to interpret the geological sites of the geopark but also to facilitate the development of the local community, the geopark administration has created, with a help of a local NGO, an interpretation point – The House of Volcanoes, educational programmes related to it, and, finally, the mascot (token) – Andi Andezit. Originally a real piece of andesite, Andi was created by the geopark volunteers and then transformed into a plush toy. With the help of a grant from MOL Romania and the Partnership Foundation through the Green Spaces program, Andi was sent to 30 UNESCO Global Geoparks on four continents and to 10 ecotourism destinations in Romania.

Andi is a token that is used to address serious scientific facts in a playful way, and to bring territories and people together. It is a simple solution for interpretation of otherwise difficult concepts. It is a very successful method to promote values in an accessible and playful way. It can be applied anywhere and on any topic. the steps required are:

- identifying an interesting fact;
- creating a character and a personality for him;
- promoting constantly;
- using the character to 'get across'.

The relevance of the provided two good practices and the resulting lesson learned for the Action 2 is in that they address important sustainable management issues of UNESCO designated sites which are important nature and culture tourism destinations. The main positive result from the highlighted good practices is that there emerged unexplored opportunities for using the concepts of heritage ambassadorship as well as nature and culture tourism destination marketing tokens in UNESCO designated sites. In Action 2, these good practices will be transferred for the high-class sustainable dune tourism development on the Curonian Spit. A crucial part of the good practices is a participatory governance model and local engagement as an integral part of the UNESCO designated site management policies prompting additional opportunities for local entrepreneurs to benefit from the UNESCO World Heritage status of the Curonian Spit.

- **Lesson 2.2: Evaluating the carrying capacity for visitor management in protected areas.** This good practice is also provided by the National Institute for Tourism Research and Development of Romania (Partner 5 of the IMPACT project). For achieving a proper visitor management, a study "Recreation and Tourism Zoning Strategy for the Danube Delta Biosphere Reserve" was elaborated in 2009 by WWF – Worldwide Fund for Nature.

In order to establish the limits up to which the development of tourism and infrastructure does not affect the carrying capacity of the protected areas, a study for the evaluation of the carrying capacity was implemented based on a series of criteria defining sustainable tourism. It focused on the evaluation of the intensity and a more even spatial distribution of tourist flows based on the assessment of how many tourists a destination can support, taken into account the ecological, economical, and social characteristics of that destination. Consideration of environmental, social and economic indicators must be taken into account in such a way that interests of all stakeholders and the area itself were well balanced.

The Reserve has also developed a digital tourist handbook, in the form of an application for mobile devices, to lead visitors on the designated tourist routes and to provide necessary information. Based on the carrying capacity study, a partnership between the Protected Area, local authorities, and tourism stakeholders is developed, including the coordination of visitors flows and a more balanced distribution of visitor pressure on natural habitats.

The relevance of the provided good practice and the lesson learned for the Action 2 is witnessed by a significant negative impact which is caused by unregulated visitor flows exceeding the carrying capacity of the only hiking trail currently available in the mobile dune area of the Curonian Spit. During the last decade, a deep erosion gully has developed in place of a former mobile dune in the Nagliai strict nature reserve (Fig. 4). Therefore, efforts need to be taken and study needs to be implemented in order to assess the carrying capacity of the mobile dune area on the spit. Then, in cooperation with local stakeholders, a more balanced distribution of visitor flows and resulting pressure on mobile and fixed dune habitats can be pursued.



Fig. 4. A 3D model of the mobile dunes of the Curonian Spit showing a deflation gully of the hiking trail caused by unregulated visitor flows (Created by the Vilnius University GIS Centre)

- Lesson 2.3: Health & Nature trips in protected areas of the Hauts-de-France region.** In the Hauts-de-France region, the Gîtes de France network has nearly 2 200 rural and urban cottages and 1 598 owners who guarantee a certain quality standard of hospitality services. Yet the challenge was to involve the inhabitants directly. Therefore, the French Association of Regional Nature Parks (*Espaces Naturels Régionaux*, Partner 6 of the IMPACT project) decided to inform and train ambassadors to promote the delivery of sustainable tourism message. The ambassadors are actors involved in tourism, local economy, environmental protection and nature conservation etc.

33 owners located in the Regional nature parks propose a trip offer recognized by the WWF label called “Gîtes Panda” or the “Valeurs Parc naturel régional” mark (values of a natural regional park) and also “Fitness, nature and well-being” and “Bike reception”. This label is a token witnessing the relationship of the offered hospitality services with nature, the heritage discovery, unusual places, and good local products.

A multi-annual agreement exists between the French Association of Regional Nature Parks, the parks that are members of the association and Gîtes de France to have a joint approach and specific actions for sustainable tourism. The “Fitness, nature and well-being” label and “Spots and sports de nature” magazine are good examples of work with owners to promote it. Now there are 11 owners who propose the Health and Nature trip package in the regional parks of France.

This lesson is very much coherent with a good practice currently implemented on the Curonian Spit and directly pertinent to the Action 2 of the proposed Action Plan. On the spit, local stakeholders aim to jointly develop and establish a relevant strategy and an accompanying action plan for the mobile dunes as a nature tourism ‘honey pot’, and to test and implement a variety of already-existing tools as well as trying to develop new tools that are currently missing. One of these tools is the development of a Health and Nature hiking package, notwithstanding seasonal patterns, based on the promotion of guided Nordic walking in the mobile (white) and fixed (grey) dunes.

Since the mobile and fixed dunes of the Curonian Spit are protected within strict nature

reserves, an access to the dune areas is currently restricted to just one hiking trail. Based on the provided good practice of Health and Nature, one of the sub-actions of Action 2 will be aimed to extend possibilities for the guided access to this aesthetically most impressive landscape in the entire Baltic Sea Region by proposing to establish a network of Nordic walking trails along the windward foot of the mobile dune ridge. In this way, the 'win-win' tactic between the tourism interests and the conservation will be pursued relying on deepening of visitors' experience and its connection to the outstanding values and the aesthetic appeal of the site (Fig. 5).

Allowing more tourists to enter the most fragile mobile and fixed dune areas of the Curonian Spit World Heritage landscape is a true challenge. Therefore, the good practices from Romania, France and Lithuania explicitly emphasize that establishing of a network of Nordic walking trails along the windward foot of the mobile dune ridge in the Nagliai strict reserve as part of Action 2 must rely on a knowledge-based careful and inclusive planning. All relevant stakeholders will be engaged in strategic discussions, setting the quality standards and criteria, delivering a list of needs and demands connected to the unbalanced seasonal patterns of the mobile dune sites in order to process those requirements in a dialogue.



Fig. 5. Nordic walking in the mobile dune areas of NATURA 2000 series on the Curonian Spit
(Photo: J. Staselis)

- Lesson 2.4. Promoting open spaces in a forest park as a means of increasing biodiversity.** This is a yet another good practice provided by the EUROPARC Federation (Partner 2 of the IMPACT project) which is very relevant to the Action Plan for Lithuania. The loss of habitats diversity causes loss of biodiversity. Due to the expansion of forest, mainly because of abandonment of farming activities, some species depending on open spaces were declining. To counterbalance this situation, the Collserola Nature Park is promoting the recovery of farming activities where this activity is doable and the maintenance of open spaces with the use of grazing animals (sheep and goats) after a first mechanical clearance.

During last 50 years, the remaining owners have gradually abandoned farming activities because of the low productivity of the crops and the low profit obtained. Today, the Park is mainly covered by forest. This reduces open spaces and habitats diversity. Open spaces are critically important for maintaining high levels of biodiversity because a certain number

of species are highly dependent on open spaces for shelter or forage, such as the European badger, the hoopoes, the common buzzard or the barn owl. Butterflies and other insects are also highly dependent on open spaces. Therefore, more open spaces within the forest in order to increase habitats diversity and hence global biodiversity were needed.

The aim of the actions taken was to consolidate existing farmland and promote the recovery of abandoned fields (dry farming) as a means of maintaining open spaces. Today, there is only 285 ha of active crops that are basically located at the periphery of the park, on the borders of the city. These are flat zones, with access to water. The aim is to reach at least 494 ha (6% of total area), which is the surface cropped in 1987 by using the herds of sheep and goats to maintain scattered open spaces within the forest.

The Collserola Nature Park has defined an Agricultural Plan to promote the use of farmland. Some of the actions are:

- To put in contact landowners with active farmers from the park or from outside the park, that are willing to farm in the park;
- The park itself farms 20 hectares of public land;
- To require abandoned farms that open an economic activity (such as a Restaurant) to farm a portion of their land in order to get their permit;
- The creation of a quality brand issued by the Park;
- The promotion of herds of sheep and goats.

Like in the Collserola Nature Park, on the Kuršių Nerija (Curonian Spit) National Park, the challenge of keeping open dune habitats, both, mobile (white) and fixed (grey) dunes is of utmost importance. Historically, the open dune habitats on the spit have been maintained by grazing. The decline of the population of free-grazing animals, both, domestic and wild, had a significant impact on the long-term mobile dune decline on the Curonian Spit. The population of elk has decreased from ca. 200 in 1938 to just 42 in 2003 on the spit. Large herds of sheep, goats and cattle that once roamed the dunes have disappeared.

The overgrazing had often led to a disastrous deforestation and sand drift. Yet, the opposite extreme, i.e., a complete abandoning of grazing leads to the decline of mobile sand acreage on the spit. The direct impact of grazing in controlling vegetation on the Curonian Spit was confined to mobile and fixed dunes, like elsewhere in Europe. Therefore, the decline of grazing as the means to control vegetation has resulted in the elimination of the mobile dune landscapes that have been most appealing in aesthetical terms, and most valuable in biodiversity terms. The sand supply to these dune strips has declined resulting from a rapid natural proliferation of the unchecked Scots' pine forest.

Currently, measures are considered by the Kuršių Nerija (Curonian Spit) National Park Administration and other relevant stakeholders to find optimal methods for maintenance of open spaces in fixed and mobile dune areas of NATURA 2000 series on the Curonian Spit with the use of grazing animals (sheep and goats) after mechanical clearance (Fig. 6). The overall idea of the Action 2 is to support sustainable conservation of mobile (white) and fixed (grey) dune NATURA 2000 habitats (Type 2120 and Type 2130, respectively) in the Kuršių Nerija (Curonian Spit) National Park by linking dune conservation with innovative tourism development. Like Action 1, Action 2 also deals with the Lithuanian part of the Curonian barrier spit which separates the Curonian Lagoon from the open Baltic Sea (Fig. 1 and Fig. 2). White and grey dunes of the Curonian spit provide a breeding habitat for the Natterjack Toad (*Bufo calamita*), the Tawny Pipit (*Anthus campestris*), and an open resting space for various migrating bird species, serving as stepping stones along the Western Palearctic Flyway.



Fig. 6. An interactive workshop of the stakeholders aimed to find optimal methods and funding for maintenance of open spaces in fixed and mobile dune areas of NATURA 2000 series on the Curonian Spit with the use of grazing animals (sheep and goats) after mechanical clearance
(Photo: A. Jurkienė)

The varied and dynamic mobile dune landscape with high biological diversity is a distinctive feature of the Curonian Spit on the regional scale. The 32.6-km long Grand Curonian Dune Ridge of 40m to 50m high mobile dunes is the second longest coastal mobile dune ridge in Europe (Fig. 7). Politically, the Curonian Spit is almost equally divided between Lithuania and the Russian Federation with 20.9 km of the mobile dunes strips being on the Russian part, and 11.7 km on the Lithuanian part of the spit.



Fig. 7. The Great Curonian Dune Ridge (Photo: R. Povilanskas)

There are five strips of mobile dunes still remaining on the spit. The mobile dune landscape forms the most distinctive natural heritage value of the Curonian Spit, with the highest mobile dunes exceeding 50 m in height and protected within four strict nature reserves – two within the Russian Kurshskaya Kosa National Park, and two within the Lithuanian Kuršių Nerija National Park, the latter one being the target area of the IMPACT project. For all the aforementioned reasons, the Curonian Spit is designated as a 'green corridor' within the EU Baltic Sea Regional Programme. Alas, the policy of forestation which prevailed on the Curonian Spit after the World War II, and particularly throughout 1970s to 1980s, had speeded up degradation, fragmentation and flattening of the mobile dunes. As a result, the mobile dunes of the Curonian Spit became devoid of any local sand supply sources and rapidly degraded with the scrub and forest succession facilitated by the climate change.

Yet, the magnificent vistas over mobile dunes and the Curonian Lagoon still form the most valuable tourism amenities of the southeast Baltic making the Curonian Spit a tourism destination of an international scale. Every summer the Lithuanian part of the Curonian Spit hosts app. 2 million holiday-makers. However, rapid expansion of tourism facilities is leading to irreversible changes of this area, which has been left almost intact since the collapse of the Soviet Union. Pressures by commercial land use negatively affect the ecological integrity of nature on the spit, thus creating multiple landscape management conflicts. Therefore, the key pre-condition to ensure a truly integrated management of amenities and values of the Curonian Spit is balancing different priorities in the management of mobile dunes, also based on scenic quality assessment.

Loss of the main ecological features of the mobile dune landscape was caused by an indiscriminate afforestation-centred approach in the second half of the 20th century. The dunes of the Curonian Spit are typical examples of the coastal squeeze caused by natural factors. The most acute coastal squeeze actors are: deflation, proliferation of tree vegetation and coastal erosion caused by the ice drift and wave activity. Being void of any sand supply, the lesser dune areas experienced dramatic evolution: about half of these isolated dunes became forested by the mugo pine and Scots pine plantations and by the proliferation of vegetation: forbs, herbs, hawthorns, junipers (Fig. 8).

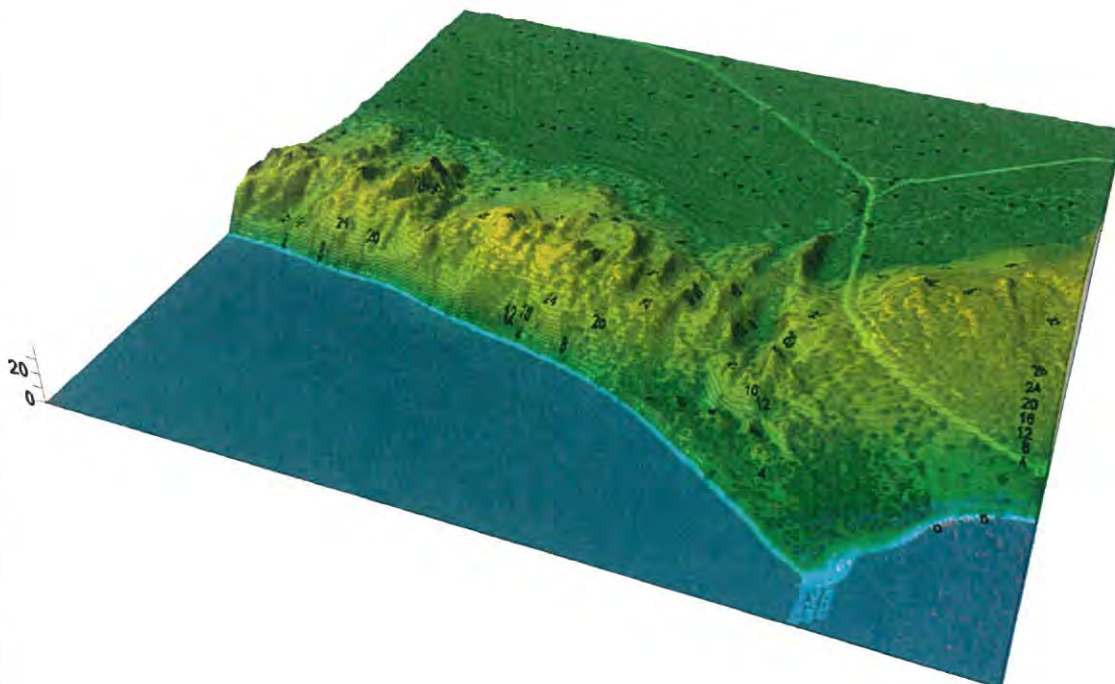


Fig. 8. Avikalnis – a former northernmost mobile dune of the Curonian Spit which has completely degraded in the 1980s to 2000s (A 3D model created by the Vilnius University GIS Centre)

Flattening of the mobile dune ridge because of exhaustion of sand supplies, plant succession, and human activity is the main dune management problem important both for the maintenance of the landscape diversity and for the conservation of traditional heritage features of the Curonian Spit as a World Heritage site. The main challenge in achieving the sustainability of the long-term management of the Great Curonian Dune Ridge is to strike a balance between dynamism and stability. This means that the role of humans as destabilizing agents should not be overlooked, particularly in the absence of grazing and in the presence of increasing climate change.

Action 2 of the present Action Plan is directly pertinent to the main objective of the IMPACT project in Lithuania, which is to reduce key pressures on coastal nature and ecosystem services by stepping up efforts to implement EU nature legislation and anchor biodiversity objectives into sectoral policies in regional development currently split by different thematic objectives. Action 2 will therefore offer solutions to conflicts between different sectors, whilst taking specific care for the impact assessment of the imminent climate change.

A wrong nature conservation regime and a flawed functional zoning could also thwart the management sustainability of the mobile dune areas. Whatever paradoxical it may look, yet the restrictions for tourists to walk in strict nature reserves are not justified either from the geomorphological, or ecological point of view and facilitate further proliferation of vegetation and retention of sand supply. The overreaching strict nature conservation regime also contradicts to the status of the Curonian Spit as a UNESCO World cultural heritage site.

The solution of this complicated problem might be achieved by a more active facilitating of the responsible nature and health tourism in mobile dune areas of the Curonian Spit. The clue to the management sustainability of mobile dunes lies in enhancing the dynamism of the hinterland of the mobile dunes where a free access should be allowed for tourists and any existing forest vegetation should be removed. Increasing elk stocks and bringing back herds of free-grazing domestic animals should also have a positive effect in restoring the dynamism of the adjacent mobile dune strips, as well as imposed radical changes in the functional zoning policy of the Kuršių Nerija National Park, albeit both actions are hardly possible within the life span of the IMPACT project.

On the Curonian Spit, there are unexplored opportunities for qualified sustainable tourism, notwithstanding seasonal patterns. The challenges are unbalanced seasonal patterns and a need for quality improvement of visitor's experience of the site before, during and after the visit. There is a need for prolongation of the tourist season, a deepening of the visiting experience and the connection of it to the outstanding values of the area, and the incitement for the visitor to engage. Action 2 stays close to the UNESCO World Heritage and Sustainable Tourism Programme which, according to the programme, creates an international framework for cooperation and coordinated achievement across sectors in order to safeguard heritage and achieve sustainable economic development. UNESCO tools exist, but they are not implemented, some not even tested.

In order to proceed with the sustainable tourism development process on the Curonian Spit, local stakeholders need to share the expertise and experience of each other. The UNESCO World Heritage and Sustainable Tourism Programme takes on a destination approach and shows how World Heritage sites, as sites with very high values and "demands", can be catalysts for a sustainable development (process) of the broader contexts they belong to. A crucial part of the UNESCO Programme is participatory governance models and community and local engagement as an integral part of culture and heritage policies.

In this way, the Kuršių Nerija National Park as a UNESCO World Heritage landscape, and a seaside destination of an international importance, can function as a catalyst for sustainable development where local businesses and local communities can gain from the diversification opportunity. In Action 2, the stakeholders will aim to jointly develop and implement a practical nature tourism development action plan for the mobile dune sites, test and implement a variety of already-existing tools as well as try to develop new tools based on lessons learned from the

IMPACT project partners. Hence, Action 2 will result in testing and implementation of the nature tourism development action plan in three focus areas: 1) stakeholder dialogue, 2) product and service development, and 3) governance.

During the Phase 2 of the IMPACT project the focus of Action 2 will be also on connecting to other UNESCO World Heritage sites or alike that can cluster under the umbrella concept/brand 'Baltic World Heritage & friends'. The challenges that the UNESCO sites meet are similar to the challenges of any cultural or natural heritage site: tourism is not local or regional but global. The impact of tourism is not isolated to one specific site but affecting the whole region, and the negative as well as the positive effects of tourism will have regional and global effects. Therefore the challenges cannot be addressed or solved exclusively on a local or site-specific level, the unbalanced tourism patterns must be handled on a broader international level.

Referring to the aforementioned Lesson Learned 2.3, Action 2 approach stems from an IMPACT-based innovative model for involving local target groups, as primarily two stakeholder categories: ambassadors and/or entrepreneurs. Different sub-activities of Action 2 address different target groups. The stakeholders will jointly develop an umbrella concept called 'Baltic World Heritage & friends' opening the possibility for clustering with other local and regional stakeholders in the promotion of a cross-border 'green corridor' within the EU Baltic Sea Regional Programme (Fig. 9).



Fig. 9. The boardwalk of a self-guided nature trail in the fixed and mobile dune areas of the Kurshskaya Kosa National Park on the Russian side of the Curonian Spit, which is an integral part of the 'green corridor' within the EU Baltic Sea Regional Programme
(Photo: R. Povilanskas)

The concept will be tested and implemented along with products that meet the quality standards of a sustainable tourism benchmarking system, again, referring to the aforementioned Lessons Learned 2.1 and 2.3. There will also be an examination of possibilities for the institutionalization of the concept, that is the card, its administration, and its promotion. Action 2 in this way will also result in an interregional network 'Baltic World Heritage & friends', open to relevant UNESCO World Heritage sites and additional stakeholders beyond the initial group. As a result, Action 2 will create packaging of dune tourism products and services and marketing tools to attract more visitors in the

shoulder seasons and to prolong their staying time on the Curonian Spit.

The expected results and changes resulting from Action 2, and contributing to the overall expected results and changes of the IMPACT project, among others, are:

- improving spatial and management tools for Natura 2000 sites,
- increasing competences of different target groups,
- building and strengthening regional collaboration networks,
- raising awareness about natural assets (risks and potential),
- enhancing opportunities of local communities to use Natura 2000 values as natural development assets and
- increasing tourism flows in low and medium season.

8. Action

The specific objective of Action 2 and its related result will be achieved in three sub-actions: (i) development of sustainable tourism; (ii) development of high-quality sustainable tourism products and ICT tools; (iii) stakeholder involvement into sustainable tourism development.

Sub-action 2.1. The development of sustainable heritage tourism will start from collecting and collating of the best practices regarding the multi-level governance of tourism at UNESCO World Heritage sites, particularly of coastal landscapes and historical cities/castles in Europe. This stocktaking will result in a report which will form the basis for the development or adaptation of the sustainable heritage tourism quality management system.

Furthermore, a baseline study will be carried out in order to assess the efficiency of Action 2 after the Phase 2 of the IMPACT project ends thus quantifying the Action 2 results. There is a need for information, data, and tools that enables the National Park administration to monitor and assess the development on site in order to manage tourist flows better. Parallel efforts will be taken to assess the current visitor flows on the hiking trail to mobile dunes of the Nagliai strict nature reserve in relation to the assessment of fragility and carrying capacity of various mobile dune areas.

Based on the results of the study, the carrying capacity of various mobile dune areas on the spit will be assessed, focusing on improving the choreography as well as spatial and temporal distribution of visitor flows in mobile dune habitats, and proposing a more balanced distribution of visitor flows along the windward foot of mobile dunes whilst alleviating the pressure on dune habitats.

Then, together with local stakeholders, a sustainable tourism scheme is developed and agreed upon including the establishing of an alternative self-guided path (hiking trail) route into the mobile dunes of the Nagliai strict nature reserve as well as a Nordic walking trail in the hinterland of the fixed dunes. Referring to the Good Practice (Lesson) 2.4, the sustainable tourism scheme will also suggest the sites for further clearing of pinewood and brushwood along the windward foot of mobile dunes aimed to increase the aesthetic appeal of the area for tourists.

Sub-activity 2.1.1. Collecting and collating best tourism management practices at UNESCO sites. The sub-activity will focus on best practices regarding the multi-level governance of sustainable tourism at UNESCO World Heritage sites.

Sub-activity 2.1.2. Producing of a baseline study for monitoring of sustainable tourism. The baseline will be drawn reflecting current situation with tourism in the national park for measuring the progress in sustainable tourism development and its spread over the shoulder seasons.

Sub-activity 2.1.3. Approval and kick-off of the sustainable tourism scheme. The key regional and local stakeholders on the Curonian Spit, facilitated by the Kuršių Nerija National Park administration, develop and start implementing a sustainable tourism scheme.

Deliverable 2.1.1. A report on best practices regarding the multi-level governance of sustainable tourism at UNESCO World Heritage sites.

Deliverable 2.1.2. A baseline study for monitoring sustainable tourism development.

Deliverable 2.1.3. A sustainable tourism scheme is developed and agreed upon by stakeholders.

Sub-action 2.2. The development of high-quality sustainable tourism products/services and ICT tools mainly focuses on developing a sustainable tourism entrepreneurship concept and involving a number of local businesses in the development of quality products and services.

Products aimed to facilitate biking on the Curonian Spit could be developed including "charging stations" that offer electricity, wi-fi, bicycle pumps etc needed for tourists to explore sites by bike or foot. The aim is to increase the offer to tourists of different difficulty level, including the Natura 2000 series – mobile and fixed dunes and optimize the spatial and temporal distribution of tourists thus alleviating their pressure on the dune environment.

Sub-action 2.2. is the primary sustainable tourism development stage aimed for testing and implementing developed products as part of the broader concept developed. All stakeholders will participate in strategic discussions, setting the quality standards and criteria, delivering the list of needs and demands connected to the unbalanced seasonal patterns applying a creative Think Tank approach to process ideas in a dialogue with stakeholders.

Relying on the good practice 2.1. provided by Molise Region, questionnaires and interviews with tourists will be conducted at the existing hiking trail to the mobile dunes of the Nagliai strict reserve in the Kuršių Nerija National Park. Like in the case of "Alto Molise", the need for the extension of the biking, hiking, and Nordic walking trail network will be assessed as well possible routes based on aesthetic preferences of the questioned visitors.

On the Curonian Spit, products/services will be developed using scientific innovation and package development synergies focused on sustainability and grounded in a knowledge-based careful and inclusive planning. Local stakeholders will test and implement a variety of the developed products/services as well as try to develop new tools that are currently missing. One of these tools is the development of a Health and Nature hiking package relying on the Good Practice (Lesson) 2.3, which will be based on the promotion of guided Nordic walking in the mobile and fixed dunes.

Another important idea developed relying on the Good Practice (Lesson) 2.3 is labelling of sustainable tourism offers. The label is a token witnessing the relationship of the offered hospitality services with nature, the heritage discovery, unusual places, and good local products. Besides the aforementioned 'Bike reception'.

The stakeholders will jointly develop an umbrella concept of a token, in the form of a card, called 'Baltic World Heritage & friends'. This concept will be discussed among the stakeholders and internationally. As mentioned above, it will open up the possibility for clustering the Kuršių Nerija National Park administration with other local and regional stakeholders interested in the promotion of the cross-border 'green corridor' within the EU Baltic Sea Regional Programme.

Sub-activity 2.2.1. Performing a Think Tank on Sustainable Entrepreneurship. A creative Think Tank will be performed focusing on a Sustainable Entrepreneurship token and involving local tourism businesses.

Sub-activity 2.2.2. Performing a Think Tank on the concept of a label 'Baltic World Heritage & friends'. A creative Think Tank will be performed focusing on the concept of a label 'Baltic World Heritage & friends' and involving local tourism businesses and international partners.

Sub-activity 2.2.3. Developing and testing of sustainable tourism offers. Possibilities for the extension of the biking, hiking, and Nordic walking trail network and high-quality sustainable tourism offers will be assessed, discussed, and tested, particularly in the shoulder seasons. 'Bike reception' stations established and their efficiency monitored.

Deliverable 2.2.1. Concept 'Sustainable Entrepreneurship' established. A number of local businesses will be targeted as potential sustainable entrepreneurs, and the established group is

offered educational activities through the involvement in workshops and Think Tanks.

Deliverable 2.2.2. Quality criteria for sustainable tourism products and services. Stakeholders and sustainable entrepreneurs will have an agreement upon the basic needs, standards, criteria for new quality products and services to be developed.

Deliverable 2.2.3. 'Baltic World Heritage & friends' token developed and acclaimed internationally. The token will facilitate the development of an international network of tourism managers and stakeholders at UNESCO World Heritage sites that will disseminate knowledge and best practices for sustainable tourism products among the UNESCO sites.

Sub-action 2.3. Relying on the Good Practice (Lesson) 2.3 Health & Nature trips in protected areas, acquired from the IMPACT project partnership, the focus of sub-action 2.3. is on sustainable ambassadorship, which is a conceptualization of the involvement of non-commercial stakeholders (compare sustainable entrepreneurship). The aim is to establish the concept and to launch it as a complementary concept in relation to the commercial sustainable entrepreneurship.

Similarly, like in the Lesson Learned 2.1, the sub-action 2.3 will be aimed to inform and train ambassadors to promote the delivery of sustainable tourism message. The ambassadors will be actors involved in tourism, local economy, environmental protection and nature conservation etc. A multi-annual agreement will be established between the Kuršių Nerija National Park administration and volunteering local, regional, and national ambassadors to promote the token of the 'Baltic World Heritage & friends' in Lithuania and abroad in order to develop a joint approach and specific actions for sustainable heritage tourism.

Two larger information campaigns will be launched while implementing the sub-action 2.3 concerning awareness-raising and capacity-building targeting the potential ambassadors. The stakeholder involvement will address the need for the inclusion and development of an ambassadorship concept in the strategic sustainable tourism work in order to involve the non-commercial stakeholders (NGOs, individual citizens etc) in a durable manner.

The promotion of individual or organizational sustainable ambassadorships will launch and proliferate the concept of the 'Baltic World Heritage & friends' token and raise awareness regarding the hitherto undiscovered values of the Curonian Spit as a dune heritage landscape destination. The concept will be marketed in existing media channels: newsletters, websites, social media.

Sub-activity 2.3.1. Performing a Think Tank on Sustainable Ambassadorship. A creative Think Tank will be performed focusing on a Sustainable Ambassadorship token and involving potential sustainable ambassadors.

Sub-activity 2.3.2. Interactive Lab: Social Media Marketing. Production-process focusing communication and social media involvement and use for awareness-raising.

Sub-activity 2.3.3. Develop and test educational actions. Educational activities are tested targeting potential sustainable ambassadorships.

Sub-activity 2.3.4. Social Media Campaign. The first part of the pilot social media campaign is dedicated to raise public awareness of the hitherto undiscovered values of the Curonian Spit as a dune heritage landscape destination and our common responsibilities and rights regarding dune conservation. The second part of the social media campaign is dedicated to the marketing of the concept of sustainable ambassadorship, using proper persons as role models and ambassadors.

Deliverable 2.3.1. The concept of Sustainable ambassadorships established. A number of individuals, NGOs etc will be targeted as potential sustainable ambassadors, and the established group is offered educational activities through the involvement in interactive workshops, Think Tanks and Labs.

Deliverable 2.3.2. Two information campaigns will be performed targeting citizens (visitors and

local inhabitants) aimed to raise public awareness of the hitherto undiscovered values of the Curonian Spit as a dune heritage landscape destination and our common responsibilities and rights regarding dune conservation.

Deliverable 2.3.3. Promotion of sustainable ambassadorship in already existing media channels, newsletters, websites, social media etc.

Deliverable 2.3.4. A multi-annual agreement will be established between the Kuršių Nerija National Park administration and volunteering local, regional, and national ambassadors to promote the token of the 'Baltic World Heritage & friends' in Lithuania and abroad.

9. Players involved

- **Kuršių Nerija (Curonian Spit) National Park administration** will be the key player in the implementation of Action 2. It is responsible for the protection of the UNESCO World Heritage listed mobile and forested dune landscape. The two strips of mobile and fixed dunes on the Curonian Spit are strict nature reserves. Therefore, most of activities in Action 2 will be within the direct responsibility of the national park administration throughout the 2nd Phase of the IMPACT project implementation and beyond the closure of the project.
- **Neringa Municipality Administration** is involved in the improvement of sustainable coastal resources and ecosystem management policy instruments together with the Kuršių Nerija National Park administration. It will ensure the promotion of the 'Sustainable Entrepreneurship' concept and facilitate active involvement of local tourism businesses into the Action 2 activities.
- **Nida Culture and Tourism Information Centre Agila** will ensure the promotion of the 'Sustainable Ambassadorship' concept and facilitate active involvement of non-profit actors and stakeholders into the promotion of the token of the 'Baltic World Heritage & friends' in Lithuania and abroad, as well as in other Action 2 activities.
- **Ministry of Environment of the Republic of Lithuania** will facilitate timely issuing of necessary permits by the State Service of Protected Areas.
- **EUCC Baltic Office** will facilitate, supervise, advise upon, and report the activities of Action 2 within the framework of the Phase 2 of the IMPACT project.

10. Timeframe:

Activities and deliverables	04-09.2018	10.2018-03.2019	04-09.2019
Sub-activity 2.1.1.			
Deliverable 2.1.1.			
Sub-activity 2.1.2.			
Deliverable 2.1.2.			
Sub-activity 2.1.3.			
Deliverable 2.1.3.			
Sub-activity 2.2.1.			
Deliverable 2.2.1.			
Sub-activity 2.2.2.			
Deliverable 2.2.2.			
Sub-activity 2.2.3.			

Deliverable 2.2.3.			
Sub-activity 2.3.1.			
Deliverable 2.3.1.			
Sub-activity 2.3.2.			
Deliverable 2.3.2.			
Sub-activity 2.3.3.			
Deliverable 2.3.3.			
Sub-activity 2.3.4.			
Deliverable 2.3.4.			

11. Costs: 175,000.00 €

Action 2 will be implemented within the framework of the Phase 2 of the IMPACT project as part of a cross-border co-operation project *DUNC: Development of UNESCO Natural and Cultural assets*. The DUNC project was jointly developed by the EUCC Baltic Office staff, external experts, and regional stakeholders of the Kuršių Nerija (Curonian Spit) National Park as a result of the IMPACT project activities in Phase 1. It will be implemented by the consortium of regional stakeholders partly funded by ERDF (Interreg South Baltic Programme 2014-2020), partly by the consortium partners themselves, and partly by the Government of the Republic of Lithuania. The activities of Action 2 will be supervised, advised, and reported by the EUCC Baltic Office within the framework of the Phase 2 of the IMPACT project.

12. Funding sources:

i)	ERDF	148,750.00 €
ii)	Government of the Republic of Lithuania	14,250.00 €
iii)	Kuršių Nerija National Park Administration	6,000.00 €
iv)	EUCC Baltic Office	6,000.00 €

Part III (continued) – Details of the actions envisaged

ACTION 3. Community Involvement Initiative in Pajūrio (Littoral) Regional Park

13. The background

The two main lessons learnt from the IMPACT project that constitute the basis for the development of the Action 3 are the following ones:

- **Lesson 3.1: Ecotourism in Casacalenda (Campobasso).** The good experience, which is provided by the Molise Region (Partner 4 of the IMPACT project), addresses cooperation of conservationists with local private entities in tourism, wine and gastronomy sectors with a focus on local traditional and organic foods, organization of monthly nature events and special opening days of the LIPU Oasis (a bird sanctuary) for visitors. The importance to maintain contacts with the local public and private entities, and to show permanent interest in the news and proposals made by the producers of typical and local products is explicitly highlighted by the Molise Region as the key to collaboration success.

The main good practice acquired from the Molise Region and transferred to Action 3 of the current Action Plan is in spreading illustrative material of agro-touristic enterprises at a visitor centre of the protected area. The illustrative material is the main means of promotion for agro-touristic enterprises, providing contacts details, information and assistance to tourists interested in staying on site and keen to buy local, typical and organic, products; participating in fairs and exhibitions to improve knowledge of typical and organic products.

The tangible action taken in the Molise Region was in establishing of an Information Point at the Visitor Centre of LIPU Oasis (a bird sanctuary managed by the Italian Bird Protection Society) and making agreements with local agricultural production and hospitality businesses. In the case of Pajūrio (Littoral) Regional Park which is the target area of Action 3, the tourist information centre already exists. Therefore, the key sub-action implied by the good practice acquired from the Molise Region is to make agreements with local small-scale agricultural production and hospitality enterprises in Pajūrio (Littoral) Regional Park aimed to facilitate local tourism and gastronomy sectors.

- **Lesson 3.2: The Vitoria-Gasteiz Green Belt: actions for the conservation of biodiversity.** Pajūrio (Littoral) Regional Park of Lithuania is a periurban protected area sandwiched between Klaipėda, a city with the busiest seaport on the eastern coast of the Baltic Sea, and Palanga, the largest eastern Baltic seaside resort. Therefore, this good practice and a valuable lesson provided by the EUROPARC Federation (Partner 2 of the IMPACT project) is very relevant to the Action 3 of the Action Plan aimed to apply innovative models for the management of the Lithuanian coastal state parks.

The Vitoria-Gasteiz Green Belt is made up of a group of parks and areas with high ecological interest surrounding the capital city of the Basque Country of Spain. These natural areas are easily accessible on foot. They serve as buffer zones and green lungs between the urban area and the surrounding rural environment.

Ecological and landscape restoration of these areas and development suited for public use make nature to become an integral part of the city by balancing the availability of park areas for all neighbourhoods. Links between urban parks and agricultural natural areas have thus been favoured, which implies a noticeable increase in biodiversity. At the same time, new outdoor leisure and environmental education activities have been developed.

Among many important solutions and actions taken, the good practice related to the site management of the Green Belt of Vitoria-Gasteiz is of highest relevance for this Action Plan. With respect to the site's management, the general criteria used are based on making full use of natural processes, with minimum human intervention and seeking to

maximise biodiversity, including the maintenance of the natural flood cycles in lagoons and wetlands (reducing artificial drainage), abandonment of forest uses aimed to facilitate the re-naturalization process of woodlands, application of different levels of grass cutting and grazing in semi-natural grasslands, using of a herd of red deer in the fenced area aimed to support the reintroduction of autochthonous grassland vegetation, as well as the installation of bat boxes in the woodlands and floating islands with different nesting substrates in the local lakes.

The overall idea of the Action 3 is to support the local community living and having local, small-scale business in Pajūrio (Littoral) Regional Park of Lithuania in building sustainable partnership with the state institutions, associations, local public bodies, and other stakeholders focused on exploitation of protected areas, especially NATURA 2000 sites. The aim is to increase networking capacity of local actors responsible for most important operations in their area, connected to the potential of the protected areas they live which are: fishery, forestry and agriculture, tourism services as well as handicraft and art.

The Action 3 shows a very attractive and innovative example of how the experience exchange among stakeholders can be realized in practice. Thus it demonstrates the benefits from using coastal Natura 2000 sites and values as an asset for sustainable development. Taking part in cooperation is the key to the development of small communities. Hence, the Action 3 shows how to transfer good practice examples of capacity building possibilities to other communities exploiting the coastal NATURA 2000 sites relying on the lessons learned during the IMPACT project.

Pajūrio (Littoral) Regional Park of Lithuania is the target area for the Action 3 of this Action Plan. It is one of 30 regional parks, i.e., IUCN category 5 protected areas in Lithuania. As mentioned above, it is sandwiched between Klaipėda, the largest seaport city on the eastern coast of the Baltic Sea, and Palanga, the largest eastern Baltic seaside resort. The park area comprises 50.3 sq.km of the terrestrial part and 30 sq.km of the maritime part. Pajūrio (Littoral) Regional Park was established in 1992 with the aim to protect natural and cultural assets of the Baltic Sea foreshore and nearshore in Lithuania. In functional terms, the area of the Littoral Regional Park is divided into a strict reserve zone, a managed reserve zone, a zone of limited economic activity, and a buffer zone where economic activity is permitted albeit within certain limits.

Within Pajūrio (Littoral) Regional Park, our area of priority interest is the Šaipiai managed nature reserve, which is situated to the east from the Placis strict nature reserve and the Karklė marine managed nature reserve, to the north from the Karklė ethnographical managed reserve, and to the south from the aforementioned Palanga seaside mega-resort (Fig. 10). Such a convenient location poses best opportunities for a successful implementation of all activities of the Action 3 and timely delivery of all anticipated deliverables.

Rural communities in protected areas face big challenges to develop viable and profitable economic activities because they have limited possibilities to use the land which is under natural conservation in the way they would like to. On the other hand the NATURA 2000 series in the European Union play a valuable role in maintaining biological diversity and also create the desire to reap economic benefits from ecosystem services. Very often there are conservation experts dealing with protected sites, who meet local community's needs but find it difficult to initiate common actions, unless municipalities understand the holistic value of the protected areas.

The task of the Action 3 of the current Action Plan is to encourage small communities and municipalities located in Pajūrio (Littoral) Regional Park to utilize good practice examples on how to turn the protected area status from liability into asset. The most common challenge is the lack of knowledge on how to start, develop, and build a business partnership with interested partners relying on local ecosystem services, on how to reach out to the target groups and how to use cooperation possibilities in developing actions and services based on using natural resources.

The advantage of the proposed Action 3 lies in the fact that the Baltic seaside of Lithuania is the

most popular tourist destination in this country. App. 25% of all expenditures of domestic tourists in Lithuania are spent in Palanga, as the results of the most recent survey show. In the situation of the seaside tourism boom, the role of the rural and (semi)natural hinterland of seaside resorts starts playing an ever increasing and important role thereby placing the protected (semi)natural areas of the Baltic Sea coast of Lithuania into an advantageous position.

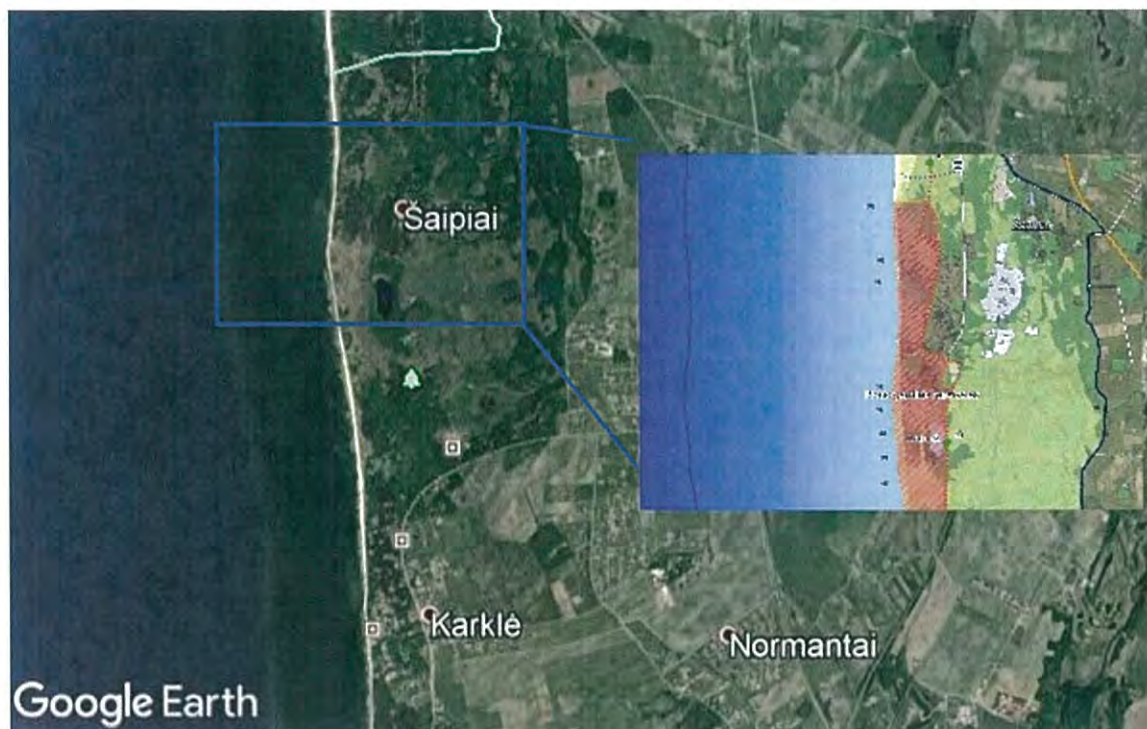


Fig. 10. Pajūris (Littoral) Regional Park with the Action 3 site (Source: Google Earth and PRP)

Littoral Regional Park boasts a varied seascape on a very short length of the shoreline with parabolic dunes, a 24m high glacial sea bluff, and glacial boulder fields in the nearshore. The terrestrial part of the park area hosts flora and fauna specific for temperate to boreal coastal grasslands. Rare wader and water bird species nest and make migratory stopovers in the Baltic Sea nearshore and the two lakes of the park. The coastal foredune and the parabolic dunes, as well as the grassland behind the dunes are designated as NATURA 2000 sites. There are three self-guided nature trails and a bike path crossing the most interesting sites of the park (Fig. 11). Therefore, the territory of Littoral Regional Park is attractive for hiking, biking, and horse riding trips, and for longer stays at local rural tourism farmsteads and camping sites.

The development of rural tourism has significantly changed the relationship between traditional seaside resorts and their hinterland, in this case, between the Palanga seaside mega-resort and Littoral Regional Park as its hinterland. Where once the seaside resort was the only attraction for most vacationers, today's model is that visitors are keen to explore a wide (rural) hinterland, which can also develop as a competing destination for the resorts.

In mature tourist destinations, the extent and the scope of development often comes to the point where expanded tourism areas emerge. These are the development formulas for the protected seaside areas, resort complexes, holiday villages, caravan sites, attractions, golf courses, etc. to create a landscape flavoured in tourism. Unlike the other forms, however, the emphasis on functional zoning results in a dispersion rather than in concentration of tourism facilities which is beneficial for biodiversity and landscape conservation.

Relying on these advantageous circumstances, the stakeholders interested in nature conservation

and nature-based tourism development in Littoral Regional Park will jointly apply an innovative model of community-and-park cooperation, which was developed in the IMPACT project focusing on common actions taken by the local area managers and the target groups. These actions will result in a strengthened cooperation leading to the organization of events dedicated to sustainable nature tourism development as well as other promotion forms of local, nature-based businesses.



Fig. 11. Bikers at a birdwatching hide in Littoral Regional Park (Photo: E. Paplauskis)

The main risk for the maintenance of biodiversity in Pajūrio (Littoral) Regional Park is urban encroachment as the coastal area of the park is very attractive for residential development. A yet another risk is that valuable natural habitats of open grasslands can change into not so valuable ones as a result of natural succession (overgrowth with bushes). The third risk is the competition between the local fishermen and grey seals over the nearshore fish stocks. Several good practices have been proposed involving the local community in order to maintain the biodiversity of the open grasslands, including grazing in fenced areas by red deer, in open areas by horses of a local Samogitian breed (Fig. 12), as well as mowing by the rangers of the regional park.

Community Led Local Development (CLLD) will be the key approach, which we envisage for the successful implementation of Action 3. By explicating the 'business-to-business' (B2B) principle into its local forms, e.g., 'farmers to farmers', or 'fishermen to fishermen' we shall trigger the process of positive follow-ups and willingness to participate in the grassroots decision-making, which is the key precondition for a successful policy impact, and, yet it is so seldom applied within the development and enacting of EU policy instruments.

While implementing the Action 3, the CLLD approach will be reciprocally matched by active engagement of best expertise in the sector for the facilitation of improved governance in the coastal protected area management, whilst taking specific care for the impact assessment of the imminent

climate change, and for the acquisition of the best principles and approaches for the sustainable utilization of the coastal ecosystem goods and services, including the intangible ones. The latter ones are particularly pertinent to the sectors of the coastal post-mass tourism, amber catching and recreational fisheries in Littoral Regional Park.

The CLLD approach requires full involvement of stakeholders with the support from local municipalities and state conservation authorities. The representatives of the target groups (which are: fishery, forestry and agriculture, tourism services, handicraft and art) from the target area of the Action 3 will take initiative of creating working groups dedicated to each target. This approach gives a unique opportunity to share local experience of economic development difficulties, challenges and possibilities based on sustainable use of ecosystems in protected areas as well as to adopt existing best practices and lessons learned from other partners of the IMPACT project and the INTERREG Europe good practice database. The official stakeholders together with nature tourism specialists will coordinate joint activities and support them with explanations concerning regulations and restrictions of the IUCN category 5 protected areas.



Fig. 12. Horses of a local Samogitian breed in Littoral Regional Park (*Photo: A. Urbis*)

This support will be primarily achieved using an interactive two-day workshop as a tool. The workshop, which will be organized in Karklė, a managed ethnographic culture reserve, will focus on international cooperation of particular target groups and will be devoted to joint cooperation of all target groups, which will build stronger cooperation capacity and will lead to a local event relying on the best practices acquired from the IMPACT project. The workshop will also provide a unique opportunity to revive a traditional local event focused on sustainable exploitation of natural sites of the Baltic Sea coast. The organizers of the event should jointly be the professionals of nature management working together with the local community and other stakeholders responsible for the development of ecosystem services.

The event should later on, after the pilot trial, be included into the annual calendar of the local community taking part in the Action 3. The event will encourage all participants to make the best use of the ERDF funding in sustainable exploitation of ecosystem services in protected areas and will also provide a unique attraction to the Lithuanian coastal region (by promoting amber catching, biological and landscape diversity, traditional cuisine, Samogitian horses etc).

The expected results and changes resulting from Action 3, and contributing to the overall expected results and changes of the IMPACT project, among others, are:

- increasing competences of different target groups,
- building and strengthening regional collaboration networks,
- raising awareness about natural assets (risks and potential),
- enhancing opportunities of local communities to use Natura 2000 values as natural development assets,
- increasing tourism flows in low and medium season.

14. Action

The work plan of Action 3 is divided into three sub-actions: i) launching a Community Led Local Development initiative by involving of local stakeholders in sharing their knowledge and acquiring best experience from other target areas of the IMPACT project; ii) reviving of a local traditional event aimed to cherish traditions of sustainable coastal ecosystem services; iii) investigating and pilot implementing of the site management practices acquired from the Vitoria-Gasteiz Green Belt.

Sub-action 3.1. Involving of local stakeholders in sharing their knowledge and acquiring best experience from other target areas of the IMPACT project and beyond. The main objective of the Sub-action 3.1 is to facilitate the involvement of local stakeholders in the Littoral regional park in actions focused on sustainable exploitation of natural heritage and ecosystem services. This will be done by increasing knowledge about possibilities of taking such actions in protected areas with respect to conservation restrictions. The Sub-action 3.1 thus facilitates local businesses in acquiring best practices from other stakeholders located in the coastal areas with similar conditions and increasing their awareness on protected area values.

As a result of the Sub-action 3.1, a series of interactive workshops will be designed and implemented as a part of a triple-helix cooperation model which could be transferred to other coastal protected areas. Local stakeholders will be encouraged to take initiative and develop cooperation, starting with event organization focusing on local ecosystem services. They will find possibilities of improving capacity thanks to new IMPACT project-induced contacts and ideas. Workshops organized in smaller target-focused groups will encourage participants to enter networks and build effective communication. The administration of the Littoral regional park will facilitate signing of a cooperation agreement covering a wide scope of cooperation issues.

Relying on the Community Led Local Development (CLLD) approach, the local stakeholders from the Karklė Community will be engaged in sharing their knowledge on how to develop and foster their local small scale tourism, hospitality and gastronomy businesses based on values and ecosystem services of the protected areas, and reciprocally, acquiring best practices from other target areas of the IMPACT project as well as from coastal protected areas in Poland.

Sub-activity 3.1.1. Organisation of local meetings in the Karklė Community. The purpose for the local meetings is presentation of the CLLD approach and the cooperation model to the target groups, collecting their feedback in an early stage. Four meetings will be held in the project area.

Sub-activity 3.1.2. Preparation of a comprehensive international meeting. Working groups dedicated to particular pursuits connected to target groups are formed and a detailed plan for the meeting is prepared; the manager responsible for the venue, services etc is nominated.

Sub-activity 3.1.3. Hosting a comprehensive international meeting. The comprehensive international meeting is organized for the target groups with working sessions and open sessions for all target group representatives using the CLLD approach.

Sub-activity 3.1.4. Collecting and describing best practice examples. The model of the CLLD approach based on community actions will be described, together with best examples of community involvement from the IMPACT project partners and, additionally, from similar coastal

protected areas in the West Pomerania region of Poland.

Sub-activity 3.1.5. Building of the Development and Distribution System. The database of local coastal communities located in various NATURA 2000 sites will be prepared to use for cooperation capacity building. Activities will be promoted in those communities and their institutions relevant to the Action 3, to enable the transfer of know-how and good experience of community cooperation in different coastal NATURA 2000 sites.

Deliverable 3.1.1. Four information meetings and workshops will encourage stakeholders to start cooperating, share their NATURA 2000 experience, twinning/matchmaking among them and eliciting ideas for the revival of traditional events highlighting ecosystem services.

Deliverable 3.1.2. A comprehensive two-day international meeting in Karklė involving at least 20 stakeholders from at least three coastal protected areas of Europe.

Deliverable 3.1.3. The database of the best examples of community initiatives in coastal protected areas describing best practice examples from various coastal communities situated in coastal protected areas of the NATURA 2000 series.

Sub-action 3.2. Reviving of a local traditional event aimed to cherish traditions of sustainable coastal ecosystem services. The main objective of the Sub-action 3.2 is to exercise garnered knowledge and strengthen the network in practice. The cooperation output will be a very innovative formula of local outdoor events aimed to promote sustainable exploiting of natural protected areas and local ecosystem services.

The event will be organized by all local stakeholders as an example of common initiative. Every stakeholder participating in Action 3 will contribute to the event. The Sub-action 3.2 will encourage all participants to make practical use of sustainable exploitation of protected areas. As a result, local stakeholders will acquire new organization skills required in the teamwork, learn to coordinate and support local actions in practice, exchange good ideas and take part in the promotion of the Littoral regional park.

The event will take place in Karklė in September 2018. The Karklė Community will be responsible for local arrangements (outdoor venue, local services). Outdoor actions will be designed together by all local stakeholders relying on the good experiences acquired from the IMPACT project partnership network.

Sub-activity 3.2.1. Development of the outdoor event programme. Setting aims and anticipated results, collecting ideas of cooperation of the target groups, developing plan for the exhibitions, agreeing on the precise schedule and programme of the outdoor event.

Sub-activity 3.2.2. Organisation and implementation of the outdoor event. There will be 1 outdoor event organized in Karklė in September 2018. The sub-activity 3.2 focuses on appointing the manager of the event, confirming the exact date, finding and securing the venue for the outdoor event, arranging local services and attractions.

Sub-activity 3.2.3. Promotion of the outdoor event. Engaging local stakeholders into the event promotion among institutions and stakeholders in the region using special dissemination means and information materials. Promotion of the event as a regional attraction for tourists.

Sub-activity 3.2.4. Integration of the outdoor event into the future activity plan of the local community. Local stakeholders will be encouraged to make the event as an integral part of the local tradition highlighting ecosystem services in the Pajūris (Littoral) regional park.

Deliverable 3.2.1. Local stakeholders supported by EUCC Baltic Office create a detailed programme for the outdoor event. After the implementation of the event, the best practise will be collected and described to enable using of the cooperation model in future and transfer success to other communities.

Deliverable 3.2.2. The outdoor event highlighting ecosystem services in the Pajūris (Littoral) regional park with a feedback and the continuation strategy.

Sub-action 3.3. Involving of local community in NATURA 2000 site management activities.

The main objective of the Sub-action 3.4 is to use the strength and capacity of the local community for sustainable NATURA 2000 management activities in the Pajūris (Littoral) regional park. These activities will focus on the maintenance of the natural flood cycles, re-naturalisation of wet forests, investigating of a local impact of a herd of red deer in the fenced area on grassland vegetation, installation of bat boxes in the mature forests.

Sub-activity 3.3.1. Maintenance of the natural flood cycles. Ca. 20% of the terrestrial area in the Littoral regional park is covered by lakes and wetlands. As the better part of wetlands is located within the Šaipiai managed nature reserve, which has different management regimes, possibilities will be assessed to reintroduce the natural flood cycles based on an ecohydrology approach.

Sub-activity 3.3.2. Re-naturalisation of wet forests. Many of the forests in the Littoral regional park are related to wetland habitats. About half of the forests are mature, re-naturalized Black alder stands. However, their management needs natural water regime, which is not always the case. The activists from the Karklė Community will design and implement priority measures aimed at re-naturalisation of wet Black alder forests in the Šaipiai managed nature reserve.

Sub-activity 3.3.3. Investigating of an impact of the local herd of red deer in the fenced area on grassland vegetation. Amateur botanists from the Karklė Community with the guidance of professional park rangers will investigate the local impact of the herd of red deer in the fenced area in the Šaipiai managed nature reserve on biodiversity of local (semi)natural grassland vegetation.

Sub-activity 3.3.4. Installation of bat boxes in the mature forests. The activists from the Karklė Community will install bat boxes in the mature forests of the Šaipiai managed nature reserve of the Littoral regional park whereas the professional park rangers will monitor the dynamics of the bat population in the boxes till the end of the Phase 2 of the IMPACT project and beyond.

Deliverable 3.3.1. Study assessing possibilities and effects of possible reintroduction of the natural flood cycles in coastal wetlands and further re-naturalization of wet Black alder forests.

Deliverable 3.3.2. Study highlighting the impact of the local herd of red deer in the fenced area on grassland vegetation in the Šaipiai managed nature reserve.

Deliverable 3.3.3. Five bat boxes in different habitats of the mature forests in the Šaipiai managed nature reserve.

15. Players involved

Pajūris (Littoral) Regional Park administration is responsible for conservation of the littoral landscapes and seascapes, the foreshore and nearshore boulder beds, as well as natural and cultural heritage properties and biological diversity of the mainland Baltic Sea coast in Lithuania. It also advises the Ministry of Environment of Lithuania on nature conservation and NATURA 2000 management policy instruments.

Karklė Community is a local non-governmental entity which plays active role in many efforts promoting sustainable ecosystem services in Pajūrio (Littoral) Regional Park, It will be the key corporate stakeholder taking active role in the Pilot Action and in any other activities comprising

“Žvejonė” **Environmental Club** will assist the Karklė Community and Pajūrio (Littoral) Regional Park administration in the site management activities in the Šaipiai managed nature reserve.

EUCC Baltic Office as an IMPACT project partner, will take active efforts together with the Karklė Community in implementing of the Pilot Action (making the promo film on amber catching). It will also collect and analyse examples of the best practices and experiences in various activities of Action 3 and share them with the project partners and other stakeholders.

16. Timeframe:

Activities and deliverables	04-09.2018	10.2018-03.2019	04-09.2019
Sub-activity 3.1.1.			
Deliverable 3.1.1.			
Sub-activity 3.1.2.			
Sub-activity 3.1.3.			
Deliverable 3.1.2.			
Sub-activity 3.1.4.			
Sub-activity 3.1.5.			
Deliverable 3.1.3.			
Sub-activity 3.2.1.			
Sub-activity 3.2.2.			
Deliverable 3.2.1.			
Sub-activity 3.2.3.			
Deliverable 3.2.2.			
Sub-activity 3.3.1.			
Sub-activity 3.3.2.			
Deliverable 3.3.1.			
Sub-activity 3.3.3.			
Deliverable 3.3.2.			
Sub-activity 3.3.4.			
Deliverable 3.3.3.			

17. Costs: 104,000.00 €

Action 3 will be implemented within the framework of the Phase 2 of the IMPACT project as part of a cross-border co-operation project *CICPA: Common Initiatives in Conserved and Protected Areas*. The CICPA project was jointly developed by the EUCC Baltic Office staff, external experts, and regional stakeholders of Pajūrio (Littoral) Regional Park as a result of the IMPACT project activities in Phase 1. It will be implemented by the consortium of regional stakeholders partly funded by ERDF (Interreg South Baltic Programme 2014-2020), partly by the consortium partners themselves, and partly by the Government of the Republic of Lithuania. The activities of Action 3 will be supervised, advised, and reported by the EUCC Baltic Office within the framework of the Phase 2 of the IMPACT project.

18. Funding sources:


i)	ERDF	84,000.00 €
ii)	Government of the Republic of Lithuania	9,000.00 €
iii)	Pajūris Regional Park administration	9,000.00 €
iv)	EUCC Baltic Office	2,000.00 €

Date: March 26, 2018

Signature:  Ramūnas Povilanskas, EUCC Baltic Office Director

Stamp of the organisation

APPROVED BY:

Signature:  Darius Nicius, President, National Association of State Parks and
Strict Nature Reserves of the Republic of Lithuania

Date: March 26, 2018

Stamp of the organisation