



REPORT ON MANAGEMENT TOOLS IMPLEMENTATION

D.T2.3.2 - Public Institution Nature Park
Medvednica (PP09)

Ver. 1.0
12/2019

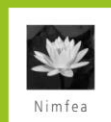




Table of Contents

1. General information	2
2. Sustainable Tourism Action Plan	5
3. Management tools/procedures.....	7
4. Implemented Action(s)	9



1. General information

1.1 - General introduction to the Action Plan and strategic objectives

Public Institution “Medvednica Nature Park” established a Forum of Stakeholders in 2013 and developed a Strategy for Sustainable Tourism of Medvednica Nature Park which resulted in receiving the EUROPARC Charter on Sustainable Tourism in December 2014. The Stakeholders Forum has actively participated in the drafting of the proposal for Sustainable Tourism Strategy together with Public Institution.

At the 21st Forum meeting in 2018 within the CEETO project, workshop was held with the aim of developing the Sustainable Tourism Action Plan (Action Plan) in the Nature Park Medvednica (NPM) with the emphasis on defining the role of individual stakeholders in the project, identifying problems and possible solutions and proposing specific measures.

At the 22nd Forum Public institution Nature Park Medvednica (PINPM) presented the Action Plan proposal to the Stakeholder where they had an opportunity to give their opinions and suggestions. Action Plan was later adopted by the Governing Council in June 2019.

Preparation of the Action plan included the following activities:

- elaboration and conducting of research regarding the structure, habits and views of visitors of the Pilot area and their perception of PINPM as an institution that in within its competence deals with the management of the NPM area
- analysis of the data obtained through research and results of the conducted workshops with the members of the Stakeholder’s Forum
- on the basis of the conducted data analysis was given a proposal of goals and activities to be implemented within this Action plan in a period of 5 years, which was agreed with the members of the Forum and final goals and activities were defined.

PINPM recognized the three main objectives according to the European Charter for Sustainable Tourism in Protected Areas:

- protection of natural and cultural values
- visits management
- communication with the stakeholders.

The Action Plan identified three objectives of Sustainable Tourism, within which 18 activities were elaborated which partially interlink and supplement each other. The activities were defined with the regard to the identified problems and possibilities for their solution that have arisen as a result of the workshop with the members of the Stakeholder’s Forum and conducted research on the structure, habits and views of visitors.



Objective 1: Protection of natural and cultural values

- 1.1 continue with the monitoring of the Veternica Cave
- 1.2 continue with the monitoring of the Zrinski mine
- 1.3 continue with the monitoring of the ski slopes
- 1.4 reconstruction of the Visitor Center Medvedgrad

Objective 2: Visits management

- 2.1 reconstruction of Sljeme cable car
- 2.2 establish a bicycle offer in PPM
- 2.3 NPM visitor survey
- 2.4 improve the CPM touristic value
- 2.5 improve NPM touristic offer
- 2.6 improve traffic signs outside of the Park
- 2.7 visitors' infrastructure regularly maintained and adapted to new demands
- 2.8 improve and upgrade traffic solutions for accessing the peak zone and traffic and standstill

Objective 3: Communication with the stakeholders

- 3.1 redesign of the Nature Park Medvednica website
- 3.2 regularly create and publish leaflets, posters and other promotional and educational materials
- 3.3 encourage media participation in education and information on the protection of natural and cultural heritage in the Nature Park Medvednica and establish a permanent partnership
- 3.4 support Forum members and other stakeholders in developing visitor content which protect and contribute to the values of the Park
- 3.5 educate the members of the Stakeholder's Forum and the wider public on sustainable tourism and other relevant topics
- 3.6 continue cooperation with stakeholders

1.2 - Forum (update)

In June 2013, PINPM founded Nature Park Medvednica Stakeholder's Forum because of the nomination for the European Charter for sustainable tourism. Numerous forum meetings were held, attended by the members of the Forum from various institutions for the nature protection and cultural heritage, tourist sector (tourist boards and the Ministry of Tourism of the Republic of Croatia), fire brigades, police, catering and hotel industry and the local community.

The NPM Stakeholder's Forum has actively participated in the drafting of the proposal for Sustainable Tourism Strategy. Five Stakeholder's Forums have been held so far as a part of the CEETO project. The Forum has over 200 members from different institutions and 27 signed agreements.

The first two meetings within the CEETO project were attended by experts, representatives of scientific and expert organizations, other entities, and representatives of the PINPM as Park's managers. Monitoring programme for Sljeme ski area and the Park area were defined at the meetings the guidelines. The other three meetings were organized as workshops, meetings and field trips for preparation of the Action Plan. 38 representatives from 17 organizations participated in the Action Plan development, among them predominantly Park area users.

21st Forum meeting held in July 2018 was very important and included a workshop which aim was to develop the Action Plan in Nature Park Medvednica, with an emphasis on defining the role of individual stakeholders in the project, identifying problems and possible solutions and ultimately proposing specific measures.

At the 22nd Forum meeting PINPM presented the Action Plan proposal to the Stakeholders, which was later adopted by the Governing Council in June 2019.



1.3 - Stakeholders involvement in the Action Plan

Members of the Forum were actively involved in the implementation of the CEETO project, primarily in the elaboration of the Park's Sustainable Tourism Action Plan. Among the members of the Forum, the institutions that could actively contribute in the development of the Action Plan and ultimately its implementation, to enable sustainable development of tourism and recreational activities were selected. Workshops participants identified stakeholders' roles, visitors' management issues and possible solutions with concrete measures. All results were integrated in the Action plan proposal which was presented during the last workshop.

The Forum includes representatives of sport related service providers and users, local community, hikers, institutions and entities responsible for security, transport sector, accommodation and gastronomic facilities, nature and environment protection, forestry and tourism institutions as well as external consultants.

Stakeholders are continuously included in the implementation of the Action Plan and in the conducting of monitoring of snow, water and soil of the ski area.

They are the important part of the developing process: within their competencies they can recognize the problems and act in a way that will in the future ensure implementation of tourism and recreational activities in sustainable manner. All of them are users of the Pilot area, such as institution Sports Facilities Management, Sljeme Ski Resort, Croatian Ski Association, ski clubs, or have the authority to manage roads, public transport and have the obligation of nature conservation.



2. Sustainable Tourism Action Plan

2.1 - How would you assess your overall progress towards in sustainable tourism, bearing in mind where you started?

Since 2014, PINPM actively works on the implementation of the Sustainable Tourism and with the Action Plan PINPM gets closer to the achieving the goals.

PINPM is currently in a process of reapplying for the ECST with fulfilling the Re-Evaluation Application Report.

2.2 - Have the actions provided for in the plan so far been implemented? If not, why?

The activities from the Action Plan have mostly been implemented so far. PINPM continues to implement them with the cooperation with the relevant stakeholders. PINPM implemented the activities from the objective “Protection of natural and cultural values”: continues with the monitoring of the Veternica cave, Zrinski mine and the ski slopes. PINPM is also in the process of the reconstruction of the Visitor Center Medvedgrad. As for the objectives “Visits management” and “Communication with stakeholders”, most of the activities have already been implemented or will be implemented in the next few years. The reconstruction of the Sljeme cable car is still in the process and because of it the main road from Bliznec to the peak is closed during the week from 9 a.m. until 4 p.m.

2.3 - What were your most positive achievements? And the main challenges you still face?

PINPM’s most positive achievements are good cooperation with the Stakeholders and monitoring of natural and environmental conditions in the “peak zone”. Thanks to the involvement of stakeholders in the Action Plan, PINPM has received a lot of important information, feedback and support regarding the problems in the Park area. Another positive achievement is the carried-out monitoring of natural and environmental conditions in the “peak zone” to define the initial state of the area. The results of the monitoring give important insight into the visitation impacts on nature and environment.

One of the challenges is managing and cooperation with all the stakeholders and people in the Park area. It is estimated that 1,250,000 residents gravitate from the three surrounding counties, the City of Zagreb, Zagreb County and Krapina-Zagorje County. The Park is visited by over one million visitors annually, mostly domestic visitors. The development of tourism and the increasing visiting trend represent a challenge in managing PA.

For implementation of the Action Plan the main challenges are human resources and financial resources like in implementing many other Strategies, Action Plans and projects.



2.4 - Describe the monitoring you have undertaken of the results of your Action Plan.

The Visitor survey was conducted which has given the insight into the visitors' structure, views and habits. The given information will be important for the Visits management objective. The car counters and cameras give good insight into the number of vehicles entering the park and the overload of parking spaces which will be useful for the regulation of the traffic. Monitoring of natural and environmental conditions in the "peak zone" was done to define the initial state of the area and to give the insight into the visitation impacts on nature and environment.

The results of the monitoring with car counters and cameras can be found in the D.T2.4.2 Report on the purchase of thematic equipment necessary for pilot actions and D.T2.5.1 Pilot Action Final Report. In D.T2.5.1 can also be found the results of monitoring of natural and environmental conditions in the "peak zone", while the results of the survey can be found as a part of the D.T2.2.3 Sustainable Tourism Action Plan.

2.5 - Updating strategy and actions, the process (es) and timetable(s), making reference to the Forum and the involvement of local stakeholders.

Objective 1: Protection of natural and cultural values

PINPM, with the help of the stakeholders and external experts, is in the process of the reconstruction of the Visitor Center Medvedgrad and continues with the monitoring of the Veternica cave, Zrinski mine and the ski slopes.

Objective 2: Visits management

PINPM, with the help of the stakeholders and external experts, works on establishing a bicycle offer, improving the CPM touristic value and NPM touristic offer. The City of Zagreb has been working on improving the traffic signs outside the Park and the reconstruction of the Sljeme cable car, and in the next few years it will work on improving and upgrading the traffic solution for accessing the peak zone and traffic at standstill.

Objective 3: Communication with the stakeholders

PINPM has redesigned the NPM website. PINPM will continue to create promotional and educational materials and encourage media participation in education and information on the protection of natural and cultural heritage. It will also continue to support Forum members and other stakeholders in developing visitor content which protects and contributes to the values of the Park. PINPM will also educate the members of the Stakeholder's Forum and the wider public on sustainable tourism and other relevant topics.



3. Management tools/procedures

3.1 - What management tools/procedures have you used? (not only in your Pilot Actions)

Public Institution „Nature Park Medvednica“ chose three monitoring tools from the D.T1.2.1 Inventory of planning-management-monitoring tools and success stories for sustainable tourism in protected areas:

- car counting and video camera- electronic car counters and video cameras were installed to determine the number of vehicles and the capacity of parking space in the Park
- survey- in-depth survey on the structure, habits and views was done among visitors and users in the “peak zone” of the Park, especially skiers
- monitoring of natural and environmental conditions in the “peak zone”- of the Park was done, especially of the northern part of the Park with the skiing area, to define the initial state of the area.

3.2 - Cooperation with other competent bodies in the implementation of management activities

PINPM has a good cooperation with the stakeholders and other competent bodies. They are all willing to help with the implementation of the Action Plan and the problems the Park encounters.

Although PINPM has good cooperation with other competent bodies, the management process could be improved through:

- better cross-sectoral cooperation - to improve the possibility of withdrawing funds from different sources of funding (European Regional Development Fund, The European Agricultural Fund for Rural Development)
- cooperation with the local levels, in particular City of Zagreb.

3.3 - Assessment of strengths/weaknesses about management tools/procedures used

Survey is a simple method that allows the collection of both quantitative and qualitative information. It can also be conducted online. It gives good information on the visitors and their opinions.

The strength of using car counters as a monitoring tool is that knowing the average number of people per vehicle makes it possible to estimate the number of visitors. It is also possible to identify the seasonality of visits throughout the year.



PINPM encountered a few technical difficulties. Due to the positioning of the Park, there were problems with the mobile reception, which caused the car counters not to transfer data regularly. Due to this and other technical difficulties, the equipment was adjusted a few times accordingly.

PINPM installed one-way counters which gives good results but two-way counters at the north part (at the Hunjka), would provide better information, i.e. it would be easier to determine how many vehicles go to the Krapinsko-Zagorska County, and how many vehicles go back to the city of Zagreb.

Also, cameras do not provide an option of storing the data for a period of time but only show current situation which is also a weakness because the data is hard to analyse this way.

PINPM did not know the road from the main entrance to the peak will be closed for so long. Since February 2019, the road is closed during the week, from Monday till Friday, between 9 a.m. and 4 p.m. It is open at two intervals, one at 11:30 a.m. and the other at 1:50 p.m., both coordinated with regular public transport.

3.4 - Have you identified other innovative tools/procedures?

PINPM has identified one innovative procedure. PINPM grants concession approvals to the businesses led by our stakeholders. The concession can be granted for the period of one, two or three years according to the Nature Protection Act.

There are certain nature protection conditions within the concession approvals. Every year, a Croatian Ski Association as a FIS race organizer is granted concession approval with a financial obligation. An innovative procedure is that within the concession approval there is a condition that the stakeholder has to carry out monitoring of snow, water and soil. The purpose of the process is for the stakeholder to understand the importance of the protected area. This procedure wasn't implemented right away, it needed time, longer cooperation and explanation for them to understand their responsibility in the protected area.



4. Implemented Action(s)

4.1 - Action 1

A) Brief description of the action (tools /procedures) B) Strategic reference objective C) Monitoring tools and management procedures activated

Electronic car counters and video cameras were installed to determine the number of vehicles and the capacity of parking space in the Park.

PINPM installed the technical equipment in November 2018. Car counters are located on two separate locations. One near the headquarters of PINPM at Bliznec and the other one on the main two-way road, near the skiing slopes which leads to the Krapinsko-zagorska county.

Two car counters work on radar sensors and are equipped with GSM/GPRS modem so data is easily collected through mobile phone application and special programme named "Traffic analyzer".

Goal for installing car counters was to record the number of vehicles entering the area of Medvednica Nature Park and leading to the pilot area (ski resort and peak area).

PINPM also installed three cameras on three different locations: first one at the main entrance, second one near the hotel Tomislavov dom, and the third one on the intersection in the Pilot area. Cameras have live transmission and two of them monitor parking areas (first and the second one) while the third one provides information both on traffic congestion and parking.

The goal for installing cameras was to be able to detect when all the parking spaces are occupied so that the stakeholders can intervene and try to prevent car jams.

It is important to emphasize that, in accordance with the Decree of City Office for the Local Self-Administration (City of Zagreb), the road traffic to Sljeme was banned at the road section from Bliznec to Stara Lugarnica, every week day from 09:00 a.m. until 4 p.m. During the mentioned period it has been possible to use Sljeme Road from 11:30 to 13:50 hours following regular public transport.

D) Stakeholder involvement

Stakeholders were properly informed, involved and consulted. They gave suggestions for improvement of the current condition and possible solutions for the problems such as lack of parking spaces and a large amount of traffic causes clogging of the road leading to the Pilot area and causing problems in wider area of the Nature Park.

E) Specific results

Electronic car counters and cameras provided certain results:

- car counters provide quantitative data about visitors
- cameras ensure constant surveillance of the Park's parking areas
- insight in the traffic intensity on the Park's main access road
- overload of parking space.



4.2 - Action 2

A) Brief description of the action (tools /procedures) B) Strategic reference objective C) Monitoring tools and management procedures activated

In January and February 2019, PINPM conducted an in-depth survey on the structure, habits and views among visitors and users in the “peak zone” of the Park (especially skiers).

Surveys of visitors’ profiles and opinions were conducted two times before the start of CEETO project; in the period from May 2007 to May 2008 and during 2012. Research has shown, among other, that the Park is primarily visited by local visitors (an average of 99.3%) from the immediate vicinity (City of Zagreb and Zagreb County), and majority of them visit the Park peak area. A visitors’ survey conducted under D.T2.2.3 Sustainable Tourism Action Plan during January and February 2019 confirms that the highest number of Park visitors comes from Zagreb (76.8%). Most visitors use their own cars to get to the Park, and the most common reason is simple access, but often it is due to the lack of a cable car or low public transport capacity.

The most common visitation motive is recreation. Almost all visitors (96.6%) are aware that the Park needs protection, and they recognize that the most significant pressures are logging, too many cars and (over) construction.

Visitors are mostly bothered by the number of cars and they are dissatisfied with the organization of parking in the peak zone. Among all the solutions offered to reduce traffic pressure, visitors responded most positively to the construction of a cable car, additional parking at the foothill with the organized transportation to the peak zone and they generally showed a willingness to pay for the reservation of parking places. These results correspond to the previous research conducted in 2009 and 2012.

D) Stakeholder involvement

Stakeholders were included in the making of the survey at the Forum meetings as well as conducting field survey. Surveys were also distributed at one ski club (which is a member of the Stakeholder’s Forum) and at one catering facility.

E) Specific results

Survey provided certain results:

- insight in the visitors' profiles and opinions
- defining possible solutions
- raising awareness of visitors on visitation intensity and pressures on the Park's natural values
- improvement of Park's visitors' satisfaction.



4.3 - Action 3

A) Brief description of the action (tools /procedures) B) Strategic reference objective C) Monitoring tools and management procedures activated

Monitoring of natural and environmental conditions in the “peak zone” of the Park was done, especially of the northern part of the Park with the skiing area, to define the initial state of the area and the visitation impacts on nature and environment. Based on LAC (*Limits of Acceptable Change*) methodology and in consultations with experts, a set of relevant indicators was defined, as follows:

- Environment indicators: hydrological, soil and edaphic indicators, climatological indicators
- Nature indicators: vegetation records; stream and wells fauna - stone crayfish, yellow-bellied toad and Italian crested newt; meadows biodiversity; (other) invertebrates’ indicators - Rosalia longicorn and long-horned beetle.

The selected indicator species are targeted by Natura 2000 species of Medvednica Nature Park and Natura 2000 site HR2000583 Medvednica.

The planned monitoring of selected indicators of visitation related pressures on nature and environment was implemented in the period between June and September 2019. The research was focused on the peak area of the Park, as well as the broader area influenced by intensive visitation. The selected locations were: the ski track Crveni spust, artificial water retention (Jezero), surrounding forest area and watercourse Bistra. Hunjka meadow, as a location under lower visitation pressure, was selected as a control point and as such, used for benchmarking against samples collected from the locations under intensive visitation pressures. The locations for the monitoring were proposed during the first two stakeholders’ meetings, and were further confirmed after the field visits.

D) Stakeholder involvement

Stakeholders gave a proposal for the monitoring and gave directions/instructions on the best time for going out to the field and the monitoring (recording of vegetation).

E) Specific results

Monitoring of natural and environmental conditions provided certain results:

- important information about the current state and the effects of certain actions on the environment
- identification of visiting pressure on environment and nature.