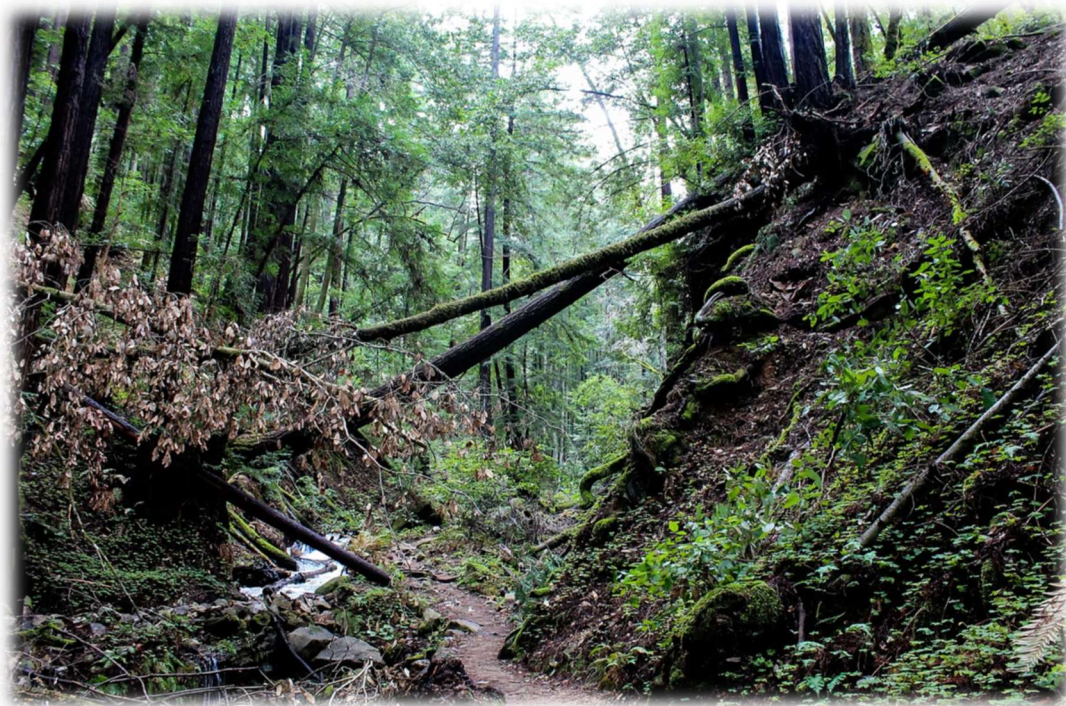




The socio-economic benefits of
non-intervention measures in Natura 2000 forests
(with five cases)
Analytical Report



November 2019



This study has been prepared with the contribution of the LIFE financial instrument of the European Community. The sole responsibility for the content of this publication lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EASME nor the European Commission is responsible for any use that may be made of the information contained therein.

CEEweb for Biodiversity
Széher út 40. 1021 Budapest, Hungary
Phone: +36 1 398 0135
Fax: +36 1 398 0136
ceeweb@ceeweb.org
www.ceeweb.org

CEEweb for Biodiversity is a network of non-governmental organizations in the Central and Eastern European region. Our mission is the conservation of biodiversity through the promotion of sustainable development.

Introduction

The purpose of this analytical report on the Natura 2000 network is to conceptualize the wilderness management method, or in other words non-intervention management of the Natura 2000 protected areas and their socio-economic benefits. The paper aims to clarify concepts related to the method, practices and aims of non-intervention management and analyze the advantages and therefore serves as an overview of why considerations of the social and economic benefits alongside the ecological benefits may prove to be an effective way to implement non-intervention management practices on Natura 2000 protected areas and how disadvantages resulting from the approach may be outweighed by strengthening the effect of the various benefits this management approach offers.

Natura 2000

Natura 2000 is a network of protected areas including 27 500 protected sites that covers 18 % of EU land territory and 7% of its marine areas.¹ It is the largest network of protected areas in the world. Together with the system of species protection, Natura 2000 aims “to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora”² across the EU.

The major goal of Natura 2000 is to maintain or achieve a favorable conservation status of habitats and species. To achieve protection as such there are different methodologies put into practice by EU member states. It may be strict protection, such as non-intervention management³ but an also be slightly modified more flexible management methods.

In many cases, protection of biodiversity allows land to be altered by human land-use practices; however, this integrated conservation approach is the source of most conflicts related to the implementation of Natura 2000.⁴

In the Birds and Habitats directives non-intervention, or in other words wilderness management approach is not included; several Member States apply strict protection in parts of their Natura 2000 network to protect sites' natural conditions and to enhance biodiversity. This requires minimal human intervention to allow natural processes to predominate. There are good examples for non-intervention management in the Natura 2000 network.⁵

¹ European Commission, 2012. Nature and Biodiversity. Homepage. http://ec.europa.eu/environment/nature/index_en.htm (accessed 12.05.19).

² European Commission, 2012. Nature and Biodiversity. Homepage. http://ec.europa.eu/environment/nature/index_en.htm (accessed 12.05.19).

³ Winter, S., Borrass, L., Geitzenauer, M., Blondet, M., Breibeck, R., Weiss, G., Winkel, G., 2014. The impact of Natura 2000 on forest management – a socio-ecological analysis in the continental region of the European Union. *Biodivers. Conserv.* 23 (14) 3451–3482

⁴ Winkel, G., Jump, A., 2014. Perspectives on forest conservation. Building evidence at the frontier between policy and conservation science. *Biodivers. Conserv.* 23 (14) 3359–3372.

⁵ European Commission. 2013. Guidelines on wilderness in Natura 2000.

Wilderness concept and non-intervention management

Wilderness areas can be described as large territories without major human interference, the lack of which allows for natural processes to occur and wildlife to thrive in their natural ecological state.⁶

Through the World Commission on Protected Areas (WCPA) IUCN offers international guidance on the interpretation of wilderness. Within the six IUCN categories the majority of wilderness areas in Europe fall into one of the following three categories, the objectives of which are in line with wilderness management objectives: (1) Ia - Strict nature reserve, (2) Ib – Wilderness area, or (3) II - National park.⁷

Management and ecological significance of non-intervention management of Natura 2000

Careful planning and a systematic approach complemented by a well-constructed compensation system may guarantee sustainable long-term implementation of non-intervention management.⁸ Furthermore, establishing cooperation and setting common goals with local stakeholders and developing co-management of wilderness areas is essential to adapt this management method more widely.

Ecological benefits of non-intervention management

“Scientific evidence shows that wilderness areas are resilient against pressures affecting biodiversity and should be considered important tool in helping achieve biodiversity targets. Wilderness areas inside and outside protected areas could e.g. deliver an important element of Green Infrastructure, by the amount of various ecosystem services these core areas could potentially deliver, and their function as reservoir of biodiversity that can be drawn upon to re-populate and revitalize degraded ecosystems.”⁹

Social and economic benefits of non-intervention management of Natura 2000

In addition to its ecological significance, wilderness in Europe provides strong and sustainable economic, social, cultural and spiritual benefits. Europe is a very densely populated continent; therefore, all the above-mentioned benefits have priority. Wilderness areas are a solid source for long-term research with the opportunity to learn about natural ecosystem dynamics and offer great venue for visitors to gain first-hand experience about natural processes.¹⁰

⁶ Pan Parks Foundation. 2009. As nature intended: best practice examples of wilderness management in the Natura 2000 network.

⁷ Protected Area Categories. 2018. Retrieved from <https://www.iucn.org/theme/protected-areas/about/protected-area-categories> (Accessed 15.05.2019)

⁸ European Commission. 2013. Guidelines on wilderness in Natura 2000.

⁹ European Commission. 2013. Guidelines on wilderness in Natura 2000.

¹⁰ Pan Parks Foundation. 2009. As nature intended: best practice examples of wilderness management in the Natura 2000 network.

In a very modern, mechanized world, there is an increasing need for emotional feelings of liberty, solitude, relaxation, and experience of nature in large spaces of wilderness, so re-creating such places for our progeny seems to be a duty.¹¹

“The good news for wilderness in the EU is that the European Commission has been shown to be receptive to wilderness approaches in Natura 2000 sites. This is clear from the Guidelines, but is also illustrated by the explicit option provided to applicants for LIFE projects to consider a wilderness approach, not merely as ‘a substitute to best practices currently used’, but as an approach that ‘could be tested as a complementary way of biodiversity conservation for species and habitats identified in the Habitats and Birds Directives’.”¹²

The non-intervention method entails the possibility to increase the socio-economic benefits such as maintaining water flow and quality, conserving natural pollinators, preserving landscape and amenity values, and supporting tourism and recreation. “The benefits that flow from Natura 2000 are of the order of €200 to 300 billion/year. It is estimated that there are between 1.2 to 2.2 billion visitor days to Natura 2000 sites each year, generating recreational benefits worth between €5 and €9 billion per annum. Therefore, investing in Natura 2000 makes sense and is directly relevant to Europe 2020 objectives of growth and employment as it can be a motor for the local and regional economy.”¹³

Areas protected by non-intervention or wilderness approach and national parks, are often regarded as a collective heritage or patrimony, and are mainly protected due to a perception of shared cultural or social value being placed on treasured landscapes, charismatic species or natural wonders, and are therefore likely to provide important social and cultural services. Wilderness areas have high landscape and amenity values and provide areas for eco-tourism which can have a significant impact on incomes, jobs, and business opportunities. They are an invaluable resource for science, scientific research and education and inspire cultural and artistic expression. Sometimes they are part of religious pilgrimages.¹⁴

What may be the most important for future generations is that wilderness and wild areas play an important role in awareness raising regarding environmental issues.

¹¹ Schnitzler, A. 2014. Towards a new European wilderness: Embracing unmanaged forest growth and the decolonisation of nature. *Landscape and Urban Planning*, 126, 74-80.

¹² European Commission. 2013. Guidelines on wilderness in Natura 2000.

¹³ European Commission. 2013. Guidelines on wilderness in Natura 2000.

¹⁴ European Commission. 2013. Guidelines on wilderness in Natura 2000.

Non- intervention measures illustrated

The concepts, practices, aims and advantages as well as disadvantages of non-intervention management will be explored through five different examples within CEE- countries.

Tara Mountain

Tara Mountain is a nature conservation area of 24.991ha located in west of Serbia in an altitude of 1000- 1200 meters above sea level. It was declared as a nature conservation area in 1981 because it is Important Plant Area (IPA), Important Bird Area (IBA) and Prime Butterfly Area (PBA). It has also been identified together with Zaovine and Nature park Mokra Gora by UNESCO MAB committee as a biosphere reserve. ¹⁵



The forest area contains a broad variety of species; more than 40 species of coniferous, coniferous phytocenoses, broadleaf and deciduous forest. It holds 1/3 of all floral species of Serbia and 50 species of mammals, 140 species of birds and 23 species of amphibians and reptiles as well as 19 fish species. The nature conservation area is home to a brown bear and Pancic's Grasshopper. In addition, collection of Neolithic and modern time monuments is located in the forest, few of them such as Raca Monastery, are on UNESCO World Heritage List. ¹⁶

Tara National Park is managed through public enterprise called 'Tara National Park'. It is further divided for four sectors and an independent service; planning, conservation and development sector, sector of land use, sector for general and legal affairs, sector for economic and financial affairs as well as ranger services. It is an enterprise that takes care of social, ecological and business side of Tara National Park. It offers services such as accommodation, hiking-, hunting- and fishing options as well as bear tours. ¹⁷

¹⁵ Tara National Park. N.d. Retrieved from <https://www.nptara.rs/en/contact/prijatelji.html>

¹⁶ Tara National Park. N.d. Retrieved from <https://www.nptara.rs/en/contact/prijatelji.html>

¹⁷ Tara National Park. N.d. Retrieved from <https://www.nptara.rs/en/contact/prijatelji.html>

Tomicevic, Shannon and Milovanovic (2010) illustrate socio-economic and ecological management model through example of small rural town of Rasiste, located next to the Tara National Park. The residents are scattered along a wide area and the demography of the village consists of aging people, high unemployment and movement towards bigger cities. Group mostly suffering from the situation are women and the elderly. The villagers' main income comes from agriculture and forestry. Challenges with finding markets, lack of proper infrastructure or labor force has negative effectives to human, social, physical, natural and financial capital of the local people.¹⁸

Tara National Park has included town of Rasiste to conservation efforts and it has improved the conservation management and the overall situation of the community. The citizens can impact the local area, feel belonging to their community and earn a living while conserving the national park. Collaboration between the park management and the locals could mean improved infrastructure and maintenance measures, employment or collecting medicinal plants or tourism. In developing the national park management and collaboration between the locals, aspects as human and social capital development, education and adequate financial compensation was seen as important factors.¹⁹

Bialowieza Forest

Bialowieza Forest is a complex of several old forests with a total area of 150,000ha located in the boarder of Belarus and Poland. It is located close to a water divide of two rivers and has the best preserved deciduous and mixed forest in European Lowlands. It is rich in decaying wood which provides home to several mushrooms, bacteria and insects as well as to the European Bison. The European Bison was killed from the forest in 1925 but with the help of a successful breeding program, they were re- introduced in 1952. Currently there are around 700 wild bison's in the area. It is also UNESCO's list of World Biosphere Reserves and World Heritage list.²⁰



¹⁸Tomicevic, J., Shannon, M.A. & Milovanovic, M. 2010. Socio-economic impacts on the attitudes towards conservation of natural resources: Case study from Serbia. *Forest Policy and Economics*, 12, 157-162

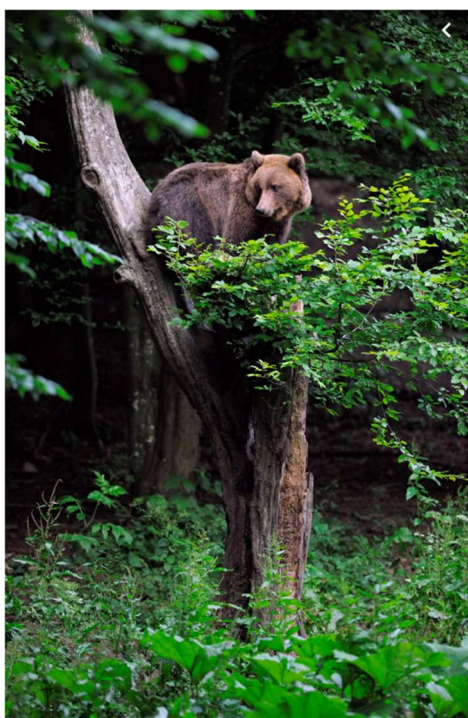
¹⁹ Tomicevic, J., Shannon, M.A. & Milovanovic, M. 2010. Socio-economic impacts on the attitudes towards conservation of natural resources: Case study from Serbia. *Forest Policy and Economics*, 12, 157-162

²⁰Polish Tourism Organisation. 2019. Retrieved from <https://www.poland.travel/en/discover/unesco-sites/bialowieza-forest-the-national-park>

Socio-economic and ecological benefits of Bialowieza Forest can be seen through local town of 2500 citizens of Bialowieza. The nature area provides to the locals 250,000 € worth of revenues through selling berries, mushrooms and nuts for the food processing or medical industry.²¹ Being rich in biodiversity, it provides ecosystems services to locals such as firewood, water provisioning services, recreational- and medicinal services. Tourism and park management offers 110 jobs, for example through service such as bakeries, cafes or transport. It is an interesting target for researchers because of its unique nature and provides valuable scientific knowledge.²² Bialowieza Forest also offers six million euros worth of timber that is been shipped out from the region.²³

Southern Carpathians

Mountain range of Southern Romania hosts variety of species and intact nature for 1 million hectares. Animals such as brown bear, lynx, wolf, wild cat, red and roe deer, wild boar and chamois are still low on numbers because of heavy hunting in the past. Giving up farmland has also created more demand for revenue streams for locals.²⁴



Southern Carpathian regions faces challenges on declining population due to high unemployment. Differences between the rich and poor is rising, specifically effecting women and elderly. Traditional agriculture and land management methods are fading and impacting negatively to the

²¹ Fact Sheet: The Socio-Economic Benefits of Natura 2000 in Central and Eastern Europe. 2014. Retrieved from https://www.ceeweb.org/wp-content/uploads/2015/02/CEEweb_N2000_fact_sheet_online.pdf

²² Pabian, O. & Jaroszewicz, B. 2007. Case study on the ecosystem services provided by Bialowieza Forest (Poland). Output of the project Financing Natura 2000: Cost estimate and benefits of Natura 2000.

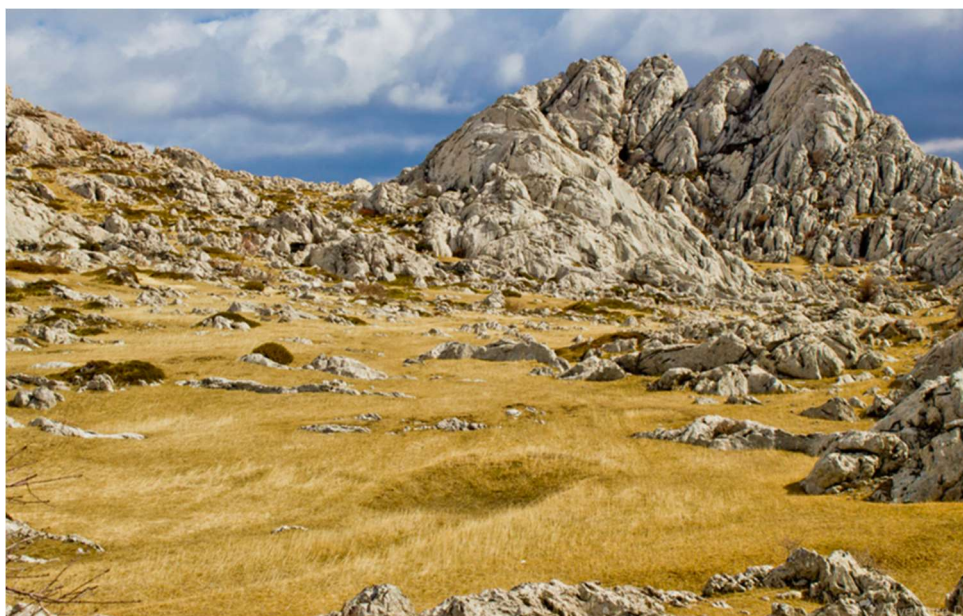
²³ Fact Sheet: The Socio-Economic Benefits of Natura 2000 in Central and Eastern Europe. 2014. Retrieved from https://www.ceeweb.org/wp-content/uploads/2015/02/CEEweb_N2000_fact_sheet_online.pdf

²⁴ Rewilding Europe. N.d. Retrieved from <https://rewildingeurope.com/areas/southern-carpathians/>

land and local society.²⁵ In the area socio- economic and ecological benefits are planned to be mixed and create a combination where the locals are earning an income by selling their local produce but also to create new opportunities to new entrepreneurs for example through tourism. Simultaneously wilderness area conservation would be managed and new jobs to be created such as bison watching tours. Educational programs on bison are arranged to the tourists and school groups.²⁶

Velebit Mountains

Velebit Mountains are a unique mix of sea level landscapes, beech forests to alpine grasslands located in Adriatic coast of Croatia. It has two nature reserves and a biosphere reserve. The Velebit Natural reserve is 17, 000 ha and situates between two national parks. One can find animal species like brown bear, chamois or lynx.²⁷



The area suffers from movement towards cities, land abandonment, loss of traditional knowledge and unemployment. Rewilding Europe- organization is in the process of developing the socio-economic and ecological services in the area. Recently established Velebit Natural reserve provides fresh information on wildlife management and development of local socio-economic solutions for tourism and preserving local knowledge. Locals can for example making revenue by selling local produce or provide tourism services. Velebit Mountain's traditional forestry model is been preserved by restoring Lika plains and introducing wild and semi-wild grazers back to the natural food cycle.²⁸

²⁵ Pomazi, I. & Szabo, E. 2010. Main socio-economic and environmental trends in the Carpathian Region. Hungarian Geographical Bulletin, 59 (2), 147-165

²⁶ Rewilding Europe. N.d. Retrieved from <https://rewildingeuropa.com/areas/southern-carpathians/>

²⁷ Rewilding Europe. N.d. Retrieved from <https://rewildingeuropa.com/areas/velebit-mountains/>

²⁸ Rewilding Europe. N.d. Retrieved from <https://rewildingeuropa.com/areas/velebit-mountains/>

Rhodope Mountains

Rhodope Mountains is located in Bulgaria as part of Bulgaria's Balkan Mountain region.²⁹ It is the last breeding spot for griffon vultures as well as important spot for variety of eagles and falcons. It also holds mammals as wolf, jackal, souslik and otter as well as brown bear.³⁰

Bulgarian Balkan Mountain area is one of the poorest areas in Europe and suffers from aging population, unemployment and depopulation. Overexploitation of natural resources such as timber or herbs, is deteriorating habitats. Traditional farming methods are being lost because traditional small-scale farms cannot establish large scale and modern farming facilities to match the competition in EU.³¹



Seven organizations and institutions came to work together with local farmers and small companies to develop an innovative payment scheme. The local small-scale companies and farmers assisted in maintaining ecosystem services such as through tourism, farm land and tradition maintenance or bee-keeping business. Youth were also been educated in natural conservation and farming methods.³²

Rewilding Europe is restoring and strengthening food chains at Rhodope Mountains, specially of griffon vultures by supporting the release of deers to the area by restoring natural habitats. Habitats are also restored for release of bison or wild horses for use as well as reviving the local souslik. This also provides employment to local people and information to tourists or school classes.³³

²⁹ Official Tourism Portal of Bulgaria. N.d. Retrieved from <https://www.bulgariatravel.org/en/Article/Details/4077/Nature#map=6/42.750/25.380>

³⁰ Rewilding Europe. N.d. Retrieved from <https://rewildingeuropa.com/areas/rhodope-mountains/>

³¹ European Commission. 2017. Socio-Economic Benefits Award. Retrieved from https://ec.europa.eu/environment/nature/natura2000/awards/2016-edition/winners/socio-economic-benefit/index_en.htm

³² European Commission. 2017. Socio-Economic Benefits Award. Retrieved from https://ec.europa.eu/environment/nature/natura2000/awards/2016-edition/winners/socio-economic-benefit/index_en.htm

³³ Rewilding Europe. N.d. Retrieved from <https://rewildingeuropa.com/areas/rhodope-mountains/>

Conclusion

Non-intervention management aims to allow natural processes by preventing disturbance by human activities that would have significant effects on biodiversity. To be addressed successfully, the conservation of existing wilderness areas and implementation of non-intervention management methods need to be embedded within the social, cultural and historical context of the relevant region. In order to gain the support of local communities, it is important that they can understand the opportunities offered and the environmental, social and economic benefits resulting from non-intervention management.³⁴

As discovered from the example cases, remote communities often suffer from depopulation, unemployment, poverty and loss of traditional knowledge and methods. The ones suffering the most are elderly and women. Natural areas suffer from movement to cities as well as the habitats are not been maintained.

Increasing social and economic solutions to support conservation management is a beneficial solution to everyone like example cases proved. Local communities feel sense of belonging, continuation of traditional knowledge is been ensured, infrastructures and local areas remain maintained, locals can earn a living by working on their livelihood, natural park management benefits from services locals provides example to tourists and tourists or school classes receive important information about environment. Biodiversity benefits as well when both the service providers and users benefit from diversity of nature. This helps to preserve species and biophysical flows nature is dependent and of which people benefit.

³⁴ European Commission. 2013. Guidelines on wilderness in Natura 2000.

Sources of images

<https://www.nptara.rs/en/for-visitors/2019-02-14-12-55-20/photo-gallery.html>

<https://paulinaontheroad.com/14-best-things-to-do-near-bialowieza-forest-poland/>

<https://rewildingeurope.com/areas/southern-carpathians/>

<https://adventuredalmatia.com/locations/velebit-mountain/>

<https://www.shutterstock.com/es/search/rhodope+mountains+europe>