



COUNCIL OF EUROPE
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2021 Annual Report for Samaria (Lefka Ori) National Park

State: Greece	
Name of the area: Samaria (Lefka Ori) National Park – (designated as “Cretan White Mountains National Park”)	
Year and number of years since the award or renewal of the European Diploma for Protected Areas: 2021, 2 years after the last renewal (11/2019). First award: 1979.	
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1. Conditions: List here all conditions which were attached to the award or the renewal of the European Diploma. Explain either how the conditions have been totally complied with or detail the progress in complying with the conditions. Please also indicate any unresolved difficulties that you have encountered.

N/A

2. Recommendations: List here all recommendations which were attached to the award or the renewal of the European Diploma. Explain either how the recommendations have been totally complied with or detail the progress in complying with the recommendations. Please also indicate any unresolved difficulties that you have encountered.

1. proceed as quickly as possible to the signing of the pending presidential decree recognising the new boundaries of the Samaria National Park; adapt accordingly the funding of the management board and the implementation of the management plan; continue the monitoring of species and ecosystems, including in particular the phenomenon of drying pine trees;

1. Proceed as quickly as possible to the signing of the pending presidential decree recognising the new boundaries of the Samaria National Park.

1.a Law 4790/2021 (Government Gazette τΑ48) was issued and in accordance with article 122, the management of the White Mountains National Park (Samaria Gorge) is extended to the Decentralized Administration of Crete through the Chania Forest Department.

1.b Adapt accordingly the funding of the management board and the implementation of the management plan

According to Greek legislation - Law No 1650/1986, as it was amended with Law No 4685/2020 - a "National Park" is established through a Presidential Decree following the conduction and approval of the Specific Environmental Study (SES) for the area. The SES proposes the boundaries of a National Park, its zonation, the necessity for the establishment or not of regional zones or ecological corridors, and it also makes provisions for the regulation of activities to maintain the protected objects.

For the National Park of Samaria, a SES was completed in 2009 (before the new provisions that Law 4685/2020 issued), and it was approved according to the no. 36130/1119/18-7-2016 Decision of the General Secretary of the Ministry of Environment & Energy. After that, the Draft of the Presidential Decree was set to public consultation. This procedure was finalized in 2016. The signing of the relevant Presidential Decree, however, did not proceed. In 2017 the Ministry of Environment & Energy announced a call for tenders for the conduction of the SESs and Management Plans for all the NATURA 2000 of Greece. In 2019, a contract was assigned to a group of experts to conduct the SESs and Management Plans for the NATURA 2000 sites of the region of Crete. The SES for the National Park of Samaria (Lefka Ori) is going to be revised, under the context of the previously mentioned Law No. 4685/2020. The SES will be set to public consultation in order to finalize the text of the Presidential Decree that will characterize the protected area as a "National Park". Currently, the SES & Management Plan for the NATURA 2000 sites of the western part of Crete (a part of which is the Samaria National Park) is conducted.

The system for governing protected areas in Greece is under reformation after the issuing of Law No 4685/2020 "Modernization of environmental legislation, incorporation into Greek legislation of Directives 2018/844 and 2019/692 of the European Parliament and of the Council and other provisions". The management of protected areas is going to be assigned to the new legal entity of private law, supervised by the Ministry of Environment and Energy, called "Natural Environment and Climate Change Agency".

Currently administrative preparations are made so that the New Agency can fully uptake its responsibilities. It is expected that soon (within the next months) the management of the National park of Samaria is going to be assigned to the "Natural Environment and Climate Change Agency".

Provisions have been made for the permanent funding of the new Agency for its operational costs by the state.

The new Agency can have other funding sources, such as the implementation of entrance tickets to protected areas. The Resources and Financial Management of the new Agency is described in detail in article 31 of Law 4685/2020. The Management Bodies (the current management model) are currently operational but they will be abolished as soon as the new Agency is organized and able to uptake its responsibilities. Management Bodies will then be transformed in Management Units of Protected Areas (local units of the "Natural Environment and Climate Change Agency"). The co-funded projects that are currently implemented by the Management Bodies, according to Law No 4685/2020, - will not be terminated but they will be redirected to the "Natural Environment and Climate Change Agency" as the sole beneficiary.

The management plans for the protected areas of Greece are under compilation, as already mentioned in the previous section. Their implementation will be under the jurisdiction of the "Natural Environment and Climate Change Agency" in cooperation/through its local units - to be established - called, as previously mentioned "Management Units of Protected Areas" and the other relevant authorities.

1.c Continue the monitoring of species and ecosystems, including in particular the phenomenon of drying pine trees;

The Management Body of Samaria National Park-West Crete (MB) in 2012 established a monitoring program for the two NATURA 2000 sites GR4340008 and GR4340014, covering the total size of the expanded National

Park. The program includes the monitoring of important habitat types and species of flora and fauna, according to the European and the Greek legislation, or species which are considered threatened according to international institutions (e.g., IUCN). In particular, at present, monitoring is implemented for: 17 terrestrial habitat types, 32 plant species, 31 species of fauna (terrestrial molluscs, terrestrial arthropods, amphibians, reptiles, bats, other mammals and micromammals), 3 marine habitat types, 4 marine species, and of the species of avifauna.

The conducted research is funded through the Operational Program "Crete 2014-2020, NSRF 2014-2020, it has duration until the end of 2023, and is conducted through contract assignments to scientific experts in each field.

The MB, also, in 2012 installed 3 meteorological stations in the National Park, which operate since then on a continuous basis (<https://www.samaria.gr/el/meteorologikoi-stathmoi1/>). The meteorological parameters monitored follow the standards set from the National Observatory of Athens, with whom the MB collaborates.

As far as it concerns, the phenomenon of drying pine trees, the MB in 2016 funded, in the frames of the NSRF 2007-2013, the "Study for the assessment and evaluation of pine diseases and of its extensibility in Lefka Ori, with subsequent management proposals". In 2019, the MB included in a project funded by the O.P. "Transport Infrastructure, Environment and Sustainable Development" NSRF 2014-2020, the conduction of pilot management actions to address the existing problem and to monitor its process.

The monitoring of sampling plots was assigned to a scientific expert in November 2020 and it has duration until the end of 2023. The conduction of the pilot actions is expected to be signed in 2022.

2.2 open a certain number of side trails along the main trail for several purposes: a. for mountaineering, b. for scientific research, c. to make some historical buildings or ruins accessible for rehabilitation, and d. to create new emergency paths for rescuing people or combating fires. The access to these newly reopened trails should be prohibited for visitors and strictly regulated;

2.2a The Municipality of Chania, working in this direction, implemented a study "Maintenance and restoration of the accessibility of the main path and the auxiliary fire escape routes of the EDS"

2.2b Complementary, the MB participates in the Xenios Project funded by the O.P. "Competitiveness, Entrepreneurship & Innovation" (EPAnEK) 2014-2020. The Project is developed for Samaria National Park and Dion aiming to develop a platform and smartphone application for developing services for the short-, medium- and long-term forecast of extreme natural events and natural disasters in areas of particular tourist and cultural interest, which are also vulnerable to natural hazards. This way, it contributes to more effective management of these risks. In addition, the project aspires to enhance safety and improve the tourism product at these sites, through a mobile app which will offer visitors prompt and reliable information.

Further proposals regarding this recommendation will be examined/studied thoroughly in the future by the "Natural Environment and Climate Change Agency" in collaboration with the relevant authorities.

2.2c In 2020, the study was approved with no. ΥΠΠΟΑ / ΓΔΜΤΕ / ΔΑΒΜΜ / ΤΜΒΜΜ / 218012/26382 / 2330/596 / 14-5-2020 (ΑΔΑ: ΨΖΤ04653Π4-971) Ministerial decision, while with the no. 4575 / 28-09-2020 (ΑΔΑ: ΩΘ237ΛΚ-2ΝΗ) Decision of integration from the Region of Crete, the act was included in the Operational Program "Crete 2014-2020" with OPS Code 5053961, budget 350.000,00 euros, and title Restoration and promotion of five of churches in the Samaria National Park. In the year 2021, the Ephorate of Antiquities of Chania hired a Civil Engineer, prepared bureaucratic procedures for the assignment of building and aggregates, pharmacy, fuel costs and outsourced work to third parties for renovation and stonework. The aim of the act is to restore, highlight and tidy the temples, so that they are delivered statically and morphologically restored and safely accessible, harmoniously integrated into the natural environment of the forest.

2.3 design and apply measures to reverse the observed invasion of old olive groves by pine tree next to the village of Samaria;

2.3a The study of the Directorate of Forests of Chania "Promotion of an olive grove and improvement of infrastructure in the place of Agios Nikolaos" of EDLO for the reversal of the invasion of pines in the olive groves in the place of Agios Nikolaos was approved

2.3b The MB in October 2020 signed a contract with an external consultant to map and evaluate the current state of the old olive groves near the village of Samaria, in the frames of a project under the O.P. "Transport Infrastructure, Environment and Sustainable Development" NSRF 2014-2020. The project ended in 2021. The results of this report will be used in order to conduct an action plan for the olive groves management in order for the particular habitat to be enhanced and clearly determined in relation to the surrounding coniferous habitat. After receiving the relevant permits, the MB will proceed in a call for tenders for the signing of a contract for the implementation of the action plan, initially at pilot areas/plots, through a certain budget included in the same co-funded project.

2.4. preserve the current extent and quality of wilderness, excluding any new roads within the limits of the Samaria National Park, and retain a similar situation as far as possible in the surrounding areas;

2.4a In the year 2021 no official requests were sent to the Directorate of Forests of Chania nor to the MB for examination, in order to give an expert opinion for the construction of new roads within the borders of the National Park. Moreover, at relevant meetings/consultation with local communities, the Board of Administration of the MB, points out the importance of maintaining the current extent of wilderness in the National Park, that preserves the unique natural and cultural character of the area, compared to the more developed northern part of the island of Crete.

It is also worth to mention that the largest roadless area of Greece is at Lefka Ori National Park, according to the published research of Kati V. et al. "Conservation policy under roadless perspective: Minimizing fragmentation in Greece", Biological Conservation, Issue 252, December 2020, 108828.

2.4b CIHEAM Mediterranean Agronomic Institute of Chania (MAICh) has cooperated with the Decentralized Administration of Crete - Forest Directorate of Chania and the Management Body of Samaria National Park - West Crete for continuing the implementation of 3 projects which include actions in the Lefka Ori NATURA 2000 site. In addition, the Mediterranean Plant Conservation Unit of MAICh has completed new IUCN Red List Assessments of threatened taxa of the Lefka Ori which are now in the process of publication.

Projects

- **Development of a methodology for the enhancement and protection of populations of endangered plant species in Crete. Pilot implementation in the Prefecture of Chania**

A project implemented by the Decentralized Administration of Crete - Forest Directorate of Chania and CIHEAM Mediterranean Agronomic Institute of Chania (MAICh). The project includes activities involving plant taxa in the Lefka Ori NATURA 2000 site.

The objectives of the project are:

- Development of the methodology for addressing the short and longer needs for conservation of endangered plant species and expanding the relevant scientific knowledge.
- Contribution to the conservation of threatened plant species in the Prefecture of Chania inside and outside the natural environment.
- Raising awareness, training and development of collaborations among competent bodies for the conservation of biodiversity.

The project activities include:

- Application and harmonization of criteria for the elaboration of conservation priorities for endangered plant species in the Prefecture of Chania.
- Investigation of the best methodology for reinforcement/reintroduction of natural populations of selected endangered plant species.
- *Ex situ* conservation of germplasm of endangered plant species—Study of the ecophysiology of seeds.
- Communication of final project results—Training of staff of relevant authorities.

The project is funded by the national Programme "Protection and Upgrading of Forests 2019" of the Green Fund - Special Forest Entity.

Duration: Jan 2020 – Dec 2022

In the framework of this project the following work was published:

Choreftakis M., Markaki E., Kokkinaki A., Gotsiou P., Sklavaki P., Nousia P., Fournaraki C. 2021. Development of a local priority list of important plant species of the Prefecture of Chania and conservation actions. Poster Presentation. p. 245 in Book of Abstracts: 10th Congress of the Hellenic Ecological Society – Panhellenic Conference of the Hellenic Zoological Society – 17th Scientific Conference of the Hellenic Botanical Society. HELECOS 10. Ecology and the Conservation of Nature: advances and retreats in an age of crisis. IOANNINA 14-17/10/2021. Online Conference.

- **Monitoring of species of flora and terrestrial habitat types other than Habitat type 8310** (in Lefka Ori - code GR4340008, NATURA 2000)

A project contracted to CIHEAM Mediterranean Agronomic Institute of Chania (MAICh) by the Management Body of Samaria National Park-West Crete.

The aim of the project is to monitor and evaluate the conservation status of terrestrial plant species and habitat types in the NATURA 2000 site of "Lefka Ori" (code GR4340008). Monitoring is implemented for 16 habitat types in ~ 150 sampling surfaces and over 30 plant species in ~ 110 sampling surfaces.

The results will be used by the Management Body of Samaria National Park-West Crete with respect to its duties related to compliance with Council Directive 92/43/EEC and for planning management measures and the sustainable development of the protected area.

This project is Subproject 2 of the Act "INTEGRATED MANAGEMENT OF SAMARIA NATIONAL PARK LANDSCAPE" of the Operational Programme "Crete 2014-2020", co-funded by the European Union (European Regional Development Fund) and national resources. Duration: Jan 2020 – Oct 2023

- **Conservation of *Zelkova abelicea* in Crete**

Continuation of a project implemented in the Lefka Ori NATURA 2000 site by the Decentralized Administration of Crete - Forest Directorate of Chania, CIHEAM Mediterranean Agronomic Institute of Chania (MAICh) and the University of Fribourg, Switzerland.

Zelkova abelicea is an endemic tree species of Crete classified as Endangered in the IUCN Red List of Threatened Species. It is protected by the Greek legislation (Presidential Decree 67/1981) and the Bern Convention (Appendix I), and is included in Appendices II and IV of the Habitats Directive (Council Directive 92/43/EEC).

The overall objective of this project is to promote and enable the long term conservation of the natural populations of *Z. abelicea* in Crete, the largest of which are in the Lefka Ori, through

- the implementation of *in situ* conservation actions such as fencing selected plots in all mountain massifs of Crete to examine the effect of excluding grazing and browsing on the growth of the species
- the implementation of complementary *ex situ* conservation actions such as the *ex situ* conservation of plant material in seed banks and *ex situ* plantations near natural populations

- the implementation of public awareness and dissemination actions to promote and advertise the values of *Z.abelicea* to the general public and influence decisions-makers.

The current phase of the project (2019-2021) is funded 70% by the Fondation Franklinia.

Duration: Jan 2014 – Dec 2021

Website: <http://www.abelitsia.gr/en/>

The final workshop of the project was held in the framework of the conference “3rd Mediterranean Plant Conservation Week” (www.medplantsweek.uicnmed.org/public_html/medplantsweek/en/3rd-mpcw), 27 September - 1 October 2021, which was held at MAICH and co-organised by MAICH and other international organisations such as the International Union for the Conservation of Nature (IUCN). The conference brought together many actors involved in plant conservation (i.e. representatives from universities, research institutes, gene banks, botanical gardens, parks, management bodies of protected areas, NGOs, etc.) who unanimously agreed to contribute to the conservation of *Z. abelicea*. The Organising Committee of the conference signed an appeal, on behalf of the entire community of scientists and practitioners taking part in the conference, with the theme “Appeal for the enhancement of conservation measures for the Cretan symbolic endemic tree *Zelkova abelicea* by reducing the grazing pressure on mountain ecosystems”. The appeal was sent to all the relevant authorities and received a positive response from the relevant Ministry.

The final publication of the project with guidelines and recommendations for the long term conservation of *Z. abelicea* will be published by the end of 2021.

IUCN Red List Assessments

Red List Assessments for 9 threatened plant taxa of the Lefka Ori NATURA 2000 site were sent to IUCN in 2019 by CIHEAM Mediterranean Agronomic Institute of Chania (MAICH) in the framework of the CARE - MEDIFLORA project (<http://www.care-mediflora.eu>). The IUCN Red List updates are pending. The taxa are the following: *Alyssum fragillimum* (Bald.) Rech. f., *Anchusacespitosa* Lam., *Chaerophyllumcreticum* Boiss. & Heldr., *Centaureabaldaccii* Bald., *Helich rysumheldreichii* Boiss., *Hypericumaciferum* (Greuter) N. Robson, *Myosotissolange* Greuter & Zaffran, *Nepetasphaciotica* P. H. Davis, *Noccaezafranii* (Greuter & Burdet) F. K. Mey.

2.4.c The first and the second technical report of an applied research project of the Technical University of Crete on "Creation of the three-dimensional geological structure of the Samaria gorge with the ultimate goal of investigating the hydrological conditions and diet of the springs in the core of EDLO in collaboration" between the General Secretariat of Natural Environment and Water of the General Directorate of Forests and Forest Environment, the Technical University of Crete, the Directorate of Forests of Chania and the Management. The research project is funded by the program "Protection and upgrading of Forests 2029 in –Green Fund »Duration: May 2020 - March 2023

2.5. take appropriate measures to facilitate the accessibility of the national park for disabled people up to 2.5 km from the south entrance of the park.

The operation "Creation of an accessible route to the Samaria National Park", following a proposal by the Directorate of Forests of Chania in collaboration with the Region of Crete, was intensified with OPS Code 5123913 in the Operational Program "Crete 2014-2020" and the priority axis "Sustainable Development with of the environment and dealing with the effects of climate change in Crete".

The project intends also to make provisions of accessibility for the entire route until the southern entrance of the gorge (eg, the route from the port of Agia Roumeli until the southern entrance of Samaria, as well as the starting points to reach Agia Roumeli by ferry boat).

3. Site Management: List here any changes to the European Diploma holding site management, in relation to both terrestrial and aquatic environments (as appropriate), and in relation to staff and finances, since the last annual report was submitted to the Council of Europe. Please also indicate any unresolved difficulties that you have encountered.

There are no changes to the Samaria National Park, in relation to the terrestrial or aquatic environments.

In 2021, there were no changes no relation to staff and finances of the MB of the National Park. However, as already mentioned in the subsection 1.b of the section 2. "Recommendations", the MB is currently through a transitional period, until its abolishment, after the provisions of Law No 4685/2020.

- In the year 2021 the operation and management was done by permanent staff of the Chania Forest Directorate.
 - The permanent staff employed this year by the Directorate of Forests of Chania, included one (1) Forester, four (4) Foresters and 10 forest rangers.
 - Three contracts, cleaning, observance of Health Protocol, and execution of transportation of materials and helpless visitors and manning of specific places along the main path in EDLO with seven (7), five (5) and three (3) employees were implemented during the period of the operation of EDLO.
 - The financing of EDLO, apart from the salaries of the permanent staff, reached approximately 180,000 euros at the expense of the Regular Budget of the State, 40,000 euros for the contract of observance of the Health protocol and 29,700 euros for the contract of execution of material transfer works and helpless visitors.
 - This year, the Fire Service employed on a daily basis 4 people along the entire length of the main path.

- This year, as every year before the opening of EDLO, to visitors the main path was cleaned and repaired by falls of large rocks caused during the winter by the permanent forest staff. In addition, with the contract "Maintenance and restoration of the accessibility of the main path and the auxiliary fire escape routes of EDS" the main path and the escape paths were cleaned and repaired by the Chania Forest Department with the permanent staff being responsible. This year, the opening of EDLO was delayed due to a pandemic of Covid -19, but it remained closed for a long time due to emergency measures of the government to deal with the risk of fire.

- The implementation of restrictive measures in relation to the entry of domestic goats in the National Park, continued. In this way the natural selection and succession were allowed to continue their course unaffected.

- The effort to eradicate poaching is an ongoing process.

- Doctors covered the medical needs of the visitors of the Park, with great success. This success was based on the existing logistical and pharmaceutical infrastructure, which was renewed and completed in the year 2021

- Traffic at EDLO decreased compared to previous years, expected ratio Covid -19 but increased compared to 2020. • The staff of the Chania Forest Department transported to the two exits of the Park 20 and 50 visitors who were unable to leave for various reasons (pathological causes, fatigue).

- The Directorate of Forests of Chania collected and treated wildlife from all over the Prefecture of Chania of 44 birds, of which 38 were sent to Athens to ANIMA and the remaining 4 after being treated by local veterinarians and the staff of the Directorate of Forests of Chania were released in White Mountains.

4. Boundaries: Give details of any changes to the boundaries of the European Diploma holding site since the last annual report was submitted to the Council of Europe. If there are any changes, please attach an appropriate map to this report. Please also indicate any unresolved difficulties that you have encountered.

There are no changes in the boundaries of the Samaria (Lefka Ori) National Park, since the last reporting period (2019/2020).

5. Other information: List here any other information about the European Diploma holding site which you consider should be provided to the Council of Europe.

- The logo of the European Diploma appears on the information sign at the entrance of the National Park and on all the signs along the central path. Moreover, the logo appears in the home page of the official website of Samaria National Park Management Body (<http://www.samaria.gr>). Finally, the logo of the European Diploma is included in the book about the Gorge of Samaria that was reissued in 2015, in the chapter "Protection and Management of Samaria National Park". Council of Europe flags have been hoisted at both entrances.

- Through the funding of the O.P. "Crete 2014-2020", NSRF 2014-2020, the MB implemented a project action for the promotion of a group of 7 routes for environmental interpretation within the borders of the National Park of Samaria (Lefka Ori). Through Bluetooth Low Energy technology and a smartphone application (called "Ovgoro"), visitors are now offered a brief and holistic guidance in understanding the natural and cultural environment of pilot sites of the most emblematic protected area of Crete.

In the frames of the same O.P., the MB until the end of 2023 intends to have designed and published information material for the National Park (e.g., small guide books for certain paths, leaflets, environmental education material for students, etc).

Due to covid 19, this year's "Samaria Run" mountain running race was not organized, in collaboration with the Mountaineering Association of Chania, nor the annual festival of the church of Samaria. In collaboration with MAIX and the Region of Crete, the Directorate of Forests of Chania, with its staff, distributed a questionnaire to visitors within the EPS in order to record the views of visitors on the management and operation of the EPS in the middle of covid 19