



SAMARIA NATIONAL PARK ANNUAL REPORT 2018

State: GREECE

Area Name: Samaria 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: 2018, 9 years after the last renewal (2009). First award: 1979.

Central authority concerned:

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Authority responsible for its management:

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1. Conditions:

There were no conditions attached to the renewal of the award to the Cretan White Mountains National Park, Samaria (Greece), according to the CM/ResDip(2009)3 Resolution, which was adopted by the Committee of Ministers on 21 October 2009 at the 1068th meeting of the Ministers' Deputies.

2. Recommendations:

1. the relevant authorities should accelerate actions to extend the boundaries of the national park to cover a much larger area of the Cretan White Mountains;

According to Greek legislation, a "National Park" is established through a Presidential Decree following a Special Environmental Study (SES) for the area. The SES proposes the size, zonation and permitted activities within the borders of the proposed "National Park".

The SES for Samaria National Park (SNP) was completed in 2009, and proposes the expansion of the boundaries and zonation of the current protected area, which has also received the award of the European Diploma. The former *National Woodland Park of Samaria* becomes the Core Zone (CZ) of the proposed National Park (NP). The study was sent to the Ministry of Environment and Energy for approval. The approval of the SES due to bureaucracy reasons was delayed and then in 2011 a new environmental law was put into force - Law No. 3937/2011 "Biodiversity Conservation and other provisions". This meant that the Draft Presidential Decree which was included in the SES of SNP should be revised in order to incorporate the new law in its context. After a period of consultation it was finally decided that the revision should be conducted by the Management Body (MB). This procedure concluded in December 2014. The SES was approved according to the no. 36130/1119/18-7-2016 Decision of the General Secretary of the Ministry of Environment & Energy. After the approval, the Draft of the revised Presidential Decree was set to public consultation. This procedure was finalized in 2016. The final step that is pending is the signing of the relevant Presidential Decree.

The Ministry of Environment & Energy in 2017 announced a call for tenders for the conduction of the SESs and Management Plans for all the NATURA 2000 of Greece. In our case, there will be one contractor who will conduct all the SESs and Management Plans for the NATURA 2000 sites of the region of Crete. The project is financed from the NSRF 2014-2020. The contract is expected to be signed in the next days and it will have a duration of 28 months.

However, it is worth to mention that according to the previously mentioned Law No. 3937/2011 until the publication of the Presidential Decree, the approved SES must be taken into account concerning the establishment of any new activity or work in the protected area. So, the local authorities comply with the provisions of the SES. Moreover, since the SES has already been approved and set to public consultation, it is not expected to have any alterations in its context before the signing of the Presidential Decree.

2. an expert on biodiversity should be appointed or contracted to carry out regular monitoring of the flora and fauna of the park;

The MB of Samaria National Park-Western Crete has already established a monitoring programme for the two NATURA 2000 sites with code no. GR4340008 and GR4340014 (which cover the total size of the expanded NP). The programme includes the monitoring of important habitat types and species of flora and fauna, according to the European (Article 17 Directive 92/43) and the Greek legislation, or species which are considered threatened according to international institutions (e.g. IUCN).

In particular, monitoring is implemented for: 20 marine and terrestrial habitat types, 33 plant species, 118 bird species, 52 species of fauna (terrestrial molluscs, terrestrial arthropods, amphibians, reptiles, bats, micromammals), the cretan wild goat (*Capra aegagrus cretica*) and the monk seal (*Monachus monachus*).

The budget of the monitoring programme for the period 2012-2015 was covered by the Operational Programme "Environment and Sustainable Development" NSRF 2007-2013 (a total of €733,000). After the end of this funding period in 2015, the MB has received funding (a total of €354,000) from the Operational Programme Crete, NSRF 2014-2020 for the continuation of the programme until 2023. The programme is expected to begin within 2019.

3. an annual budget should be allocated to the park, to be administered by the management board. The income from the entrance fee to the park may also be considered to finance monitoring projects, particularly recommendation 2 above.

The MB receives finance from the regular budget of the Ministry of Environment and Energy and the Green Fund of the Ministry, which covers the payroll and the other operating expenses. Moreover, the MB is the beneficiary of the project "Integrated Landscape Management of SNP", Operational Programme CRETE, NSRF 2014-2020 with a total budget of €828,439, and submitted in 2018, a project proposal at the Operational Programme "Transport Infrastructure, Environment and Sustainable Development", NSRF 2014-2020, which is at the moment under examination. It may also be considered that both the Management Body of Samaria National Park-Western Crete and the Forest Directorate of Chania (FDCh) have officially and repeatedly claimed a portion of the income from the entrance fee to the Park from the Ministry of Environment and Energy, the past years. The third term has not yet been fulfilled, although both the FDCh and the MB have formally and repeatedly asked for part of the income from the entrance tickets of the NP from the Ministry of Environment and Energy, the past years. The most probable reason that this has not

been achieved yet is the memorandum obligations of the Country as well as other legal and technical issues that need to be resolved (eg, modification of current laws). However, since the monitoring of protected habitats and species is deemed crucial, the MB succeeded to ensure that this would not affect the implementation of the monitoring programme for the next years (see Section 2). Following the recent Law No. 4519/2018 "Management Bodies of protected areas and other provisions", the MB is currently preparing a new request to the Ministry, in order to receive the income of the entrance fee, as well to resolve any legal issues in order to uptake the responsibility for the operation of the NP (during the period when it is open to the public).

3. Site Management:

Size & Zonation

There are no changes in relation to terrestrial and aquatic environment since the last annual report. Information about the size and zonation of the new NP, according to the approved Specific Environmental Study for Lefka Ori (see section 2.1) is presented below.

The new SNP expands to 58,484 ha (terrestrial & marine), compared to the previous National Woodland Park of Samaria, which covered an area of 4,850 ha (terrestrial).

The new NP is divided into different conservation zones: (i) Nature Protection Zone (Core Zone), (ii) Biodiversity conservation zones (A1), (iii) Ecological landscape conservation zones (A2), (iv) Traditional landscape management zones (B), and Natural Resources Management Zone (C).

For more information please see the "ADDITIONAL DATA_for-SAMARIA NATIONAL PARK-report 2018".pdf file that is attached to the e-mail with the submission of the report.

Management Authorities

In 2018 a new law was put into force, Law No 4519/2018 "Management Bodies of protected areas and other provisions". This law constitutes each MB of Protected Areas of Greece responsible for the management of a group of Natura 2000 sites. In the case SNP, the MB is now responsible for 23 sites, while in the past it was responsible only for two Natura 2000 sites

Moreover the MB was renamed from "Samaria National Park Management Body" to "Management Body of Samaria National Park-Western Crete" (article 2).

Transitionally, for the year 2018, the management of the SNP (Lefka Ori) was carried out by the FDCh, in order to give time for the establishment of the structures of the new MB. The new Board of Directors of the MB, Articles 5 & 6, will be composed of 7 members and is currently in the process of appointment.

Finances

Following the provisions of Law 4519/2018, the MB now receives finance from the regular budget of the Ministry of Environment and Energy. This is a new source of income for the MB, since until 2017 it received financing only from co-financed European programmes and the Green Fund of Ministry of Environment & Energy.

Law 4519/2018 also makes provisions about other sources of finance for the MB which include apart from the Green Fund and the co-financed projects others such as:

- (i) revenues from activities consistent with its purposes (e.g. tickets, ecotourism activities, published material),
- (ii) proceeds from the exploitation of the property grants, or donations, etc
- (iii) revenue from program contracts with legal entities of public law
- (iv) Revenues from Renewable Energy Sources
- (v) fines if it is justified according to legislation

No changes were made regarding the financing of the FDCh.

Management Plan

According to Greek legislation, Management Plans are approved with a joint Ministerial Decision of the Minister of Environment & Energy and of the other relevant Ministers, and are valid only when the protected area has been officially declared with a Presidential Decree. Management Plans define the directions and the priorities in the implementation of measures, actions and work needed for the effective protection and management of the protected areas. They also contain Action Plans, where the necessary measures, actions, work, projects, their time frame, phases, estimated budget, and funding sources, are specified. Moreover, Management Plans have 5-year duration and are valid until the new ones are approved, even if their reference period has elapsed.

Since the SNP is not officially established (through the Presidential Decree) there is not an officially approved Management Plan (MP). However, in 2009 a MP was compiled for SNP which was implemented at a large extend from the FDCh. In 2016, the MB compiled a new MP for

2 reasons: (1) the former Management Plan needed to be revised since 7 years had passed from the first study, (2) it was a recommendation of the MAB UNESCO Program, regarding the renewal of the nomination.

Visitors management

The CZ of the SNP is open for visitors only between May-October every year and operates according to the rules and regulations applicable. Personnel from the FDCh (Foresters, Rangers) worked in strategic positions, coordinating the smooth operation of the CZ.

4. Boundaries:

The process of proclaiming the new boundaries of the NP has not yet been finalized, pending the signature of the PD.

5. Other information:

- In the frames of the "In situ and ex situ conservation of *Zelkova abelicea* in Crete 2014 - 2016" project (see Section 10.1.1), an honorary event was held in the memory of the late Professor Oliver Rackham. A *Zelkova abelicea* tree aged over 700 years old was dedicated to his memory. The FDCh of Chania in order to make the location wider known (e.g., to visitors of the NP), has started the procedures to improve the accessibility of the spot by restoring a small path.

- In the spirit of interaction between protected natural environment and civil environment, "Samaria Run", an annual mountain running race, as well as the annual celebration of the Osia Maria church were organised in collaboration with the Mountaineering Club of Chania.

6. Natural heritage (general abiotic description: geomorphology, geology and hydrogeology, habitats, flora, fauna, landscape) – State of conservation

6.1. Environment: changes or deterioration in the environment, of natural or anthropogenic origin, accidental or permanent, actual or anticipated

There are no changes or deterioration in the environment of natural or anthropogenic origin. The drying of pine trees in the boundaries of the SNP, especially in the SE section, near the village of Agios Ioannis, has been recorded.

Phytosanitary officers of the FDCh take samples, monitoring the phenomenon in cooperation with the National Agricultural Research Foundation, on an annual basis, excluding the primary microbial attack. The MB has financed a study about this phenomenon but no specific results have been concluded concerning the cause of this problem. It is believed to be the result of a combination of factors and the subject needs to be further investigated. The implementation of further actions proposed in the study need the cooperation of different stakeholders (FDCh, Ministry of Environment, MB, users of the forest (shepherds, beekeepers) as well as capable funding.

The winter 2017-2018 was characterized by mild temperatures and lack of snow in the mountains.

6.2. Flora and vegetation: changes in the plant population and in the vegetational cover; presumed causes

No significant changes in the plant population or in the vegetational cover are expected, considering the allowed activities in the various zones of the NP.

The only fact that it is worth to mention is that due to the fact that in the CZ of the NP no human activities are allowed apart from research, and the presence of visitors during the operation period along a specific path, the pine tree (*pinus brutia*) forest has started to expand to its adjacent area covering land surfaces areas where in the past human cultivations were present (abandoned olive trees, vines).

Tourism is also an important factor in the plant population, but is regulated mainly in the main path as well as in small adjacent villages. In addition, permitted activities in the NP are oriented towards mild-sustainable growth in relation to the natural and cultural environment.

6.3. Fauna: changes in the sedentary or migratory populations; congregating, egg-laying and breeding grounds

No changes were observed. Studies from universities and other researchers were undertaken which gave information about some species.

Since the NP is also a Natura 2000 site, the monitoring action is a national obligation and as a consequence is the planning of funding for programs for monitoring and protection of the fauna of the NP. There was funding from the NSRF 2007-2013 and the NSRF 2014-2020.

7. Cultural heritage and socio-economic context

7.1. Cultural heritage

Within the borders of the NP remarkable elements of cultural and traditional heritage are gathered. These include archaeological sites (remnants of different eras, e.g. prehistoric, ancient, hellenistic periods), small chapels of the Byzantine period, Turkish castles ("kouledes"). A characteristic cultural architectural element of the area is the traditional small building facilities used by shepherds for the support of their activities called

“koumoi” and “mitata”. The conservation of these cultural elements is important for the preservation of the character of the area.

One festivity that stands out is the celebration in April of the church of Osia Maria, which is located inside the Samaria settlement. That is the only day of the year that special permission is given to the Mountaineering Club of Chania to organize a group to enter the settlement and attend the religious ceremony.

7.1.1. Changes concerning cultural heritage

There are no changes concerning cultural heritage. with the initiative of an architect who came in contact with the MB, regarding a “koumos” of Omalos plateau, to be declared as “preservable monuments” by the Ministry of Culture & Sports.

7.2. Socio-economic context

Comparing the population size - from data obtained from the Hellenic Statistical Authority - there is a 27% decrease in the permanent population comparing the years 2001 and 2011, within the borders of the NP and the adjacent settlements (settlements inside the borders of the NP). On the island of Crete an increase of 3.65% was recorded at the same time period.

As far as it concerns the educational level of the permanent population of the NP aged 10 years and older, according to the last Census 2011 (source: Hellenic Statistical Authority), it seems that the higher percentage represents the people who have graduated from primary education (compulsory education) (~40,8%), while the smallest percentage includes people who have received higher education. The percentage of the illiterate is also relevant high (18.9%).

The NP can be generally characterized as a mountainous and agricultural area. The basic productive activity in the area of Lefka Ori is stock raising. According to the available data for 2001, 53.3% of the working population of the region was working in the primary sector (pastoralism). The agricultural activities were limited, because of the mountainous character of the area. The 8.1% of the working population was involved in the secondary sector (production of dairy products and small industrial units, e.g. olive oil mills). Tourism is also one of the most important benefits for local communities, since the CZ is one of the most popular tourist attractions in Crete. No other human activities are allowed within the borders of the CZ, except research, hiking and environmental awareness. However, there are several tourism facilities in the wider SNP area & in adjacent areas.

7.2.1. Changes concerning the socio-economic context

Comparing the data obtained from the Hellenic Statistical Authority for 2001 and 2011 about the NP, regarding the educational level, there are no remarkable changes, although the number of the permanent population had a significant change.

	Parameter	2001	2011
	Both sexes aged 10 years & over	5479	4007
SNP & adjacent settlements *	Higher education	5,00%	5,80%
	High school education	19,20%	20,10%
	Middle school education	12,60%	14,30%
	Primary school education	47,90%	40,90%
	Illiterate	16,30%	18,90%
	Total	100,00%	100,00%

* Source: *Specific Environmental Study (SES) of Lefka Ori (2009)*

The percentage of the economically active population in level of the Region of Crete was 37.45% in 2011, and 41.14% in 2001 (-8.97% decrease). This percentage difference between the years 2001 & 2011 among the 25 local administrative units of the NP varies. These percentages projected to municipality level (5 municipalities with borders in the NP) the municipality with the biggest change in the economically active population is Plataniass Municipality (-17.88%) while the smallest difference is recorded for Kandanos-Selino Municipality (-1.42%). (Source: *“Integrated Territorial Investment (ITI) of UNESCO natural beauty areas”, 2018, coordinator: AKOMM-PSILORITIS DEVELOPMENT AGENCY OF LOCAL GOVERNMENT, 2018, proposal submission for strategic ITI which was applied to the Management Authority of the Operational Program Crete, NSRF 2014-2020*). According to the same source, the percentage of the working population between the years 2001 and 2011 has decreased for all the 5 Municipalities of the NP. The biggest decrease was recorded for Kandanos-Selino (-13.62%), while the smallest for Sfakia (-2.74%). For the same period a decrease of -6.86% was recorded for the Region of Crete. This phenomenon is related to the economic crisis that the Country is going through the last years. The fact that the local economy is supported significantly from tourism – the CZ attracts many visitors – is depicted in the local economy, and it interprets the small decrease in the percentage of the working population e.g. at Sfakia Municipality.

8. Education and scientific interest

8.1. Visitors – Information policy

Visits in the CZ of the protected area follow the rules and regulations which have been set, for the former “National Woodland Park”. According to these rules, the CZ opens on 1st May until 31st October each year, from two entrance spots: Xyloskalo (northern entrance) and Agya Roumeli (southern entrance).

Information about visiting the NP can be found at the website of the MB (both in greek & english). <http://www.samaria.gr/en/tips-crossing-samaria/>

An information sign has been placed at the northern entrance of the CZ (Xyloskalo), translated in Greek, English, French, Spanish, German and Russian. Visitors can also contact with the offices of the MB (phone & e-mail), or they can call at the forest outposts at the two entrances of the CZ.

A booklet was also published in 2017, about the Biosphere Reserve of the CZ, with the collaboration of the International Center for the Mediterranean Biosphere Reserves (under the auspices of UNESCO) and the MB. The publication is available in English, French, Spanish and Portuguese.

Information about other routes inside the NP apart from the CZ is not yet provided through publications. However, in the frames of a project that the MB is realizing which is funded by the Operational Program Crete, NSRF 2014-2020, information booklets will be published regarding other ecotourism routes inside the NP.

8.1.1. Arrangements for receiving and informing the public (building, booklets, maps, cards, etc.)

There are two information Centers located near the entrances of the CZ (1 at “Xyloskalo” and 1 at “Agya Roumeli”). The two Centers were renovated in 2010 by the FDCh. The first one at “Xyloskalo” offers information about the protected area of SNP (flora, fauna, landscape formation, human activities). The second Information Center named as “Man and Stone” was founded in the abandoned building of the primary school of the village of Agya Roumeli and offers information about the geology of the NP.

The two Information Centers are operated mainly by FDCh in collaboration with the MB. The Information Center “Man and Stone” is operated only when the NP is open to the public (May-October), since Agya Roumeli can only be accessed either from the CZ, or by boat. Thus, no tourists visit the village during winter. The Information Center at Xyloskalo is also operated when the Park is open. During winter not many people visit the NP. Most visitors are locals, who come on weekends to the nearby village of Omalos. Thus the Information Center is also open some weekends during winter and upon request of specific groups (e.g., students, clubs) that wish to visit the area it is also open at certain days.

The MB in collaboration with the former Prefectural Administration of Chania, in 2008, published the book “THE GORGE OF SAMARIA – Shelter for Life – Den of Freedom” in Greek & English. The book was reprinted in 2015 in Greek, English & French. The book was published and reissued in the frames of two co-funded European Programs (3rd Community Support Framework 2000-2006 and NSRF 2007-2013) and thus it was distributed free of charge to the public. The publication is planned to be translated to German as well as in Braille and it will also be published as an audio book, with funding from the Operational Program Crete, NSRF 2014-2020 through a project realized by the MB. This book of 215 pages includes information about the natural and manmade environment, the protection & management of the Park, as well as a map of the route inside the CZ.

The MB also published in 2015 in Greek the book “Lefka Ori- Natural History”, which was also distributed free of charge. This book will be reprinted by the end of 2018 in Greek and English.

About children-students there are two publications available in Greek: “The alphabet of Samaria” and a book of activities which was designed specifically for the Information Center at Xyloskalo. The first was published from the MB in collaboration with the former Prefectural Administration of Chania, in 2008 and the second from the FDCh in collaboration with the Natural History Museum of Crete.

A DVD “Lefka Ori-Diversity-Human activities-Crossing the Gorge” is also available in Greek & English. It is distributed free of charge and it was published from the FDCh in collaboration with the Natural History Museum of Crete.

8.1.2. Frequentation by visitors and behavior (number, distribution in time and space)

The FDCh which has been responsible, all the previous years as well as the current one, for the management and keeps records for the number of visitors (per day and month) since 1981 (year when the ticket was issued for the first time). Related charts have been recorded in previous reports.

Moreover, the MB in collaboration with the Mediterranean Agronomic Institute of Chania (MAICh) and the Technical University of Crete, conduct a research since 2013 about the NP’s visitors profile and the impact on the local economy. The survey is based on a specific questionnaire (available in Greek, English, German and French) developed, which is complemented by personal interviews of visitors.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
19.303	28.325	25.089	23.702	20.621	19.740	18.614

XYLOSKALO AGYA ROUMELI

ΜΑΙΟΣ

24.665

3.237

MAY

ΙΟΥΝΙΟΣ	18.580	1.732	JUNE
ΙΟΥΛΙΟΣ	27.524	2.186	JULY
ΑΥΓΟΥΣΤΟΣ	29.980	2.469	AUGUST
ΣΕΠΤΕΜΒΡΙΟΣ	23.315	2.243	SEPTEMBER
ΟΚΤΩΒΡΙΟΣ	16.811	2.652	OCTOBER
ΣΥΝΟΛΟ	140.875	14.519	TOTAL

8.1.3. Special visits (distinguished persons, groups, etc.)

Within the framework of special licenses, the CZ was visited by groups of scientists, students, scouts and mountaineers.

This year, the American Ambassador of Greece, Geoffrey Ross Pyatt, along with his wife, accompanied by the Military Pursuivant of the Embassy Tim Ketter with his wife and CEO of KENAP, Stelios Kostalas and his wife.

Members of the Mitsotakis Foundation also visited the CZ twice for the needs of a documentary about former Prime Minister K. Mitsotakis.

8.2. Scientific research

In the context of the CARE-MEDIFLORA project "Conservation Actions for Threatened Mediterranean Island Flora: ex situ and in situ joint actions" (<http://www.care-mediflora.eu/>), the Mediterranean Plant Conservation Unit of the Mediterranean Agronomic Institute of Chania (MAICH) collected seeds of threatened species from the area of Lefka Ori. In particular, 29 seed collections of 22 threatened or steno-endemic taxa were carried out; the collections were representative of the genetic diversity of the selected plant species. For each species, the collection, curation and storage were carried out in accordance with the International recommendations for the operation of Seed Banks. Seeds were stored at the Seed Bank of MAICH for the purpose of long-term complementary ex situ conservation. The seeds will be available for future actions within the natural environment which will be related to the improvement of the conservation status of species such as actions to enhance natural populations.

Within the framework of the project "Conservation of *Zelkova abelicea* in Crete" (www.abelitsia.gr), seeds from three subpopulations in the Lefka Ori were collected. The seed collections were stored in the Seed Bank of MAICH for the ex situ conservation of the species.

In the framework of the CRETAR project: "Research on the disposal of wild propagating material of aromatic plants in Crete" three seed collections of aromatic plants *Sideritis syriaca* subsp. *syriaca* ('malotira' Cretan mountain tea) and *Origanum microphyllum* (Cretan marjoram) were implemented. The seeds will be given to growers of aromatic plants in the area. The project aims at protecting local populations of aromatic plants from possible hybridizations from imported propagating material.

The seed collections were carried out with the supervision and participation of the personnel of the FDCh, following a special permit.

The island of Crete hosts higher education institutions (Technical University, University, Technological Educational Institute), as well as other research institutions (e.g., Mediterranean Agronomic Institute of Chania, Natural History Museum, Foundation for Research and Technology), which show great interest as well, and thus the NP is one of the "well-studied" parts of the island.

8.2.1. Current or completed research (observation, experimentation, etc.; identification or inventory of the species listed in the appendices to the Bern Convention, etc.)

After the conduction and the approval of the SES, the implementation of the monitoring programme of habitats and species, and the mapping of the habitat types of the Natura 2000 sites, the NP has an updated database of the species and habitat types and their protection status. The SNP hosts 24 stenotype endemic species, 8 species protected from Directive 92/43/EEC, 9 species of the Bern Convention and 30 species of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). It also hosts 95 species protected by the Presidential Decree 67/1981. Finally, 38 flora species are included in the Red Data Book of Rare and Threatened Plants of Greece (published in 2009).

For the species and habitats of the European Directive 92/43/EEC and 2009/147/EC the standard data forms are also available. Finally the MB has potential distribution maps as well as a list of the recorded bibliography for the species and habitats of the monitoring program.

Moreover, the MB and the National Observatory of Athens have installed four meteorological stations in the NP at altitudes from 349 m-1250m.

While, following the actions of the FDCh, a meteogram will be issued for the CZ of the SNP, assisting the management of the visitors.

At present there is also a project running called "Ecopotential", funded from the EU Horizon 2020 Programme, which uses the NP as a case-study among other protected areas in Europe. This project addresses cross-scale ecological interactions and landscape-ecosystem dynamics at regional to continental scales, using geostatistical methods and the emerging novel approaches in Macrosystems Ecology, which is

addressing long-term and large-scale ecological challenges. For more information you can visit this link: <http://www.ecopotential-project.eu/>

8.2.2. Scientific publications

Conferences:

- Poursanidis D., Chrysoulakis N., Lymberakis P., Barnias A., Gambierini S., Provenzalle A., "ECOPOTENTIAL: IMPROVING FUTURE ECOSYSTEM BENEFITS THROUGH EARTH OBSERVATIONS", 9th Panhellenic ecology conference (HELECOS), 4-7 October 2018, Heraklion, Crete (oral presentation)
 - Poursanidis D., Lymberakis P., Spaneli V., Chrysoulakis N., "Topographic factors promoting the distribution of the endemic lizard *Podarcis cretensis* in Samaria National park", SEH 2017, 19th European Congress of Herpetology, 18-23 September 2017, Salzburg
 - Kontakos D., Lymberakis P., "MONITORING PROGRAM OF FLORA SPECIES IN THE SAMARIA NATIONAL PARK: EXPERIENCE AND CONCLUSIONS AFTER A FIVE-YEAR APPLICATION", 15th Panhellenic Scientific Conference of the Hellenic Botanical Society, 14-17 September, Chania, Crete
 - Poursanidis D., Chrysoulakis N., Lymberakis P., "USING A COMMON SATELLITE REMARKS FOR THE ASSESSMENT OF THE DISTRIBUTION OF CONDITIONAL HEPES - THE CASE OF *PODARCIS CRETENSIS* IN NORTHERN SAMARIA", 8th Panhellenic ecology conference (HELECOS), 20-23 October 2016, Thessaloniki, Greece (poster)
 - Kontakos D., Barnias A., Lymberakis P., "RESEARCH ACTIONS BY SAMARIA NATIONAL PARK MANAGEMENT BODY", 8th Panhellenic ecology conference (HELECOS), 20-23 October 2016, Thessaloniki, Greece (poster)
 - Barnias A., Kontakos D., Lymberakis P., "NEW DATA FOR THE DISTRIBUTION OF THE CRETAN WILD GOAT (*Capra aegagrus cretica*)", 8th Panhellenic ecology conference (HELECOS), 20-23 October 2016, Thessaloniki, Greece (poster)
 - Poursanidis D., Chrysoulakis N., Barnias A., Lymberakis P., "Monitoring land cover changes over National Parks with EO to identify ecosystem functions, services and assist biodiversity conservation", Living Planet Symposium 2016, 9-13 May 2016, Prague, Czech Republic
 - Poursanidis D., Barnias A., Lymberakis P., "Evaluation of the conservation status of *Posidonia* beds (*Posidonia oceanica*) in the National Park of Samaria (Lefka Ori) in Crete", 7th Panhellenic ecology conference (HELECOS), 9-12 October 2014, Mytilene, Greece (poster)
 - Lymberakis P., Barnias A., Peroulaki E., "Monitoring of wildlife in the Samaria – Lefka Ori National Park", 6th Panhellenic ecology conference (HELECOS), 4-7 October 2012, Athens, Greece (oral presentation)
 - Barnias A., Maria, E. A., Kargiolaki H., "MANAGEMENT BODIES OF PROTECTED AREAS : The case study of the Management Body of Samaria Gorge (National Park, Biosphere Reserve, Natura 2000) Crete, Hellas", XIII World Forestry Congress, 18 – 25 October 2009, Buenos Aires, Argentina, (poster presentation)
- Further work is done, in order to gather and organize in a database all the published work regarding the NP. This matter will be approached in the frames of the project "Integrated Landscape Management of SNP", Operational Program CRETE, NSRF 2014-2020, beneficiary: Management Body of Samaria National Park- Western Crete.

9. Site description (vulnerability, protection status, ownership, documentation)

9.1. Changes in legislation or regulations

The Law No 4519/2018 "Management Bodies of protected areas and other provisions" was put into force. The Board of Administration, the jurisdiction area, the name change are mentioned in section 3.

Additionally, a brief description of the legally-prescribed responsibilities of the MB, which are analyzed in article 4 of State Law 4519/2018 is:

- providing data and justified opinion in the procedure of compiling of the Management Plans
- Writing annual reports for the protected areas (e.g., conservation status of the protected elements, results from the implementation of the Management Plans)
- Auditing of the implementation of the environmental legislation – assisting the competent authorities
- Studies, research & projects for the protection of the area
- Consultation with the local communities, the productive entities and other stakeholders
- Public Awareness & Environmental Education
- Promotion, organization & implementation of ecotourism programs
- Finding funding for the promotion of regional development actions
- Collection, classification and process of data and environmental information

9.2. Changes in ownership title (conversion to public property, rentals, etc.)

N/A

9.3. Extension or transfer, new uses (for example, conversion into total reserve)

As already mentioned in Section 3, the NP has been expanded. The former NP has become the CZ of the new protected area. The official declaration of the NP is at the final stage. At the same time, the NP has other nominations as well (NATURA 2000 site, Biosphere Reserve (MAB/UNESCO). The size of the different conservation zones as well as the allowed activities are presented in the "ADDITIONAL DATA_for-SAMARIA NATIONAL PARK-report 2018".pdf file that is attached to the e-mail with the submission of the report.

10. Site management (management plans, budget and personnel)

10.1. Improvements made

10.1.1. Ecological action affecting the flora and biotopes; controls of fauna

- The implementation of restriction measures against the insertion of domestic goats to the CZ has continued. In this way, natural selection and succession were allowed to continue their course without any interference. The effort for the elimination of poaching is an ongoing procedure.
- The MB continued the monitoring program of important habitats and species. Particularly, for the monitoring of the Cretan wild goat (*Capra aegagrus cretica*) and other medium sized mammals, trail cameras are placed in strategic locations in the NP. The data collected provides valuable information about the ecology of the species and at the same time the existence of cameras helps prevent illegal hunting of the protected animals.

10.1.2. Προστασία από τα στοιχεία της φύσης (πυρκαγιά, νερό)

- According to the relevant Act of Council of Ministers provisions were made for the employment of 26 people as seasonal personnel for the needs of the NSP. The seasonal personnel employed this year by the FDCh, included two Foresters, two Forest Technicians, one Biologist, two Forest Protection Specialists, one computer operator, one administrative personnel, four guards, five workers, two drivers, and six muleteers who were employed for the period 14/07/2018 - 31/12/2018
- The MB, as in the previous years, was responsible for the operation of the radio communication system (complete with a GPS tracking ability) inside the CZ of the SNP – characterized as a mobile wave free area – and provided the FDCh and the Fire Department with the specialized equipment.
- The Fire Department employed 9 firemen this year, in the wider area of Lefka Ori.
- The permanent and seasonal personnel of the FDCh worked for the smooth operation of the CZ of SNP and its protection against the elements of nature. The early shutdown of CZ of SNP due to intense downpours was vital for the protection of the visitors.

10.1.3. Approaches and thoroughfares (paths, roads, car parks, signposting, fencing, etc.)

- Before the opening of the CZ to the public, the central path was restored from the various damages which had occurred during the winter and it was paved with stone where necessary. The task was implemented by the FDCh and the permanent and seasonal personnel was responsible for the continuous maintenance along the central path. Moreover, a 1.5-mile firepot section was covered with natural materials to protect and improve the image of the CZ of the SNP, the escape routes to the concentration areas and the two heliports were cleaned and restored, as well as wooden railings where necessary, by the seasonal personnel of the FDCh.
- During the operation period, damages were recorded twice along the central path caused from severe weather phenomena. For the immediate reopening of the Park, the path was maintained and wooden railings were replaced by the permanent and seasonal personnel of the FDCh.
- Inside the CZ there are building facilities used as forest outposts, and there is also a small medical office, a guest house and WCs for the visitors. The maintenance of the facilities inside the CZ, in 2018, was conducted from the permanent and seasonal personnel of the FDCh. This restoration work included the insulation of the forest outposts, the restoration of the waste management building in the settlement of Samaria, the maintenance of the small gardens and of the WCs, the restoration of the damaged and the construction of new small wooden bridges along the route, where the path meets the river. - Finally, signs of processed cypress wood were made, written with pyrography, and will be placed before the start of the next session in 2019.

10.1.4. Field equipment (hides and study facilities)

The MB in collaboration with the FDCh maintains the renewable energy sources systems for the electrification of the outposts inside the SNP using (a wind turbine, a water turbine, and PV-panels). It has also equipped the main operation station in the CZ with satellite internet and a meteo station.

10.1.5. Waste management

- Removal of all waste generated by visitors and staff, and their placement in an approved area. (waste compression for easier and safe transportation)
- Separation of organic and inorganic waste.
- The waste from the human settlements inside the extended NP is disposed of with the responsibility of the Municipalities.

10.1.6. Use of renewable energy systems

The existing renewable energy systems (RES) to meet the guarding and living needs of the forest outposts within the CZ, continue to provide the necessary energy.
The MB in collaboration with the FDCh continues to maintain the RES systems, also playing the role of a "good practice" example of the effective use of green energy demonstrated to locals and visitors.

10.2. Management

10.2.1. Administrative department: changes made

The Organization Chart of the MB will change, as well as the Operation Regulations, following the provisions of the new Law 4519/2018.

Moreover, it is important to mention that the small medical office at the 7km of the route operated again, staffed by doctors of the Vamos Health Center.

No changes were made in the administrative department of the FDCh, besides the assumption of management, on the spot, by a competent Forest Technician.

10.2.2. Wardens' department: changes made

The MB has three Forest Protection Specialists, who work at the Protection & management Department, without investigative duties. De facto and from the forecasts of N 4519/2018, the protection of the area and the SNP remains in the FDCh assisted by the MB staff.

In 2018, the permanent staff of the FDCh dealing with the management of the CZ and the seasonal staff were trained in first aid techniques by authorized volunteers of the Red Cross (Chania Department). A seminar was held on the permanent staff on the protected areas of the Natura 2000 network - forest law infringements.

10.2.3. Internal policing measures

- The permanent and seasonal personnel of the FDCh (foresters, forest technicians, rangers, forest protection specialists, and guards) contributed to the surveillance - policing the whole of the CZ, in shifts, throughout the day, along the central path, the adjacent roads, as well as within the limits of the SNP. The policing of the NP was extended by night patrols, with 24-hour shifts taking place in the three main outposts of the CZ [(South entrance (Xyloskalo), Central Outpost (Samaria Settlement), South entrance (Agya Roumeli))] where two or more of the FDCh employees stayed overnight, throughout the year, irrespective of the operation of the CZ.

10.2.4. Infringement of regulations and damage; legal action

- Individual attempts of visitors not following the operation regulations of the NP, concerning the opening hours and/or moving out of the designated path, were handled successfully by the appointed personnel of the FDCh.

- An incident of destruction of Public Property occurred during autumn Charges were pressed and the matter has since then been left in the hands of the appropriate Authorities.

11. Influence of the award of the European Diploma for Protected Area

- The positive impact of the European Diploma is reflected in actions and interactive work with the near-woodland society of the NP. It encourages good practices of production and distribution of products and culture. It affects the targeting of managers who are urging policy measures on local and central government.

- The logo of the European diploma is included in the unpublished book "White Mountains-Natural History", which is to be printed in late 2018 in Greek and English.