Evidence Gathering Questionnaire for the Fitness Check of the Nature Directives

Introduction

As part of its Regulatory Fitness and Performance Programme (REFIT), the European Commission is undertaking a Fitness Check of the EU nature legislation, the Birds Directive[1] and the Habitats Directive[2] ('the Nature Directives'),[3] which will involve a comprehensive assessment of whether the current regulatory framework is "fit for purpose".

Adopted in 1979, the Birds Directive relates to the conservation of all wild birds, their eggs, nests and their habitats across the EU. Its strategic objective is 'to maintain the population of all species of wild birds in the EU at a level which corresponds to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, or to adapt the population of these species to that level'.

The Habitats Directive, adopted in 1992, covers around 1000 other rare, threatened or endemic species of wild animals and plants and some 230 habitat types. These are collectively referred to as habitats and species of Community interest. The strategic objective of the Habitats Directive is "to maintain or restore natural habitats and species of Community interest at favourable conservation status, taking into account economic, social and cultural requirements and regional and local characteristics".

The Directives require Member States to take a variety of measures to achieve these objectives. These measures include the designation of protected areas for birds (Special Protection Areas) and for habitats and species of Community interest (Special Areas of Conservation), which together comprise the Natura 2000 network, and the adoption of strict systems of species protection (see objectives of the Directives in Annex I to this document).

The Fitness Check is intended to evaluate how the Nature Directives have performed in relation to the achievement of the objectives for which they were designed. In accordance with its mandate,[4] adopted by the European Commission in February 2014, it will assess the effectiveness, efficiency, coherence, relevance and EU added value of the Nature Directives[5].

As part of this process, the European Commission has commissioned an evaluation study to support the Fitness Check. The study is tasked with gathering and analysing evidence and data held by a wide range of stakeholders.

The Questionnaire presented below is a key tool to enable you to provide this evidence.

In parallel to this questionnaire, you are invited to contribute to the initial list of published and peer-reviewed documents identified as being relevant for the Fitness Check. The list, which

[1] Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7-25.
[2] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7-50).
[3] Please note that for the purposes of this questionnaire, the terms 'EU nature legislation' and 'Nature Directives' refer to the Birds Directive and the Habitats Directive.
[4] http://ec.europa.eu/smart-regulation/evaluation/docs/mandate_for_nature_legislation_en.pdf
[5] For more information see: http://ec.europa.eu/environment/nature/legislation/fitness_check/index_en.htm

will be updated at regular intervals, is structured according to the evaluation categories set out in the mandate. It can be accessed at:
http://ec.europa.eu/environment/nature/legislation/fitness_check/index_en.htm

The European Commission will also launch an online public consultation for 12 weeks from April to June 2015. You are welcome to fill in that survey as well, but please be aware that the two exercises are of a different nature. The public consultation will collect views and opinions, whereas the questionnaire presented below aims to collect evidence, meaning facts or information (such as case studies, research findings, infringement cases, case law and data) which support a point or position.

The questionnaire

The questionnaire has been prepared in order to gather evidence-based information for the evaluation. It is being sent out to all Member States and selected key stakeholders across the EU.

Please answer all questions that you consider **relevant to the situation in your country/region/sector/area of activity, based on direct experience supported by evidence. You are not expected or obliged to answer all questions.**

Where possible, quantitative evidence should be provided. Where this is not possible, semi-quantitative or qualitative evidence would be welcome.

We would encourage you to answer in English. In your answers please specify why and how the evidence and documents provided is relevant for the specific question. For documents that are not in English, please provide in the answer to the question a brief summary in English that explains its relevance to the question.

Please **provide full reference details for all documents cited or referred to** in your answers: author / editor names and their initials, full titles, full names of journals, relevant page numbers, publishers and place of publication. If the document is available online, please add a URL link. If it is unpublished information, please supply a copy or relevant excerpt. When citing in short a document for which you have already provided full reference details, please ensure that we can distinguish between references that have the same author(s) and year of publication.

Please, make sure that the link between a question and the document related to it is clear. You may choose to provide the full reference of cited documents in footnotes or in notes numbered and linked to a reference list at the end of the questionnaire. If you send documents as attachments to the email, please give them a name that includes the number of the question(s) they are related to.

Deadlines for submission of the questionnaire

We kindly ask you to fill in the questionnaire and return it by e-mail **within 5 weeks** of receiving it to: info.NatureDirectivesFitnessCheck@milieu.be.

We appreciate that it may not be possible to provide complete answers to all the questions and collect all the evidence you may wish to provide within this timeframe. However, it is essential that we receive an initial response which is as complete as possible within 5 weeks in order to enable us comply with the tight evaluation schedule.

On the basis of the initial responses received, follow-up interviews may be organised to seek clarification or additional information if required. It may not be possible to organise such interviews for responses received after the 5 week deadline. However, you will have until the end of April to complete your final submission in response to the questionnaire. Please note that it will not be possible to take into account contributions received after that deadline.

The evidence gathered through this questionnaire will be vital to the overall process. For this reason, **if you anticipate that you will not be able to complete the questionnaire, please let us know as soon as possible.**

Thank you in advance for your contribution.

QUESTIONNAIRE

A. General Information

Please answer ALL questions in this table

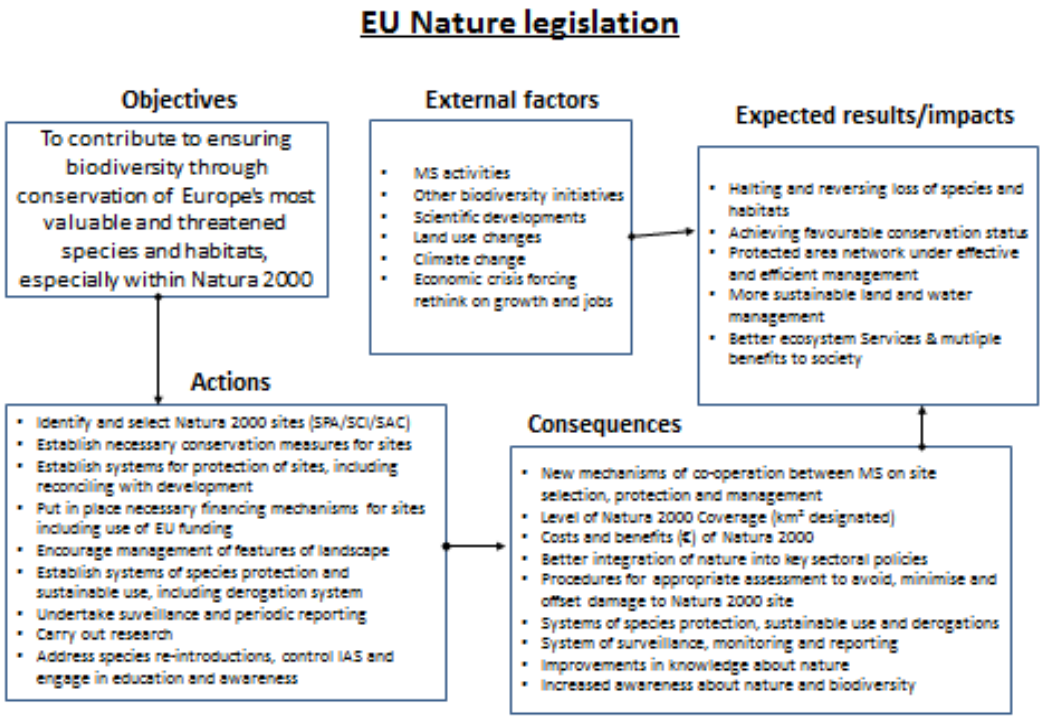
	Answer
Organisation:	**WWF Greece**
Date:	**March 24, 2014**
Country (and, if applicable, region) **represented:**	**GREECE**
Organisation(s) represented:	**ANIMA, Arcturos, Archelon, Callisto, Elliniki Etairia – Society for the Environment and Culture, Hellenic Ornithological Society, Hellenic Society for the Protection of Nature, MEDASSET, Mediterranean SOS Network, MOm, Society for the Protection of Prespa, WWF Greece.**
Name of contact for enquires (including follow-up interview if required):	**Ioli Christopoulou**
Contact email address:	**i.christopoulou@wwf.gr**
Contact telephone number:	**+30-2103314893**
Languages spoken fluently by contact person:	**Greek, English**
Language for the interview if it is not possible to conduct it in English	
Type of organisations you represent: EU authority or agency / Member State authority or agency / business or industry / educational or scientific institute / nature conservation charity / recreation / individual expert / other (please specify).	**Nature conservation charity (Environmental NGO)**
Sector represented: environment / water / agriculture / forestry / fisheries / transport / energy / extractive industry / industry / housing and other buildings / recreation & tourism / science & education / other (please specify)	**Environment**
Additional comments:	**Many of the responses to the questions that follow provide evidence that could also be used in other questions.**

B. EVALUATION / FITNESS CHECK questions

Please answer all questions that are relevant to you and for which you can provide informed insights from direct experience and/or supporting evidence.

We would kindly ask that you keep your answers as succinct as possible. They should summarise in **no more than 2 pages** any evidence relevant to a given question. More complete/detailed information, if any, should be provided in the form of references and/or web links. Definitions, explanations and examples are provided under each question to assist you in answering them.

When answering the questions, please note that the Fitness Check intends to examine the performance of the Nature Directives in relation to their stated objectives, taking into account expected results, impacts and external factors. The figure below presents the intervention logic as included in the mandate. For ease of reference, a table presenting the objectives of the Directives, differentiating between different types of objectives (strategic, specific, operational), is included in Annex I to this document.



The questions are structured around the five evaluation criteria addressed in the mandate: effectiveness = S, efficiency = Y, coherence = C, relevance = R, and EU added value = AV.

Effectiveness

This section focuses on assessing the extent to which the objectives of the Birds Directive and Habitats Directive have been met, and any significant factors which may have contributed to or inhibited progress towards meeting those objectives. By 'objectives', we refer not only to the strategic objectives, but also to other specific or operational objectives required under other articles of both Directives (as set out in Annex I to this questionnaire).

'Factors contributing to or inhibiting progress' can relate to the Nature Directives themselves (e.g. the clarity of definitions) or be external factors such as lack of political will, resource limitations, lack of cooperation of other actors, lack of scientific knowledge, or other external factors (e.g. see those listed in the above intervention logic).

We are particularly keen to learn of evidence that is not included in the Member State implementation reports[6].

S.1.1 What progress have Member States made over time towards achieving the objectives set out in the Directives and related policy documents?

Please provide evidence on what progress has or is being made towards the achievement of the objectives set out in Annex I that are of relevance to you. Please address separately the objectives of the Birds Directive and the Habitats Directive, and specify which objective(s) you are referring to, with references to the corresponding Articles. If possible quantify the progress that is being made.

Answer:

Progress can be subdivided in phases, roughly in chronological order. Responses to both S.1.1. and S1.2 are structured and should be considered complementary, since problems from earlier phases (e.g. transposition) may influence later phases of the implementation cycle.

Site selection: Reflective of its rich biodiversity, the Natura 2000 network in Greece numbers 419 sites (241 SCI/SACs and 202 SPAs) covering 27.2% of its terrestrial area and 6.1% of its territorial waters. The site selection process in Greece was supported by the implementation of a LIFE project (1994-96) and was completed following the conclusion of the first biogeographical seminar process. Since the selection of marine sites (most of the marine Natura 2000 sites are coastal) is a process still underway, in Greece – as across the EU – the evaluation of the site selection/ designation process needs to concentrate on the terrestrial sites, which, for Greece, is considered largely complete. Following the formal adoption of the SCI list by the European Commission and within the 6 years, Law 3937/2011 (on Biodiversity Conservation) designated legally 239 SCIs into SACs. However, the process is not yet complete, as conservation objectives have not been defined (see also S.1.2).

The designation of the SPA sites has been marked by gradual progress. Prior to the adoption of the Habitats Directive, 26 SPAs had been adopted. The list grew gradually over the years, in parallel with an infringement case that was opened in 1998 and led to the referral of Greece to the ECJ. Almost ten years later, the Court ruled that Greece had not designated an adequate number of SPAs and had designated sites not of adequate size and not covering all species (25-10-2007, ECJ C-334/04). Today, in compliance with the Court's decision, Greece has a strong network of 202 SPAs covering 21,1% of the Greek territory. Progress in SPA designation in the marine environment is progressing steadily. Following the completion of the LIFE Seabirds project in December 2012 (Hellenic Ornithological Society 2013; Fric et al. 2012)[7], the marine IBA inventory of Greece, covering over 1,000,000 ha, was

[6] Habitats Directive Reports: http://bd.eionet.europa.eu/activities/Reporting/Article_17/Reports_2013/
Birds Directive Reports: http://bd.eionet.europa.eu/activities/Reporting/Article_12/Reports_2013/

[7] http://www.ornithologiki.gr/seabirds; Hellenic Ornithological Society. 2013. Final Report LIFE07 NAT/GR/000285 - "*Concrete Conservation Actions for the Mediterranean Shag and Audouin's Gull in Greece including the Inventory of Relevant Marine IBAs*", Athens; Fric, J., Portolou, D., Manolopoulos, A. and T. Kastritis. 2012. *Important Areas for Seabirds in Greece*. LIFE07 NAT/GR/000285 - Hellenic Ornithological Society (HOS / BirdLife Greece), Athens.

completed. However, only 11% of this area is designated as a marine SPA. Currently, the Ministry of the Reconstruction of the Production, Environment and Energy is proceeding to increase the marine SPA network.

Site Protection: While the statutory designation of SACs is largely complete following the adoption of Law 3937/2011, conservation objectives have not been identified for each site and administrative and management measures have only partially been established.

Management measures are implemented primarily in those Natura 2000 sites that have been designated as national protected areas and/or have a management body (approx. 25-30% of the Natura 2000 network) and/or in those areas where a LIFE project or other NGO-led project is implemented. Moreover, in forest Natura 2000 sites, the national forest legislation also applies.

In addition, Greece has provided for several horizontal measures that are included in separate national legislative instruments (e.g. Law 3937/2011, 2010 and 2012 Ministerial decisions regarding SPAs). The adoption of the horizontal measures for SPAs followed an ECJ ruling which noted that Greece had failed to establish and apply a coherent, specific and integrated legal regime capable of ensuring viable management and effective protection of SPAs (Art. 4(1)(2)(4) of 79/409/EEC) (11-12-2008, C-293/07). These measures are inadequately implemented, leading the European Commission to open a new infringement process.

Species protection: While the statutory protection of species is considered largely adequate, Greece has yet to adopt species action plans. Nonetheless, proposed species action plans developed mostly via LIFE projects and by NGOs (see R.1), are contributing to the identification of actions to be promoted, new proposed projects, to environmental impact assessment and the appropriate assessment processes, among others.

Appropriate Assessment: While the appropriate assessment process is integrated into the national legislation, as a distinct part of the Environmental Impact Assessment process, there are weaknesses in its interpretation and implementation. For example, the conformity of the provisions of the recently (2013 and 2014) adopted ministerial decisions, which set the specifications for the appropriate assessment studies that are foreseen in the also recently revised environmental permit framework (Law 4014/2011), with article 6(3) has yet to be confirmed. It is important to emphasize that the Greek courts enforce appropriate assessment, and their rulings have also contributed to the aforementioned improvements in the legislation. For example, the Council of State quashed recently the environmental permit of a pig farm located inside a Cretan SCI, because it did not include a specialized assessment of its impact on the conservation objectives of the site (e.g., Council of State 585/2014). In the same vein, the Council of State annulled the permit of a power plant in southern Rhodes, because the environmental study did not examine its impact on the protected species of the nearby SPA (Council of State 4413/2012). This specialized scrutiny would not be required under national environmental legislation only.

Financing: National environmental funds and conservation targeted funds, in particular, are limited. Most of the environmental funds in Greece draw from the EU, especially the LIFE Financial Instrument and the structural funds. Integration of Natura 2000 funding is gradually gaining ground, however a lot of ground is still to be gained. It is indicative that for the 2014-2020 programming period, the Prioritized Action Framework was completed only in late 2014, reducing the influence it could have had in the planning of the programming period.

Surveillance & Reporting: A national surveillance system is not in place as yet. In the past years, monitoring of biodiversity was largely *ad hoc* or limited in those areas where NGOs maintained a constant presence, as is the case of the monitoring of *Aegypius monachus* and vegetation and forest cover by WWF Greece in the Dadia Forest (GR1110005 SCI and GR1110002 SPA). Over the years the need to establish a comprehensive monitoring system has been heightened, and it is mentioned in its first National Biodiversity Strategy that Greece completed in 2014 (Target 2, Action 2.1.10)[8].

During the first and second reporting periods of the Habitats Directive, Greece submitted its reports,

[8] Ministry of Environment, Energy and Climate Change. 2014. National Biodiversity Strategy, Athens, Greece. Available from: http://ypeka.gr/LinkClick.aspx?fileticket=%2fnY1WSioQWk%3d&tabid=37&language=el-GR.

which despite weaknesses and information gaps, provided an overview of the situation. Greece, however, did not submit on time its 3rd Art. 17 report, leading the European Commission to initiate an infringement process in March 2014. With respect to the Birds Directive (art 12), the latest report has yet to be submitted.

Note that WWF Greece issues an annual report on the implementation of environmental legislation in Greece since 2005. In each annual report, information on the implementation of the Directives is provided.[9]

S.1.2- Is this progress in line with initial expectations?

'Initial expectations' refer to the expectations, positive or negative, held by different stakeholders at the time the legislation transposing the Directives came into force in your country. For example, government reports and plans might provide evidence of intended timetables for the identification and designation of Natura 2000 sites. We are seeking to understand the extent to which progress made to date has met, exceeded, or fallen short of such expectations. If possible, in your answer please address separately each of the objectives referred to in question S1.1 for which you have provided evidence.

Answer:

Progress can be subdivided in phases, roughly in chronological order. Responses to both S.1.1. and S1.2 are structured and should be considered complementary, since problems from earlier phases (e.g. transposition) may influence later phases of the implementation cycle.

Transposition: As is the case with most environmental directives, and similarly to most other (especially "old") EU member-states, the transposition of the directives, in Greece was marked by significant delays. Delay in the transposition of the Habitats Directive led to a conviction at the ECJ (26-6-1997, ECJ C-329/96). While the Directive was transposed in haste the following year, several additional transposition acts had to be adopted since 1998 and up until recently. Today, transposition is currently largely complete.

Site selection: Formal adoption of the Sites of Community Importance list was delayed significantly, across Europe. In particular the Mediterranean biogeographical formal list of the Natura 2000 network in Greece, was approved in 2006. In a 1997 report of a working group on protected areas, established by the then Minister of Agriculture it is noted that the expected date for the completion and operation of a coherent network of protected areas was 2004.[10] Given the delay in the determination of the list, the commencement date of several of the provisions of the Habitats Directive is actually very recent (less than 10 years) for its effectiveness to be evaluated properly, especially in the context of conservation objectives which take time to be attained.

The designation of conservation objectives for SACs is linked with the completion of the national surveillance/monitoring project, initially designed to provide up to date evidence for the 2007-2012 reporting period.

Site protection: Until Law 3937/2011 was adopted, Natura 2000 sites had to be designated also as national protected areas. This is a demanding process, which was fraught with delays, lack of administrative capacity, limited funding – mostly from LIFE and other EU funds – and, most importantly, absence of political will. As a result, over the years only few areas were designated as nationally protected, and for some the selected legislative instrument (a Joint Ministerial Decision rather than a Presidential Decree) did not meet the national legal requirement, and were overruled by

[9] WWF Greece. Commitments without / for implementation: environmental legislation in Greece. Athens; annual report 2014, annual report 2013, annual report 2012, annual report 2011, annual report 2010, annual report 2009, annual report 2008, annual report 2007, annual report 2006, annual report 2005 (in Greek). Executive summaries in English are also available, see for 2014: http://www.wwf.gr/en/news/1316-greece-going-into-deep-environmental-recession.

[10] Report of Working Group on Protected Areas. 1997 (Available in print copy at request from WWF Greece;s archives).

the Greek Council of State.[11] Indicative of the absence of legal protection is the ruling of the ECJ against Greece for failing to establish and implement a cohesive, specific and comprehensive legal regime capable of ensuring sustainable management and effective protection of the special protection area of the Messolongi Lagoon (Art. 4(1) (2) of 79/409/EEC) (27-10-2005, C-166/04). The adoption of Biodiversity Law 3937/2011 led to a re-organization of the national system of protected areas which provides for the statutory recognition of Natura 2000 sites within a separate category of protected areas. Based on this Law, SAC designation needs to be complemented by the determination of conservation objectives. While delays mark the identification of these objectives, there is greater potential that they will soon be determined, now that Natura 2000 sites have acquired a legal protection regime, rather than having to be designated as national protected areas.

The transposition and implementing acts of the Habitats Directive provide for management plans; however, to date no guidelines or specifications for these management plans have been issued, leading to delays in their formulation and incontinences among those proposed. Only 2% of SACs (i.e. 4 sites) and 1% of SPAs (i.e. 2 sites) have a management plan. It is worth noting that the two management plans have been the result of significant pressure and constitute a response to site degradation: 1) In the case of Schinias (GR 3000003 SCI/ GR3000016 SPA), the area had been selected for the construction of the rowing center for the Athens 2004 Olympic Games. In fact, Greece tried to remove the site from the scientific inventory, but was prevented following the response of NGOs, the Bern Convention and the European Commission, which had already co-financed a project for its protection. Consequently, the siting of the rowing center, which was completed, was re-examined, the site was designated as a National Park, following initial plans dating back to 1992, and a management plan was adopted in 2001. While the plan was implemented with significant site restoration results in the years immediately following its adoption, it has not been updated since and is implemented only partially. 2) In the case of Lake Koronia (GR1220009 SPA) the management plan was adopted immediately prior to the hearing of the case at the ECJ which eventually ruled that Greece had not taken the necessary measures to avoid the degradation of the natural habitats and species habitats for which the area of Koronia has been designated as an SPA (and for not having ensured a wastewater treatment system) on the basis of Art. 6(2) of Dir. 92/43/EEC (7-2-2013, ECJ C-517/11). The management plan regards the area that has been designated as a national park and covers fully or partially 4 Natura 2000 sites.

Surveillance & Reporting: Despite delays, currently a major surveillance and monitoring project, financed via the Operational Program for Environment and Sustainable Development, is implemented to provide up-to-date information on the status of protected species and habitat types. Serious delays in the tendering of the project, significant administrative issues, among others, have led to a belated completion of the project, which may hinder also the quality (e.g. fewer data points, for fewer monitoring seasons) of the results. It is expected that following the completion of this project (December 2015), a national surveillance system will be in place. At the same time, monitoring projects are implemented also by the Management Bodies of Protected Areas. Coordination between the two systems is expected.

S.1.3 - When will the main objectives be fully attained?

On the basis of current expectations and trends, please provide evidence that indicates the likely year or range of years that the main objectives will be met. By 'main objectives' we mean the strategic objectives of the Birds Directive (as set out in its Article 2) and the Habitats Directives (in its Article 2), as well as the specific objectives set out in Annex I to this document.

Answer:

The Nature Directives are already offering concrete results towards their strategic objectives:

- *Caretta caretta:* The Habitats Directive and the Natura 2000 network, which has been established through it, have a strong impact on the conservation reality of loggerhead sea turtles (*Caretta*

[11] Vokou, D. et al. 2014. "Ten years of co-management in Greek protected areas– An Evaluation". *Biodiversity Conservation* 23: 2833-2855.

caretta). Almost all sea turtle nesting sites in the EU are included in Natura 2000 sites under the 92/43/EEC Habitats Directive. Although there is a severe lack of political will regarding the implementation of the Directive, the Commission's enforcement efforts highlight the Directive as a very important conservation tool. In particular the two largest nesting habitats of loggerhead turtles in the Mediterranean, namely Laganas Bay in Zakynthos Island and southern Kyparissia Bay at the western coast of Peloponnese have avoided their definitive degradation due to the Directive. In both cases files were opened in the European Court of Justice for violation of the Directive. While in the case of Zakynthos (30-1-2002, ECJ C - 103/00), the establishment of National Marine Park and the relevant management measures, constituted a successful tool for achieving the favourable conservation status of the species, the recent case of southern Kyparissia Bay (EL 2011/2156 ENVI) is still pending and many steps still need to be taken for the achievement of the Directive's objectives. Moreover the Directive plays a key role in the case of already degraded nesting habitats such as those on Crete Island (Bays of Rethymno, Chania and Messara, case 2013/5116 ENVI). In these cases, pressure is exerted to the responsible government bodies to take appropriate measures to solve the existing main conservation issues, aimed at improving the current situation.

- *Gypaetus barbatus:* The Lammergeier's population is the rarest vulture in Greece and the Balkans. During two LIFE projects (LIFE98 NAT/GR/005276 and LIFE02 NAT/GR/00849) in the island of Crete emergency actions were implemented: wardening of the important breeding sites, provision of food sources for the vultures locally and an informative campaign for the local population. As a result, the population in Crete has been increasing since the implementation of LIFE projects. In the late 1990s, the Bearded Vulture (*Gypaetus barbatus*) numbered in Crete 4 breeding pairs and less than 30 individuals[12]. At present the Bearded Vulture increased to 7 breeding pairs and ca. 45 individuals.[13]
- *Phalacrocorax aristotelis:* Improvement of knowledge on the species, assisted by the LIFE07 NAT/GR/000285[14] project, led to the implementation of management actions. More specifically, rat eradication was carried out through the LIFE project on 19 islets. These islets host 12-16.2% of the national population of the Mediterranean Shag and 13-51.5% of the national population of the Audouin's Gull, achieving the initial conservation goal of 10-15% of the national population of the Mediterranean Shag and 20-25% of the national population of the Audouin's Gull, thus significantly contributing to the improvement of the conservation status of the two species in Greece. In addition permanent bait station positioned along the coastline of the islets ensures long-term rat removal and benefits to nesting seabirds.
- *Falco eleonorae:* Greece hosts 85% of the species' world's breeding population, and therefore this knowledge[15] has been an extremely valuable tool for the coordination of decision making processes related to the bird's conservation in Greek islands. More specifically, the reduction of disturbance in Eleonora's Falcon colonies was achieved through the development of a National Wardening Plan. The NWP was used by the competent state authorities to ensure effective wardening of the SPAs where the falcons breed and wardening was implemented throughout the project in 4 key Eleonora's Falcon colonies in Greece. Additionally, a pilot rat eradication management project was implemented for the improvement of the species habitats and its breeding success. Eradication was successfully enforced in five islets in Northern Sporades, totaling an area of more than 20ha. The first results of the eradication indicated a 20% increase in the reproductive success of the Eleonora's Falcon on those islets, while the abundance of vegetation also

[12] *Xirouchakis, S., Sakoulis, A. and Andreou, G. (2001) The decline of the* Bearded Vulture Gypaetus barbatus in Greece. Ardeola 48: 183–190. Zink, R. (2000

[13] For more information, please see: http://www.4vultures.org/2014/10/02/great-year-for-bearded-vultures-in-crete-five-young-from-five-breeding-pairs/

[14] For more information, please see: http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3372&docType=pdf

[15] Improvement of knowledge regarding the species is a result of the LIFE03 NAT/GR/000091. For more information, please see: http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3372&docType=pdf.

increased.[16]

- *Prespa Lake:* The Lesser Prespa Lake is a global biodiversity hotspot (GR1340001/SPA/SCI/SAC, Ramsar Wetland of International Importance, National Forest Park), due to the high number and variety of bird species that are observed and nest there. While it was recognized as the world's largest breeding colony of Dalmatian Pelicans (*Pelecanus crispus*) and the EU's biggest colony of Pygmy Cormorants (*Phalacrocorax pygmaeus)*, measures were needed in order to address poor management of the lake water level, to restore the wet meadow areas and the management of grazing. As a result of a LIFE project (LIFE02 NAT/GR/008494 project)[17], as well as other conservation activities by the Society for the Protection Prespa, Prespa hosts today a stable colony of more than 1200 pairs of Dalmatian Pelicans, doubling the number of pairs since the start date of the project's implementation (2002). Today Greece hosts more than 20% of the global reproducing population of this endangered species. While the principal aim of the project was to improve the conservation status of the Dalmatian Pelican and the Pygmy Cormorant, the activities benefited directly at least 18 other species covered by the Birds Directive. Indicatively, the nationally critically endangered Glossy Ibis (*Plegadis falcinellus*), which was extinct from Prespa Lake, one of its most important breeding sites, since the 70's recolonised Prespa Lake, after 35 years.
- *Drana Lagoon:* In 2001, a program aiming to restore the Drana Lagoon, a key habitat of the Evros Delta (GR111000/ SPA), Greece, was implemented with European Union support "Restoration & conservation management of Drana Lagoon, Greece" in 2001-2005 (LIFE00/NAT/GR/7198, GR1110001). The project was successful and the lagoon now is visited by a large number of breeding and wintering birds.

Greece is a country with rich biodiversity, with respect to the number of species, the variety and the status of its habitats. Indicatively, 64% of the European protected birds, 43% of mammals and 41% can be found in Greece. This richness is the result of the interplay of a dynamic geological history, favourable climatic conditions and the long presence of human activities. No doubt, elements of Greece's biodiversity are threatened, some are listed as endangered or critically endangered. To protect these elements, support and maintain those habitats and species that already have attained a favourable conservation status, to prevent degradation, and proceed with restoration, application of management measures, in the spirit of the directives, is of critical importance. With proper implementation, Greece can meet the Directives objectives and contributed significantly to the halt of biodiversity loss.

Indeed, 60% of the terrestrial habitats of Greece were reported in the 2001-2006 Art. 17 national report as in favourable conservation status. The same cannot be said for marine habitats, 80% of which are listed at an inadequate conservation status, with the remaining 20% as unknown. This is the area, however, where research and knowledge is currently growing, implementation is slower and weaker; the designation of marine SCI and SPAs is in progress and few management measures are in place and/or implemented.

For the objectives of the Directives to be fully attained, several key stages in the process of implementation need to be completed. The National Biodiversity Strategy, which was adopted in 2014, sets the implementation of the Birds and Habitats Directives and, in particular, the response to noted delays and gaps in implementation as priority across several of its 13 targets.[18]

When considering expectations on the effectiveness of the Nature Directives it is important to remember that ecosystems are dynamic, constantly influenced by numerous and varied variables. As a

[16] Fric J., Christie D., Karris G. & Dimalexis A.(2006) Rat Eradication in the Northern Sporades National Park for the Improvement of Breeding Habitat of Eleonora's Falcon. 10th International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions (June 26-30, 2006 - Patras, Greece) http://www.upatras.gr/zoogeography.

[17] For more information, please see: http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.createPage&s_ref=LIFE02%20NAT/GR/008494&area=1&yr=2002&n_proj_id=1962&mode=print&menu=false.

[18] Ministry of Environment, Energy and Climate Change. 2014. National Biodiversity Strategy, Athens, Greece. Available from: http://ypeka.gr/LinkClick.aspx?fileticket=%2fnY1WSioQWk%3d&tabid=37&language=el-GR.

result, conservation efforts, from wherever they may be sourced (global, European, national legislation) take time to generate results. Indeed IUCN estimates that "average time for species status to improve by one Red List category is 16 years."[19] Moreover, despite consistency of efforts, surrounding direct threats and indirect drivers continue to set pressures on our natural capital. One of the important conclusions of the 2005 Millennium Ecosystem Report was that *over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history.*[20] This conclusion is confirmed by the continuously growing ecological footprint which shows that humanity demands more than the planet can replenish.[21] Hence, greater emphasis is needed in the integration of the nature conservation priorities to other sectoral policies and priorities.

S.2 – What is the contribution of the Directives towards ensuring biodiversity? In particular to what extent are they contributing to achieving the EU Biodiversity Strategy* Objectives and Targets?

By 'contribution towards ensuring biodiversity', we are referring not only to the conservation of the species and habitats specifically addressed by the Directives, but also to biodiversity more broadly defined: i.e. other species and habitats not targeted by the Directives; ecosystems (terrestrial and marine); and genetic diversity, both within and beyond the Natura 2000 network – in line with the EU's 2050 vision and 2020 headline target and the Targets of the EU's Biodiversity Strategy to 2020.

** For an overview of the EU biodiversity Strategy see:*
http://ec.europa.eu/environment/nature/info/pubs/docs/factsheets/Biod%20Strategy%20FS.pdf

Answer:

Biodiversity loss is one of the most significant global challenges that humanity is faced with. Habitat loss and degradation, resource overexploitation, pollution, invasive alien species and climate changes lead to unprecedented loss of life on the planet. Despite growing attention towards biodiversity loss, as evidence by several reports, the trends remain alarming.[22] The designation of protected areas and direct action to ensure the conservation of species constitute, even today, the most important tools to ensure the natural capital of our planet. Their role in safeguarding nature is enshrined in the Convention of the Biological Diversity (CBD) and is reconfirmed in the Aichi Targets that the CBD Conference of the Parties (COP) agreed in 2010 (Aichi Targets 11 and 12). The importance of protected areas, in particular, was further highlighted at the recent IUCN World Parks Congress.[23]

The EU's Biodiversity Strategy sets the implementation of the EU's nature directives at the forefront of ensuring the EU's leading and contributing role in halting the loss of biodiversity. In particular, Target 1 mentions that the "*full implementation of the Birds and Habitats Directives (i.e. reaching favourable conservation status of all habitats and species of European importance and adequate populations of naturally occurring wild bird species) is critical to preventing further loss and restoring biodiversity in the EU*". In fact, the EU Strategy, which was adopted as recently as 2011 by the Member States, reconfirmed the strategic objectives of the two directives, while pointing to the need for greater progress in implementation.

The Birds and Habitats Directives are key instruments also at the national level. The role of the Nature Directives in the national biodiversity policy is demonstrated by the fact that framework for the development of the first National Biodiversity Strategy, which was completed in 2014, includes among others *"the legally binding framework – national, European and International – including*

[19] Young, R.P. et al. 2014. "Accounting for conservation: Using the IUCN Red List Index to evaluate the impact of a conservation organization" *Biological Conservation* 180, 84-96.
[20] Millennium Ecosystem Assessment. 2005. *Ecosystems and Human Well-being: Synthesis*. Washington, DC: Island Press.
[21] WWF. 2014. Living Planet Report 2014: species and spaces, people and places. Gland, Switzerland.
[22] WWF. 2014. Living Planet Report 2014: species and spaces, people and places. Gland, Switzerland; Secretariat of the Convention on Biological Diversity (2014) Global Biodiversity Outlook 4. Montréal.
[23] World Parks Congress, 2014. More info available from: http://worldparkscongress.org.

International Treaties and European Directives"[24]. In this context the Nature Directives are mentioned throughout the text, targets and actions of the Strategy.

The national protected areas system, since its reform with the adoption of Law 3937/2011, integrates the Natura 2000 sites. The table below provides information on the extent of overlap between national protected areas and the Natura 2000 network in Greece. Natura 2000 covers 42,928.21 km^2 of which 16,518km^2 overlap with some type of national protected areas (NPAa). This means that while 38.48% of the Natura 2000 network has also been designated as a national protected area, 61.56% of the National Protected Areas have also been designated as Natura 2000 sites. A note of caution is needed with respect to wildlife refuges, which constitute the largest percentage of the national protected areas as shown in the table below. Wildlife refuges are the successors of the former game refuges under the hunting provisions. A proposal to assess their current conservation value has not taken place as yet. If we leave out this category of protected areas, then the percentages are significantly different. A second note of caution is needed, is that many of the protected areas listed in the first row, have not been designated with the proper legal instrument in Greece (a Joint Ministerial Decision rather than a Presidential Decree).

National protected areas (NPAs)	***Area of NPA (km^2)***	***Overlap of NPA with Natura2000 (km^2)***	***% cover of the Natura2000 by the NPA***	***% cover of NPA by the Natura2000***
National Parks, Nature Reserve Areas, Absolute Nature Reserve Areas, Protected Forests, Protected significant natural formations and landscapes, Eco-development Areas (Law 3937/2011)	8,726.97	6,963.92	30.69	72.89
National Woodland Parks	767.67	755.71	1.76	98.44
Aesthetic Forests	318.87	250.29	0.58	78.49
Natural Monuments	160.18	157.35	0.37	98.23
Wildlife Refuges	10,677.56	4,964.28	11.56	46.49
Total	**26,830.91**	**16,518.01**	**38.48**	**61.56**

S.3 – Which main factors (e.g. implementation by Member States, action by stakeholders) have contributed to or stood in the way of achieving the Directive's objectives?

Please summarise evidence of the main factors that have supported or constrained progress towards achieving the objectives of the Nature Directives. As in previous questions, by 'objectives' we mean not only the strategic objectives set out in Articles 2 of both Directives, but also specific and operational objectives, as set out in Annex I to this document. Relevant factors might include, for example, resource limitations, lack of cooperation of other actors, lack of scientific knowledge, or other external factors (e.g. those listed in the above intervention logic).

Answer:

As suggested in a recent study,[25] European conservation scientists, esteemed Natura 2000 as "*a European success at least in terms of network design, adequate integration of external resources, associated European legal frame, and scientific knowledge gain*". Among the factors that contributed positively towards achieving the conservation targets of the Directive, were the innovative and effective EU legal frame (including the possibility of national decisions to be revised by the European Commission) and the on-going increase of scientific knowledge and social input. The significance of European environmental law in Greece's environmental policy cannot be emphasized enough. Indicatively between 1986 and 1994, almost 100 European legislative instruments were transposed

[24] Ministry of Environment, Energy and Climate Change. 2014. National Biodiversity Strategy, Athens, Greece. Available from: http://ypeka.gr/LinkClick.aspx?fileticket=%2fnY1WSioQWk%3d&tabid=37&language=el-GR.

[25] Kati V., et al. (2014) "The Challenge of Implementing the European Network of Protected Areas Natura 2000," *Conservation Biology*: Volume 29, Issue 1, pp. 260–270.

into national law.[26]

However, as stated in relevant literature, the Greek national conservation strategy was compromised by an absence of conservation policy history, lack of state capacity, unknown or uncommunicated biological knowledge and lack of public participation.[27] For example, the environment framework law that would enact the 1975 constitutional environment provisions was adopted only after years of prolonged negotiations in 1986 (Law 1650/1986 *Official Gazette* 160/A/1986). Even so, the implementation of several of its provisions was delayed and some have yet, even today, to enter into force. Moreover, since the adoption of this framework law, relevant ministries and authorities responsible for the implementation of the Nature Directives were fragmented between environment, and agriculture and other ministries.[28]Until 2009 the environment ministry was co-hosted with the ministry of public works.[29] As a result, engineers, in contrast to environmental scientists, even today dominate the country's environmental administration.[30] In 2009, for the first time, since the transposition of the Directives, were the two services that are linked with nature conservation, in particular the forest and environmental services, co-hosted in the same ministry. Nonetheless, it was only in the fall 2014 that a new organigram of the Ministry of Environment, Energy and Climate Change placed the relevant directorates under a common ministry secretariat. The ministry's structure, however, is expected to change once more since the Ministry of the Reconstruction of Production, Environment and Energy was established in early 2015.

Limited available national funding, trained and experienced personnel, deficiencies in inter-sectorial administrative cooperation, lack of reliable and open-access ecological research, absence of sociological research were also widely criticized and affirmed as major drawbacks in implementing the Directives. Weak political leadership and commitment to clear conservation goals, combined with a tendency to satisfy powerful politico-economic power structures and development actors, while underestimating or avoiding public dialogue, resulted in a bureaucratic and alienating approach to nature conservation. Indeed, for decades and even more so in the 1980s and 1990s "there was little or nothing in the way of domestic environmental law or policies" that could divert the country's focus on economic development.[31]

All the above conceptual gaps constructed a problematic and ineffective architecture in national conservation and contributed to serious delays or to inadequate implementation of the Directives.

S.4 - Have the Directives led to any other significant changes both positive and negative?

This question aims to assess whether the implementation of the Nature Directives has brought about any significant environmental, social or economic effects or changes that were not intended or foreseen by the Directive at the time of their approval, and whether these changes were positive, negative or neutral in terms of their contribution towards meeting the objectives of the Directives.

[26] Giannakourou, G. 2004. "The Implementation of EU Environmental Policy in Greece: Europeanization and Mechanisms of Change," in *Greece in the European Union*. Eds. D. G. Dimitrakopoulos and A. G. Passas, 51-60. London: Routledge.
[27] Apostolopoulou, E. and J. D. Pantis. (2009)."Conceptual Gaps in the National Strategy for the Implementation of the European Natura 2000 Conservation Policy in Greece." *Biological Conservation* 142: 221-237; Papageorgiou, K. and Vogiatzakis, I.N. (2006) "Nature Protection in Greece: An appraisal of the factors shaping integrative conservation and policy effectiveness." Environmental Science and Policy 9: 476-486; Kati V., et al. (2014) "The Challenge of Implementing the European Network of Protected Areas Natura 2000," *Conservation Biology*: Volume 29, Issue 1, pp. 260–270; Dimitrakopoulos, P. G. et al. 2010. "Local attitudes on protected areas: Evidence from three Natura 2000 wetland sites in Greece." *Journal of Environmental Management* 91: 1847-1854
[28] Giannakourou, G. 2004. "The Implementation of EU Environmental Policy in Greece: Europeanization and Mechanisms of Change," in *Greece in the European Union*. Eds. D. G. Dimitrakopoulos and A. G. Passas, 51-60. London: Routledge., 53; Pridham, Geoffrey and Dimitrios Konstadakopoulos. 1997. "Sustainable Development in Mediterranean Europe? Interactions between European, national and sub-national levels," in The Politics of Sustainable Development: Theory, Policy and Practice within the European Union, eds. Susan Baker et al., 127-151. London: Routledge, 129.
[29] Weale, A. et al. 2000. *Environmental Governance in Europe: An Ever Closer* Ecological *Union*. Oxford: Oxford University Press. p. 162; Apergis, G.G. and Gaethlich, Martin. "The Natural Environment of Greece: An Invaluable Asset being destroyed". *Southeast European and Black Sea Studies* 6:3, September 2006. pp. 377-390.
[30] Apostolopoulou, E. and J. D. Pantis. 2009. 2009. "Conceptual Gaps in the National Strategy for the Implementation of the European Natura 2000 Conservation Policy in Greece." *Biological Conservation* 142: 231.
[31] McCormick, J. 2001. *Environmental Policy in the European Union*. Basingstoke: Palgrave, 8.

Examples of such effects or changes might include the development of a culture of social participation in nature-related decisions as evidenced by Committees for the development of management plans or higher cooperation of departments of different ministries, etc.

Answer:

The implementation of the Nature Directives has led to several positive changes in Greece. A few examples follow:

New perception of protected areas: The first protected areas in Greece were national forest parks, established in the late 1930s (Mt Olympus was the first designated national forest park in 1938). These first parks were gradually complemented with other national forest parks and in the 1970s with Wetlands of International Importance according to the Ramsar Convention. The perception of protected areas was based on the idea of nature reserves, where human actions are limited and at most light recreational activity is permitted. It was only in the mid-1980s that Greece's environment framework law 1650/1986 introduced a national system of protected areas, with various categories of protected areas; however its implementation was slow. In fact its provisions were clarified several years later with Law 2742/1999 which operationalized the national protected areas system. The adoption of the Habitats Directive, however, created momentum for the nature conservation in Greece. Its transposition and implementation led to another important change: the recognition that protected areas do not exclude, rather include, frame, and often require human activities. This marked a new conceptualization of what management of protected areas means. Interestingly, given the long history of interaction between humans and nature in Greece, this approach is even more beneficial to Greek nature.[32]

Endemic and rare species conservation: The possibility to implement LIFE projects with significant EU funding within Natura 2000 sites contributes to the conservation and enhancement of biodiversity more broadly defined than the specific targets of the projects: i.e. other species and habitats as well as ecosystems and genetic diversity not directly covered by the Directives. This supports the protection of important Greek flora, including endemic and/or rare plant species beyond the lists of species and habitats of European importance included in the Annexes of the Directives. The same applies for some fauna categories, such as freshwater fish and invertebrates, where, again, despite the high percentage of endemism only very few species are included in the Directives. For example, the project "CRETAPLANT: A Pilot Network of Plant Micro-Reserves in Western Crete" applied the innovative concept of Plant Micro-Reserves in Greece, as a complementary network to Natura 2000 network, for the conservation and management of plant populations of threatened and rare species of the Greek flora. The identification of such micro-reserves was explored within 3 Natura 2000 sites (GR4340001/SCI, GR4340002/SCI, Lefka Ori GR4340008/SCI) in Crete.[33] The same is true for the FOROPENFORESTS project that is implemented currently.

Multifunctional sustainable forest management: In Greece, sustainable forest management is traditionally applied through specific forest management procedures defined in 1953 (and supplemented in 1965) by the Ministry for Agriculture. These procedures aim to regulate the management of Greek forests by means of silvicultural operation plans. However, these are geared towards the regulation of sustained timber yields, that is, towards traditional timber production and utilisation according to schedule. To date, these forest management instructions do not account for special measures regarding the protection of habitats of particularly endangered fauna and flora species, the conservation of these species, and biodiversity conservation more broadly. The adoption of the Nature Directives has been critical in promoting a multifunctional sustainable forest

[32] Papageorgiou, K. and Vogiatzakis, N. I. 2006. "Nature Protection in Greece: An appraisal of the Factors Shaping Integrative Conservation and Policy Effectiveness." *Environmental Science & Politics* 9: 476-486; Vokou, D. et al. 2014. "Ten years of co-management in Greek protected areas– An Evaluation". *Biodiversity Conservation* 23: 2833-2855; Maragou, P. and Christopoulou, I. 2012. "Protected areas: Basic concepts and their effectiveness in biodiversity conservation in Greece". In Papageorgiou, A. et al (eds). *Forest: An Integrated Approach.* WWF Greece, p. 155-171. Available from: http://www.wwf.gr/images/pdfs/B3.pdf.

[33] For more information, please see: http://cretaplant.biol.uoa.gr/ and http://cretaplant.biol.uoa.gr/docs/cretaplant_leaflet_en.pdf

management approach that includes principles regarding the conservation of priority species and/or habitats. Though, these principles have not been adapted in the national forest legislation yet, several forest management plans have been developed and implemented as a response to the need for forest management to contribute to the attainment of the objectives of the Birds and Habitats Directives. Given than more than one third of the 241 SCIs are forests[34] and that the forest and semi-natural surfaces (based on Corine land cover 1 category) account for 75.2% of the Natura 2000 land cover[35], the significance of this transition to integrated forest management can be appreciated. Examples of such management plans include: the specific management plan developed to apply conservation interventions in the core zone (a strict protection zone) of Dadia-Lafkimi-Soufli National Forest Park (GR1110005/SCI, GR1110002/SPA) aiming at the restoration of forest openings and improvement of raptor's foraging habitats (3907/91/10-11/ACNAT - 1995, LIFENAT02/GR/8497). Innovative management practices have also been implemented in areas of the Pindos National Park (GR1310003/SCI) aiming at the improvement of priority forest habitat type 9530* conservation status and of brown bear habitat conditions and population trends (LIFE07 NAT/GR/000291). Currently, the LIFE+ Nature project "Conservation of priority forests and forest openings in "Ethnikos Drymos Oitis" and "Oros Kallidromo" of Sterea Ellada", FOROPENFORESTS (LIFE11 NAT/GR/1014) aims at the conservation of priority habitats and plant and animal (brown bear and birds) species in three Natura 2000 sites (GR2440004/SCI, GR2440007/SPA and GR2440006/SCI) of central Greece. Through the implementation of this project and the exploration of alternative management schemes, favourable conditions for a large variety of species not included in the Directives will be also ensured.[36]

Beyond conservation to fisheries protection and sustainable development: Following a proposal by MOm in collaboration with relevant authorities (Ministry of Environment, Energy and Climate Change, Ministry of Shipping and the Aegean, the South Aegean Prefecture, the Port Authority of Syros), the Syros Port Regulation was updated in order to designate the surrounding 3 nautical mile marine area of Gyaros (GR4220033 / SPA/SCI) as a no fishing zone in 2013 (Government Gazette, 3251/B/20.12.2013). The designation, as evinced in Article 1 par. 2 of the decision, demonstrates that this designation is based on the fact that the island of Gyaros "has been included in the Natura 2000 network." Furthermore, the CYCLADES LIFE, "Integrated Monk seal conservation of Northern Cyclades" project that is being implemented currently by WWF Greece, MOm, the Ministry of Environment, Energy and Climate, among other partners, aims to establish a new Marine Protected Area (MPA) that will explore the potential of ecosystem based management, marine spatial planning, participatory management, and apply pioneering technology that will promote sustainable development in local communities and support sustainable fisheries.[37]

Collaboration with the private sector: The Nature Directives offer opportunities for collaboration between NGOs and the private sector towards biodiversity and nature conservation objectives. Few indicative examples are presented here:

- Collaboration has been also achieved between environmental NGO's and kennel clubs for the dissemination of good quality livestock guarding dogs of traditional Hellenic breeds for the improvement of damage prevention measures efficiency, in response to damages that are caused by the Greece's large carnivores, and in particular, the Brown Bear (*Ursus arctos*) and the Wolf (*Canis lupus*).
- The Hellenic Ornithological Society and S&B mining company collaborated in order to train company staff in the legal requirements and best practices of restoration of mining pits. As a result, S&B improved their restoration techniques in Giona Mountain (GR2450007/SPA and GR2450002/SCI) and is planning a Local Action Plan to benefit other species present in the protected area, such as the nationally endangered Golden Jackal, thus resulting in additional benefits for biodiversity. The collaboration is the result of the fact that the activity area of the

[34] Ministry of Environment, Energy and Climate Change. 2014. National Biodiversity Strategy, Athens, Greece. Available from: http://ypeka.gr/LinkClick.aspx?fileticket=%2fnY1WSioQWk%3d&tabid=37&language=el-GR.
[35] Prioritized Action Framework for the 2014-2020 Programming Period. December 2014. Available from: http://www.ypeka.gr/LinkClick.aspx?fileticket=bZfp%2bbTXoYU%3d&tabid=539&language=el-GR.
[36] For more information, please see: www.foropenforests.org
[37] For more information on the CYCLADES LIFE project, please see: www.cycladeslife.gr

mining company was designated as a Natura 2000 site, following the gradual expansion of the network.

- Since 2012 Hellenic Ornithological Society implements the Sani Wetland Project for the conservation of the Sani Wetlands (GR1270013/SPA) in Chalkidiki, Northern Greece in collaboration with Sani Resort. The project was initiated following a strategic shift of Sani Resort, which initially had developed plans to expand its operations and create new infrastructure that would degrade its neighboring wetland. The project includes monitoring of birds and their habitat, management and restoration measures (e.g creation of nesting platforms for endangered species, visitor management), creation of ecorails and info signboards, birdwatching tours, public awareness and environmental education.[38]
- Implemented by Piraeus Bank, one of Greece's largest financial institutions, the Society for the Protection of Prespa, the local authority, an expert consultancy, and a research center, LIFE project LIFE12 NAT/GR/000275 aims at the restoration of Lake Stymfalia (GR2530002 SPA/SAC) and its long-term protection and management. The project explores the potential of re-financing process of management activities, this case via the utilization of reeds' biomass.[39]

[38] For more information, please see: http://www.saniwetlands.gr/en_GB/; http://www.sani-resort.com/en_GB/sustainability/Partnerships.
[39] For more information please see: http://www.lifestymfalia.gr/

Efficiency

Efficiency is essentially a comparison between inputs used in a certain activity and produced outputs. The central question asked here is whether the costs involved in the implementation of the EU nature legislation are reasonable and in proportion to the results achieved (benefits). Both 'costs' and 'benefits' can be monetary and/or non-monetary. A typology of the costs and benefits resulting from the implementation of the Directives is given in Annex II to this questionnaire. In your answers, please describe the nature, value and overall significance of the costs and benefits arising from the implementation of the Directive, supported by evidence.

Y.1 - What are their costs and benefits (monetary and non-monetary)?

Based on the explanation given above, please indicate, supported by evidence, what types of costs and benefits have resulted from the implementation of the Nature Directives. Please provide evidence, quantitative where possible, of costs and benefits, describe their nature (monetary/non-monetary) and value, and who is affected and to what extent. Please distinguish between the costs and benefits arising from the Directives themselves and those arising as a result of other factors. To facilitate analysis of the answers it would be useful if costs and benefits could be addressed separately.

Answer:

Costs

In the latest response to the European Commission's questionnaire, Greece estimated the annual cost of implementation of Natura 2000 at €97.1 million, which is an estimate 59% lower than its 2004 response.[40] The recently completed Prioritized Action Framework includes the data that Greece provided to the European Commission's questionnaire in 2010 (i.e. without the adjustments that were made in the final report to make the data across the EU comparable).[41] The annual cost of Natura 2000 was estimated at €84.3 million noting that additional €246.9 million are needed as one-off costs, estimating the total needs at €668.5 million. The PAF's own estimate for the 2014-2020 programming period is slightly higher at €685.2 million. These numbers should be considered as rough estimates. At this point, no other official estimates of costs are available.

Benefits

Several studies have demonstrated the social and employment dimensions of the EU biodiversity policy.[42] A thorough analysis of these dimensions has not taken place in Greece. The comments below however offer supportive evidence of the non-monetary benefits of the Nature Directives and biodiversity policy in general.

Green jobs: In its survey of the operation of management bodies of protected areas, the national Nature 2000 committee reported that 276 individuals were employed as regular and/or seasonal staff in these bodies.[43] Given the variability of the numbers among management bodies (3-32 staff) and the

[40] Gantioler S., et al. 2010. Costs and Socio-Economic Benefits associated with the Natura 2000 Network. Final report to the European Commission, DG Environment on Contract ENV.B.2/SER/2008/0038. Institute for European Environmental Policy / GHK / Ecologic. Available from: http://ec.europa.eu/environment/nature/natura2000/financing/docs/natura2000_costs_benefits.pdf.

[41] Prioritized Action Framework for the 2014-2020 Programming Period. December 2014. Available from: http://www.ypeka.gr/LinkClick.aspx?fileticket=bZfp%2bbTXoYU%3d&tabid=539&language=el-GR

[42] European Union. 2013. The Economic Benefits of the Natura 2000 network. Available from: http://ec.europa.eu/environment/nature/natura2000/financing/docs/ENV-12-018_LR_Final1.pdf; Nunes, P.A.L.D., et al. 2011. The Social Dimension of Biodiversity Policy: Final Report. Report to DG Environment. Available from http://ec.europa.eu/environment/enveco/biodiversity/pdf/Social%20Dimension%20of%20Biodiversity.pdf; GHK. 2012. The EU biodiversity objectives and the labour market: benefits and identification of skill gaps in the current workforce. Report to DG Environment. Available from: http://ec.europa.eu/environment/pubs/pdf/biodiversity/Biodiversity%20and%20Jobs_final%20report.pdf

[43] Vokou, D. et al. 2014. "Ten years of co-management in Greek protected areas– An Evaluation". *Biodiversity Conservation* 23: 2833-2855;

significant personnel needs that management bodies note and that management bodies cover about a third of the Greek Natura 2000 network, this is an indicator of the direct jobs that the Nature Directives implementation can create. Another study proposed that for the management of the Natura 2000 network, 800-1200 jobs would be created.[44] These numbers are only proxies, as an important number of public authorities personnel is engaged directly or indirectly with the conservation of Natura 2000 (e.g. personnel from the Ministry of Environment, Regional and Local Administration, Forest Services, Police and Port Authorities etc.). Moreover, many other direct jobs are created in the private sector (NGOs, consultancies, photographers, etc) to cover Natura 2000 needs.

Administrative capacity: Implementation of the Nature Directives has benefited the country's national, regional and local capacity, which have become more familiar not only with conservation requirements, but also with processes of appropriate assessment and public participation. Moreover, a Nature 2000 committee was established with the transposition act of the Habitats Directive. Since then the Nature 2000 committee has also been designated as the SPA committee, the national protected areas committee and more recently as the main advisory board of the state in biodiversity conservation. Despite the fact that serious support (financial and administrative) makes the operation of the committee difficult, it is important to recognize that the improvement in the country's environmental governance.

Expert skills: The numerous projects that have been undertaken over the past years in support of the implementation of the Directives have contributed to the establishment of a high professional expertise in nature conservation, as well as to the development of additional skills such as project development, monitoring and evaluation. Moreover, following the increased demand for the elaboration of species and site management plans, species action plans, species population surveys, site and species monitoring projects, environmental impact and appropriate assessments, visitor interpretation projects in protected areas, among others, that spring directly from the implementation of the Nature Directives, several new job opportunities have arisen targeted to conservation experts. It is estimated more than 1000 full- or part-time professionals are employed in such projects in the country annually. These job positions are maintained in the private sector through the implementation of EU Life projects, Interreg projects, Structural Funds for the Environment, other NGO projects, investors, among others. Furthermore, the engagement of local conservation groups in EU funded projects, such as Life, empower active public engagement in nature conservation. These local groups are trained in conservation monitoring practices that are implemented during the projects, so as to operate even after their completion.[45]

Ecosystem services assessment: An assessment of the value of ecosystem services of Natura 2000 sites, such as the one completed at the EU level[46], has not yet taken place in Greece. However, it is expected to take place, within or beyond the provisions of the MAES, as such an assessment is provided for in the 2014 National Biodiversity Strategy. Nonetheless, it is worth noting that the Forestry Service is currently in the process of assessing the value of Greek forests, for which the methodology was adopted in late 2014.[47] Once the study is completed, it could generate interesting results also with respect of the implementation of the Nature Directives.

Y.2 - Are availability and access to funding a constraint or support?

This question focuses on the proportion of identified funding needs that has been or is being met by EU and Member State funding, respectively, the extent to which the level of available funding affects

[44] Chrysogelos, N. and Theodoropoulos. 2012. Environmental Protection and Employment. (In Greek) Available from: http://www.chrysogelos.gr/files/Prostasia-perivallontos-kai-apasholisi.pdf.

[45] For such examples please see: Kordopatis P., Polymeros S. 2014. Action C.8: Report on Management interventions by volunteers. Hellenic Ornithological Society, Midterm report on LIFE Nature project "Conservation and management of the Lesser Kestrel (Falco naumanni) in three Special Protection Areas (SPAs) of Greece" LIFE11NAT/GR/001011. (*Unpublished data*); http://lifelesserkestrel.eu/index.php/el/ethelontiki-omada; http://www.skyroslife.gr/Content.php?ID=19

[46] European Union. 2013. The Economic Benefits of the Natura 2000 network. Available from: http://ec.europa.eu/environment/nature/natura2000/financing/docs/ENV-12-018_LR_Final1.pdf.

Guidance Document on the Sample for the Assessment of Forest Land in Greece (*Official Gazette* B/2980/4.11.2014[47]

the implementation of the Directives and enables the achievement of their objectives (as set out in Annex I to this questionnaire), and the extent to which initial funding allocations for nature under EU funding instruments were used as well as any factors which may have favoured or hindered access to and use of funds. In your answer please consider whether funding constraints affect costs or create administrative burdens (eg as a result of limitations on guidance or delays in decision making).

Answer:

Funding constitutes a crucial factor in the implementation, compliance with and effectiveness of most legislation. This is particularly true in the case of nature conservation. It is even more so in the case of Greece, since the country has limited national dedicated funds for environmental and, specifically, nature conservation purposes. Lack of clear, steady and continuous national funding for nature conservation is a clear constraint to Greece's effort to meet its obligations, including the implementation of the Nature Directive.

Funding for nature conservation in Greece originates almost exclusive from EU funds. Hence, the availability of EU funds linked to the Nature Directives has been extremely beneficial to the conservation of species, habitats and sites as well as for biodiversity conservation more broadly in Greece. An overview of the current status of funding of Natura 2000 is provided also in the recently concluded Prioritized Action Framework.[48]

Few comments on how access to funding offers support are provided here:

EU funds: The thematic Environment Operational Prorgrammes at least during the 2000-2006 and 2007-2013 programming periods, have given priority to the operation of the country's protected areas management bodies, which account today for approximately 30% of the Natura 2000 sites and 25% the network's area. However, funding to the Management Bodies has been marked by problems, delays, inconsistent flow of funds, unclear, weak or even conflicting guidance by the relevant authorities. Over the years, the funds have been used to cover start-up costs for the management authorities, operational costs (including personnel salaries), management activities and more recently also for monitoring activities.

During the 2007-2013 programming period, funds from the Environment and Sustainable Development Operational Programme (OP) have also been used to undertake a major surveillance and monitoring project, which will not only provide up-to-date information on the protected habitats and species, but also set up the much needed national surveillance system. It should be noted, nonetheless, that administrative setbacks led to a delay of the implementation of the project which in turn meant that Greece did not have updated data to provide within the submission deadline of Art. 17 reports, triggering an infringement case to be opened by the European Commission in 2014.

LIFE: Special note is needed for the LIFE financial instrument. As evinced by the numerous examples of LIFE projects that are mentioned throughout the response to this questionnaire, LIFE has been one of the most important financing instrument for nature conservation in Greece, supporting in a critical way the implementation of the Nature Directives, covering early on fundamental needs on expanding the knowledge basis, providing the resources for the development of action and management plans (even if these have not been officially adopted), for the elaboration of the Special Environmental Studies that national legislation requires for the designation of national protected areas (even if these were not always officially adopted later on; note that until the legal revision of 2011, all Natura 2000 had to be also designated as national protected areas), but also for the exploration of innovative practices and the promotion of socio-economic benefits included in the Nature Directives. For example, the currently implemented LIFE Stymfalia project (LIFE12 NAT/GR/000275) explores the potential of re-financing process of management activities, this case via the utilization of reeds' biomass.[49]

National funds: Management authorities have received also over the years minimal national funding, especially from the former National Fund for the Implementation of Urban and City Planning (known

[48] Prioritized Action Framework for the 2014-2020 Programming Period. December 2014. Available from: http://www.ypeka.gr/LinkClick.aspx?fileticket=bZfp%2bbTXoYU%3d&tabid=539&language=el-GR.
[49] For more information please see: http://www.lifestymfalia.gr/

as ETERPS) and its successor since 2011, the "Green Fund", mostly, however, to cover costs that were not eligible under the Operational Programmes.[50] Although national legislation and international practice indicate that additional financing sources for protected areas may be available, such sources have not been truly explored in Greece.

In response to the difficulty that LIFE partners have in securing their co-financing funds as a result of the ongoing crisis in Greece, the Green Fund has provided co-financing for some projects in recent years.

NGOs own resources: It is important to note that often NGOs via their own planning and fundraising strategies have ensured additional funding to implement projects that promote the Nature Directives. This is particularly the case with those NGOs that have steady field projects in Natura 2000 site or specialize on specific protected species.

Few comments on how access to funding may constitute a constraint are provided here:

Available EU funds: Despite the important support that EU funds offer to the implementation of the Directives, it should be clear that additional, dedicated funds to environment broadly and to biodiversity conservation are necessary. LIFE, a financial instrument that has been widely used in Greece, is the only available dedicated EU fund for nature, and it accounts for a very small percentage of the EU budget, disproportional to the percentage of EU territory covered by the Natura 2000 network and the benefits it offers. Moreover, the LIFE project cannot cover recurring needs of habitat and species conservation.

Allocation of EU funds: While several funding opportunities are available, and increasingly so, for biodiversity and for the implementation of the Nature Directives, in particular, across the EU funds, the extent that a member states applies the integration principle varies. The allocation of funds over the past programming periods, demonstrates that the potential of the integration principle in Greece has not been fulfilled.[51] (see also C.7)

Y.3 - If there are significant cost differences between Member States, what is causing them?

This question seeks to understand the factors that affect the costs of implementing the Directives, whether there is evidence of significant cost differences between Member States, and the causes of these cost differences. In your answer, please describe the cost differences and the reasons for them (e.g. whether they arise from specififc needs, circumstances or economic factors), supported by quantitative evidence. Do these differences lead to differences in impact? Please note that Question Y.5, below, focuses on good practices in keeping costs low. For this Question Y.3 we are interested in evidence of overall differences in implementation cost (see typology of costs in Annex II to this questionnaire) along with the reasons for them.

Answer:

Based on the European Commission study on the estimates of the Natura 2000 costs vary across Member States.[52] Several explanations for the varied costs are offered in the study and others can be added (difference in public and administrative structure, variations in tradition in nature protection, differences in richness of biodiversity, etc) expected that as with any legal instrument, there will be implementation cost differences, among member states.

[50] Vokou, D. et al. 2014. "Ten years of co-management in Greek protected areas– An Evaluation". *Biodiversity Conservation* 23: 2833-2855; Ministry of Environment, Energy and Climate Change. 2014. National Biodiversity Strategy, Athens, Greece. Available from: http://ypeka.gr/LinkClick.aspx?fileticket=%2fnY1WSioQWk%3d&tabid=37&language=el-GR.

[51] Christopoulou, Ioli. 2011. Creating a sustainable Europe: The role of the European Union structural funds. Doctoral Dissertation. Fletcher School of Law and Diplomacy (Tufts University), 465. Available from: http://pqdtopen.proquest.com/doc/909969185.html?FMT=AI

[52] Gantioler S., et al. 2010. Costs and Socio-Economic Benefits associated with the Natura 2000 Network. Final report to the European Commission, DG Environment on Contract ENV.B.2/SER/2008/0038. Institute for European Environmental Policy / GHK / Ecologic. Available from: http://ec.europa.eu/environment/nature/natura2000/financing/docs/natura2000_costs_benefits.pdf.

It is worth remembering that when the expansion of competences in the European Economic Community was being negotiated in the 1980s, several new(er) member states, like Greece, Ireland, and Portugal, ensured that they would receive additional EU funding in order to meet the increased environmental requirements that the single market would create.[53] The same occurred during the 2004 and 2007 EU enlargements, in line with solidarity principle as well as the requirements of the internal market.

Y.4 - Can any costs be identified (especially regarding compliance) that are out of proportion with the benefits achieved? In particular, are the costs of compliance proportionate to the benefits brought by the Directives?

Please provide any quantitative evidence you may have demonstrating that the costs of implementing the Directives exceed the benefits. Do the Directives require any measures which give rise to significant costs but which bring about little, or only moderate benefits?. If so, please explain the extent to which any imbalances are caused by the Directives themselves, or by specific approaches to implementation.

Answer:

No out of proportion costs regarding the implementation of the Directives can be identified.

Costs could be linked to the fact there are delays in the implementation of the Directives. Delays with respect to setting conservation objectives, management plans and action plans, and establishing a functional surveillance system and the absence of publicly available environmental information, may lead to unexpected and additional costs to investors and developers, as well as additional administrative effort by the public authorities and even legal costs.

Y.5 - Can good practices, particularly in terms of cost-effective implementation, be identified?

Here we are looking for examples of where the objectives of the Directives are being met more cost-effectively in some Member States or regions than others, and the reasons for these differences. It is important to understand whether they are due to particular practices (rather than, for example, differences in needs, circumstances or economic factors) that have kept costs relatively low. We would welcome examples of differences in practices between Member States in implementing the requirements of the Directives, including initiatives designed to achieve cost-effective implementation, and evidence of whether these initiatives or practices have reduced costs in certain Member States or regions.

Answer:

The implementation of the Nature Directives in Greece offers cost-effective implementation of several international obligations, since they constitute the main means and tools in order to implement many of the provisions of such international treaties as the Convention on Biological Diversity, the Ramsar Convention, and the Bonn and Bern Conventions.

Several national planning instruments ban certain activities in priority habitats of the Habitats Directives. These activities include sand mining, tourism, and industrial installations. This clear provision that goes beyond the requirements of the Habitats Directives offers a cost effective approach to developers, public authorities, rather than allowing for EIAs and appropriate assessment processes

[53] Weale, A. et al. 2000. *Environmental Governance in Europe: An Ever Closer* Ecological *Union*. Oxford: Oxford University Press. p. 45.; McCormick, J. 2001. Environmental Policy in the European Union. Basingstoke: Palgrave, p. 54; Christopoulou, Ioli. 2011. Creating a sustainable Europe: The role of the European Union structural funds. Doctoral Dissertation. Fletcher School of Law and Diplomacy (Tufts University), p. . Available from: http://pqdtopen.proquest.com/doc/909969185.html?FMT=AI.

to begin, only to be negatively screened several steps of the process later.

Y.6 - What are likely to be the costs of non-implementation of legislation?

This question seeks to gather evidence on the impacts of non-implementation of the Birds and Habitats Directives, and its associated costs, whilst assuming that some measures would be taken to conserve nature. Taking into account current national measures that do not arise directly from obligations under the Directives, please describe and, if possible, quantify, with supporting evidence, the potential impacts and associated costs of non-implementation of the Directives, for instance on: habitats and species of Community interest and wider biodiversity; ecosystem services (eg in relation to carbon sequestration, areas for recreation); and economic and social costs (eg jobs and health).

Answer:

The cost of non-implementation and non-compliance is evinced primarily by the degradation of habitats and species. In the case of Greece, this has been confirmed in a number of ECJ rulings against Greece (e.g. 30-1-2002, ECJ C-103/00 on the disturbance of the *Caretta caretta* sea turtle and the deterioration or destruction of its breeding sites on Zakynthos island on the basis of Art. 12(1)(b) and (d) of the Habitats Directive; 16-03-2006, ECJ C-518/04 on failing to protect the Viper (Vipera Schweizeri) on Milos and failing to prevent disturbance of the species, particularly during breeding, rearing and hibernation periods and to to protect breeding and resting habitats; 7-2-2013, ECJ C-517/11: on the degradation of the natural habitats and species habitats for which Lake Koronia has been designated as an SPA on the basis of (Art. 6(2) of Dir. 92/43/EEC)).

Non-implementation costs transcend national borders in the case of environmental and conservation issues, as is most pronounced in the case of migratory species. Most wildfowl and in particularly geese, swans and ducks, that winter in Greece, breed/stage in northern Europe as well as other Eurasian countries. In particularly, the globally vulnerable and regionally endangered (EU level) Lesser White-fronted Goose, breeds in northern Scandinavia (Finland and Norway), and stages in MS along the flyway including Estonia, Lithuania, Hungary and Bulgaria[54]. Therefore, the Lesser White-fronted Goose heavily relies on the implementation of the Nature Directives also in other MS. Other examples of wildfowl include examples of species that are ringed in MS and re-trapped in Greece include Mute Swan (*Cygnus olor*), Bewick Swan (*Cygnus colombianus*), Eurasian Widgeon (*Anas penelope*), Gadwall (*Anas strepera*), Mallard (*Anas platyrnchos*), Greater White fronted Goose (*Anser albifrons*), Shellduck (*Tadorna tadorna*), Ruddy Shellduck (*Tadorna ferruginea*), Pintail (*Anas acuta*), Garganey (*Anas querquedula*), Shoveler (*Anas clypeata*), Pochard (*Aythya ferina*),Tufted Duck (*Aythya fuligula*), Goldeneye (*Bucephala clangula*) and Red-breasted Meganser (*Mergus serrator*)[55].

The same is true also with respect to implementation in Greece. Due to its position as the southernmost country in the area, Greece the first stop for the migrant birds during the spring migration. The extensive spring shooting of the common farmland species, Turtle Dove (*Stepopelia Turtur*), in the Ionian Islands affects the breeding of the population in Northern Europe. UK is reporting a 90% decrease of the species in its territory, where it is expected to become extinct by 2020.[56] In order to reverse this worrisome trend, a communication campaign (*LIFE+11 INF/IT/000253* "A Safe Haven for Wild Birds: Changing attitudes towards illegal killing") is being implemented by the Hellenic Ornithological Society in Greece.[57]

The ECJ has ruled at least seven times since 1992 against Greece on the Birds and Habitats Directives. These decisions, together with rulings of the ECJ on other environmental issues, as well as many infringement processes that may not all have been referred to the ECJ, Greece has developed a

[54] Tolvanen, P., Øien, I.J., Ruokolainen, K. (eds.). 2009. Conservation of Lesser White-fronted Goose on the European migration route. Final report of the EU LIFE Nature project 2005-2009. WWF Finland Report 27 & NOF Rapportserie Report No 1. Available from: http://wwf.fi/mediabank/1090.pdf.
[55] Akriotis T, Handrinos G, 2004. Bird ringing report (1985- 2004). Hellenic Bird Ringing Centre, Mytilini, Lesvos.
[56] "Turtle doves: RSPB launches rescue mission". Available from: "http://www.bbc.co.uk/nature/18006233.
[57] For more information, please see: http://www.leavingisliving.org/life/index.php/en/.

reputation of environmental laggard.[58] There is an extensive body of literature discussing the role of reputation in compliance with international law.[59] This is the case in Greece, which usually undertakes haphazard measures in order to avoid a conviction by the ECJ (see the case of the adoption of the Koronia Lake's management plan in S.1.2). While this is true, the fact that the European Commission inquires about progress, opens EU pilot cases and infringement processes and the European Court of Justice examines these cases, supports not only the implementation of the two directives, the attainment of and compliance with their objectives but also creates a coherent framework for nature conservation that is appreciated by the conservation community, public authorities, businesses, national courts and even the general public.

The costs of non-implementation can be also financial. This relates both to the costs of restoration of damage done, that could be otherwise used, as well as the cost of fines imposed by national administrative or judicial process or even a second ruling of the ECJ for the same case. The ECJ decision on Lake Koronia that had been designated a Natura 2000 site and, much earlier, a Ramsar Wetland of International Importance, came after several efforts had been made, also by the European Commission, to restore the wetland, which following one of several instances of massive deaths of fish and bird species, was declared ecologically dead. In fact, a plan had been developed, in order to improve the physical characteristics of the lake, set an irrigation network and construct a sewage and waste water treatment system. The EU co-financing was conditional on progress on these concrete actions. Since progress was slow, not only were the funds not used, but also the ECJ ruled against Greece. More importantly, the restoration of the wetland which hosts numerous threatened, endemic and rare habitats, species and breeding, wintering or staging birds (e.g. the Squacco Heron *Ardeola ralloides*, White-tailed Eagle (*Haliaeetus albicilla*) and the Pygmy Cormorant (*Phalacrocorax pygmeus*)) was further delayed.

Costs are also opportunities missed due to implementation failures, in other words costs induced where implementation would be less expensive than non-implementation. In the case of the conservation of vultures, costs could be less, if the Birds Directive implementation was given priority by the regional authorities. In such a case they could save the cost of collecting and disposing of dead livestock (in the interest of public health), an ecosystem service that vultures would do for free. For example, €1 million euros are spent annually to collect and dispose of dead livestock just in one prefecture in Northern Greece.[60]

Costs of non-compliance do not only affect countries and public authorities, but also businesses and individuals. In the case of investments that have been undertaken without due consideration of the provisions of the Directives may be lost, following a later decision to annul or stop the particular investment, and can become even more significant if removal and restoration costs are imposed. Inappropriate spatial planning which incorporates the Nature Directives requirements in terms of wind farm development in Greece has resulted in spending of money that could otherwise be saved. If the Greek authorities had completed a coherent Strategic Environmental Impact Assessment with sensitivity mapping for the most vulnerable SPAs and birds colonies, then money would be saved by the investors, who now invest ahead for the planning permission procedures for works that in the end get cancelled by national courts due to their impacts on SPAs. For example, about €150,000 were spent by the investor for the EIA of a wind farm, which has not been approved and may not be realized, situated on Skyros Island by the largest global colony of Eleonorae's Falcon. At the same

[58] Börzel, T. A. 2000. "Why there is no 'Southern Problem': On Environmental Leaders and Laggards in the European Union." *Journal of European Public Policy* 7(1): 141-162; Börzel, T. A. 2005a. "Mind the gap! European Integration between Level and Scope." *Journal of European Public Policy* 12(2): 217-236; Börzel, T A. 2005b. "Pace-setting, Foot-dragging and Fence-sitting: Member State Responses to Europeanization," in *Environmental Policy in the European Union: Actors, Institutions, Processes* (2nd ed.), ed. A. Jordan, 162-180. London: Earthscan; McCormick, J.. 2001. *Environmental Policy in the European Union*. Basingstoke: Palgrave.

[59] For example see this early literature on the topic: Chayes, A. and Chayes Handler A. 1996. The New Sovereignty: Compliance with International Regulatory Agreements. Cambridge, MA: Harvard University Press; Brown Weiss, E and Jacobson, H. K, eds. 1998. *Engaging Countries: Strengthening Compliance with International Environmental Accords*. Cambridge, MA: The MIT Press. The topic is also discussed extensively in the international relations literature. For example, see: Keohane. R. 1984. *After hegemony: Cooperation and discord in the world political economy.* Princeton: Princeton University Press.

[60] Decision 338/2012 of the Economic Committee of the Eastern Macedonia and Thrace Region. Available from: https://diavgeia.gov.gr/doc/%CE%924%CE%9B%CE%9C7%CE%9B%CE%92-%CE%9215.

€310,000 were spent for effective conservation actions for the Natura 2000 sites SPA GR2420009 and SCI GR 2420006 in the framework of the LIFE project LIFE09 NAT/GR/000323 for the protection of the island. It is noted that the EU has initiated an infringement case for the insufficient planning regarding wind farm development in Natura 2000 sites.

Y.7 - Taking account of the objectives and benefits of the directives, is there evidence that they have caused unnecessary administrative burden?

This question seeks to gather evidence of any unnecessary burden arising from the administrative requirements of the Directives for different stakeholders (MS authorities, businesses, landowners, non-governmental organisations, citizens). Administrative burdens are the costs to businesses and citizens of complying with information obligations resulting from legislation, and relate to information which would not be collected in the absence of the legislation. Some administrative burdens are necessary if the objectives of the legislation are to be met effectively. Unnecessary burdens are those which can be reduced without affecting the objectives. Quantitative evidence may include typical requirements in terms of human resource inputs, financial costs (such as fees and wages), delays for development and other decision-making processes, and other measures of unnecessary or disproportionate burden the administrative costs in terms of effort and time, and other inputs required, financial costs, delays and other measures of unnecessary or disproportionate burden.

Answer:

There is no evidence that the implementation of the Directives has led to unnecessary or out of proportion administrative burden.

However, the fact that Greece is lagging behind in its implementation requirements, especially with respect to not having determined conservation objectives and management plans, may create additional administrative effort, can lead to legal disputes that are resolved following lengthy court processes and delays to interested investors and/or developers.

Y.8 - Is the knowledge base sufficient and available to allow for efficient implementation?

This question seeks to establish the extent to which adequate, up-to-date and reliable information required to implement the Directives efficiently is available, such as information related to the identification, designation, management and protection of Natura 2000 sites, the choice of conservation measures, the management and restoration of habitats, the ecological requirements of species and the sustainable hunting/use of species, permitting procedures, etc. Please indicate key gaps in available knowledge relating to your country and, if relevant, at biogeographical and EU levels. If possible, please provide evidence that inadequacies in the knowledge base have contributed to the costs and burdens identified in previous questions.

Answer:

The available information has been expanding over the years. Looking at the first national Art. 17 report of Greece, the available information at the time of site designation was rather limited and as mentioned therein not in line with the spirit of the Habitats Directive.[61] As a result, in order to support the selection site a LIFE co-financed project was undertaken (1994-1996). Since then the knowledge has expanded significantly, following the implementation of several projects, e.g. LIFE projects, university led studies, NGO studies, monitoring projects, etc.

For example, knowledge on the unknown and certainly very precaurious status of the Brown Bear (*Ursus arctos*), was initially gathered under LIFE project LIFE93NAT/GR/001080. Since the

[61] Ministry of Environment, Spatial Planning and Public Works. 2001. National Report in accordance with Article17 of the Habitats Directive. Athens. (Available in Greek)

implementation of this and other projects, as well as specialized NGO projects, knowledge on the distribution status, population size, reproduction levels as well as actions needed to address the major threats mainly related to human caused mortality, has increased significantly.[62] Similarly, implementation of such projects as the LIFE "Lycos" (NAT97-GR04249) estimated population size of wolves (*Canis lupus* L.) in Greece were possible and better understanding of the trends and main threats to the species was attained.[63]

Based on the data from the 2001-2006, Art 17 national report, the status of Greek species remained to a great extent unknown as 62% of all protected species were listed as unknown. This important information gap is expected to be, even partially filled, despite delays, with the completion of the surveillance/monitoring project at the end of 2015. It should be noted that the completion of monitoring activities in compliance with the Nature Directives by relevant scientists, NGOs, and expert consultancies as well as staff of management bodies of protected areas and other authorities such as the forest services, not only enrich the knowledge base but also offers opportunity for cross-discipline capacity building and allows for greater coordination among various authorities and stakeholders, contributing eventually to greater integration of management activities planning.

Knowledge on marine biodiversity, not only in Greece, but throughout Europe, and globally, presents significant gaps. However, with support from the EU, these gaps are gradually being filed. Three LIFE-Nature projects have been implemented covering coastal habitats, insular areas and the marine environment of the Aegean and Ionian Seas, as well as seabird species (LIFE07 NAT/GR/000285, LIFE03 NAT/GR/000091, LIFE96 NAT/GR/003221). Through these projects, 66 marine IBAs have been identified and designated, covering over 840 islands and islets, of which at least 690 are included within the Natura 2000 network.[64] Thus these projects have greatly contributed in the completion of the Natura2000 network in the insular region as well as the marine environment. The above LIFE projects have led to the protection of islets from development and habitat degradation, while a significant percentage the national breeding population of the Scopoli's Shearwater (*Calonectris diomedea*), Yelkouan Shearwater (*Puffinus yelkouan*), Mediterranean Storm-petrel (*Hydrobates pelagicus melitensis*), Audouin's Gull (*Larus audouinii*) and Mediterranean Shag (*Phalacrocorax aristotelis desmarestii*) are now protected under the Natura 2000 Network. Islets also provide necessary stop-over sites for migrating species, when passing the Aegean and Ionian Seas. In addition to the above, these projects have led to significant increase in knowledge on the population of seabird species and the Eleonora's falcon which in turn has allowed us to plan conservation actions more effectively. A national and international population census of the Eleonora's falcon was carried out for the first time (2004-7), leading to an increased global population estimate (increased by 140%) due to improved coverage and census methods.[65] The new population estimate provided a baseline and was

[62] MERTZANIS (G.)et al. (1996)-Present status and ecology of the brown bear (*Ursus arctos)* in Greece. Pp 12-44 in LIFE ARCTOS Project Final Report (ARCTUROS ed.), 140 pp, 25 GIS maps.; Mertzanis G., Korakis G., Tsiokanos K., Aravidis Il. (2009): Expansion of brown bear range in the course of rural abandonment during the 20th century - a case study from the Pindos mountain range. Pp 330-337 in: "Woodland Cultures in Time and Space - Tales from the past, messages for the future". (Saratsi E., Burgi Mat., Johann El., Kirby K., Moreno D., Watkins Ch.eds.); Embryo Publ. 2009, ISBN 978-960-8002-53-1., 400 pp. Mertzanis Y., Giannakopoulos Al. , Pilidis Ch. (2009). Brown Bear status, Pp: 387-389, *in*: Greek Red Data Book. Greek Zoological society, (Legakis and Maragou, eds), 525 pp.

[63] Iliopoulos Y. 2000. Notes and comments for the "Final Draft Plan for the Conservation of Wolves in Europe" – LCIE - Council of Europe.First results by the project considering the situation of the wolf in Greece and the relevant conservation problems of the species. Project LIFE "Lycos" NAT97-GR04249: Conservation of the wolf (*Canis lupus* L.) and its habitats in Greece (Arcturos, EC DGEnv, Greek Ministry of Agriculture).

[64] Hellenic Ornithological Society. 2013. Final Report LIFE07 NAT/GR/000285 - "Concrete Conservation Actions for the Mediterranean Shag and Audouin's Gull in Greece including the Inventory of Relevant Marine IBAs". Athens; Fric, J., et al. 2012. Important Areas for Seabirds in Greece. LIFE07 NAT/GR/000285 - Hellenic Ornithological Society (HOS / BirdLife Greece), Athens; Dimalexis, A. 2007a. Final Project Report. LIFE - Nature (2003NAT/GR/000091) 'Conservation Measures for Falco eleonorae in Greece'. Hellenic Ornithological Society, European Commission, Ministry of Evironment, Spatial Planning and Public Works (In Greek).; Gatzelia, A (ed.). 1999. LIFE- Nature Project "Actions for the conservation of the Audouin's Gull, Larus audouinii, in Greece" (in Greek). Final Technical Report, Hellenic Ornithological Society, European Commission, DG ENV, Min. of Environment, Physical Planning & Public Works.

[65] Dimalexis, A. 2007a. Final Project Report. LIFE - Nature (2003NAT/GR/000091) 'Conservation Measures for *Falco eleonorae* in Greece'. Hellenic Ornithological Society, European Commission, Ministry of Evironment, Spatial Planning and Public Works (In Greek); Dimalexis, A., et al. 2007b. The status of Eleonora's Falcon (*Falco eleonorae*) in Greece. *Journal of Ornithology* 149(1): 23-30.

used to improve threshold values in IBA criteria and to alter the species IUCN Red List category to Least Concern from Data Deficient. Similarly, there is improved knowledge on Audouin's Gull, *Larus audouinii*, through the LIFE07 NAT/GR/000285[66] project, bringing up the estimates of the total Greek population to 770 pairs.

Furthermore, two recent publications[67] have contributed to the establishment of an adequate, up-to-date and reliable information knowledge base for Greek plant species necessary for the implementation of various conservation and protection practices, measures and actions, thus contributing to achieving the EU Biodiversity Strategy Objectives and Targets.

While gaps in knowledge remain, what is mostly missing in Greece is a biodiversity clearing house, where available data and information, would be publicly available and easily accessible. The National Biodiversity Strategy acknowledges both problems and sets to address them as a matter of priority. In the meantime, WWF Greece has established a web mapping application for the Greek environment, Oikoskopio[68], which concentrates data on the country's protected areas, including its Natura 2000 sites and habitat types, small island wetlands, land cover (via Corine and a separately conducted WWF Greece study on land cover changes), plant species, mapping of threats (such as forest fires), hydraulic data, among other. The application is widely used by interested citizens as well as public services and it is valued as a source of congregated environmental information.

[66] For more information, please see http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3372&docType=pdf

[67] Dimopolous, P., Raus, TH., Bergmeier, E., Constantinidis, TH., Iatrou, G., Kokkini, S., Strid, A. & Tzanoudakis, D. 2013. *Vascular plants of Greece: an annotated checklist*. – Berlin: Botanischer Garten und Botanisches Museum Berlin-Dahlem, Freie Universität Berlin; Athens: Hellenic Botanical Society. Englera 31: 1-370; Georghiou K., Delipetrou P. 2010 Patterns and traits of the endemic plants of Greece. Botanical Journal of the Linnean Society, 162:130-422.

[68] For more information, please see: www.oikoskopio.gr

Relevance

Relevance concerns the extent to which the objectives of the nature Directives are consistent with the needs of species and habitats of EU conservation concern. The question of relevance relates to whether the objectives of the legislation are still necessary and appropriate; whether action at EU level is still necessary in light of the challenges identified and whether the objectives and requirements set out in the EU nature legislation are still valid.

R.1 - Are the key problems facing species and habitats addressed by the EU nature legislation?

By 'key problem', we mean the main pressures and threats that species and habitats face, which are significantly widespread in terms of their incidence (geographic extent) and/or magnitude/severity. Do the Nature Directives respond adequately to these problems? Are the specific and operational objectives of the Directives suitable in light of the key problems identified? Please justify your answers with evidence.

Answer:

The Nature Directives ask for the achievement of favourable conservations status of habitats and species. To do this member states should assess both population and range, thus eventually addressing all main pressures and threats in and outside protected areas. Therefore the Nature Directives, and their specific provisions, allow for a more integrated approach to addressing key problems that habitats and species face.

The Nature Directives provide the necessary tools for the *in situ* conservation of species and habitats, whether these are species action plans, site protection and management, management and monitoring activities, research, education, capacity building or awareness-raising. Most significantly they provide the context to initiate studies on the better understanding of elements of the protected biodiversity, to respond to older and/or identify and assess new threats to species and habitats, to address human-nature conflicts and offer the basis for local sustainable development.

In Greece, several LIFE projects that have been implemented have led to the elaboration of species action plans, already since 1996[69] and 1999[70]. Unfortunately these have not been officially adopted. A species strategy and action plan for the Mediterranean Monk Seal (*Monachus monachus*) was elaborated in 2009.[71] Currently national Action Plans in Greece for the threatened Fennoscandian population of the LWfG (*Anser erythropus*) and the Egyptian Vulture (*Neophron percnopterus*) have been completed and are expected to be adopted by the relevant authorities. In addition, discussion are ongoing on updating the 1996 National Bear Action Plan. Even if not adopted, strategies and action plans are fundamental in providing guidance and prioritising actions, as well as conversing with important stakeholders that can contribute greatly to the conservation of the species.

In order to ensure site protection and management, the specific objectives of the Directives have been instrumental in triggering national procedures and mobilizing resources, so as to ensure the designation of nationally protected areas (Natura 2000 network included). Such studies include Special Environmental Studies that are required for the designation of National Parks, as was the case for the two most important Loggerhead Sea Turlte (*Caretta caretta)* nesting areas, on Zakynthos and in Kyparissia (though the latter SES was not officially approved), important Brown Bear habitats in the Pindos and Rodopi mountains (which combined include 18 SCI and SPAs sites). Similar was the case for the Dadia National Forest. Without the Directives, processes would be slower or partial, as

[69] For more information on LIFE93NAT/GR/001080, please see http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=163

[70] Kazantzides S. & T. Nazirides (1999a) National Action Plan for the Pygmy cormorant (*Phalacrocorax pygmaeus* P., 1773). LIFE II B4-3200/96/499 "Protection of the *Phalacrocorax pygmaeus* and *Anser erythropus* in Greece". WWF Greece, Hellenic Ornithological Society, Society for the Protection of Prespa and National Action Plan for the Lesser White Fronted goose *Anser erythropusi)*

[71] Notarbartolo di Sciara, G. *et al*. 2009.National strategy and Action plan for the conservation of the Mediterranean monk seal in Greece, 2009 – 2015. MOm, Athens. Available from: http://mofi.mom.gr/uk/pdf/National%20Strategy_boklet_eng.pdf.

was the case on Zakynthos prior to the opening of the infringement case and the eventual referral to the ECJ (30-1-2002, ECJ C-103/00).

Lack of public awareness on the values of species and habitats constitutes an important factor leading to biodiversity loss. The Nature Directives offer opportunities for public awareness campaigns to take place. This was the case for the example with campaign Thalassa: Learn, Act, Protect, which informed the general public and pupils in schools of the 14 marine mammals, 9 resident and 5 occasional, that are found in the Greek sea, providing knowledge and showing ways to coexist with them in harmony. Within the same project capacity-building opportunities to relevant authorities were also provided.[72] Similar was the case of the implementation of the "Halt the decline of fish biodiversity in the Prespa basin by promoting sustainable fishery practices in compliance with EU policy" (LIFE09 INF/GR/000319) project. The Prespa Lakes are among the twelve most important wetlands in the Mediterranean because of their rare fish species. This aspect of Prespa is not as well-known as the rich bird-life for which Prespa is famous. The aim of the projectwas to inform the public about the value of these rare fish species and the threats they face, as well as to encourage local authorities and stakeholders to actively participate in their conservation.[73]

More importantly, management activities take place because of the objectives of the Directives and are adapted in order to appreciate modern approaches and applications. For the Lesser White fronted Goose (*Anser erythropus*), for example, a high-tech surveillance system (long range CCTV system supported by a patrolling mobile unit) ensures that the most vulnerable wintering grounds are safe. As a result of the 20 year long flyway conservation efforts, the population of the Lesser White fronted Goose has remained relatively stable or even slightly increased in the last 15 years. Similarly, via the appropriately titled "Urgent measures to secure the survival of the Egyptian vulture (*Neophron percnopterus*) in Bulgaria and Greece" LIFE project (LIFE10 NAT/BG/000152)[74] innovative transboundary conservation measures are being put in place in order to ensure the survival of the critically endangered small migratory vulture. In 1999-2003, a LIFE project (LIFE98 NAT/GR/005279) undertaken by the National Centre for Marine Research (NCMR) and the Developmental Company of Dodecanese S.A (ANDO S.A.) aimed at the implementation of management actions for the conservation of the critically endangered endemic freshwater fish species *Ladigesocypris ghigii**. The project opened the way for the conservation of the inconspicuous and largely unknown, i.e. non-flagship, fish species.[75]

With the implementation of LIFE+ Nature project "Actions for the conservation of coastal dunes with *Juniperus* spp. in Crete and the South Aegean (Greece)" on the gound actions were carried out in all the Natura 2000 designated habitats of Crete comprising approximately 54 % of the total number of this habitat type in Greece. The actions of this project were implemented to promote and enable the long term conservation of this priority threatened habitat throughout Greece, hence covering all the known localities of the coastal dunes with *Juniperus* spp. (2259*) habitat in Greek Natura 2000 network in the regions of Crete (GR4340001, GR4340015, GR4340013, GR4320003) and South Aegean (GR4220020, GR4220006, GR4220014, GR4210005).[76]

The Directives offer a structured framework in order to respond to older or new human-nature conflicts. This has been the case with the implementation of the LIFE project *MOFI: Monk Seal and Fisheries: Mitigating the Conflict in Greek Seas,* by MOm, WWF Greece in cooperation with the Fisheries Research Institute of the National Agricultural Research Foundation, the Erasmus University of Rotterdam and the University of Aberdeen in order to improve conditions for the Greek Mediterranean monk seal, which is the largest population of the species in the world, by reducing the negative effects of the interaction between monk seals and coastal fisheries on both parties.[77]

Similarly, in order to decrease the conflict between bears (*Ursus arctos*) and humans and to ensure that small-scale pastoral and farming practices remain economically viable in mountainous areas,

[72] For more information, please see: http://thalassaproject.mom.gr/
[73] For more information, please see: http://www.spp.gr/life_prespafish/index.php?option=com_content&view=article&id=1&Itemid=2&lang=en
[74] For more information, please see: http://lifeneophron.eu/en/about-the-project.html
[75] For more information, please see: http://www.life-gizani.gr/
[76] For more information, please see: www.junicoast.gr
[77] For more information, please see: http://mofi.mom.gr/uk/index.htm#.

damage prevention measures have been tested and put into use by NGOs in the framework of LIFE Nature projects between 1994 and 2002. Installation of electric fences with a photovoltaic source around apiaries and sheepfolds was tested in Greece at a pilot level using support from the LIFE Financial Instrument: The projects LIFE ARCTOS (LIFE93 NAT/GR/010800 1994-1995), LIFE ARCTOS - 2nd phase (LIFE96 NAT/GR/003222 1996-1999) and LIFE RODOPI-GRAMMOS (LIFE99 NAT/GR/006498 2000-2002) donated to beekeepers and farmers more than 170 electric fence units. Pilot implementation has proven that this measure is almost 100% effective against bear attacks under the condition that the provisions for its installation and maintenance are fully respected. Last year, in synergy with projects LIFE07NAT/GR/000291 & LIFE07NAT/IT/00502 an official Bear Management Protocol was approved institutionalizing the response that is needed (Joint Ministerial Decision, *Official Gazette* 272/B/7-2-2014).

The above constitute only few examples of the many ways the Directives, with their systematic and structured approach, directly respond to the conservation needs of species and habitats.

R.2 - Have the Directives been adapted to technical and scientific progress?

With this question, we are seeking to examine the implications of technical and scientific progress regarding the habitats and species that the Directive focus on. Please summarise, and provide any evidence you may have that indicates that the annexes listing habitats and species in both Nature Directives are, or are not, sufficiently updated to respond to technical and scientific progress.

Answer:

The Directives allow for scientific progress and their implementation and effective attainment of their strategic objectives is directly based on the fact that continuous monitoring and surveillance will take place.

During 2000-2004, the Hellenic Rescue and Information Network for the Mediterranean monk seal[78] received several reports on the presence of the Mediterranean monk seals on the Gyaros islet. On two occasions, pictures featured females with their pups laying on open beaches. Given the limited knowledge available on the presence of the species in the area, MOm/ The Hellenic Society for the Study and Protection of the Monk seal, initiated efforts to assess the status of the species on the Aegean islet. From 2004 to 2012 many research field visits, verified the significance of Gyaros for the species.[79] Given this newly available scientific information and a proposal of MOm to national and European authorities, the island of Gyaros and a surrounding 3 nautical mile marine area was designated as a Natura 2000 area in 2011 (GR4220033 / SPA/SCI).

Similarly, with the implementation of three LIFE-Nature projects that allowed the study of coastal habitats, insular areas and the marine environment of the Aegean and Ionian Seas, as well as seabird species (LIFE07 NAT/GR/000285, LIFE03 NAT/GR/000091, LIFE96 NAT/GR/003221, 66 marine IBAs were identified and designated, covering over 840 islands and islets. From these, at least 690 are included in the Greek Natura 2000 network.[80]

Moreover, the Directives allow for the examination and assessment of any new technological or other

[78] The Hellenic Rescue and Information Network (RINT) for the Mediterranean monk seal was established by Mom/ The Hellenic Society for the Study and Protection of the Monk seal in 1991 and is part of the national program used to scientifically monitor and protect *Monachus monachus* in Greece. For more information, please see: http://www.mom.gr/displayITM1.asp?ITMID=51&LANG=EN

[79] Dendrinos, P., et al. 2008. "Report of a New Mediterranean Monk Seal (*Monachus monachus*) Breeding Colony in the Aegean Sea, Greece." *Aquatic Mammals* 2008, *34*(3), 355-361.

[80] Hellenic Ornithological Society. 2013. Final Report LIFE07 NAT/GR/000285 - "Concrete Conservation Actions for the Mediterranean Shag and Audouin's Gull in Greece including the Inventory of Relevant Marine IBAs". Athens; Fric, J., et al. 2012. Important Areas for Seabirds in Greece. LIFE07 NAT/GR/000285 - Hellenic Ornithological Society (HOS / BirdLife Greece), Athens; Dimalexis, A. 2007a. Final Project Report. LIFE - Nature (2003NAT/GR/000091) 'Conservation Measures for Falco eleonorae in Greece'. Hellenic Ornithological Society, European Commission, Ministry of Evironment, Spatial Planning and Public Works (In Greek).; Gatzelia, A (ed.). 1999. LIFE- Nature Project "Actions for the conservation of the Audouin's Gull, Larus audouinii, in Greece" (in Greek). Final Technical Report, Hellenic Ornithological Society, European Commission, DG ENV, Min. of Environment, Physical Planning & Public Works.

threat to protected species, habitats and sites. Hence, while in 1979 and 1992, renewable energy sources infrastructure may not have been considered a threat, such investments undergo the required appropriate assessment, demonstrating the flexibility and adaptability of the Directives. The Greek courts have recognized the enhanced protection of the most suitable areas for the protection of birds, which have not been classified as SPAs. In 2013-14, the Greek Council of State applied article 4(4)(a) of the Birds Directive, in order to require a "special ornithological study" before the construction of wind farms in IBAs not designated as SPAs (Council of State decisions 1422/2013, 807/2014). This stance allows a better alignment between the siting of wind farms and the best scientific knowledge on the distribution of protected species.

Finally, the implementation of the EU Nature Directives in Greece also contributes to the conservation and enhancement of biodiversity more broadly than the list of habitats and species in the Annexes (see answer to the question S.4, related to endemism and rare species conservation).

R.3 How relevant are the Directives to achieving sustainable development?

This question seeks to examine the extent to which the Directives support or hinder sustainable development, which is about ensuring that the needs of the present generation are met without compromising the ability of future generations to meet their own needs. It requires ensuring a balance between economic development, social development and environmental protection. . In your answer, please provide evidence of the impacts that implementation of the Directives has had in relation to these three 'pillars' of sustainable development.

Answer:

Sustainable development is enshrined in the TFEU (art 11). Since its early pronouncement the principle of sustainable development requires a balance among economic priorities, social cohesion and environmental protection. In its 2001 European Union Strategy for Sustainable Development entitled: "A Sustainable Europe for a Better World", the EU identified the responsible management of natural resources, including halting biodiversity loss, as one of its 6 thematic priorities. The 2006 Revised Sustainable Development Strategy mentions specifically among the actions to be completed in order for the EU to transition to a sustainable development path that "Member States should complete the Natura 2000 network, including designation of marine areas. Particular attention should be paid to the need for improved implementation of both Natura 2000 and of species protection and management policies." Hence, the EU Nature Directives have already been recognized as fundamental elements of the attainment of sustainable development.

A growing body of literature highlights the costs of biodiversity loss. For example, the 2005 Millennium Ecosystem Assessment[81] and the Economics of Ecosystems and Biodiversity (TEEB) Reports[82] demonstrated that biodiversity loss and degraded ecosystems offer fewer ecosystem services, which compromise economic development, human well-being and social cohesion. Safeguarding the natural capital, therefore, is an indisputable key component of sustainable development.

The Nature Directives objectives, which set their conservation priorities within the context of economic and social conditions, demonstrate that the approach adopted is one in line with the sustainable development principle. The Nature Directives promote innovative, flexible and modern approaches of integrated management that allows for local sustainable development. In a country setting such as Greece, where biodiversity conservation is interlinked with the continuous but sustainable presence of human activities, the Nature Directives offer regeneration opportunities for areas that have been abandoned or degraded, and in particular for those that are rural, remote, abandoned, and often poorer. In Greece this has been evinced in such remote places as the Prespa Lakes, the Dadia Forest and the Sporades islands.Two distinct but indicative cases follow:

[81] Millennium Ecosystem Assessment. 2005. *Ecosystems and Human Well-being: Synthesis*. Washington, DC: Island Press.

[82] For more information, please see: http://www.teeweb.org

- For the protection of an important wetland in the Attica Region (i.e the region where Athens is located), Vravrona wetland (GR3000004/SCI), the Hellenic Ornithological Society is collaborating with the most important stakeholders in the area: the Athens International Airport and the Archaeological Museum of Vravrona (the area hosts also an archaeological site). Since 2007 this collaboration has led to significant results. Before the implementation of the project the wetland faced serious threats (e.g. large parts of the site were degraded, solid waste was disposed without controls, etc). The restoration of the wetland ecosystem (e.g. removal of waste materials, shaping of banks) resulted in the recovering of the populations of plants and animals of the wetland. Nowadays, Vravrona wetland is one of the most recognized Attica wetlands, where over 5000 people visit annually. This renewed activity supports the local community (e.g. restaurant owners, farmers) that have directly benefited from the protection of the wetland and the promotion of the nature it hosts.[83]
- Dadia (GR 1110002/SPA and GR1110005/SCI/SAC) is one of the most popular ecotourism destinations in Greece, due to its unique forests that is home to 36 of the 38 European birds of prey, and is one of the few places in Europe where 3 out of 4 vulture species co-exist. Since 1993, when WWF Greece inaugurated an information centre (3907/91/10-11/ACNAT – 1995), a complete ecotourism complex that includes a hostel, a refreshment area, forest trails, and visitor infrastructure has been created. Today, the entire ecotourism complex is managed by the Management Body of the Dadia-Lefkimi-Soufli Forest National Park. At its peak, more than 50,000 visitors from all over Greece and Europe visited the ecotourism complex per year. Note that the population in the immediate area of the National Park is around 1500 individuals and of the surrounding area no more than 12000. Ecotourism in Dadia has yielded considerable economic benefits to the local community and neighboring areas, such as the creation of many job opportunities for local women and young people, and increased demand for provided services. Since the peak years a decline of visitors has been noticed, mainly due to the ongoing financial crisis in Greece that hit particularly the "native" tourism which was the dominant tourism in the area. The guiding services and tourism infrastructure, supported by the National Park Management Body have improved in recent years. Hence, the tourist traffic is expected to return to previous levels in the future years, together with the recovery of the national economy, although a more extrovert approach to attract foreigners could also be undertaken to fill the important loss of Greek visitors.[84]

Moreover, the Directives lead to the development of sustainable practices in the primary sector limiting threats and creating enabling conditions for the protection of such species as the Brown Bear, the Mediterranean Monk Seal, the Dalmatian Pelican, the Egyptian Vulture and the Lesser Kestrel.

R.4 - How relevant is EU nature legislation to EU citizens and what is their level of support for it?

The aim of this question is to understand the extent to which citizens value the objectives and intended impact of the EU nature legislation. To this end, we would like to obtain information and evidence on the extent to which nature protection is a priority for citizens (e.g. in your country), including in comparison with other priorities; for example whether citizens (e.g. in your country) support the establishment and/or expansion of protected areas, the extent to which they access/use them or; the extent to which citizens are involved in any aspect of the implementation of the Directives (e.g.

[83] For more information see: http://www.ornithologiki.gr/en/vravrona.

[84] For more information see: http://www.wwf.gr/en/areas/360-projects/evros; Valaoras, G. et al. 2002."Ecotourism Revives Rural Communities: The Case of the Dadia Forest Reserve, Evros, Greece." *Mountain Research and Development* 22(2):123-127; Svoronou, E. and Holden, A. 2005. "Ecotourism as a Tool for Nature Conservation: The Role of WWF Greece in the Dadia-Lefkimi-Soufli Forest Reserve in Greece" *Journal of Sustainable Tourism* 13(5): 456-467; Liarikos, C. 2010. "Development trajectories and prospects in the Dadia-Lefkimi-Soufli Forest National Park" in: Catsadorakis, G. and Källander, H. (eds.) The Dadia-Lefkimi-Soufli Forest National Park, *Greece: Biodiversity, Management and Conservation*. WWF Greece, Athens. Available from: http://www.wwf.gr/images/pdfs/Liarikos.pdf.

participation in the development of management plans of protected areas or decisions concerning the permitting of projects which have an impact on protected areas).

Please note that the Birds and Habitats Directives may be relevant to citizens even if they do not actually know of their existence or the existence of the Natura 2000 network.

Answer:

The table below presents the response to the question on Natura 2000 from two separate Eurobarometer polls on attitudes towards biodiversity that were concluded in 2007 and 2013. From the data below it is evident that Greeks have heard about Natura 2000, to a greater extent than the EU average. The finding is perhaps not surprising given that the Natura 2000 network covers 27.2% of the country. While greater effort may be needed in order to ensure that Greeks know what Natura 2000 really is, the data indicate that there is a good basis to build on.

Eurobarometer / Attitudes towards biodiversity[85] - Natura 2000	**Greece 2007**	**EU average 2007**	**Greece 2013**	**EU average 2013**
I have heard of it & know what it is	14.9%	6.2%	33%	11%
I have heard of it	24.2%	12.2%	32%	16%
I have not heard of it	60.9%	80.4%	35%	73%

Several indications (e.g. see participation in awareness-raising and public engagement activities below) exist to support the position that Greeks are supportive to nature conservation and to the implementation of the Directives. Public opinion and attitudes has also been assessed via specialized surveys and studies, which may focus local attitudes[86] or specific scientific audiences.[87] However, today the main concerns and critical priorities for Greeks are linked to the ongoing financial crisis and high levels of unemployment.[88] Nonetheless, more than half (54%) of those asked in 2013 argued that destruction or degradation of a Natura 2000 site for economic development should be strictly prohibited.[89]

Some examples of participation of the general public in awareness raising activities that are linked to the Directives are indicative of the public's conservation interest:

- Because of the 92/43 Directive, the characterization of *Caretta caretta* as a priority species and the establishment of Natura 2000 sites and national protected areas, *Caretta caretta* became a national flagship species. Public awareness on environmental protection, species conservation, and marine has increased massively because of *Caretta caretta*. In Greece *Caretta caretta* and the Mediterranean monk seal are the two most widely known and recognized threatened species.
- "Eurobirdwatch" in early October attracts every year 7-8.000 people (mainly children and families) in local activities in 35 different areas in Greece in cooperation with Management Bodies of Protected Areas, municipalities and environmental organisations. Usually 33 countries participate under the umbrella of Birdlife International in 900 Eurobirdwatch events around Europe with the participation of 23.000 birdwatchers (www.eurobirdwatch.eu)
- The "Swallow Nest Day" every March is a unique day celebrated only in Greece and engages 7-10.000 children to construct clay nests for the arriving/upcoming swallows.
- During the yearly Midwinter Counts 150 people around Greece and 100 employees from the Management Bodies of Greece participate to the counting of wintering birds. Midwinter Counts are

[85] Attitudes of Europeans towards the issue of biodiversity. Flash Eurobarometer 219. 2007. http://ec.europa.eu/public_opinion/flash/fl_219_en.pdf; Attitudes towards biodiversity. Flash Eurobarometer 379. 2013. http://ec.europa.eu/public_opinion/flash/fl_379_en.pdf

[86] Dimitrakopoulos, P. G. et al. 2010. "Local attitudes on protected areas: Evidence from three Natura 2000 wetland sites in Greece." *Journal of Environmental Management* 91: 1847-1854

[87] Kati V., et al. (2014) "The Challenge of Implementing the European Network of Protected Areas Natura 2000," *Conservation Biology*: Volume 29, Issue 1, pp. 260–270.

[88] Standard Eurobarometer EB 82. http://ec.europa.eu/public_opinion/archives/eb/eb82/eb82_fact_el_en.pdf

[89] Attitudes towards biodiversity. Flash Eurobarometer 379. 2013. http://ec.europa.eu/public_opinion/flash/fl_379_en.pdf.

being conducted all over Greece in order to estimate total bird species populations and possible pressures on them.

Moreover, in recent years the Greek public has become more vocal and responsive on environmental issues. This trend became particularly evident following the forest fires of 2007, when thousands of people gathered in the heart of the city of Athens, in protest for the loss of nature, especially of Mount Parnitha – a National Forest Park and a Natura 2000 site (GR3000001/SPA/SAC), which is very close and dear to Athenians. At the time, the main topic on the agenda was how to restore and rehabilitate the affected areas, with engaged discussions among ministries, universities, NGOs, leading the President of the Hellenic Republic to make a pledge for the environment and in January 2008 to visit the burned Parnitha area.

While the financial crisis has been the dominating topic on the political agenda in recent years, Greeks have reacted to proposals of environmental rollback in the name of promoting economic development. Reaction is acute especially when proposals could harm and degrade precious, valuable and protected elements of Greek nature, in line with their responses to the above mentioned Eurobarometer. In the past years, on two separate occasions this became evident: The first occasion relates to a proposed bill that would have legalized illegal coastal development and would have allowed even further development, especially tourism development, along the Greek coastline. In fact a long standing regime that protects the coasts both as a commons and a valuable, fragile ecosystem would have been undermined. The bill created an immediate public reaction. In less than a week more than 110,000 signatures were collected on an online petition. The bill was not introduced in Parliament.[90] The second occasion was even more recent. In December 2014, the public speedily and powerfully reacted to provisions of a bill that would have led to the deterioration of forest legislation and a degradation of the country's forests, woodlands and shrubs. Within the span of only a couple of days more than 40,000 signatures were collected on an online petition.[91] Most of these damaging provisions were in fact removed from the bill.

R.5 - What are citizens' expectations for the role of the EU in nature protection?

The aim of this question is to obtain information and evidence on questions such as: whether citizens submit complaints or petitions to the EU requesting its involvement on cases regarding nature protection, whether citizens expect the EU to become more involved in promoting nature protection, or whether nature protection should be left to each individual Member State; whether citizens expect the EU to introduce laws on nature protection to be applied in all Member States equally or whether the EU should limit itself to coordinating Member States' initiatives; whether the EU should focus on laying down rules, or whether the EU should more actively promote their monitoring and enforcement in Member States.

Answer:

According to Eurobarometer surveys on the attitudes of Europeans towards biodiversity,[92] Greeks are relative aware of the Natura 2000 network and are willing to contribute by not harming natural habitats during their stay and by purchasing eco-friendly products. They are not committed to participating in any active field work or political negotiations, since they consider nature protection a citizens' right but the state's obligation – principles that are enshrined in the country's Constitution. In

[90] For more information, please see: http://www.wwf.gr/crisis-watch/crisis-watch/biodiversity-natural-resources/5-biodiversity-natural-resources/to-beach-or-not-to-beach-greece-legislates-for-rapid-coastal-development and http://www.wwf.gr/crisis-watch/crisis-watch/biodiversity-natural-resources/5-biodiversity-natural-resources/spain-to-greece-do-not-follow-spanish-model-do-not-destroy-your-coastline.

[91] For more information, please see: http://www.wwf.gr/crisis-watch/crisis-watch/biodiversity-natural-resources/5-biodiversity-natural-resources/public-outcry-stops-greek-parliament-from-voting-anti-forest-bill.

[92] Attitudes of Europeans towards the issue of biodiversity. Flash Eurobarometer 219. 2007. http://ec.europa.eu/public_opinion/flash/fl_219_en.pdf; Attitudes towards biodiversity. Flash Eurobarometer 379. 2013. http://ec.europa.eu/public_opinion/flash/fl_379_en.pdf.

this context, they expect much more from the state and the EU. Therefore they are very supportive of the EU taking additional measures to respond to biodiversity loss.

Greeks were among the respondents of the DG Environment survey that affirmed that EU should allocate more financial resources to nature protection in Europe (EL82%, EU59%) and integrate biodiversity in the subsidies for agriculture or fisheries (EL83%, EU63%). Efforts to increase the protected areas were perceived positively (EL84%, EU65%) while a staggering 91% of Greek respondents (EU72%) requested better information on the importance of biodiversity and better research on the impact of biodiversity loss (EL83%, EU56%), the highest response in EU.

Since research and information usually belong to the state's commitments to the directives, the high percentage of the survey reveals that the state's work is not enough and the Greeks look up to EU to fill important biodiversity policy gaps.

Coherence

Evaluating the coherence of legislation, policies and strategies means assessing if they are logical and consistent, internally (i.e. within a single Directive), with each other (i.e. between both Directives), and with other policies and legislation. Here we are looking for evidence regarding how far and in what ways the Directives are complementary and whether there are significant contradictions or conflicts that stand in the way of their effective implementation or which prevent the achievement of their objectives.

C.1 – To what extent are the objectives set up by the Directives coherent with each other?

This question focuses on coherence between objectives within each Directive, and/or between objectives of the Birds and Habitats Directives. It covers not only the strategic objectives but also the specific and operational objectives set out in Annex I to this document. Based on experience in your country/region/sector, please provide evidence of any inconsistencies between the objectives that negatively impact on the implementation of the Directives.

Answer:

The two directives are coherent and complement each other. They are reflective of the evolution of the conservation movement. Moreover, they support EU's global leadership in the efforts to halt biodiversity loss, setting up processes that either guide or implement the growing number of multilateral environmental agreements. As such the two directives led to the formation of one of the more advanced networks of protected areas in the world, the Natura 2000 network, and are already leading to conservation successes. Coherence evidences itself in similar aims, and provisions about an integrated Natura 2000 network [article 3(1) of Directive 92/43], derogations, sustainable use of certain species and monitoring and reporting. The SCIs are also explicitly integrated with SPAs with respect to non-deterioration, appropriate assessment and negative assessment of projects (article 7 of Directive 92/43).

The two directives are largely coherent at the national level as well. In the Biodiversity Law (Law 3937/2011), SCIs and SPAs are considered together and placed in the same protection category. Similarly, the assessment of the impacts of projects and plans on Natura 2000 sites are considered together, although for SPAs, additional special ornithological studies may be considered necessary.

C.2 – To what extent are the Directives satisfactorily integrated and coherent with other EU environmental law e.g. EIA, SEA?

This question is similar to the previous question, but focuses on the extent to which the EU Nature Directives are coherent with and integrated into other EU environment legislation, and the extent to which they are mutually supportive. EU environment legislation of particular relevance to nature conservation includes the following:

- *Strategic environmental assessment of policy plans and programmes 2001/42/EC Directive (SEA)*
- *Environmental impact assessment of projects 85/337/EC Directive as codified by Directive 2011/92/EU (EIA)*
- *Water Framework Directive 2000/60/EC, (WFD)*
- *Marine Strategy Framework Directive 2008/56/EC (MSFD)*
- *Floods Directive 2007/60/EC (FD)*
- *National Emission Ceilings Directive 2001/81/EC (NECD)*
- *Environmental Liability Directive 2004/35/EC (ELD).*

This question considers how the main provisions and measures set out in these instruments interact with the EU nature legislation, including whether there are potential gaps or inconsistencies between these instruments and the EU nature legislation, for example whether the current permitting procedures are working in a coherent way or whether they are acting as barriers to achieve the EU Nature Directive's objectives; whether the assessments required under the different pieces of EU legislation, in particular under the EIA, are aligned or whether there are differences which result in additional administrative burden; whether any identified gaps and inconsistencies are due to the texts of the Directives or due to implementation in your/a Member State.

Answer:

Few examples provided here demonstrate that the Nature Directives are coherent with other EU environmental law, the evolution of which is a reflection of the evolution of international environmental law, in the realm of which the EU maintains a leadership role.

SEA Directive: Both the Habitats and the Bird directives are coherent with the SEA directive. Streamlining with other EC legislation by coordinated or joint procedures is explicitly allowed for (Art. 11 (2) of the SEA Directive). Article 6(3) of the Habitats Directive in combination with article 3(2)(b) of the SEA Directive allow the early assessment of the impacts of plans upon protected areas (cf., also, C-177/11, which has confirmed that the requirements of both directives are the same in this respect). Recent plans that have included an appropriate assessment of their impacts upon N2000 areas include the Regional Plan for Attica (Rithmistiko Schedio Attikis), and the concessions for hydrocarbon exploration in Western Greece. Both apply to huge areas, and to polluting activities that threaten nearby protected areas. Currently, Greek law requires all planning instruments to be subjected to a SEA, and, if needed, an appropriate assessment. Noting that such provisions while required, many not have been applied in the development of the country's Renewable Energy Special Spatial Plan, the European Commission has instigated an infringement process against Greece.

National Planning Instruments: There also other synergies between the European Directives and national instruments. For example, several planning instruments ban certain activities in priority habitats: these activities include sand mining, tourism, and industrial installations. Although these bans are neither required by nor fully comply in themselves with articles 6(4)(a) and 6(4)(c) of the Habitats Directive, they do offer a minimum protection to the most vulnerable of habitats. This would not have been possible if the Habitats Directive had not introduced the concept of a "priority habitat".

EIA Directive: The Habitats and Bird Directive are also coherent with the EIA directive. Streamlining with other EC legislation by coordinated or joint procedures is explicitly allowed for [article 2 (2) of Directive 2011/92]. All of them require examination of alternatives, and public consultation, and share the same concept of "project". This coherence has been recognized by Greek courts. Recently, the Council of State annulled the permit of a project subject to all 3 directives, because it was granted by a legislative act, and legislative procedures did not allow a public consultation (Council of State 26/2014). Also, the environmental permit of a marble quarry subject to EIA and Habitats Directive was annulled, because its location was taken for granted, and no alternative sitings were examined (Council of State 293/2009). Under current Greek law, "appropriate assessment" is a separate chapter of the environmental impact study (EIS): as a result, the specific requirements of appropriate assessment (focus on the conservation objectives of the site, a judgement on whether the integrity of the site is affected) are examined separately.

Water Framework Directive: The Habitats and Bird Directive are coherent with the WFD. Several provisions of the latter allow for harmonization (Art. 4(1)(c), 4(2), 4(8), 4(9) WFD). All use the ecosystem approach and RBMP's contain a register of protected areas, with which other policy objectives are integrated: for example, the register of protected areas contains water bodies used for drinking water abstraction (Art. 6(2) WFD). Greece recognized the coherence and complementary character of the EU WFD, which applies water management at

a catchment level, to its biodiversity conservation efforts in its Third National Report to the Convention on Biological Diversity submitted in 2008.[93]

The general WFD objectives [article 4(1) WFD] are aligned with the non – deterioration of SPA/SCI's (Art. 6(2) of Habitats Directive).Thus, both in Greece and elsewhere, RBMP's have been subject to SEA's, where many biodiversity impacts were examined at the plan level.

C.3 - Is the scope for policy integration with other policy objectives (e.g. water, floods, marine, and climate change) fully exploited?

This question is linked to the previous questions as it addresses the extent to which the objectives of the Nature Directives have been integrated into or supported by the objectives of other relevant EU environment policies. However, this question focuses more on policy implementation. The other EU legislation and policies targeted in this question are the same as those referred to under question C.2, as well as climate change policy. When answering this question, please note that the scope of integration refers to the integration from the EU Nature Directives to other policies as well as to the extent in which the objectives of these other policies are supported by the implementation of the Nature Directives.

Answer:

Marine Strategy Framework Directive: MSFD allows significant policy integration, which still remains unexploited by member states. Despite the fact that the MSFD specifies that the programme measures of the Member States' Marine strategies shall contribute to the establishment of networks of MPAs [cf. articles 13(4) and 21 of Directive 2008/56], such as SCIs under the Habitats Directive, SPAs pursuant to the Birds Directive, and other MPAs within the framework of international or regional agreements, Greece has failed to make use of the legal framework provided by the MSFD. Unfortunately, Greece is yet to propose new marine Natura 2000 areas, fisheries protected areas (as described in the Mediterranean Regulation EC 1967/2006) and creating an effective network of MPAs.

Waste and public health: The Habitats directive offers many indirect benefits. Among them, its contribution to sustainable waste management and public health are worth mentioning. In a recent decision, the ECJ ruled against Greece for the continuous operation of a malfunctioning landfill (Dir. 2008/98/EC) and for renewing the landfill permit for the site in question without complying with Art. 6(3) of the Dir. 92/43/EEC (17-7-2014, ECJ C-600/12). This is the case of an illegal landfill which continues to operate over the most important nesting beaches of the Loggerhead Sea Turtle on the island of Zakynthos. The link between conservation of natural habitats and adequate wastewater treatment is evident also in the case of lake Koroneia (C-517/11), where article 6(2) of the Habitats Directive was violated in conjunction with Directive 91/271. These cases also illustrate the link between environmental factors and public health, which is also a focal point of the European Environment and Health Strategy [COM(2003) 338 final].

Floods : The Floods Directive allows significant policy integration, which remains unexploited by certain member states. Flood risk management plans, which are still unavailable for Greece, should take into account natural floodplains, the environmental objectives of Article 4 of Directive 2000/60/EC (including those that relate to protected areas), soil and water management, spatial planning, sustainable land use and nature conservation [article 7(3)(b) and (c) of Directive 2007/60]. Greece is often beset with flash floods, and the protection of stream and riverine habitats, which is required by article 10 of the Habitats Directive (on the management of features of the landscape which are of major importance for wild fauna and flora), will greatly reduce their impact on public health, cultural heritage, material structures and environment. Natural floodplains are often protected habitats under the Habitats Directives, and this synergy is recognized by Greek case-law and recent legislation, which introduces more stringent requirements for the protection of streams inside Natura

[93] Third National Report to the Convention on Biological Diversity by Greece. 2008 Available from: http://www.cbd.int/doc/world/gr/gr-nr-03-en.pdf.

2000 sites.

Cultural heritage: In the Greek setting, cultural heritage and Natura 2000 are often associated, and measures for their conservation are mutually beneficial. For example, in the Acheloos case, the Council of State noted that the lack of consideration of alternatives, required by Directive 92/43, also violates the Convention for the Protection of the Architectural Heritage of Europe (the Granada 1985 Convention), since the project in question impacts not only natural habitats but several monuments (Council of State 26/2014).

C.4 – To what extent do the Nature Directives complement or interact with other EU sectoral policies affecting land and water use at EU and Member State level (e.g. agriculture, regional and cohesion, energy, transport, research, etc.)?

In this question we are aiming at gathering evidence on whether the provisions of EU nature legislation are sufficiently taken into account and integrated in EU sectoral policies, particularly in agriculture, rural development and forestry, fisheries and aquaculture, cohesion or regional development, energy, raw materials, transport or research policies. It also addresses whether those policies support and act consistently alongside EU nature legislation objectives Please provide specific examples which show how the Nature Directives are coherent with, or conflict with, relevant sectoral legislation or policies. Please be as precise as possible in your answers, e.g. pointing to specific articles of the legislation and how they support or contradict requirements or objectives of other legislation or policies, stating what are main reasons or factors for the lack of consistency and whether there are national mechanisms in place to monitor coherence.

C.5 - How do these policies affect positively or negatively the implementation of the EU nature legislation

In this question, we are keen to gather evidence on whether agriculture and rural development, fisheries and aquaculture, cohesion or regional development, energy, raw materials, transport and research policies have a positive or negative impact on the achievement of the objectives of nature legislation. Please provide specific examples/cases (including infringement cases or case law), which demonstrate clear conflicts or incoherencies between sectoral policies and EU nature legislation, and/or examples showing how specific policies influence the implementation of the Nature Directives in a positive or negative way, for example in relation to Article 6 of the Habitats Directive (see Annex I to this questionnaire). Where possible, please include evidence of the main factors influencing the positive and negative effects. Please consider in your answer what ex ante and ex post evaluation procedures are applied to ensure that this coherence is implemented or supervised.

Answer:

Questions C.4 and C.5 are answered jointly. Responses to questions C.7 and C.8 also complement the response provided here.

Environmental integration is a key component of sustainable development.[94] Environmental integration is enshrined in the EU Treaty. At a national level, the protection of the environment and, by extension, nature conservation constitutes Constitutional priorities in Greece. Hence, at a very fundamental level – primary laws – there is a requirement at a European and national level for sectoral policies to integrate environmental provisions, including those of the Birds and Habitats Directives.

Revisions and reforms of sectoral policies have gradually, yet steadily, improved the implementation of the environmental requirements at the EU level. While significant improvements have been made, examples of which are presented here, weakness remain. Many of these weaknesses in Greece, are linked to the fact that important environmental policy tools that could facilitate environmental sectoral

[94] Baker, S. and K. Eckerberg, eds. 2008. In Pursuit of Sustainable Development: New Governance Practices at the Subnational Level in Europe. New York, NY: Routledge; Baker, S. et al., eds. 1997. The Politics of Sustainable Development: Theory, Policy and Practice within the European Union. London: Routledge.

integration, such as a national spatial plan, a cadastre, a forest registry, which are provided by the country's Constitution have been delayed or are not completed. In the absence of such tools economic and development investments are often burdened by uncertainties and conflicting legal interpretations that are not connected with the Birds and Habitats Directive but broadly the environmental body of law and the responsible public authorities that implement and enforce it.

Structural and cohesion funds and Transport: The Egnatia motorway crosses through the habitat of the brown bear (*Ursus arctos*) in Greece. When the project's EIA was presented, it neither considered alternative alignments nor included mitigation measures that would prevent impacts on the bear's habitat as well as direct collisions. A LIFE project (LIFE93NAT/GR/001080) had been implemented already, at the time, in order to study the impacts of the highway, demonstrating the conflicting priorities and inconsistent use of EU funds (see C.4). NGOs appealed to the Council of State, which found deficiencies in the EIA. A new EIA had to be undertaken, delaying implementation of the project in the particular segment of the motorway. While the new EIA did not alter the overall alignment, rerouting of a 37km crucial segment of the highway and several additional mitigation measures, particularly bear fencing circa 150 km of highway, swere required. The Egnatia case offered important lessons learned on the need to properly and appropriate assess impacts of EU transport funded projects when protected habitats and/or species may be affected.[95] Indeed, mitigation measures to reduce habitat fragmentation caused by the construction of E65 highway[96] and high speed railway[97] were also implemented in Central Greece. Obligation to introduce mitigation measures related to the inclusion of wolves to annexes II and IV of the habitat's directive.

Agricultural practices: More than 75% of the Lesser Kestrel (*Falco naumanni*) population in Greece nest inside Natura 2000 sites. Lesser Kestrel is a trigger species for 25 Greek SPAs while it is recorded in 87 SPAs.[98] Census results indicate that there has been a major increase of the population of the species during the last decade as a result of new agricultural practices (cross compliance and agri-environmental measures) enforced due to the areas being designated as SPA, as well as the restoration and protection of Lake Karla (GR1430007 – SPA)[99]. Especially for Periochi Thessalikou Kampou (GR1420011/SPA), in which the greatest number of Lesser Kestrel nests is located, a LIFE project is currently being implemented (LIFE+11 NAT/GR/1011). As a result contracts have been signed with local farmers of the Rigas Ferraios Municipality to ensure the cultivation of local varieties of cereal seeds, hedgerows planting, conservation and protection of Lesser Kestrels' roosting trees and maintenance of conservation headlands (uncultivated strips) between fields.[100]

Agri-environment measures: In order to decrease the conflict between bears (*Ursus arctos*) and humans and to ensure that small-scale pastoral and farming practices remain economically viable in mountainous areas, damage prevention measures have been tested and put into use by NGOs in the framework of LIFE Nature projects between 1994 and 2002. Due to the proven success of this measure and following discussion between NGO Callisto and the Ministry of Agriculture, the aforementioned preventive measure was included in the RDP in the programming period 2000-2006 (Measure 3.13, Action II), while a similar preventive measure (Measure 216) was included in the next RDP programming period (2007-2013), currently under implementation.

[95] WWF. 2006. Conflicting EU Funds: Pitting Conservation against Unsustainable Development. WWF Global Species Programme. Vienna, Austria, pp. 51-53.

[96] Iliopoulos, Y., *et al*. 2010. Fauna monitoring project prior the construction of central Greece motorway-E65 (2009-2010): Proposals for mitigating effects of habitat fragmentation in the alignment of E65 highway (28-43) in Central Greece, considering large mammals (wolf, wild boar and roe deer). Callisto NGO, Argyropoulos Environmental office

[97] Iliopoulos Y., *et al* . 2006. "Study on wolf behavior in the alignment of the New High Speed Railway- Lamia/Domokos-proposals for the de-fragmentation of wolf population". Project final report (ERGOSE, Argyropoulos environmental office, Callisto NGO,), 150pp. + GIS maps (in Greek).

[98] Fric J., et al. 2014. Action A.1. : Report on the population census of the Lesser Kestrel in Thessaly, Nature Conservation Consultants (NCC) Ltd., Midterm report on LIFE Nature project "Conservation and management of the Lesser Kestrel (Falco naumanni) in three Special Protection Areas (SPAs) of Greece" LIFE11NAT/GR/001011. (*Unpublished data*)

[99] Bousbouras, D. 2006. Populations, colonies and foraging sites of lesser kestrels (*Falco naumanni*) in the Thessalian plain: Delineation proposals for Special Protected Areas. *Book of Abstracts, 10th International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions*, Patras, Greece, p. 18.

[100] Municipality of Rigas Feraios (2014). Report on C2, C3, C7 actions. Midterm report on LIFE Nature project "Conservation and management of the Lesser Kestrel (Falco naumanni) in three Special Protection Areas (SPAs) of Greece" LIFE11NAT/GR/001011. (*Unpublished data*)

C.6- To what extent do they support the EU internal market and the creation of a level playing field for economic operators?

This question seeks to gather evidence of the implications of the EU Nature Directives for economic operators in terms of whether they help ensure a level playing field across the EU (e.g. by introducing common standards and requirements for activities carried out in or around Natura 2000 areas or otherwise depend on natural resources protected under the Directives), predictability and legal certainty (e.g. helping to avoid that developments are blocked due to 'Not In My Backyard' type challenges), or whether they negatively affect the internal market.

Answer:

It has been recognized that the evolution of EU environmental policy, including early air and water pollution legislation, were introduced both as a response to growing public concern for environmental degradation, as well as the need to ensure a level playing field for the evolution of the common market. Since then, the environment has become a distinct common competence of the EU, under which one of the most advanced environmental legal and policy systems in the world have advanced.

We are unaware of any study, in Greece or elsewhere, demonstrating that the Nature Directives impact differentially upon certain economic operators. In fact, unlike other European environmental legislation, such as EIA, Industrial Emissions or Seveso directives, neither the Habitats nor the Birds Directive apply to a *specific* list of economic activities. Even if such a study exists, the impact of the Habitats and Birds Directives will be similar, and probably more limited, than, e.g., local or national planning or zoning laws, or any other local measure required by water, air quality, soil protection, forest, coastline, cultural heritage, food quality, chemical safety or health at work legislation. Furthermore, it should be noted that the "general objective of sustainable development" and the "encouragement of human activities" have duly been taken into account (cf. 3rd recital of Directive 92/43), and "flexible" implementation is allowed for [cf. articles 3(2) and 4(2) of Directive 92/43] where the possibility of too many Natura 2000 areas exists. Finally, it is worth highlighting that co-financing (article 8 of Directive 92/43) may address any remaining differential impacts.

WWF Greece's informal meetings with economic operators confirm that legal safety, a level playing field, uniformly applied uniform rules are of paramount importance. Both directives satisfy those criteria, and, in addition, still leave much room for national flexibility, as member states are free to choose between more or less "stringent" approaches. It is worth noting that both Directives are relatively succinct (24 articles for the Habitats Directive and only 20 for the Birds Directive). The directives envisage a "European" network, set up in accordance with common, purely scientific criteria, and administered by a minimal set of common rules, known in advance by any economic operator in any EC country. Similar rules existed before for a bewildering variety of protected areas throughout the member states. Transnational projects and foreign investment are particularly encouraged by this uniform approach. The directives do not distinguish between start-ups and incumbents, as they apply to "any" plan or project, and "any" agreement by the competent national authorities to it [cf. article 6(3) of Directive 92/43]: thus, ongoing activities with renewable or time-limited permits are subject to article 6(3) of Directive 92/43, on a par with start-ups [cf. the above-mentioned C-600/12, for an example].

There is, however, significant evidence that environmental policies do not affect, and may encourage, productivity growth.[101] In certain cases, the directives have even spurred rapid technological progress and adaptation, which would not have taken place otherwise: in the Greek setting, a typical example is the use of bird collision avoidance technology at wind farms.

[101] See a recent study by OECD "Do environmental policies matter for productivity growth?" 2014. Available from: http://www.oecd.org/environment/do-environmental-policies-matter-for-productivity-growth.htm

C.7 – To what extent has the legal obligation of EU co-financing for Natura 2000 under Article 8 of the Habitats Directive been successfully integrated into the use of the main sectoral funds?

This question builds on question Y.2 on the availability and access to funding, but aims at examining whether Member States have sufficiently identified the funding needs and are availing of EU funding opportunities to meet the requirements of Article 8 of the Habitats Directive. EU co-funding for the Natura 2000 network has been made available by integrating biodiversity goals into various existing EU funds or instruments such as the European Agricultural Fund for Rural Development (EAFRD), European (Maritime and) Fisheries Fund (EFF / EMFF), Structural and Cohesion funds, LIFE and Horizon 2020. In your reply, please distinguish between different sources of funding.

Answer:

Response to this question complements the response to questions C.4 and C.5. As mentioned in questions Y.2 and S.3 lack of sufficient dedicated funds for biodiversity conservation and the implementation of the Nature Directives, in particular, constitutes a significant constraint to their effective implementation in Greece.

The availability and application of EU funds constitutes a central source of funding for Greece. In particular, Greece has been actively applying the EU funds, especially the LIFE financial instrument and the structural funds[102] (ERDF) for the implementation of the Directives. However, funds have not been sufficient and do not cover all needs. During the early programming periods and until relatively recently, conservation projects were not given priority, compared to other environmental or pollution management projects.[103] During the 2000-2006 period, which offered several environmental funding opportunities, it has been estimated that for every €6 invested in projects with potential negative consequences on the environment, only €1 was invested in environmental protection in Greece.[104] The limited funds that had been allocated to the environment were not sufficient. Indicatively, only the Natura 2000 sites that were include in the administrative authority of a national protected area management body were financed and not all needs in those areas were covered. In addition, funds available were not secured and efforts were made continuously to re-allocate them to other funding priorities (e.g. waste management, urban redevelopment). Finally, the potential to create synergies through an integrated approach using various EU funding sources, at a geographical or strategic level were rarely sought. LIFE projects and LEADER projects (not during the 2007-2013) programming period were applied in order to channel and build on the development potential of Natura 2000 investments.

Over the years, the rhetoric of environmental integration has been stronger. This was clearly evinced in the 2007-13 programming period documents (NSRF and OPs) which have specific references to the financing of Natura 2000 opportunities (esp. the relevant EC Guidance Handbook that was developed for the 2007-13 programming period). Nonetheless, these remained largely unutilized. As a result, the 2007-13 Environment and Regional OPs (though variations exist) concentrated their Natura 2000 related funding once more to the financing of the protected areas management bodies. Nonetheless, a few additional projects, including a national surveillance/monitoring programme and the Lake Karla restoration project, which had already began in previous programming periods were supported.

[102] For an analysis of the application of the structural funds in Greece, please see: Christopoulou, Ioli. 2011. Creating a sustainable Europe: The role of the European Union structural funds. Doctoral Dissertation. Fletcher School of Law and Diplomacy (Tufts University), 465. Available from: http://pqdtopen.proquest.com/doc/909969185.html?FMT=AI.

[103] Liarikos, C. 2004. Greek Regional Policy: Short Review, Description of the 3rd CSF and Analysis of the Relation with the Environment. Athens: WWF Greece; Liarikos, C. and T. Nantsou. 2003. Environmental Integration in Structural Fund Programmes 2000-2006: Report for Greece. Athens, Greece: WWF Greece.

[104] Liarikos, C. 2004. Greek Regional Policy: Short Review, Description of the 3rd CSF and Analysis of the Relation with the Environment. Athens: WWF Greece.

During the 2007-13 programming period, , the Natura 2000 funding opportunities in the Fisheries OP were not activated, similar to the case across the EU, while few measures of the Rural Development OP, were activated, but mostly with delays and difficulties in absorption.[105]

In the planning of the 2014-20 period, while the value of the Prioritized Action Framework (PAF) was recognized and accepted[106], the PAF was not completed until late in 2014. Nonetheless, as a result of the PAF, Greece has, for the first time, at its disposal a document outlining its needs in order to implement the Directives. [107] Within the PAF an attempt is made to match needs with funding sources, which even too late is an important step that could influence positively the implementation of the 2014-2020 programming period with respect to the attainment of the Nature Directives' objectives.

C.8 - Are there overlaps, gaps and/or inconsistencies that significantly hamper the achievements of the objectives?

This question refers to overlaps, gaps and/or inconsistencies in the different EU law/policy instruments regarding nature protection. It therefore depends largely on the results of other questions related to the coherence of the Nature Directives with other EU law and policies. When answering this question you may want to consider whether the identified overlaps, gaps and inconsistencies hamper the achievement of the Directive's objectives (e.g. see Annex I to this questionnaire).

Answer:

No significant and additional comments are available here.

C.9 - How do the directives complement the other actions and targets of the biodiversity strategy to reach the EU biodiversity objectives?

With this question we seek to collect evidence on ways in which the implementation of measures under the Birds and Habitats Directives that are not explicitly mentioned in the EU Biodiversity Strategy, help to achieve actions and targets of the EU Biodiversity Strategy. For example, restoration of Natura 2000 sites can significantly contribute to helping achieve the goal under Target 2 of the EU Biodiversity Strategy to restore at least 15% of degraded ecosystems.

Answer:

Site restoration projects in Greece are mainly implemented through LIFE funded projects. In fact almost all LIFE projects include some actions involving restoration of habitats. Some examples are the restoration of Wet Meadows in Lake Mikri Prespa (LIFE02 NAT/GR/008494), *Pinus nigra* forests on Mount Parnonas (LIFE07 NAT/GR/000286), coastal dunes with Juniperus spp. in Crete (LIFE07 NAT/GR/000296) and coastal wetlands in Andros (LIFE10 NAT/GR/000637).

[105] Prioritized Action Framework for the 2014-2020 Programming Period. December 2014. Available from: http://www.ypeka.gr/LinkClick.aspx?fileticket=bZfp%2bbTXoYU%3d&tabid=539&language=el-GR.
[106] See indicatively presentations and participation levels during the Financing Natura 2000 seminar in Athens Greece. Available from: http://www.wwf.gr/news-3/912-natura-2000
[107] Prioritized Action Framework for the 2014-2020 Programming Period. December 2014. Available from: http://www.ypeka.gr/LinkClick.aspx?fileticket=bZfp%2bbTXoYU%3d&tabid=539&language=el-GR.

After the adoption of the Directives, EU funds (especially from the Environment OPs of the 2000-2006 and 2007-2013 periods) were allocated, for restoration of Lake Karla, which began in 1998. The new reservoir was created in 2009 attracting large bird congregates and creation of colonies in the area. The site is now an SPA, and meets criteria for its inclusion in the Ramsar Convention wetlands list. It should be mentioned that the before mentioned action has not only an environmental dimension, but contributes to hydraulics and agricultural engineering along with flood prevention measures.

In the case of the Drana lagoon (GR1110001 SPA), with the implementation of a LIFE project (LIFE00 NAT/GR/007198) in Northern Greece, total restoration was attained, as it was reconnected to the sea, with consequent rise in the numbers of wintering waterfowl.[108] The riparian woodland vegetation of the Loutros stream was extended, resulting in habitat improvement for the nesting and feeding of two priority species: the imperial eagle (*Aquila heliaca*) and the greater spotted eagle (*Aquila clanga*).

A habitat restoration project in the Evros Delta (GR1110001 SPA) is being implemented at the moment in in the framework of the LWfG LIFE project LIFE10 NAT/GR/000638. The evaluation of the study based on which the restoration project is taking place will be available in the project's final report in 2016.

C.10: How coherent are the directives with international and global commitments on nature and biodiversity?

This question seeks to assess whether and how the EU nature legislation ensures the implementation of obligations arising from international commitments on nature and biodiversity which the EU and/or Member States have subscribed to[109], and whether there are gaps or inconsistencies between the objectives and requirements of the EU nature legislation and those of relevant international commitments, including the way they are applied. For example, the Directives' coherence with international agreements which establish targets relating to nature protection and/or require the establishment of networks of protected areas.

[108] For more information, please see: http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.createPage&s_ref=LIFE00%20NAT/GR/007198&area=1&yr=2000&n_proj_id=1750&cfid=16586&cftoken=2e4adf8baa61f2ac-360A2F1D-DAE5-7FE0-A7720CC7129F3210&mode=print&menu=false

[109] e.g. Bern Convention; Convention on Biological Diversity; Convention for the Protection of the World Cultural and Natural Heritage; Ramsar Convention; European landscape Convention; CITES Convention; CMS (Bonn) Convention; International Convention for the protection of Birds; Agreement on the Conservation of African-Eurasian Migratory Waterbirds; Regional Sea Conventions (Baltic, North East Atlantic, Mediterranean and Black Sea).

Answer:

The Nature Directives constitute the main instrument for Greece's effort to meet its international and global commitments on nature and biodiversity.

Convention on Biological Diversity: In its Third National Report to the Convention on Biological Diversity submitted in 2008, Greece outlines the various ways in which the Nature Directives contribute to the attainment of the global goals and targets, including those that relate to protected areas designation, habitats and species (including migratory species) conservation, and in-situ conservation more broadly, to monitoring and research, to restoration, to the application of the ecosystem based approach and principles of adaptive management, to sustainable use of biodiversity, to the response to threats such as invasive alien species, the assessment of impacts of plans and projects to biodiversity, and to transboundary and international cooperation.[110]

Ramsar Convention: In its 2002 report to the Ramsar Convention, Greece highlights the significance of the inclusion of all its Ramsar Wetlands of International Importance to the Natura 2000 network. In particular it is noted that as a result of this inclusion Environmental Impact Assessments will be undertaken, greater public participation will be encouraged, among others via the implementation of LIFE –Nature projects, traditional management practices via the agri-environment measures will be applied, wetland conservation training will be provided.[111] The 2002 National Report confirmed an earlier case when a 1989 mission to Greece by the Ramsar Secretariat verified the environmental impacts of an Integrated Mediterranean Programme-funded irrigation project in Lake Mikri Prespa concluding that implementation of the Birds Directive, constituted an opportunity for the conservation of Greece's wetlands.[112] In its 2008 report to the Ramsar Convention, Greece notes "Wetlands represent a large part of the areas designated as Sites of Community Importance (According to Directive 92/43/EC) and Special Areas of Conservation (According to Directive 79/409/EC constituting the Natura 2000 Network. Priority is given to the Natura 2000 Network and therefore there will be a benefit for wetlands under the RAMSAR Convention."[113] Following this first statement, throughout the document there are references to the Natura 2000 sites, LIFE projects that have been undertaken in Natura 2000 sites as well as other projects that demonstrate that Greece implements the Ramsar Convention mainly through the measures Greece implements for its Natura 2000 sites.

Indicatively, following the Messolongi ruling of the ECJ against Greece (27-10-2005, C-166/04), Greece issued a Ministerial Decision designating the Messolongi Lagoon as a national park. Note that at the time Law 3937/2011 had not been adopted, the horizontal measures provisions had not been approved, and therefore Greece had failed to establish and implement a cohesive, specific and comprehensive legal regime capable of ensuring sustainable management and effective protection of the special protection area of the Messolongi Lagoon (Art. 4(1) (2) of 79/409/EEC). The designation allowed Greece to meet its obligations not only under the Birds Directive, but also under the Ramsar Convention; hence it is included in the 2008 progress report to the Ramsar Convention Secretariat.

Designation of protected areas: As far as the Internationally Protected Areas (IPAs) are concerned, important overlap exists among Natura 2000 sites and internationally protected areas (IPAs). In fact, to a great extent (97.9%) of IPAs have also been designated as Natura 2000, demonstrating the significance of the implementation of the Nature Directives in the attainment of Greece's international agreement obligations.

[110] Third National Report to the Convention on Biological Diversity by Greece. 2008 Available from: http://www.cbd.int/doc/world/gr/gr-nr-03-en.pdf.
[111] National planning tool for the implementation of the Ramsar Convention on Wetlands, submitted by Greece to COP8, 2002. Available from: http://www.ramsar.org/sites/default/files/documents/library/greece_nr2002_1_2.pdf.
[112] Ramsar Convention. 1989. *Report No. 11: Ramsar Sites in Greece (2nd mission).* Available from: http://archive.ramsar.org/cda/en/ramsar-documents-rams-ramsar-advisory-missions-15808/main/ramsar/1-31-112%5E15808_4000_0__; Maragou, P. 2003. "Managing Rivers Wisely: Prespa Case Study," in *Managing Rivers Wisely: Lessons from WWF's Work for Integrated River Basin Management*, eds. Tim Jones et al., 71-75. Gland, Switzerland: WWF International.
[113] National Report on the Implementation of the Ramsar Convention on Wetlands, submitted to COP10, 2008. Available from: http://www.ramsar.org/sites/default/files/documents/pdf/cop10/cop10_nr_greece.pdf. Note that Greece did not submit a national report for COP11 and the upcoming COP12.

International Protection Areas (IPAs)	*Area of IPAs (km^2)*	*Overlap of IPA with Natura2000 (km^2)*	*% cover of the Natura2000 by the IPA*	*% cover of IPA by the Natura2000*
Ramsar sites	1,686.42	1,636.67	3.81	97.05
Barcelona Convention	2,578.00	2,530.22	5.89	98.15
Biogenetic Reserve	253.67	251.87	0.59	99.29
Biosphere Reserve	93.62	93.42	0.22	99.79
World Heritage Site	340.81	333.80	0.78	97.94
Total	**4,572,16**	**4,476.28**	**10.43**	**97.90**

EU Added Value

Evaluating the EU added value means assessing the benefits/changes resulting from implementation of the EU nature legislation, which are additional to those that would have resulted from action taken at regional and/or national level. We therefore wish to establish if EU action (that would have been unlikely to take place otherwise) made a difference and if so in what way? Evidence could be presented both in terms of total changes since the Directives became applicable in a particular Member State, in changes per year, or in terms of trends.

AV.1 - What has been the EU added value of the EU nature legislation?

When responding to this question, you may wish to consider the following issues: What was the state of play or the state of biodiversity in your country at the moment of the adoption of the Directives and/or your country's entry into the EU? To what extent is the current situation due to the EU nature legislation? In answering this question, please consider different objectives/measures set out in the Directives (eg regarding protected areas, species protection, research and knowledge, regulation of hunting, etc, including their transboundary aspects).

Answer:

The following examples demonstrate the EU added value of the Nature Directives for Greece:

- The spring hunting ban that was enforced in Greece in 1985 resulted in the halt of intensive hunting in Western Greece and the Ionian islands, where traditional migratory species were shot, like the Golden Oriole, the Bee-Eater and Turtle Dove. This is a direct added value of the Birds Directive, which was transposed that year. Illegal killing is now a problem that persists locally in the Ionian Islands and is relevant only to the Turtle Dove (*Stepopelia Turtur*), leading to the implementation of LIFE+11 INF/IT/000253 "A Safe Haven for Wild Birds: Changing attitudes towards illegal killing" by the Hellenic Ornithological Society in Greece.[114]
- All "major" nesting sites of the Loggerhead Sea Turtle (*Caretta caretta)* have been designated as Natura 2000 sites. The Greek beaches of Laganas Bay on Zakynthos host the most important nesting sites in the Mediterranean for the Loggerhead turtle ─ at Sekania beach the largest number of nests is found. Uncontrolled tourist development along the coast has dramatically reduced the beaches available for loggerhead nesting. In 1994, to conserve and protect the species, WWF organized a European campaign and raised funds from private donations and EU support to acquire the area surrounding the Sekania beach in the island of Zakynthos. The purpose of the acquisition was to prevent tourist development in the area and to ensure the best possible management to protect Sekania, the sea turtle's most important nesting beach in the Mediterranean.[115] In addition, the ECJ ruled against Greece (30-1-2002, ECJ C-103/00) for not having established and implemented an effective system of strict protection for the sea turtle Caretta caretta on Zakynthos (Greece) so as to avoid any disturbance of the species during its breeding period and any activity which might bring about deterioration or destruction of its breeding sites, (Art. 12(1)(b) and (d) of Dir. 92/43/EEC). The experience of Zakynthos in the 1990s demonstrates the difficulties that a country faces internally when it has to balance seemingly contradictory priorities – tourism promotion and environmental protection and the effort required to counter these pressures. Had it not been for the Habitats Directive contributing to the re-examination of these priorities and promoting a sustainable and integrated solution, Laganas Bay would have continued its uncontrolled development trend, degrading the important nesting sites. If this could be the scenario for Zakynthos, the potential danger for the other "major" nesting sites becomes clear.
- Enforcement process: While infringement processes, referrals to the ECJ and rulings against

[114] For more information, please see: http://www.leavingislliving.org/life/index.php/en/.
[115] For more information: http://www.wwf.gr/en/endangered-species/caretta; Venizelos, L. and K. Crobett. 2005. "Zakynthos Sea Turtle Odyssey – A Political Ball Game." *Marine Turtle Newsletter* 108: 10-12; and Archelon - http://www.archelon.gr/eng/habitat_zak.php?row=row3 .

Greece confirm the weaknesses of the country's compliance with the Directives and mark the international reputation of Greece, they also have contributed to Greece's nature conservation policy in line with its 1975 Constitution which provides for the protection of the environment as a responsibility of the state. Such processes offer a systematic and structured approach to conservation which positively influence and change traditional but potentially harmful practices and counter internal political pressures.[116] In fact, they allow for the civil society to have access to justice seeking to address mismanagement and other cases of non-compliance and non-implementation.

AV.2 - What would be the likely situation in case of there having been no EU nature legislation?

This question builds on question AV.1. In answering it, please consider the different objectives/measures set out in the Directives (eg. whether there would be a protected network such as that achieved by Natura 2000; whether the criteria used to identify the protected areas would be different, whether funding levels would be similar to current levels in the absence of the Nature Directives; the likelihood that international and regional commitments relating to nature conservation would have been met; the extent to which nature conservation would have been integrated into other policies and legislation, etc).

Answer:

Given the influence and contribution that the EU nature legislation have had on Greece's environmental policy, governance, and practice the question is difficult to answer. In fact, it seems that it is impossible to separate EU nature legislation from the national legislation, since the two are intertwined and linked. The examples below are only indicative:

- Up to the end of the 70's and within a period of 100 years, Greece lost 63% of its wetland area.[117] The most important examples of these sustained attempts were Lake Kopais, Lake Karla and Agoulinitsa Lagoon. Historical records of wild geese species in Greece exhibit the huge impacts suffered by wintering waterbirds due to wetland losses. For example, in 1917 large flocks of Lesser-white Fronted Geese occurred in Lake Achinou (Strymonas), while more than 10,000 geese in Lake Karla during winter 1945/46. Lake Karla, the largest wetland ecosystem of Greece and second largest wetland after the Danube Delta, was drained for electioneering purposes. Prior to its drainage the IUCN/IWRB recorded 430,000 individuals of Anseriformes[118] (Hoffman 1964), a count which surpasses by far the current annual national Mid-winter Counts recorded in all remaining wetlands. Following its drainage, agricultural intensification led to a degraded aquifer and salinization with evastating efects for all fauna and flora. After the adoption of the Directives, EU funds (Environment OP, 2000-2006 and 2007-2013) were allocated, for its restoration, which began in 1998. The new reservoir was created in 2009 attracting large bird congregates and creation of colonies in the area. The site is now an SPA, and meets criteria for its inclusion in the Ramsar Convention wetlands list.
- The Lesser White fronted Goose *(Anser erythropus)*, is wintering in Greece and only in NATURA 2000 sites (SPA GR1110006, SCI GR1110007, SPA GR1130010, SCI GR1130009, SPA GR1130010, SCI GR1130009, SPA GR1150001, SCI GR1150010, SPA GR1260008, SCI GR1260001, SPA GR1220009, SCI GR1220001). Its population has undergone a severe crash, from its historical population of 10,000 individuals in the early 20th century to no more than 50-80

[116] Weale, A. et al. 2000. *Environmental Governance in Europe: An Ever Closer* Ecological *Union*. Oxford: Oxford University Press. p. 164; Krimbas, Costas B. 2003. "Science, Technology and the Environment", in *Greece in the Twentieth Century*. Eds. Theodore A. Couloumbis, Theodore Kariotis and Fotini Bellou, 183-197. London: Frank Cass Publishers.
[117] Handrinos G. 1992. Wetland loss and wintering waterfowl in Greece during the 20th century: a first approach. In: M. Finlayson, T. Hollis & T. Davies. (eds.) *Managing Mediterranean Wetlands and their Birds*. Proceed. Symp. Grado, Italy. IWRB Special Publication no 20. pp. 183-187; Psilovikos A. 1992. Prospects for wetlands and waterfowl in Greece. In: M. Finlayson, T. Hollis & T. Davies (eds.) Managing Mediterranean Wetlands and their Birds. Proceed. Symp. Grado, Italy. IWRB Spec. Publication no 20. pp. 53-55.
[118] Hoffmann L. 1964. MAR Expeditions and waterfowl counts. *IWRB Newsletter* 17/18: 28-33.

individuals in the 2000s. Without the urgent measures that have been implemented it is estimated that the species would have gone extinct. The Nature Directives led to the designation of Natura 2000 sites, the implementation of a variety of measures (National Action Plan and wardening efforts) and the facilitated access to funding (LIFE10 NAT/GR/000638 "Safeguarding the LWfG in wintering and staging sites within the European flyway"; EU Life/Nature project "Conservation of the Lesser White-fronted Goose (Anser erythropus) in Finland" in 1997-2000 Project Code: LIFE05 NAT/FIN/000105; LIFE II "Conservation of the Pygmy Cormorant and the Lesser White fronted Goose in Greece" in 1997-1999 (Project Ref. B4-3200/96/499)

- The Loggerhead Sea Turtle was listed as a national protected area and some protection measures were in place during the 1980s. However, it was only within the framework of the implementation of the Habitats Directive that the protected species and its nesting sites could be protected. The case of Zakynthos is critical in this instance. The ECJ ruled against Greece (30-1-2002, ECJ C-103/00) for not having established and implemented an effective system of strict protection for the sea turtle *Caretta caretta* on Zakynthos (Greece) so as to avoid any disturbance of the species during its breeding period and any activity which might bring about deterioration or destruction of its breeding sites, (Art. 12(1)(b) and (d) of Dir. 92/43/EEC). Zakynthos became a pilot case for the development of management measures (though to date no management plan has been adopted). With the establishment of the first management body, once the National Marine Park was established, the significance of co-management schemes as a tools of integrated and participatory management and sustainable development as well the need for enforcement authorities collaboration were highlighted across Greece.
- The Habitats Directive and the implementation of two LIFE projects (LIFE93NAT/GR/001080 and LIFE96NAT/GR/003222) contributed in the permanent solution of bears kept illegally in captivity (dancing bears, bears in circuses etc) with the creation and operation of a bear sanctuary: a fenced facility in a forested area where ex-captive bears are kept under semi-captivity conditions. This sanctuary functions to date, it is operated by Arcturos and serves as a public awareness raising and environmental education point.
- During the implementation of Project LIFE "Lycos" NAT97-GR04249: Conservation of the wolf (*Canis lupus L.)* a large wolf-kernel facility was constructed in northern Greece to keep any captive wolves that were confiscated. This facilitated control of any illegal trade of live wolves that were kept in private enclosures as pets. The wolf sanctuary was then used for environmental education on carnivore education and is still operating for this purpose. The Habitats Directive in this case contributed not only to abandonment of illegal wildlife trade, but has also to the change of public perception on the wolf and large carnivores, more broadly.
- The Lammergeier (*Gypaetus barbatus*) would have gone extinct from Crete. It is known that the LIFE98 NAT/GR/005276[119] project had significant results in the increase of this insular population, whereas in mainland Greece the lack of conservation measures led to the extinction of the species, mainly due to poisoned baits.
- Islets host numerous rare or endemic species of plants, fish, reptiles and invertebrates, some of which are listed under the Annexes of the Nature Directives, while others are not. Examples of endemic or rare plant species found on islets are *Anthemis ammanthus* ssp. *paleacea, Anthemis scopulorum, Dianthus fruticosus*, *Hymenolobus procumbens* ssp. *procumbens, Lactuca amorginea* etc.[120] Endemic reptiles which find refuge on protected islets in the Aegean include *Podarcis milensis*, *Macrovipera schweizeri*, *Podarcis gaigeae*, *Pelophylax cretensis* and *Podarcis*

[119] For more information, please see: http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.createPage&s_ref=LIFE98%20NAT/GR/005276&area=1&yr=1998&n_proj_id=315&cfid=151405&cftoken=cc7a44f00d7b9d3-0C35AE35-CD70-638B-240CEF28F043BE73&mode=print&menu=false

[120] Gatzelia, A (ed.). 1999. LIFE- Nature Project "Actions for the conservation of the Audouin's Gull, *Larus audouinii*, in Greece" (in Greek). Final Technical Report, Hellenic Ornithological Society, European Commission, DG ENV, Min. of Environment, Physical Planning & Public Works.

levendis.[121] The recent designation of the islets as SPAs, due to the breeding bird species they host, offers protection also to these species, a clear EU added value.

- With the exception of forest legislation and this only to some extent, national legislation does not provide for the protection of habitat types. Hence, without the Habitats Directive, these elements of the Greek biodiversity would not have a legal protection framework.
- Monitoring of species and habitats would not have been implemented had it not been for the Nature Directives. Despite delays and inconsistencies, the contribution of the Directives and increasing knowledge for Greece's biodiversity and its status has been significant, and will become even more so, once the current surveillance/monitoring project is completed. It is indicative that the only monitoring project for the forests took place in 1992 and did not examine the presence/status of species (flora & fauna).

AV. 3 - Do the issues addressed by the Directives continue to require action at EU level?

When answering this question the main consideration is to demonstrate with evidence whether or not EU action is still required to tackle the problems addressed by the Directives. Do the identified needs or key problems faced by habitats and species in Europe require action at EU level?

Answer:

For several reasons, EU-wide action is still required. Among them, we can mention briefly the following:

Conservation remains a European problem: Conservation is a typical aim which requires trans-frontier action. This is evident in the case of migratory species, as well as species or habitats with transboundary ranges.

The directives work: Despite delays, setbacks, and problems of interpretation and implementation, it is clear that both Directives offer results, where they are consistently applied and monitored. Much, of course, remains to be done, but there exist many "success" stories, as demonstrated by the evidence provided in the questions above.

The issues addressed by the directives remain objectives of Union, and part of the "common heritage" of mankind: In this respect, nothing has changed: those issues are still objectives of Union policy [cf. art. 191(1) Consolidated version of the treaty on European Union], or constitute common heritage of mankind entailing common responsibilities [cf. 4th recital of Directive 2009/147].

The "network" approach of Directive 92/43 offers distinct advantages: This allows the "pooling" of conservation resources (such as monitoring data). The sharing of conservation responsibilities also places less stringent requirements upon individual countries. Conversely, the network approach promotes intervention only where the benefit is greater. For example, Greece hosts more than 80% of Eleonoras' falcon (*Falco eleonorae*) global breeding population122. The species nests on cliffs mainly on uninhabited islands of the Aegean. Pressures that derive from tourism infrastructure expansion and human activities disturbance, renewable sources of energy establishment and alien species invasion are constant and increasing.[123] Consequently, conservation actions at national (Greek) level for the species are more appropriate than elsewhere. Conversely, where species with trans-frontier ranges are involved, a pooling of resources offers efficiency, effectiveness, economy of scale, and opportunities for cooperation. The implementation of the "Urgent measures to secure the survival of the Egyptian vulture (*Neophron percnopterus*) in Bulgaria and Greece" LIFE project is indicative (LIFE10 NAT/BG/000152).[124] A "cacophony" of separate national programs would not offer these advantages.

[121] Handrinos, G. and T. Kastritis. 2009. *Birds* In: Legakis, A. and P. Maragou (eds.) *The Greek Red Data Book of Threatened Fauna*. Hellenic Zoological Society, Athens.
[122] Dimalexis A, Xirouchakis S, Portolou D, Latsoudis P, Karris G, Fric J, Georgiakakis P, Barboutis C, Bourdakis S, Ivovicˇ M et al. 2008. The status of Eleonora's falcon (Falco eleonorae) in Greece. J Ornithol 149:23–30
[123] http://www.skyroslife.gr/PRImages/EditorImages/PDF/Islet_Action_Plan_Skyros_upload_lock.pdf
[124] For more information, please see: http://lifeneophron.eu/en/about-the-project.html

Annex 1: Objectives of the Directives

Overall objective	To contribute to ensuring biodiversity through conservation of Europe's most valuable and threatened habitats and species, especially within Natura 2000	
	Birds Directive	Habitats Directive
Strategic Objectives	Art. 2: Maintain the population of all species of naturally occurring wild birds in the EU at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, or to adapt the population of these species to that level.	Art 2: Maintain or restore natural habitats and species of Community interest at a favourable conservation status (FCS), taking into account economic, social and cultural requirements and regional and local characteristics.
Specific Objectives	Art. 3: Preserve, maintain or re-establish a sufficient diversity and area of habitats' for birds, primarily by creating protected areas, managing habitats both inside and outside protected areas, re-establishing destroyed biotopes and creating new ones. Art. 5: Establish a general system of protection for all birds. Art. 7: Ensure hunting does not jeopardize conservation efforts and complies with the principles of wise use and ecologically balanced control of the species concerned.	Art 4: Establish Natura 2000 – a coherent network of special areas of conservation (SACs) hosting habitats listed in Annex I) and habitats of species listed in Annex II), sufficient to achieve their FCS across their natural range, and SPAs designated under the Birds Directive. Art. 6: Ensure SCIs and SACs are subject to site management and protection. Art 10: Maintain/develop major landscape features important for fauna and flora Art. 12-13: ensure strict protection of species listed in Annex IV. Art. 14: ensure the taking of species listed in Annex V is in accordance with the maintenance of FCS. Art. 22: Consider the desirability of reintroducing species listed in Annex IV that are native to their territory.
Measures/ Operations objectives	Site Protection system Art. 4: 4(1): Designate Special Protection Areas (SPAs) for threatened species listed in Annex I and for regularly occurring migratory species not listed in Annex I, with a particular attention to the protection of wetlands and particularly to wetlands of international importance. 4(3): Ensure that SPAs form a coherent whole. 4(4): [Obligations under Art 6(2), (3) and (4) of Habitats Directive replaced obligations under first sentence of 4(4)]. Outside SPAs, strive to avoid pollution or deterioration of habitats. Species protection system Art. 5 (a-e): Prohibit certain actions relating to the taking, killing and deliberate significant disturbance of wild birds, particularly during the breading and rearing periods. Art. 6: Prohibit the sale of wild birds except of species listed in Annex III/A	Site Protection system Arts. 4 & 5: Select Sites of Community Importance (SCIs) and SACs, in relation to scientific criteria in Annex III. Art. 6(1): Establish necessary conservation measures for SACs. Art. 6(2): [Take appropriate steps to?]Avoid the deterioration of habitats and significant disturbance of species in Natura 2000 sites. Plans or projects Art. 6(3/4): Ensure, through an 'appropriate assessment' of all plans or projects likely to have a significant effect on a Natura 2000 site, that those adversely affecting the integrity of the site are prohibited unless there are imperative reasons of overriding public interest. Art. 6(4): When plans or projects adversely affecting the integrity of a site are nevertheless carried out for overriding reasons, ensure that all compensatory measures necessary are taken to ensure the overall coherence of Natura 2000. Financing

	and, subject to consultation with the Commission, those listed in Annex III/B. Art. 7: Regulate hunting of species listed in Annex II and prohibit hunting in the breeding and rearing seasons and, in the case of migratory birds, on their return to breeding grounds. Art. 8: Prohibit the use of all means of large-scale or non-selective capture or killing of birds, or methods capable of causing the local disappearance of species, especially those listed in Annex IV. Art 9: Provide for a system of derogation from protection of species provisions under specified conditions Research Art. 10: Encourage research into relevant subjects, especially those listed in Annex V. Non-native species Art 11: Ensure introductions of non-native species do not prejudice local flora and fauna. Reporting Art 12: report each 3 years on implementation	Art. 8: Identify required financing to achieve favourable conservation status of priority habitats and species, for the Commission to review and adopt a framework of aid measures. Landscape features Art 10: Where necessary, encourage the management of landscape features to improve the ecological coherence of the Natura 2000 network. Surveillance Art. 11: Undertake surveillance of the conservation status of habitats and species of Community interest. Species protection system Art 12 & 13: Establish systems of strict protection for animal species and plant speces of Annex IV prohibiting specified activities. Art. 14: Take measures to ensure that taking/ exploitation Annex V species is compatible with their maintenance at FCS Art. 15: Prohibit indiscriminate means of capture/killing as listed in Annex VI. Art. 16: Provide for a system of derogation from protection of species provisions under specified conditions Reporting Art 17: report on implementation each 6 years, including on conservation measures for sites and results of surveillance. Research Art. 18: undertake research to support the objectives of the Directive. Non-native species Art. 22: ensure that introductions of non-native species do not prejudice native habitats and species.

Annex 2: Typology of cost and benefits

This annex sets out a typology of costs and benefits resulting from implementation of the Nature Directives in the EU, which need to be considered in the evaluation.

Typology of Costs

The evaluation will consider costs which result directly and indirectly from the Directives, including both monetary costs (i.e. involving direct investments and expenditures) and non-monetary costs (involving additional time inputs, permitting delays, uncertainty and missed opportunities).

It will include both the **compliance costs** of the legislation, and any **opportunity costs** resulting from missed or delayed opportunities for development or other activities. Compliance costs can be further divided into **administrative costs** and **costs of habitat and species management**. Examples of each of these types of costs are set out in Table 1.

Administrative costs refer to the costs of providing information, in its broadest sense (i.e. including costs of permitting, reporting, consultation and assessment). When considering administrative costs, an important distinction must be made between information that would be collected by businesses and citizens even in the absence of the legislation and information that would not be collected without the legal provisions. The costs induced by the latter are called **administrative burdens**.

Evidence of these costs will include:

- **Monetary estimates** of investments required and recurrent expenditures on equipment, materials, wages, fees and other goods and services; and
- **Non-monetary estimates** of administrative time inputs, delays, missed opportunities and other factors affecting costs.

Typology of benefits

The evaluation will collect evidence on the direct and indirect benefits derived from EU nature legislation, which include benefits for biodiversity and for the delivery of ecosystem services, and the resultant effects on human well-being and the economy.

The **ecosystem services** framework provides a structured framework for categorising, assessing, quantifying and valuing the benefits of natural environmental policies for people. However, it is also widely recognised that biodiversity has **intrinsic value** and that the Directives aim to protect habitats and species not just for their benefits to people, but because we have a moral duty to do so. In addition, consideration of benefits needs to take account of the **economic impacts** of implementation of the legislation, including effects on jobs and output resulting from management activities as well as the effects associated with ecosystem services (such as tourism).

A typology of benefits is given in Table 2. Assessment of the benefits of the Directives for biodiversity is a major element in the evaluation of their effectiveness. Effects on ecosystem services will be assessed in both:

- **Biophysical terms** – e.g. effects on flood risk, number of households provided with clean water, number of visitors to Natura 2000 sites etc.; and
- **Monetary terms** – e.g. reduced cost of water treatment and flood defences, value of recreational visits, willingness to pay for conservation benefits.

Evidence of economic impacts will include estimates of expenditures by visitors to Natura 2000 sites, employment in the creation and management of the Natura 2000 network, and resultant effects on gross value added in local and national economies.

Typology of costs resulting from the Nature Directives

Type of costs	Examples
Administrative costs	• Site designation, including scientific studies, administration, consultation etc. • Establishing and running of management bodies • Preparation and review of management plans • Public communication and consultation • Spatial planning • Development casework, including time and fees involved in applications, permitting and development casework affecting habitats and species, including conducting appropriate assessments • Time and fees involved in compliance with species protection measures, including derogations • Research • Investigations and enforcement
Habitat and species management costs	Investment costs: • Land purchase • Compensation for development rights • Infrastructure for the improvement/restoration of habitat and species • Other infrastructure, e.g. for public access, interpretation works, observatories etc. Recurrent costs - habitat and species management and monitoring: • Conservation management measures– maintenance and improvement of favourable conservation status for habitats and species • Implementation of management schemes and agreements with owners and managers of land or water • Annual compensation payments • Monitoring and surveillance • Maintenance of infrastructure for public access, interpretation etc. • Risk management (fire prevention and control, flooding etc.)
Opportunity costs	• Foregone development opportunities resulting from site and species protection, including any potential effects on output and employment • Delays in development resulting from site and species protection, and any potential effects on output and employment • Restrictions on other activities (e.g. recreation, hunting) resulting from species and site protection measures

Typology of Benefits

Type of benefit	Examples
Benefits for species and habitats	Extent and conservation status of habitats Population, range and conservation status of species
Ecosystem services	Effects of Directives on extent and value (using a range of physical and monetary indicators) of: • Provisioning services – food, fibre, energy, genetic resources, fresh water, medicines, and ornamental resources. • Regulating services – regulation of water quality and flows, climate, air quality, waste, erosion, natural hazards, pests and diseases, pollination. • Cultural services – recreation, tourism, education/ science, aesthetic, spiritual and existence values, cultural heritage and sense of place. • Supporting services – soil formation, nutrient cycling, and primary production.
Economic impacts	Effects of management and ecosystem service delivery on local and national economies, measured as far as possible in terms of: • Employment – including in one-off and recurring conservation management actions, as well as jobs provided by tourism and other ecosystem services (measured in full time equivalents); • Expenditure – including expenditures by visitors as well as money spent on conservation actions; • Business revenues – including effects on a range of land management, natural resource, local product and tourism businesses; • Local and regional development – including any effects on investment, regeneration and economic development; and • Gross Value Added – the additional wages, profits and rents resulting from the above.