

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 Directive¹ and the Habitats Directive² ('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 Directives⁵.

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

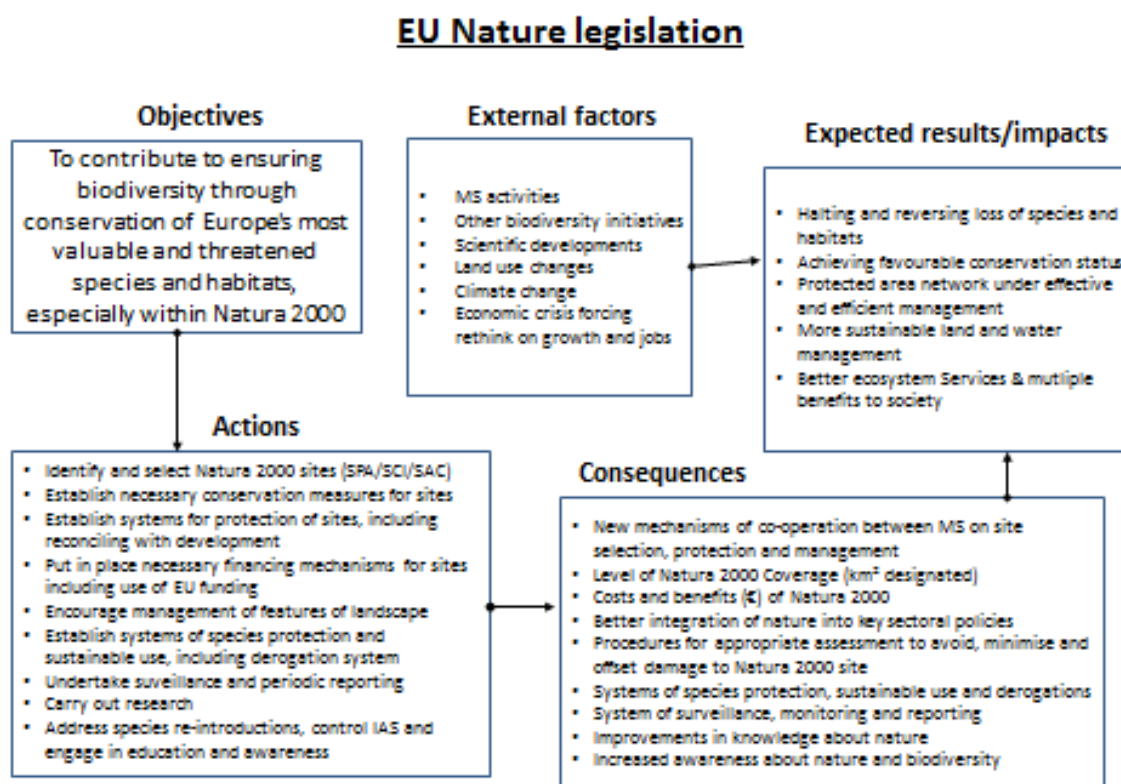
	Answer
Organisation:	European Environmental Bureau
Date:	13 March 2015
Country (and, if applicable, region) represented:	European Union (all EU MS)
Organisation(s) represented:	NGOs from across the EU and beyond. We currently have about 140 members. List is here: http://www.eeb.org/index.cfm/members/
Name of contact for enquires (including follow-up interview if required):	Leonardo Mazza Pieter de Pous
Contact email address:	leonardo.mazza@eeb.org Pieter.depous@eeb.org
Contact telephone number:	+ 32 (0)2 289 10 93 (Leonardo Mazza)
Languages spoken fluently by contact person:	English, French, German
Language for the interview if it is not possible to conduct it in English	n/a
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
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:	

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 reports⁶.

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:

The overall objective of the two directives is to ensure that the species and habitat types they protect are maintained, or restored, to a favourable conservation status throughout their natural range within the EU.

There is plenty of evidence, that the Birds and Habitats Directives, where properly implemented, have proven to be extremely effective at improving the status of species and habitats at the EU although overall, it is not yet possible to see this reflected in longer term trends as we are only into the second reporting cycle that has established conservation status and implementation is still not done properly everywhere across the EU. According to the latest results from the article 17 report of the Habitats Directive **only 16% of European Habitats and 23% of species of community interest are in favourable conservation status**⁷. These are preliminary results from the "State of Nature" report expected to be published during the upcoming months. These percentages of course need to be compared to the conservation status of these habitats and species at the time these Directives were introduced. Initial indications from the Article 12 (BD) and 17 (HD) reports are that the **percentage of habitats and species in Favourable Conservation Status has not changed significantly overall since the first reporting on status while the percentage of habitats and species in Unfavourable Conservation Status has increased**, albeit by a percentage that corresponds to the decrease in the percentage of "Unknown" assessments for Habitats and species. i.e. our knowledge of biodiversity in the EU has improved..⁸

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 [Presentation by the EC at the Nature Directors Meeting in Rome in November 2014.](#)

⁸ <http://bd.eionet.europa.eu/activities/Reporting/Introduction>

This should not be interpreted as a lack of effectiveness of the Birds and Habitats Directive however.

Overall it emerges that **through the introduction of the BHD progress on halting loss has been achieved but performance on improving the status of many species and habitats in bad status has been relatively limited.** Looking beyond this report it is also worth acknowledging other evidence which suggest that **species in Annex I are doing better than species that are not in Annex I of the Habitats Directive.** Also, **the trend of species protected under the BHD is better inside the EU than it is for the same species outside the EU.**

There is also **plenty of evidence that shows that, where properly implemented, the protection regime the BHD introduces, for example through the designation of Natura 2000 areas, yields positive results for the conservation status of habitats and species targeted.**

- A paper by Paul Donald et al. Published in Science for example shows that **where implemented properly the Birds Directive is proving effective at improving the status of Bird species across the EU, and that Natura 2000 sites are playing a key role in this.**⁹ Gruber et al have also shown that the Natura 2000 sites are highly effective in minimizing the number of endangered species of concern to European conservation¹⁰.
- BirdLife's Birds in Europe report found, based on its own assessment criteria, that in 1994 38% of Europe's avifauna had an unfavourable conservation status, while 16% were assessed as being in favourable conservation status¹¹. BirdLife's 2004 Birds in Europe report¹² found that the situation had worsened, and 43% of Europe's avifauna had an unfavourable conservation status, while 18% were now in favourable conservation status. While this clearly is an overall negative trend the evidence however also suggests that the **status of bird species that were strictly protected under the Birds Directive was more likely to improve than the one of more common bird species not benefitting from the same high level of protection under the Directives.** Especially the SCAs and SPAs established under the Directive seem to make a noticeable contribution to improving the status of specific species. A study of population trends for all wild birds in Europe since 1970¹³ has shown how important the Birds Directive has been for these birds, especially those on Annex I. **The rate of recovery of Annex I species has been significantly greater inside the EU than outside, and within the EU has been greater for Annex I species than species not listed on the Annex**¹⁴. The role of protected areas in this recovery is critical. The greater the area of SPAs, the stronger the recovery, especially for the rare and vulnerable species on Annex I. This was borne out by evidence that these **trends were more positive in those countries that designated larger areas of**

⁹ <http://www.sciencemag.org/content/317/5839/810.abstract>

¹⁰ http://ec.europa.eu/environment/integration/research/newsalert/pdf/320na1_en.pdf

¹¹ <http://www.birdlife.org/europe-and-central-asia/news/birds-europe-population-estimates-trends-and-conservation-status>

¹² BirdLife International (2004) Birds in Europe: population estimates, trends and conservation status. Cambridge, UK. BirdLife International.

¹³ <http://www.sciencemag.org/content/317/5839/810.abstract>

¹⁴ Paul F. Donald, Fiona J. Sanderson, Ian J. Burfield, Stijn M. Bierman, Richard D. Gregory, Zoltan Waliczky (2007). International Conservation Policy delivers benefits for birds in Europe. Published in: Science, Vol 317: 810-813. <http://www.monitoringmatters.org/publications/Science%20Donald%20paper.pdf>

SPAs.

- Scientists also established that we are currently witnessing a **comeback of large carnivores in Europe which they attribute to “pan-European legislation which has protected large carnivores, particularly the (...) EU’s Habitats Directive”**.¹⁵ Data collected on brown bears, Eurasian Lynx, grey wolves and wolverines show that most populations are now recovering from historically low levels recorded during the 1950s-1970s and that no medium or large populations are declining.
- A recent report titled, “Wildlife Comeback in Europe”¹⁶ on the **recovery of selected mammal and bird species, found that, “wildlife comeback in Europe since the mid-20th century appears to be predominantly due to species protection and active targeted conservation (both birds and mammals), habitat management and site protection (birds) and legal protection (both).”** The Authors concluded that, “The case studies of wildlife comeback presented in this report seem to vindicate decades of conservation efforts in Europe. Sound legislation such as the Birds and Habitats Directives have led to better hunting regulation, species and site protection and focusing of conservation investments. They show that with sufficient resources and appropriate efforts, species can be brought back, even from the brink of extinction.” The report includes accounts for 18 species of European mammals, and 19 species of birds.
- An **assessment of ‘The Added value of the Habitats Directive’** which assesses whether biodiversity is better protected since the Directive entered into force comes to the conclusion that **“The Habitats Directive (...) has contributed to substantial improvements – and prevented further degradation – to biodiversity”**. This conclusion is based primarily on the demonstration of the innovative approach and tools that the Directive introduced, a quantitative indicators such as the increase in areas under protection since the adoption of the Habitats Directive and the trends in land use changes in those areas compared to changes outside those areas (analysis from land use cover change over the last 20 years shows that Natura 2000 areas are affected to a lesser extent than non-protected areas by drivers of biodiversity loss such as agricultural intensification, abandonment of land or urban expansion) and trends relating to species (“several studies indicate that common bird species and bats are more abundant in Natura 2000 than outside the network, and that sites also benefit species that are not targeted by the directive”).¹⁷

In addition it is worth singling out the **positive effect of the Birds Directive on hunting, in particular of migratory birds**. Practices and methods used are very different today than they were at the time the Birds Directive was introduced. There is still a lot of illegal activity but when compared to the time when a lot of activity was legal the **effect of the Directive is spectacular – both in terms of changing habits and in positive effects for specific bird populations which suffered much from uncontrolled hunting at the time** (storks, flamingos, birds of prey, etc.). It is quite clear that these developments wouldn’t have happened in the absence of the Birds Directive as in a range of cases the EU had to take countries to court in order for them to fully implement the Directives.

¹⁵ http://ec.europa.eu/environment/water/water-framework/impl_reports.htm#fourth (Chapron, G. et al (2014) Recovery of large carnivores in Europe’s modern humand-dominated landscapes. Science 346.

¹⁶ Deinet, S., Ieronymidou, C., McRae, L., Burfield, I.J., Foppen, R.P., Collen, B. and Böhm, M. (2013). Wildlife comeback in Europe: The recovery of selected mammal and bird species. Final report to Rewilding Europe by ZSL, BirdLife International and the European Bird Census Council. London, UK: ZSL <http://www.zsl.org/sites/default/files/media/2014-02/wildlife-comeback-in-europe-the-recovery-of-selected-mammal-and-bird-species-2576.pdf>

¹⁷ Romao, Carlos (2015) *The added value of the Habitats Directive* in The Habitats Directive in its EU Environmental Law Context, Eds Charles-Hubert Born et al., Routledge, London

Significant progress has of course also been achieved in establishing a network of protected areas. The Natura 2000 network has added 10% of European Territory as protected areas¹⁸, with huge historical increases in for example Estonia and Austria as a direct consequence of the nature legislation. The designation of SCIs/SACs under the Habitats Directive has seen good progress as well. There is evidence that the Natura 2000 network does effectively cover species of European interest^{19,20} including non target species²¹.

The limited overall progress towards achieving the above described objective is mostly a result of inadequate implementation (transposition, enforcement, financing, practice) and the adverse effects of (non environmental) policies and other non-policy drivers which undermine and/or offset the positive effects of the Birds and Habitats Directives on species and habitats. A whole range of Member States have delayed implementation of the Directives, which resulted in a delayed delivery of its positive effects – as mentioned above where sensible implementation has been put in place the effectiveness in achieving the BHD objectives was high.

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:

As regards the **Birds Directive**, initial expectations at EU level at the time the Birds Directive entered into force were largely focused on the need to **harmonize rules governing the hunting of migratory birds and tackle the widespread, large scale and unsustainable persecution of birds, especially in Mediterranean countries**²². The Birds Directive successfully improved sustainability of hunting practices by reducing the number of species subject to legal hunting and the length of the hunting seasons. It has outlawed the use of unselective methods for killing of wild birds such as poisoning. A similar improvement in the regulation of hunting on mammals has been brought about by the Habitats Directive. A scientific study on the recovery of wildlife suggested that persecution was one of the most frequent reasons for historical declines, and that legal protection under

¹⁸ European Environment Agency (2012). Protected areas in Europe - an overview. Luxembourg: Publications Office of the European Union.

http://www.eea.europa.eu/publications/protected-areas-in-europe-2012/at_download/file

¹⁹ Gruber B, Evans D, Henle K, Bauch B, Schmeller D, Dziok F, Henry P, Lengyel S, Margules C, Dormann C (2012) "Mind the gap!" – How well does Natura 2000 cover species of European interest? Nature Conservation 3: 45-62. <http://natureconservation.pensoft.net/articles.php?id=1335>

²⁰ Evans D (2012) Building the European Union's Natura 2000 network. Nature Conservation 1: 11–26. <http://natureconservation.pensoft.net/articles.php?id=1329>

²¹ Pellissier V., Schmucki R., F., Jiguet, R., Julliard, J., Touroult, Richard D., and D. Evans (2014). The impact of Natura 2000 on non-target species, assessment using volunteer-based biodiversity monitoring. ETC/BD report for the EEA.

http://bd.eionet.europa.eu/Reports/ETCBDTechnicalWorkingpapers/Impact_Natura%202000_non-target_species

²² Meyer. JH (2013). Getting started: Agenda-setting in European Environmental Policy in the 1970s. Published in: Johnny Laursen (ed.), The Institutions and Dynamics of the European Community, 1973-83, Baden-Baden: Nomos, March 2013.

http://pure.au.dk/portal/files/52042561/Meyer_2013_Getting_started.pdf

the Birds (and Habitats) Directive is a key driver for wildlife comeback²³.

The Habitats Directive was also intended to boost site protection in the EU and has been very successful in that sense (see responses to S1.1). Although no deadlines are set in the Habitats Directive for achieving FCS, the HD is very clear in stipulating that Member States need to restore species and habitats to favourable conservation status in case they are not (Art. 4.4), and Commission guidance has clarified that Member States “must clearly show progress in achieving favourable conservation status” for protected habitats and species.²⁴

It is clear that **progress towards the objective has been slower than anticipated but this is due primarily to the fact that the BHD have been transposed and implemented in a suboptimal way** and that this has meant further deterioration of habitats and species before the effective implementation of the protection foreseen in the Directives. **As with most other pieces of environmental legislation progress has been slower than anticipated and both transposition and implementation of the Habitats Directive has been lagging behind the timeline originally anticipated**²⁵ and continues to be unsatisfactory from the point of view of achieving the Directive’s objectives (in particular compared to other EU policies like competition law or farm hygiene rules where Commission enforcement efforts are significantly better resourced). In the context of the Birds and Habitats Directive the reasons for slow progress were on the one hand, the fact that implementation was much slower than expected, site designation and protection in particular were hampered by a severe lack of political will to get serious about conservation and (partly deliberate) misinformation of stakeholders and local population as well the lack of information and data. Many countries for example didn’t have good inventories. In short, the BHD required countries to professionalise their conservation efforts, moving from an approach of conserving nature where it was politically convenient to taking a science based approach to conserving nature where it’s actually present and valuable also when this is politically inconvenient.

The **unsatisfactory implementation already started with the deadline for legal transposition of the Habitats Directive which was meant to be June 1994, but no Member State met this deadline or that for proposing a set of sites (1998). Every deadline in the Directive was missed by most if not all “old” Member States.**²⁶ While the Ministry of Environment (or equivalent) is the responsible government body in many countries it remained unclear for a long time who is really responsible for management planning, for overseeing that the management measures are taken and for carrying out the actual management work. Drawing up management plans is not obligatory under the Habitats Directive but it is one of the options to organize the management of Natura 2000 sites. In 2011 actual progress with management planning still showed great differences within Europe and while some countries who opted for the management plan approach had completed management planning for a large number of Natura 2000 sites (eg France, Austria or Sweden) a number of countries who have opted for management plans had developed plans for less than 10% of their Natura 200 sites and had not even started drafting or consultation processes²⁷. **Some actions (e.g. designation in marine environment and effective management measures to secure habitat and species maintenance and**

²³ Deinet, S., Ieronymidou, C., McRae, L., Burfield, I.J., Foppen, R.P., Collen, B. and Böhm, M. (2013). Wildlife comeback in Europe: The recovery of selected mammal and bird species. Final report to Rewilding Europe by ZSL, BirdLife International and the European Bird Census Council. London, UK: ZSL

<http://static.zsl.org/files/wildlife-comeback-in-europe-the-recovery-of-selected-mammal-and-bird-species-2576.pdf>

²⁴ <http://ec.europa.eu/environment/nature/natura2000/management/docs/FAQ-WFD%20final.pdf>

²⁵ WWF European Policy Office (2001). A Race to protect Europe’s Natural heritage: European snapshot report on the status of implementation of the Habitats Directive.

<http://awsassets.panda.org/downloads/raceprotect.pdf>

²⁶ <http://awsassets.panda.org/downloads/raceprotect.pdf>

²⁷ EEB (2011) Where there is a will there is a way: Snapshot report of Natura 2000 management, URL: <http://www.eeb.org/EEB/?LinkServID=5CC039F5-5056-B741-DBFACCB777CA4E16>

restoration) still not fulfilled.²⁸

The result of the **slow transposition and patchwork implementation is that the effects of the Directives were considerably diminished compared to their potential**. This has also contributed to the EU 2010 Biodiversity Target being missed²⁹. Member States have however recognized that this does not mean that the Directives are not fit for purpose and recognised that, on the contrary, protected areas and ecological networks are a cornerstone of efforts to preserve biodiversity, and called for full implementation of the Nature Directives.³⁰

In addition, **the habitats and species protected under the BHD may also take more time to recover than originally anticipated**. IUCN carried out a study on the species on its red list and calculated the time that it takes for a species on average to move up and down on the list: it concludes that 16 years is a reasonable timeframe to expect change. Nature doesn't change over night when it comes to improvements of its condition and stabilisation can already be considered relatively good given historical trends. **Experience with implementation of the Directives have also shown that while some species and habitats can recover within a few years of appropriate management being put in place, for others decades or even centuries might be needed** to recover from past damage. For example research has shown that the rate of recovery of peatlands from burning may be up to 500 years³¹.

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 overall objective of the two directives is to ensure that the species and habitat types they protect are maintained, or restored, to a favourable conservation status throughout their natural range within the EU.

For some species and habitats objectives have been attained, 17% of habitats and species protected under the Habitats Directive were assessed as being in favourable conservation status across the EU in 2006³². At the same time, for a majority of species and habitats improvements have been rather slow and limited. **Given the slow progress described above (see S1.1.) and the poor state of many of the habitats and poor status of many of the species when the directives were first adopted**, and the scale and persistence of various pressures on biodiversity that are outside the scope of these Directives, at the current rate of progress, **it is likely to take at least a few decades before the majority of species and habitats achieve favourable conservation status**.

²⁸ http://www.ieep.eu/assets/277/Article_12_report.pdf

²⁹ <http://data.consilium.europa.eu/doc/document/ST-13991-2010-INIT/en/pdf>

³⁰ <http://data.consilium.europa.eu/doc/document/ST-7536-2010-INIT/en/pdf>

³¹ Lindsay, R. (2010). Peatbogs and carbon: A critical synthesis to inform policy development in oceanic peat bog conservation and restoration in the context of climate change. Environmental Research Group – University of East London. Page 217 et seq.: http://www.rspb.org.uk/Images/Peatbogs_and_carbon_tcm9-255200.pdf

³² http://ec.europa.eu/environment/nature/knowledge/rep_habitats/index_en.htm

The **scale of funding**, the speed with which the integration of biodiversity into other policy areas is progressing and levels of **human resources** devoted to implementation and enforcement at Member State and EU level **would all have to increase significantly to move faster towards the achievement of the objectives**. The Directives will have fully achieved their objectives when all important biodiversity is restored to a good status, corresponding roughly to the EU's biodiversity vision for 2050. The concrete speed of achieving this, will depend partly on how thoroughly they will be implemented by authorities, and partly on the speed of reform of other policies, subsidies etc.

There is **no objective reason, however, why in the future progress could not be faster than it has been in the last two decades**. Achievement of main objectives is dependent on a range of variables: funding / sectoral integration / implementation / enforcement.

The **Birds Directive Article 12 and Habitats Directive Article 17 Reports** will show the progress made by Member States towards achievement of adequate population levels and favourable conservation status at EU level. These reports **will also show where significant gaps in implementation remain**, for example in the designation and management of SACs. **Ensuring that all Member States fulfil their obligations** under the Directives on conservation measures and species protection and recovery, **could significantly speed up achievement of objectives**. **Some of the variables that will determine the time it will take to meet the objectives are within the hands of the Commission** (eg CAP reform, LIFE funding) whereas others lie primarily in the hands of MS (establishing management plans, defining FCS etc). The impact on wildlife of perverse subsidies promoted under the EU's sectoral policies, including the Common Agricultural Policy (CAP)³³, Common Fisheries Policy (CFP)³⁴ and Regional Policy³⁵ is well charted. While some improvements have been made to CFP, the opportunity to reform the CAP has been missed in this EU budget round, and the impacts of unsustainable farming on biodiversity³⁶ are likely to continue and intensify. The latter not only because of a failure to adequately reform farm policies but also because of the continuous effect of EU biofuels policy that's driving up demand for crops and driving for example conversion of grasslands into arable land.

What is clear is that **both at EU and MS level, there is still much room to make better use of synergies between biodiversity and other policy-objectives**. Mainstreaming biodiversity into other policy-areas and getting serious about root and branch reform there would speed up progress towards achieving the directive's objectives.

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?

³³Boccaccio, L., Brunner, A. and Powell, A. (2009). Could do better: How is EU Rural Development policy delivering for biodiversity? Birdlife International:

<http://natura2000.ro/wp-content/uploads/2014/10/Report.Could.Do.Better.Natura2000.En.pdf>

³⁴BirdLife Europe (2015). Towards sustainable fisheries policy in the EU. Retrieved from BirdLife Europe website:

<http://www.birdlife.org/europe-and-central-asia/towards-sustainable-fisheries-policy-eu>

³⁵Brunner, A., Campos, B., Godinot, S., Kalinka, P., Kedzierski, A., Palasi, JP., Riley, B., Trilling, M. and Torkler, P. (2010). Changing Perspectives: How the EU Budget Can Shape a Sustainable Future. Stichting BirdLife Europe:

http://www.wwf.de/fileadmin/fm-wwf/Publikationen/PDF/Changing_Perspectives_EU_budget_for_a_sustainable_future_engl..pdf

³⁶ European Bird Census Council. (2011). Trends of common birds in Europe, 2011 update. Retrieved from EBCC website: <http://www.ebcc.info/index.php?ID=457>

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:

The Directives make **important contributions to meeting the objectives and several targets of the EU Biodiversity Strategy Objectives**. The Nature Directives are by far the most important and most concrete instrument at EU level to safeguard biodiversity and associated ecosystem services. They are **essential not only for achieving Target 1 of the Biodiversity Strategy, but also for Targets 2-6, to varying degrees**. By highlighting where Europe's most threatened habitats and species are to be found they **help target the efforts required to achieve most of the Strategy's objectives using scarce resources effectively** (eg, maintaining and restoring ecosystems, halting the loss of biodiversity and ecosystem services, combating invasive alien species, etc). In particular the monitoring that is carried out in the context of the Directives provides valuable information that helps support the implementation of the Biodiversity Strategy.

One of the reasons why the nature Directives can also be seen as supporting objectives relating to the maintenance and the enhancement of ecosystem services (ie target 2) is that there is **scientific evidence that shows that the Directives work not only for target species³⁷ but also for non-target species³⁸** (Fred Jiguet paper), thus contributing to overall ecosystem resilience and thus increasing the insurance value as regards the future provision of ecosystem services. This is also called the **umbrella effect that certain species have** which implies that measures to protect one specific species or habitat will have positive effects on a wider number of species not directly targeted by the measures put in place to improve the conservation status of the protected species. In the long term **this effect, as well as the contribution in terms of landscape connectivity provided by the Natura 2000 network, will be even more important in light of climate change - scientific studies have established that Protected Areas remain a key conservation tool in the face of climate change**, enabling species to adapt to shifting range envelopes and other climate impacts.³⁹

As regards the **contribution of the Nature Directives towards ensuring biodiversity more generally** (beyond the Biodiversity strategy's objectives and targets) it must be noted that the Directives make a contribution since:

- Role of protected areas in biodiversity conservation is scientifically proven, delivering benefits for both habitats and species;
- Effective nature conservation requires a coordinated international approach given that nature does not respect borders (e.g the needs of migratory species);
- The pan-EU approach to nature conservation introduced by the Nature Directives is essential for effective nature conservation efforts since (a) it establishes a much needed level playing field, ensuring that no Member State can secure a short-term competitive advantage at the expense of its wildlife; (b) Pan-EU approach ensures conservation efforts by one MS are not undermined by unsustainable practices

³⁷ <http://www.sciencemag.org/content/317/5839/810.abstract>

³⁸ V. Pellissier et al. Assessing the Natura 2000 network with a common breeding birds survey, Animal Conservation 16 (2013) 566–574. <http://onlinelibrary.wiley.com/doi/10.1111/acv.12030/abstract>

³⁹ <http://www.pnas.org/content/109/35/14063.short>

elsewhere.

As regards specific targets the following contribution must be acknowledged:

- For **target 3** (Increase the contribution of agriculture and forestry to maintaining and enhancing biodiversity), Directives establish framework for action and monitoring in delivering improvements in the conservation status of agricultural and forest species.
- For **target 4** (Ensure the sustainable use of fisheries resources), Directives establish basis for the creation of marine protected areas, which have a crucial role to play in delivering sustainable fisheries, and protecting marine animal and bird species.
- For **targets 3 and 4**, while Directives have been integrated into the CAP to a limited extent and Marine Strategy Framework Directive, inadequate implementation by Member States has significantly limited the contribution of the Directives to protecting biodiversity in the wider countryside, and a key provision for cross-compliance on Article 5 of the Birds Directive has been removed from the new CAP⁴⁰. The tools for delivering conservation in the wider countryside exist in the Directives, but Member States have been implementing them poorly in general and the Commission has only taken legal action once on Article 3 of the Birds Directive⁴¹.

Other aspects concur to making the Nature Directives a central element in achieving the overall objective of the Biodiversity Strategy as well as reaching individual targets of the Strategy:

- **Birds and Habitats Directives complement nature conservation efforts in the wider countryside**, by protecting hotspots of biodiversity, which serve as pools of species that can colonise beyond the Natura 2000 sites.
- EEA report⁴² confirms that “the abundance of a large number of bird species is higher inside than outside the Natura 2000 network, showing that the Natura 2000 areas designated upon the presence of targeted bird species listed in Annex I of the Birds Directive also harbor a substantial number and population of common bird species”.
- Much of the Natura 2000 network is on farmland, and so the Directives play a **key role in protecting farmland and forest biodiversity**.
- **Birds and Habitats Directives play a key role in maintaining habitats and species, but also in delivering restoration of degraded habitats and depleted species populations**. They therefore complement efforts to tackle pressures on wildlife, including climate change and invasive alien species.
- In a number of Member States, such as the UK, changes made to national law in order to comply with the requirements of the Birds and Habitats Directives have also improved the legislative framework for wider conservation efforts at national level

The many reasons mentioned above have been acknowledged by the **European Parliament⁴³ and EU Member States⁴⁴ which have recognised that the Birds and**

⁴⁰ The European Parliament and The Council of the EU(2013). REGULATION (EU) No 1306/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 December 2013: on the financing, management and monitoring of the common agricultural policy and repealing Council Regulations (EEC) No 352/78, (EC) No 165/94, (EC) No 2799/98, (EC) No 814/2000, (EC) No 1290/2005 and (EC) No 485/2008. Joint statement by the European Parliament and the Council:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:347:0549:0607:en:PDF>

⁴¹ ECJ (2002). Commission of the European Communities v Ireland. Failure by a Member State to fulfil its obligations - Directives 79/409/EEC and 92/43/EEC - Conservation of wild birds - Special protection areas. Case C-117/00. Delivered in open court in Luxembourg on 13 June 2002:

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62000CJ0117&from=EN>

⁴² http://bd.eionet.europa.eu/Reports/ETCBDTechnicalWorkingpapers/PDF/Impact_of_Natura_2000_on_non-target_species

⁴³ http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/EP_resolution_april2012.pdf

Habitats Directives are the cornerstone of EU efforts to conserve biological diversity. Member States have acknowledged the very important role of the BHD Directives in Council Conclusions on the EU Biodiversity Strategy to 2020 in which they stated that the Council “Agrees that full implementation of the EU environment acquis, and in particular the EU Birds and Habitats Directives, is essential for the achievement of the new EU 2020 Biodiversity targets”⁴⁵

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:

A wide range of negative factors have undermined progress towards achieving the BHD objectives. As mentioned above (see S 1.2.), slow and patchy implementation has been an important factor as well as the negative effects of a range of (non-environmental) policies, both at EU and MS level, on biodiversity and habitats both outside and within Natura 2000 protected areas.

As regards factors that have undermined achievement of the Directive’s objectives, the key ones can be summarised as follows:

- **Delayed transposition** – Many member states failed to properly transpose the Directives into national law by the due date, some only did so when taken to court by the European Commission.⁴⁶
- **Slow implementation** – Most Member States failed to implement the measures set out in the Directives by the deadlines originally set. Some measures, for example the designation of Natura 2000 sites in the marine environment, have in many cases still not been completed.
- **Inadequate funding** – Member States and the EU have failed to dedicate sufficient resources to the establishment and management of the Natura 2000 network, and the conservation of European Protected Species⁴⁷. A lack of mechanisms for tracking funding earmarked for biodiversity conservation under EU sectoral funds is a further problem⁴⁸.
- **Unambitious approach to implementation** – some Member States have adopted a bare minimum approach to implementation, to the extent of intentionally breaching EU Nature Laws, resulting in poor outcomes for nature conservation, but also uncertainty, delay and additional cost for business.
- **Policies both at EU and MS level offsetting improvements resulting from BHD implementation** – Many policies which have adverse effects on biodiversity have not been reformed (eg CAP) and new ones further increasing the pressures on

⁴⁴ <http://data.consilium.europa.eu/doc/document/ST-7536-2010-INIT/en/pdf>

⁴⁵ <https://www.cbd.int/doc/nbsap/EU-council-conclusions-2020-strategy.pdf>

⁴⁶ <http://awsassets.panda.org/downloads/raceprotect.pdf>

⁴⁷ <http://www.ieep.eu/publications/2011/03/financing-natura-2000>

⁴⁸ http://ec.europa.eu/environment/nature/natura2000/financing/docs/financing_natura2000.pdf

biodiversity in particular outside protected areas have been introduced (EU biofuels policy)

The **unsatisfactory implementation already started with the deadline for legal transposition of the Habitats Directive which was meant to be June 1994, but no Member State met this deadline or that for proposing a set of sites (1998). Every deadline in the Directive was missed by most if not all “old” Member States.**⁴⁹ While the Ministry of Environment (or equivalent) is the responsible government body in many countries it remained unclear for a long time who is really responsible for management planning, for overseeing that the management measures are taken and for carrying out the actual management work. Drawing up management plans is not obligatory under the Habitats Directive but it is one of the options to organize the management of Natura 2000 sites. In 2011 actual progress with management planning still showed great differences within Europe and while some countries who opted for the management plan approach had completed management planning for a large number of Natura 2000 sites (eg France, Austria or Sweden) a number of countries who have opted for management plans had developed plans for less than 10% of their Natura 200 sites and had not even started drafting or consultation processes⁵⁰. **Some actions (e.g. designation in marine environment and effective management measures to secure habitat and species maintenance and restoration) still not fulfilled.**⁵¹

The limited access to Environmental Justice, which could have speeded up implementation, has been a problem – citizens and NGOs have in many Member States no legal standing, face excessive cost, or have no effective way of challenging decisions and there are major problems with the handling of complaints in many Member States, including with transparency and accountability. This has in its turn led to a large number of complaints to the Commission, while resolving complaints at the national level would be quicker and more efficient.

Enforcement is a particular problem. A study by IMPEL showed that illegal activities and a lack of respecting of permit conditions are a frequent problem in Natura 2000 sites, and that human and financial resources for enforcement are the biggest challenge in enforcement, suggesting that Member States do not allocate sufficient resources to enforcement.

The Commission has taken a large amount of much needed **legal action for the implementation contributing to better implementation**, however there has also been at least one case of legal action not forthcoming as a result of direct political interference from the political top of the Commission (the Sabor dam in Portugal).⁵²

In addition to the above factors, which have more directly something to do with the BHD themselves, maybe the most important factor impeding success has been the failure to mainstream biodiversity into a range of key sectoral policies, with the notable example of the **EU's Common Agricultural Policy** (see answers in the coherence section). The loss of grasslands in Natura 2000 sites has been significantly accelerated by the failure of providing farmers with adequate incentives for keeping instead of converting their land into arable fields. On the other hand subsidies (e.g. in Germany for biogas production) have fuelled habitat change. In combination with weak enforcement this has led to a dramatic

⁴⁹ <http://awsassets.panda.org/downloads/raceprotect.pdf>

⁵⁰ EEB (2011) Where there is a will there is a way: Snapshot report of Natura 2000 management, URL: <http://www.eeb.org/EEB/?LinkServID=5CC039F5-5056-B741-DBFACCB777CA4E16>

⁵¹ http://www.ieep.eu/assets/277/Article_12_report.pdf

⁵² https://circabc.europa.eu/sd/a/613bb4fa-ab43-4a14-8f68-f7a8b6f7e0c0/2011_Jackson.pdf

decline of grasslands in Germany and elsewhere.

An **emerging impeding factor** is the recent **excessive focus on a very narrow set of objectives at EU level: job creation and GDP growth. Decoupling the economy from resource use and environmental impacts** – an objective committed to at EU level (e.g. the Europe 2020 Strategy, the 7th Environment Action Programme) and internationally (e.g. the OECD's 2011 Environmental Strategy) – appears to be no longer on the EU's agenda despite the fact it is **widely recognised an imperative for the long-term sustainability of our economies**, given resource and ecosystem limits and planetary boundaries⁵³. While the previous Commission appeared committed to the objective but unable to take the necessary measures, the **new Commission appears in complete denial that physical expansion of the economy (physical growth) is bound by limits** (often referred to as 'planetary boundaries'⁵⁴). Unfortunately, the policies to deliver the required scale of decoupling have not been put in place as of today, nor have meaningful targets been set at EU level. If jobs and growth continues to be pursued at all costs, this **will further undermine achieving biodiversity targets and sustainable development objectives** more generally.

As regards **factors that have positively contributed to the implementation of the Directives** and achieving its objectives these have included:

- Action by stakeholders bringing specific cases to attention of European Commission and European Parliament has helped protect individual sites and secured conservation outcomes.
- The publication of guidance documents to a limited extent and, much more importantly legal action by the Commission against Member States for non-transposition and inadequate implementation has been essential for enabling, or where necessary compelling governments to fulfil their commitments under the legislation.
- Government and Stakeholder-led projects facilitated by LIFE programme have been crucial for species and site conservation (Bittern, Donana etc)⁵⁵
- Cooperation between business and conservation NGOs (CEMEX⁵⁶, Heidelberg Cement⁵⁷, UK Ports Sector) has delivered benefits for nature conservation, and also demonstrated that responsible business not only wants to engage with the Directives, but also finds them no barrier to their business operations. Businesses that seek to evade or subvert nature conservation legislation are rightly subject to legal challenge.

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.

⁵³ Jeffrey Sachs (2015) The age of sustainable development, URL: <http://cup.columbia.edu/book/the-age-of-sustainable-development/9780231173155>

⁵⁴ Rockström, Johan, Will Steffen, Kevin Noone, Åsa Persson, F. Stuart Chapin, Eric Lambin, Timothy M. Lenton, et al. 2009. "Planetary Boundaries: Exploring the Safe Operating Space for Humanity." Ecology and Society 14(2): 32.

⁵⁵ <http://ec.europa.eu/environment/life/project/Projects/>

⁵⁶ <http://www.birdlife.org/worldwide/cemex-birdlife-international-global-conservation-partnership-programme-2007-2017>

⁵⁷ <http://www.birdlife.org/europe-and-central-asia/partnership-heidelbergcement>

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 Directives have brought many positive effects towards meeting the objectives of the Directives, but also **many positive side-effects supporting policy objectives beyond Nature Conservation**. Long before the term sustainability became popular, the Directives put it into practice, by creating a framework within which the environmental, economic and social dimensions can be integrated in a sustainable way that ensures nature is given the adequate attention that its dire state required.

The **establishment and management of the Natura 2000 network, where done correctly, can be expected to have important employment benefits**. This can be considered a positive side-effect, especially when one considers the variety and quality of jobs generated, some of which requiring lower levels of skills and other higher levels of skills/education. ICF GHK (2011)⁵⁸ examined the employment effects of EU budgetary investments in the Natura 2000 network as a whole, and estimated that a total of almost 30,000 FTE jobs are supported by each €1 billion of investment in the implementation and management of the network. Sixty per cent of these jobs are direct employment in the conservation of Natura 2000 sites, and the remainder are jobs in the wider economy resulting from expenditures on the network. A recent report for DG Environment estimated that the full implementation and management of the Natura 2000 network can be expected to directly support 122,000 FTE jobs⁵⁹ and Gross Value Added of €3.05 billion in the regions in which sites are located, helping to provide a new source of income for land owners and managers and to diversify the rural economy. Taking account of indirect and induced effects (through purchased inputs and employee expenditures), the total impact at the EU level is estimated to be to support 207,400 FTE jobs and GVA of €5.2 billion at the EU level⁶⁰. In Spain the implementation of Natura 2000 network was considered to have positive impacts on GDP in Spain, with an estimated increase in GDP between 0.1 - 0.26 per cent at national level. It was estimated that the network would generate an additional 12,792 jobs to the country (Fernandez et al., 2008). A study of the economic value of protected areas in Wales concluded that they directly or indirectly support nearly 12 000 jobs.⁶¹

In addition, **many of the ecosystem service benefits of Natura 2000, such as carbon storage, water retention, and recreational benefits were not really an issue at the time the directives were developed**. Recent research has shown that overall, **the ecosystem service benefits from Natura 2000 are of the order of €200 to 300 billion/year**.⁶² See response to question Y1 for more evidence of the benefits provided by the BHD.

EU-wide approach to nature conservation rules has also improved the Europe's competitiveness by providing a clear and predictable framework within which businesses operating across borders can operate. It also helped them **save resources** compared to a situation in which they would have had to comply with a different nature

⁵⁸ GHK (2011) Evaluating the potential for Green Jobs in the next Multi-annual Financial Framework, London, the UK.

⁵⁹ GHK et al (2010) Economic Benefits of Environmental Policy. Report for DG Environment

⁶⁰ Based on a multiplier of 1.7 (direct + indirect + induced to direct effects) for natural resource based activities from modelling work in the GHK et al (2007) study on the links between the environment, economy and jobs

⁶¹ http://www.ieep.eu/assets/1235/guide_multi_benefit_nature.pdf

⁶² Estimating the Overall Economic Value of the Benefits provided by the Natura 2000 Network. Final Sythesis Report to the European Commission, DG Environment on Contract 07.0307/2010/581178/SER/B3, Brussels 2011.

protection regime in each Member State.⁶³

The implementation of the Directives has also fundamentally changed dynamics of dialogue between stakeholders with often conflicting interests to the better (Sustainable Hunting Initiative⁶⁴, Renewable Grid Initiative, Large Carnivore Platform) **solving a number of long-standing conflicts and contributing to social appeasement** (albeit not without some tensions escalating during the transposition phase).

⁶³ <http://www.bis.gov.uk/files/file44583.pdf>

⁶⁴ http://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/index_en.htm

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:

Research carried out over the last few years has demonstrated that the benefits associated by far outweigh the costs. Even if only some of the benefits of BHD implementation can be quantified and expressed in monetary terms the cost-benefit ratio is still very favourable.

As regards the **costs**, a 2010 study commissioned by DG Environment and entitled "Costs and Socio-Economic Benefits associated with the Natura 2000 Network"⁶⁵ estimated the annual costs of implementing the Natura 2000 network at €5.8 billion per year for the EU-27.

As regards the **benefits**, a 2014 study titled "The Economic benefits of the Natura 2000 Network"⁶⁶ found that the benefits that flow from Natura 2000 are of the order of €200 to 300 billion/year. This study estimated that there are between 1.2 to 2.2 billion visitor days to Natura 2000 sites each year, generating recreational benefits worth between €5 and €9 billion per annum.

To name just one specific example: it is estimated that **the Natura 2000 network currently stores around 9.6 billion tonnes of carbon, equivalent to 35 billion tonnes of CO₂**, which is estimated to be worth between € 600 billion and € 1,130 billion (stock value in 2010)¹⁸, depending on the price attached to a ton of carbon (i.e. to reflect the value of avoided damage of climate change by avoided GHG emissions). It can be expected that in the future these carbon values will increase, especially if the conservation status of the network improves⁶⁷.

Benefits assessments have also been carried out at MS level:

In a study from 2011 the UK Department of Environment, Food, and Rural Affairs (DEFRA)⁶⁸ estimated the benefit: cost ratio of the country's biodiversity related legislation, which includes all the rules in place to implement the Nature Directives, to be 9:1 (for the UK). This estimate is largely based on a study to assess the benefits of sites of special scientific

⁶⁵ http://ec.europa.eu/environment/nature/natura2000/financing/docs/natura2000_costs_benefits.pdf

⁶⁶ http://ec.europa.eu/environment/nature/natura2000/financing/docs/ENV-12-018_LR_Final1.pdf

⁶⁷ Estimating the Overall Economic Value of the Benefits provided by the Natura 2000 Network. Final Synthesis Report to the European Commission, DG Environment, Brussels 2011.

⁶⁸ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69226/pb13623-costs-benefits-defra-regulatory-stock110816.pdf

interest published by defra in 2010.⁶⁹

A 2006 study estimated the **average gross benefits provided by Natura 2000 sites in the Netherlands** to be around 4000 EUR / ha / year, calculated as an average of EUR / ha / year benefits from different key Natura 2000 ecosystems. Recreation and tourism as well as wider ecosystem functions were important components of this value. Non-use benefits were also important. The provisioning service of raw materials was of lesser importance in the Netherlands. The authors extrapolated the gross welfare benefits of all Natura 2000 areas in the Netherlands (1.1 million ha), deriving an estimate of around 4.5 billion EUR / year.⁷⁰

Another study carried out for Scotland found that the **protection of all 300 Natura 2000 sites throughout Scotland was estimated to have an overall benefit cost ratio of around 7 over a 25-year period**. This means that overall national welfare benefits are seven times greater than the national costs and represent good value for money. However, about 99 per cent of these benefits (£210 million per year) relate to non-use values. Around 51 per cent accrues as non-use value to the Scottish general public and 48 per cent accrues as non-use value to visitors to Scotland. Around £1.5 million (1 per cent) of the benefits relate to use values (e.g. walking and angling etc).⁷¹

BirdLife's Wellbeing Through Wildlife report⁷² found that Europe's environment and in particular its protected areas is delivering health benefits, ecosystem services, and economic benefits for its citizens. Europeans also value nature not only for these benefits, but also for the intrinsic value of having access to a rich, biodiverse natural environment.

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 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:

The effectiveness of the Natura 2000 network depends to a large degree on the allocation of sufficient resources for its implementation and ongoing protection and management. The **lack of adequate funding (and associated shortage in staff) is one of the main reasons for slow and insufficient implementation of the Directives**.

A 2011 publication⁷³ from EEB found that **in an overwhelming majority of countries general site management and monitoring are lacking financing the most**. Besides this, some countries lack funding of staff to carry out technical work (to draw up plans, carry out EIA) and to work with sectors. Even wealthier regions such as the Netherlands and North Rhine-Westphalia (Germany) seem **unwilling to make funds available to carry out larger restoration projects** (especially where those would involve purchasing land). According to this report, implementing landscape scale measure to improve environmental quality in general in and around Natura 2000 areas (eg nitrogen reducing measures in agriculture and

⁶⁹

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=1&ProjectID=17005>

⁷⁰ http://mkbainderegio.nl/docs/Batenraming_Natura_2000.pdf

⁷¹ http://ec.europa.eu/environment/nature/natura2000/financing/docs/natura2000_costs_benefits.pdf

⁷² http://www.rspb.org.uk/Images/wellbeing_tcm9-148929.pdf

⁷³ <http://www.eeb.org/EEB/?LinkServID=5CC039F5-5056-B741-DBFACCB777CA4E16>

hydrological restoration measures) would also necessitate more resources than those available at the time.

As mentioned above a 2010 study for DG Environment **estimated the annual costs of implementing the Natura 2000 network to be at the minimum €5.8 billion per year for the EU-27.**⁷⁴ It also pointed out, however, that this value should be seen as an **underestimate** as most countries which submitted data in the context of this study focused on historic and/or budgeted expenditures, and fewer provided information on the future needs. This is **nevertheless the figure on which estimates as to how much money should be made available from the EU budget has been based** (Article 8 of the Habitats Directive introduced a requirement for the EU to co-finance the delivery of the network).

As far as EU-funding is concerned it is **not only a matter of budget size** (e.g. of LIFE or 2nd Pillar of the CAP) but just as much **a matter how Member States decide to allocate EU funds that could be used for implementation of the Directives**. In a whole range of Member States the experience after two EU budget periods (2007-2013, 2014-2020) is relatively **negative overall as regards the uptake of funds available to support with the implementation of the Nature Directives**. Thus while in some countries which successfully make use of the available funds these make a important contribution to the implementation of the Nature Directives in other MS the sectoral funds theoretically available have made very little difference on the ground and the lack of earmarking seems to result in underfunding.⁷⁵ A recent report from the European Court of Auditors found that ERDF funding opportunities have not been exploited to their full potential.⁷⁶ The Court reported that, "Not only did many Member States allocate little or no ERDF funding directly to biodiversity, but for those which did allocate funding, the financial uptake was below the average for all cohesion policy funding. Since the beginning of the 2007–13 programming period, the financial uptake for biodiversity projects remained slow, despite the fact that, in 2011, the Commission called for the situation to be rectified".⁷⁷ The **rather limited funding under LIFE** may also have hampered success – one could probably have built on this instrument more given the number of best practice that LIFE projects have generated it could have played a much bigger role in piloting implementation across the EU and thus also have accelerated implementation.

This is why transferring funds to a single dedicated and seriously beefed up EU environment fund is increasingly discussed.

The rise of land prices make voluntary approaches like effective agri-environment schemes more and more costly as they have to compete with more profitable land uses (such as biofuel production) which in part are more competitive due to ill-conceived targets and subsidies set at the EU level.

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 specific 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.

⁷⁴ Gantioler et al. (2010) Costs and Socio-economic benefits associated with the N2K, URL: http://ec.europa.eu/environment/nature/natura2000/financing/docs/natura2000_costs_benefits.pdf

⁷⁵ http://ec.europa.eu/environment/nature/natura2000/financing/docs/financing_natura2000.pdf

⁷⁶ http://www.eca.europa.eu/Lists/ECADocuments/SR14_12/QJAB14012ENC.pdf

⁷⁷ http://www.eca.europa.eu/Lists/ECADocuments/SR14_12/QJAB14012ENC.pdf

Answer:

There are a **number of factors that can explain differences in costs** of implementing the Nature Directives. The most obvious ones include:

- **Unequal distribution of biodiversity** across the member states
- **Diverse national circumstances** (sites type, land use, location, ecological status, pressures, labour and wage costs, management strategies), the level of current data, and different cost assessment approaches and methodologies explain differences in the cost estimates across Member States.⁷⁸
- Differences due to the need to adopt **more expensive restoration measures** in some Member States to bring sites up to FCS, when usually less expensive management measures can be adopted. Logically, countries which destroyed more biodiversity in the past than others (and profited economically from this) are now asked to invest more to restore this. This is no different from the logic used in international climate negotiations about 'shared but differentiated responsibilities'.
- **More or less ambitious approaches to implementation** (which will be reflected in benefits delivered)
- **Implementation failures** are causing significant costs / risks for business⁷⁹, for example where inadequate monitoring of marine environment places burden on renewable energy businesses for finding appropriate sites for wind farms.

Two EU-level studies that can offer insights into the factors that result in differences in costs across EU Member States include:

- Cost and Socio-Economic Benefits associated with the Natura 2000 Network:
http://ec.europa.eu/environment/nature/natura2000/financing/docs/natura2000_costs_benefits.pdf

- Ongoing DG ENV study on differences in costs of implementing EU policy across different EU MS, with a specific section on costs of BHD (unpublished as of mid-March 2015)

Also of relevance in the context of the assessment of costs of biodiversity policy and how to account for differences in costs across different countries is the following report:

- Resourcing the Aichi Biodiversity Targets: **A first assessment of the resources required for implementing the strategic plan for biodiversity 2011-2020:**
<http://www.cbd.int/doc/meetings/fin/hlpgar-sp-01/official/hlpgar-sp-01-01-report-en.pdf>

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:

⁷⁸ http://ec.europa.eu/environment/nature/natura2000/financing/docs/natura2000_costs_benefits.pdf

⁷⁹ <http://www.bis.gov.uk/files/file44583.pdf>

As mentioned above (see eg response to Y1), there is **ample evidence that the benefits by far outweigh the costs of implementing the Nature Directives**. These assessments are based on data from a wide range of EU Member States and suggest that in most if not all cases the measures taken to implement the Directives and meet its objectives are proportionate to the costs they result in. **Evidence suggests that the financial benefits of compliance far outweigh both current expenditure by Member States on nature conservation, and estimates of the financial costs of full implementation**⁸⁰.

The COPI studies which were done for DG Environment in 2008 to support the TEEB exercise provided an insight into the huge costs of policy inaction (COPI) on biodiversity loss estimated that the **continuing loss of biological diversity will cost the global economy up to 14 trillion Euros by 2050, which is equivalent to 7% of the projected global GDP in 2050**.

A more recent (2011) study for DG Environment entitled *The cost of not implementing the environmental acquis*⁸¹ came to the conclusion that **non-implementing the EU Acquis in the area of biodiversity and nature would result in costs of about €50 billion/year for the EU**.

These numbers need to be seen in light of the Stoiber report finding of the **contribution of all environmental regulations on administrative burden on business at around €1.2 billion per annum** (less than 1% of the total estimated administrative burden in the EU)⁸².

A range of actors may perceive the costs as being disproportionate because they are not aware of the multiple benefits associated with the full implementation of the Nature Directives. In addition the costs arising may concentrate on a small group of people or the legislation imposes new costs which previously were borne by society as a whole (with operators basically taking a free ride). It is also **not uncommon for business interest to overstate the costs associated with having to comply with environmental legislation whereas the social and environmental benefits of environmental regulation, against which the costs need to be weighed up, tend to be underestimated**⁸³. In practice, empirical estimates of the costs of regulation are few in number, and overwhelmingly produced by those with some interest in the outcome⁸⁴. Unfortunately, governments often rely on business perception surveys to estimate the costs, which the OECD has question as reliable indicator⁸⁵. Estimates have shown that environmental policy accounts for a relatively low percentage of business costs, typically less than 2% of production value. As mentioned above, **the Stoiber group showed that the whole environmental acquis represents less than 1% of the total estimated 'administrative burden' in the EU**, despite business perceiving the burden to be much higher in this area. In terms of the relationship between environmental regulation and economic growth, there is no evidence to support the assertion that regulation is a break on economic growth. The **OECD also concluded recently**⁸⁶ **that stringent environmental policies can be introduced without hurting overall productivity and that letting up on environmental policies would not necessarily support a recovery**.

⁸⁰ http://ec.europa.eu/environment/nature/natura2000/financing/docs/natura2000_costs_benefits.pdf

⁸¹ http://ec.europa.eu/environment/enveco/economics_policy/pdf/report_sept2011.pdf

⁸² <http://www.eeb.org/EEB/?LinkServID=92DB72A4-5056-B741-DB91E1ED465FE8C4>

⁸³ Dechezleprêtre A. & Sato M. (2014) The impacts of environmental regulations on competitiveness, URL: http://personal.lse.ac.uk/dechezle/Impacts_of_Environmental_Regulations.pdf

⁸⁴ Helm D., 'Regulatory reform, capture, and the regulatory burden', Oxford Review of Economic Policy, 22(2), 2006, p. 175-176

⁸⁵ OECD. (2012). *Measuring Regulatory Performance: A Practitioner's Guide to Perception Surveys*. OECD Publishing.

⁸⁶ <http://www.oecd.org/greengrowth/PB-Green-Growth-EnvProductivity-Dec-2014.pdf>

This is **corroborated by evidence from the UK which suggests that environmental regulation has no negative impact on costs in the long run.**⁸⁷ On the contrary, environmental legislation in many cases actually underpins economic performance. The Aldersgate Group state that “...there is no inherent contradiction between regulating for high environmental standards at the same time as maintaining economic competitiveness and stimulating wealth creation. Quite the reverse: no economic policy which sacrifices environmental quality can succeed in the long term. We have now entered an era where continued economic growth depends more and more on the efficient use of increasingly scarce resources, and on the continued ability of the biosphere to deal with the pollution we create.”⁸⁸

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:

Full implementation delivers full suite of benefits. **Partial implementation not only delivers partial benefits, but can also cause additional costs**, in particular costs for business from uncertainty over the application of EU laws.⁸⁹

There are **many examples that show that the Directives can be implemented in a cost effective way.**

One such example is for instance the Sustainable Catchment Management Programme in the UK.

The Sustainable Catchment Management Programme was devised to ensure the sustainable environmental management of 20,000 ha of water catchment land under United Utilities' ownership in the Peak District and the Forest of Bowland. One of the main drivers was restoration of land with SSSI and SPA status supporting priority habitats such as blanket bog and heather moorland, and home to species such as the hen harrier, curlew and stonechat. Over recent decades, industrial pollution, drainage of the moorland peat, wildfires and agricultural practices have all had a negative environmental impact, affecting the wildlife value of the site. This has contributed to increased discolouration and pollution of water drawn from the catchment, which has to be removed through treatment processes before it is suitable for drinking.

A partnership between United Utilities, the RSPB and local farmers has developed an integrated approach to managing the land which complies with the Habitats Regulations, enhances biodiversity and improves the quality of the water abstracted for drinking, as well as providing an enhanced source of income for tenant farmers. In time healthy peat vegetation will absorb and store vast amounts of carbon and help mitigate the impact of climate change. Bryan Homan, Head of Catchment Operations at United Utilities has said:

⁸⁷ Defra (2010). [Economic Growth and the Environment](#). Defra Evidence and Analysis Series

Paper 2

⁸⁸ Aldersgate Group (2006). [Green Foundations: Better Regulation and a Healthy Environment for Growth and Jobs](#).

⁸⁹ http://ec.europa.eu/environment/enveco/economics_policy/pdf/report_sept2011.pdf

“SCaMP is an innovative long-term catchment management scheme that unites both private and public funding. It is showing early signs of success at improving raw water quality whilst providing a multitude of community and environmental benefits.”

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 costs of non-implementation are very high, and much higher than the costs of implementation (see responses above regarding the costs of implementation).

The COPI studies which were done for DG Environment in 2008 to support the TEEB exercise provided an insight into the huge costs of policy inaction (COPI) on biodiversity loss estimated that the **continuing loss of biological diversity will cost the global economy up to 14 trillion Euros by 2050, which is equivalent to 7% of the projected global GDP in 2050.**

A more recent (2011) study for DG Environment entitled *The cost of not implementing the environmental acquis*⁹⁰ came to the conclusion that **EU's failure to fully implement the Birds and Habitats Directives and to achieve its 2020 biodiversity targets would result in costs of about €50 billion/year for the EU.**

Many of the costs result from the fact that the wide array of ecosystem service benefits delivered by Natura 2000 (see Y1) would be lost resulting in important knock-on costs which would also impair the achievement of policy objectives in other policy areas (eg. failure to achieve EU social / climate / agricultural / fisheries objectives)⁹¹

It is clear that if **economic growth is to be sustained, natural capital has to be safeguarded.**⁹²

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

⁹⁰ http://ec.europa.eu/environment/enveco/economics_policy/pdf/report_sept2011.pdf

⁹¹ http://ec.europa.eu/environment/enveco/economics_policy/pdf/report_sept2011.pdf

⁹² <https://nebula.wsimg.com/17ce16211194bfe53215bb754444686d?AccessKeyId=68F83A8E994328D64D3D&position=0&alloworigin=1>

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 Directives itself have caused or are causing unnecessary administrative burden**. Any unnecessary administrative burden occurred seems to be linked to specific implementation practices or inadequate planning, and could be avoided if another practice was applied (see also responses above).

Evidence from Member State level confirms this. The UK Government's Administrative Burdens Measurement Exercise (ABME), launched in 2005, found that the Habitats Regulations, which implement the Habitats Directive in the UK, accounted for £200,000 worth of the environment ministry's (Defra's) administrative burden, i.e. less than 0.03 percent of Defra's total administrative burden. The Wildlife and Countryside Act 1981 accounted for £500,000 worth of administrative burden, i.e. less than 0.07 percent of Defra's total administrative burden⁹³.

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:

Some Member States have failed to invest in data gathering needed to support efficient implementation. This is reflected in the significant percentage of "UNKNOWN" assessments in Birds and Habitats Directives reporting by Member States.⁹⁴ This is regrettable since the efficiency of implementation could be boosted if certain knowledge gaps were closed – especially since in some cases knowledge gaps increase uncertainty for businesses and cause delays and unnecessary costs. In the context of appropriate assessments there have been cases in which wind energy developers found protected species that had not been identified before. Through a **better knowledge of species and habitats and their distribution a lot of inefficiencies could be avoided downstream** – some delaying factors come from limited knowledge. There are also further inefficiencies in the use of existing data, such as the fact that Member States and Commission have not taken appropriate steps to ensure access to "grey" data gathered by third parties.

It must be pointed out, however, that lack of knowledge is no longer an excuse for non-implementation, **there is sufficient knowledge to accelerate action everywhere**. Failure to act would violate the precautionary principle which has been incorporated in EU treaties⁹⁵ and foresees that "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for

⁹³ <http://archive.defra.gov.uk/corporate/policy/regulat/documents/abme-report0612.pdf>

⁹⁴ http://ec.europa.eu/environment/nature/knowledge/rep_habitats/index_en.htm

⁹⁵ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2000:0001:FIN>

postponing cost-effective measures to prevent environmental degradation.⁹⁶”

⁹⁶ <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>

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 main drivers of biodiversity loss in the EU are land-use change, over-exploitation of biodiversity and its components, the spread of invasive alien species, pollution and climate change⁹⁷. **Directives have helped address these problems effectively, despite inadequate resources and incomplete implementation.**⁹⁸ They have established a flexible legal framework within which the problems and concerns facing species and habitats of EU conservation concern⁹⁹ can be addressed effectively and efficiently (without imposing excessive constraints on business operations)¹⁰⁰.

The **Directives in themselves cannot be expected to fully address all these pressures in a holistic way, however** – but they are addressing the key problems that result on pressures on biodiversity and are able to tackle them in so far as this can be expected from environmental EU legislation (pressures that stem from other sectoral policies have to be addressed by reforming these policies – feel free to provide nationally specific examples).

Full and successful implementation of the Nitrates and Water Directives for example, if properly implemented, would make an important contribution to improving the state of the habitats and species covered under the Directive by tackling the problem of diffuse pollution which in some cases goes beyond the reach of what the Nature Directives in themselves can address.

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 **principles of nature conservation embodied by the Directives** and the science underpinning them are **still fully relevant today**. The Annexes have been adapted as needed - the Birds and Habitats Directive have incorporated new habitats and species of

⁹⁷ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52011DC0244>

⁹⁸ <http://www.sciencemag.org/content/317/5839/810.abstract>

⁹⁹ <http://www.panda.org/?uNewsID=146283>

¹⁰⁰ http://www.birdlife.org/sites/default/files/attachments/2014_10_8%20JOINTAPPEAL-BL-CEM%20%28signed%29.pdf

community importance as a result of successive EU accessions, also ensuring adequate coverage of the Natura 2000 network in the new EU Member States. The **Annexes of the Directives should only be adapted if it can be convincingly demonstrated that there is a clear added value for achieving the strategic objectives of the Directives.**

The **original annexes are not perfect from a scientific point of view because, although based on sound science, they are also the result of a political process.** This would also be the case if the annexes were updated today. However, a range of further, **complementary pieces of EU environmental legislation have been adopted after the Birds and Habitats Directive which altogether now provide a significantly more comprehensive framework of protection which, if adequately implemented (alongside fully implemented Birds and Habitats Directives) will provide significantly improved protection for the species and taxonomic groups that were not originally included in the BHD Annexes.** Particularly crucial for this are the objectives of the **WFD (good ecological status) and the MSFD (good environmental status)** both defined through a comprehensive set of biological, hydro morphological and chemical parameters which, in order to be achieved, would bring many of the aquatic and marine species not covered by the BHD Annexes (for example aquatic invertebrates and mollusks) in good status as well. Full implementation of these Directives and achievement of their objectives, together with the full implementation of the Birds and Habitats Directive in their current form, would do more for these species than their inclusion in the BHD Annexes. **Soil Biodiversity remains a major gap** but a better protection of soil biodiversity **would be best achieved through following-up on the 7th EAP commitment of introducing a binding legal framework to address soil quality issues in a comprehensive way across the countryside,** not through the site based approach of the Habitats Directive.

But also a **better implementation of the BHD would already yield positive results both for habitats and species protected under BHD and biodiversity as a whole since species and sites protected under the BHD have an umbrella effect providing protection to non listed species and habitats.** The Natura 2000 network, which is based on the annexes, does indeed deliver a wide range of benefits for non-target species (see also question S.2). Where site protection and management is properly carried out, sites provide significant umbrella effect protecting also non listed species and habitats. Similarly, again where properly implemented, species protection under the Birds and Habitats Directive brings benefits to habitats hosting the listed species and to other species associated with them.

More targeted interventions are also possible: for example **under the new EU LIFE regulation targeted interventions for biodiversity not on the annexes can be funded.**

In addition, **EU and national sectoral policies**, in particular agricultural policy and spatial planning could usefully be reformed so as to ensure better conservation of species and habitats, also beyond species/habitats listed in the Nature Directives' Annexes, for example through the establishment of green infrastructure as foreseen under target 2 of EU's Biodiversity Strategy.

Any **"update" of the Annexes** would be a distraction from the real challenges: it **would have very limited and uncertain practical benefits** (in particular since the Natura 2000 network already delivers benefits to species not currently protected by the Directives), but would be associated with high risk and uncertainty about future protection regime. Scientists have warned that amending the annexes before 2020 will also hamper coherence by diverting resources away from the achievement of the targets of the Biodiversity Strategy¹⁰¹.

As regards the extent to which the Directives are fit for purpose in light of future climate change: both the **Birds Directive and Habitats Directive are driven by the ecological**

101

http://www.researchgate.net/publication/236680375_Not_the_right_time_to_amend_the_Annexes_of_the_European_Habitats_Directive

requirements of the species and habitats concerned and both build in flexibility to deal with changing environmental circumstances such as climate change:

- the Habitats Directive explicitly defines FCS by reference to the long-term needs of the habitat or species concerned (see Article 1(e) and 1(i) respectively);
- the Birds Directive requires the maintenance of populations at levels that correspond in particular to ecological, scientific and cultural requirements. Population levels must be defined by reference to these requirements. Clearly, if any of the requirements change, e.g. as a result of climate change, the population objectives (such as numbers, range, distribution) will need to be adjusted accordingly.¹⁰²

Finally, **a revision of the annexes also is also likely to face opposition from most of the affected parts of the business sector** which fear that the throwing into question of site designation that would go hand in hand with a revision of the Directives' Annexes would lead to protracted negotiations and conflicts that could block planning procedures for years. Examples includes grid operators as well as the cement industry which have already expressed their opposition to a change in the Nature Directives including their Annexes, as this would threaten planning certainty for their operations.^{103,104}

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:

They Directives are crucial to achieving sustainable development:

- One of the pillars of sustainable development is environment, and the Birds and Habitats Directives represent the cornerstone of EU efforts to deliver environmental sustainability through conservation of biological diversity. They remain central to the achievement of sustainable development in the EU.
- **Directives allow for sustainable development¹⁰⁵, as they do not prevent development, but rather ensure that it is undertaken in a way which is compatible with the protection of wildlife and the right of future generations to be able to meet their needs**
- **Directives also deliver wider environmental and social benefits, including employment¹⁰⁶ and health benefits^{107,108}.**
- **The BHD play a central role in protecting the environment and the natural capital upon which our long-run prosperity ultimately depends. This contrary to**

¹⁰² <http://www.utrechtlawreview.org/index.php/ulr/article/view/119>

¹⁰³ <http://www.cembureau.be/newsroom/cembureau-birdlife-call-no-changes-rules-protect-european-nature>

¹⁰⁴ <http://renewables-grid.eu/publications/rgi-position-papers/open-letter.html>

¹⁰⁵ <http://www.pnas.org/content/109/35/14063.short>

¹⁰⁶ http://ec.europa.eu/environment/nature/natura2000/financing/docs/natura2000_costs_benefits.pdf

¹⁰⁷ http://www.rspb.org.uk/Images/wellbeing_tcm9-148929.pdf

¹⁰⁸

http://ec.europa.eu/environment/integration/research/newsalert/pdf/parks_and_beaches_may_improve_childrens_behavioural_development_407na3_en.pdf

widely held believes that consider regulation a burden on business and the wider economy and despite all available evidence suggesting otherwise (see also answer to question Y.4).¹⁰⁹

The **Europe 2020 Strategy** aims to create a smart, sustainable and inclusive European economy. **Environmental standards have been shown to encourage business to innovate, to produce with enhanced efficiency and to generate productivity improvements and the development of products that can be future sources of growth and open up new markets both within Europe and beyond.**¹¹⁰ Within a Member State, such standards are also important as they should play a role in preventing environmental damage taking place in one sector (for example agriculture) which, by damaging the natural environment, has a negative impact on another sector (such a tourism).

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. 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:

EU Nature conservation legislation, and the **Natura 2000 network of protected sites** created through this legislation, are one of the key concrete, **tangible benefits of EU membership which are recognized by EU citizens across the union.** This does not of course mean that all citizens are aware that the nature they are very much attached to is linked to EU level Nature legislation, in the same way as citizens won't always realise that food they buy is safe to eat because of EU level safety rules. Nevertheless, **Eurobarometer survey¹¹¹ show consistently high support of EU citizens for Union action on the environment.**

Similarly, the **number of infringement cases linked to the Nature Directives that are brought to court can also be seen as a reflection of the strong attachment EU citizens to this legislation and the objectives it pursues.**

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.

¹⁰⁹ OECD (2012). Measuring Regulatory Performance: A Practitioner's Guide to Perception Surveys. Paris, OECD

¹¹⁰ <https://www.cigionline.org/publications/greening-economic-growth-how-can-environmental-regulation-enhance-innovation-and-compet>

¹¹¹ http://ec.europa.eu/public_opinion/archives/ebs/ebs_416_en.pdf

Answer:

Citizens expect the **EU to take a strong role in nature protection, it is one of the area where the EU has most trust of citizens**. Eurobarometer surveys show 95% of EU citizens think environment is important, 77% agree that European environmental legislation is necessary for protecting the environment in their country, and **over half of Europeans think the EU is not doing enough to protect the environment**.¹¹² Where the EU, and member States, fail in these efforts, there is a very high level of concern from EU citizens, as evidenced by the number of petitions to the European Parliament concerning the environment, and the high level of EU-wide interests in significant breaches of nature conservation legislation, e.g. Spring hunting in Malta.

The above also suggests that **reducing EU's role in environmental legislation and nature protection risks reducing EU's popularity with citizens, who expect the European Union to deliver high levels of environmental protection to its citizens**: citizens expect the EU to deliver on its nature conservation commitments under the Birds and Habitats Directives and under the EU Biodiversity Strategy to 2020.

¹¹² http://ec.europa.eu/public_opinion/archives/ebs/ebs_416_en.pdf

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 Directives complement each other very well and form a coherent instrument. There are no significant problems for implementation arising out of the fact that they are two Directives. **The objectives are consistent and both pieces of legislation together create a coherent legislative framework** for nature conservation.

The Habitats Directive has been conceived from the start as a second step building on top of the foundations laid by the Birds Directive. The original choice of expanding the scope of the Birds Directive through a complementary piece of legislation, rather than repealing and replacing it has been amply vindicated and today the two Directives represent one coherent framework. While each Directive establishes its own **reporting framework** the European Commission has already streamlined and harmonised reporting obligations and other procedures so that there is no duplication or extra burden imposed by the fact rules are embedded in two complementary legal texts.

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:

The **Nature directives are coherent with other parts of EU environmental law / policy. There are no recurrent consistency related problems between the Nature Directives and other environmental legislation. The Fitness Check of the Water Framework Directive found that legal coherence between the Birds and Habitats Directives and the Water framework Directive** is clear, "although the interaction on the ground needs interpreting on a case by case basis by the Member States."¹¹³ This was also **confirmed at a workshop on "Coordinated implementation of nature, biodiversity, marine and water policies" which took place on 2-3 December** where policy-makers concluded that although there are not fully equivalent objectives and assessments, there are no objective obstacles which would prevent these directives from working together efficiently and exploit synergies – no essential contradiction in objectives between the Directives.

As regards the **Water Framework Directive** more specifically, Commission guidance makes it clear that the WFD does not change what Member States must achieve for the BHD, but it provides a joint framework for the implementation of measures needed by both WFD and BHD in water-dependent Natura 2000 sites.¹¹⁴ The guidance also points out that, according to WFD Article 4.1.(c) the WFD objective of good status may need to be complemented by additional objectives in order to ensure that conservation objectives for protected areas are achieved. Art. 4.2. WFD says that "where more than one of the objectives ... relates to a given body of water, the most stringent shall apply". The "Blueprint to safeguard Europe's Water Resources"¹¹⁵, which aims to tackle the obstacles which hamper action to safeguard Europe's water resources, points out that achieving widespread improvement in aquatic ecosystems will contribute positively to the EU Biodiversity Strategy goal of halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible.

The more general **trend in the environmental policy area is towards improved coordination and integration of permission or reporting procedures.** This is useful since this helps reducing the cost associated with monitoring and surveillance - which are essential to evidence-based policymaking. In the environmental field, monitoring data is needed to target policy interventions, assess effectiveness, and correctly apply assessment procedures. Investment in data gathering yields benefits for conservation, for business, and for administrative efficiency. A lack of data compromises conservation delivery, business certainty, and impedes efficient decision-making. According to the minutes of the above mentioned workshop "there was a consensus recognising that it is important to set up a dedicated process for an integrated monitoring programme and in the development of appropriate communication platforms (e.g. databases and internet sites); and to have more homogenous approaches when it comes to monitoring."

In some cases **insufficient ambition or bad implementation of other environmental Directives can undermine the objectives of the Nature Directives (e.g. insufficient emission ceilings under the NEC, unjustified derogations under the WFD). And there is a clear lack of enforcement in most of these Directives, which should be addressed through a legal proposal on environmental inspections.** In particular Member States and the Commission appear to have poorly implemented provisions within Directives for delivering nature conservation in wider countryside, which in turn undermines the resilience

¹¹³ <http://ec.europa.eu/environment/water/blueprint/pdf/SWD-2012-393.pdf>

¹¹⁴ <http://ec.europa.eu/environment/nature/natura2000/managedocsnt/FAQ-WFD%20final.pdf>

¹¹⁵ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0673&from=EN>

of Natura 2000 and the status of the habitats and species it is meant to protect.

In addition, there are also still missing instruments in the field of environmental legislation that constitute gaps to be filled which would surely yield further synergies with the objectives pursued by the BHD. **These instruments are in particular the Soil Directive which is urgently needed and the Access to Justice in Environmental matters Directive, which would help with the implementation of the Directives.**

The **other Directive, such as the SEA, EIA, ELD are all supportive of the BHD if implemented correctly.** Regarding EIA, the Commission's experience of implementation shows that the requirements of Article 6(3)-(4) of the Habitats Directive are not taken into account sufficiently in the context of EIA procedures. Furthermore, these procedures focus on the impact on Natura 2000 sites, while the species protection provisions tend to be neglected.¹¹⁶

In addition, the **revision of the NEC Directive could also deliver important benefits for Natura 2000.** Almost two thirds of the EU ecosystem area is under severe threat from nitrogen eutrophication, including over 71% of sensitive Natura 2000 protected areas.¹¹⁷ The National Emission Ceilings (NEC) Directive is a critical instrument to reduce air pollution in the EU. It limits 'exports' and 'imports' of air pollution between different EU countries and by doing so, it helps prevent air pollution's adverse impacts on nature. The Directive will only deliver sufficient benefits if it sets targets which are ambitious enough and establishes effective mechanisms for achieving them.¹¹⁸ The NEC Directive's goal should be aligned with the EU's air quality objectives set in the 7th Environmental Action Programme, i.e. the achievement of "levels of air quality that do not give rise to significant negative impacts on, and risks to human health and environment". This should be achieved by 2030 at the latest.

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:

Other policies do partly integrate the objectives of the Nature Directives, but overall not sufficiently.

This goes in **particular for the need to adapt and mitigate climate change in the context of EU's climate policy.** Adaptation to climate change calls for making biodiversity more resilient to climate change, more able to adapt, in order to maintain our ecosystems in a healthy state, because our prosperity and wellbeing depend on the services that healthy ecosystems supply. **Natura 2000 – which aims to maintain habitats and species in favourable conservation status – is in this context a critical climate change adaptation measure.** Natura 2000 provides space for nature and helps sustain nature's 'adaptation options'. Scientific evidence shows that protected areas could continue to play a critical role

¹¹⁶ GI implementation and efficiency study, Annex V:

http://www.ieep.eu/assets/898/Green_Infrastructure_Implementation_and_Efficiency.pdf

¹¹⁷ European Commission Impact Assessment, page 14

¹¹⁸ <http://www.eeb.org/EEB/?LinkServID=9168DFDD-5056-B741-DBA5B64C92B81F9D>

in nature conservation in the face of climate change, helping to both retain retracting species and encourage colonisation by expanding species. Researchers concluded that protected areas seem set to continue to deliver high biodiversity benefits, even if the relative abundances and identities of the species present changes.¹¹⁹¹²⁰ **Climate change** is an obvious major threat to biodiversity and ecosystem services that cannot be fundamentally addressed through the directives and **needs to be addressed by EU climate and energy policy**. At the same time, as explained above, nature and biodiversity conservation through the directives are crucial to climate change adaptation: biodiverse and healthy ecosystems are more resilient to (climate) change, and more able to adapt to changing environments.¹²¹ Unfortunately, as of today EU's climate policy does not fully recognise and respond to this key role of natural system in climate change mitigation and adaptation while at the same time EU's energy policy has a whole range of detrimental effects on the achievement of the Nature Directives objectives (see answer to question C.4). There is still much room for better, positive integration between these two policy areas.

There are however **many other examples which show how other primary policy objectives can be pursued (eg flood protection) while at the same time delivering benefits in terms of improving the conservation status of habitats and species protected under the BHD**. A number of green infrastructure related studies at EU level have shed the light on cases such as the following:

- The Sigma Plan II in the Scheldt Estuary (Belgium), shows the importance of seizing opportunities to integrate ecological restoration objectives when restoring a modified river system under pressure from many human activities and illustrates that the use of green infrastructure through combining flood protection with nature restoration is a cost efficient means to improve protection of Natura 2000 areas.¹²²

While there are an increasing amount of examples in which other policies have been implemented in a way that delivers benefits to biodiversity¹²³ (including species protected under the BHD) it is however clear that there is further room for integrating conservation objectives that would benefit species and habitats protected under the BHD into other policy areas.

Delayed implementation of nature directives means that in some areas the scope for policy integration in some policy areas has been more limited than it would otherwise have been. For example in the area of **fisheries** a European Commission Staff Working Paper on Financing Natura 2000 noted that a lack of information about funding for Natura 2000 under the European Fisheries Fund may be partly explained by **poorer progress in establishment of Natura 2000 for the marine environment**.¹²⁴ This has also happened at the detriment of a sustainable and prosperous fisheries sector since research has shown that marine protected areas improve yield without disadvantaging fishers.^{125,126}

¹¹⁹ The performance of Protected Areas for biodiversity under climate change: Chris D Thomas, Phillipa K Gillingham; 'in press' in Biological Journal of the Linnean Society

¹²⁰ "Protected areas facilitate species' range expansions," Chris D. Thomas et al

<http://www.pnas.org/content/109/35/14063.abstract>

¹²¹ <http://www.birdlife.org/sites/default/files/attachments/Ecosystemsandadaption.pdf>

¹²² DG ENV study 'Green Infrastructure Implementation and Efficiency, URL: http://www.ieep.eu/assets/898/Green_Infrastructure_Implementation_and_Efficiency.pdf

¹²³ http://www.ieep.eu/assets/1235/guide_multi_benefit_nature.pdf

¹²⁴ http://ec.europa.eu/environment/nature/natura2000/financing/docs/financing_natura2000.pdf

¹²⁵ <http://www.nature.com/ncomms/2013/130820/ncomms3347/abs/ncomms3347.html>

¹²⁶ <http://www.publish.csiro.au/pid/7240.htm>

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.

Answer:

There is **a lot of interaction** between the Nature Directives and other sectoral policies, both positive and negative. In general, the **extent to which the interaction is positive or negative for biodiversity depends on how far biodiversity has been integrated in the sectoral policies**. The **Nature Directives are often a key starting point for good integration**. Where integration is insufficient sectoral policies seriously hamper the Directives' progress towards their objective and conflicts are likely to occur at all levels.

Activities in the areas of regional development, infrastructure planning or construction are fully covered by Art. 6.3/6.4. of the Habitats Directive as far as Natura 2000 sites are concerned. Agriculture, forestry, fisheries and other spatially relevant uses must comply with Art 6.2 and avoid deterioration. Outside of Natura 2000 there are, with the exception of species protection provisions, no specific instruments in the Directives that would allow to effectively address societal and economic impacts on biodiversity. However, there is the general obligation of Member States to maintain or restore to all species and habitats of community interest and all wild birds. From this follows the need to properly adapt other sectoral policies so they integrate biodiversity concerns, rather than vice versa.

The **main failure in this integration involves the Common Agriculture Policy (CAP)** of the EU. A vast scientific literature shows that agriculture intensification is the main threat to biodiversity in Europe¹²⁷. Upcoming reports under art 12 and 17, the recent EEA SOER¹²⁸ and the upcoming Red List of Birds all identify agriculture as a main source of biodiversity loss, with trends worsening or negatively stable. The European Environment Agency observes that “*biodiversity in agro-ecosystems is under considerable pressure as a result of intensification and land abandonment*”¹²⁹ and in 2011, the European Farmland Bird Index,

¹²⁷ Rural Economy and Land Use Programme (RELU), Eating Biodiversity: an Investigation of the Links Between Quality Food Production and Biodiversity Protection, 2008;

I. Williams, 'Insect Pollination and Crop Production: A European Perspective' in P. Kevan and V.L. Imperatriz
PECBMS, State of Europe's common bird, 2007, CSO/RSPB, Prague, 2007.

PECBMS, Population Trends of European Common Birds in Europe, 2010, CSO/RSPB, Prague, 2010.

P.F. Donald et al., 'Further evidence of continent-wide impacts of agricultural intensification on European farmland birds' in Agriculture, Ecosystems and Environmental, vol. 116, September 2006, pp. 189-196;

P. Reidsma et al., 'Impacts of land-use change on biodiversity: An assessment of agricultural biodiversity in the European Union' in Agriculture, Ecosystems and Environmental, vol. 114, May 2006, pp. 86-102.

C.A.M. Van Swaay et al., The European Butterfly Indicator for Grassland species 1990-2009, De Vlinderstichting, Wageningen, 2010.

¹²⁸ <http://www.eea.europa.eu/soer>

¹²⁹ European Environment Agency (2010) 10 messages for 2010: Agricultural ecosystems;
http://www.eea.europa.eu/publications/10-messages-for-2010-agricultural-ecosystems/at_download/file

which monitors farmland bird populations, fell to its lowest ever recorded level¹³⁰. The well-documented decline in farmland birds is also mirrored by declines in other farmland biodiversity, as highlighted in the recent 'State of Nature report': 60% of the 1064 species studied were declining, including 64% of farmland moths, 70% of carabid beetles and 76% of the plant species preferred by bumblebees as food sources¹³¹. Even the most recent CAP reform in which biodiversity was identified as one of the key objectives has failed to deliver real change. It has to be noted that unsustainable policies and subsidies related to the production of "bio" energy is adding another challenge for biodiversity concerns and requires urgent reform.

Although forestry is not subject to a common EU policy, the EU Forest Strategy of 2013 (COM (2013) 659 final) gives clear supportive signals to the implementation of Natura 2000. At national levels however, there is still a great room for further integration of biodiversity concerns into forest policy - a necessity to take into account that forests are far more than just producers of wood to society.

Another policy area where there is increasing interaction with the Nature Directives is EU's **energy policy** – into which integration of conservation objectives still needs to be further improved. **Transition to renewable energy sources** requires major new investment in EU's energy systems and infrastructure, and, increased use of biomass for renewable energy (pushed by EU's climate and energy policies) **poses new demands on EU's land, water and forest resources** and results in growing pressures on EU's land, forest and other biomass resources. Current failures in integration are particularly linked to increased bioenergy (biofuels and biomass) use, new grid development and lack of spatial planning in deployment of new energy production. While the renewable energy directive includes sustainability criteria requirements for biofuels used in the transport sector, these criteria are incomplete and for biomass used elsewhere in the energy sector, no criteria currently exists. As a consequence of the growing bioenergy demand 4.7 – 7.9 million hectares of cropland has been dedicated for energy production only, displacing food and feed production and leading to destruction of valuable ecosystems through land conversion¹³², about 0.8 million hectares of cropland has been dedicated to maize cultivation for biogas production in Germany alone, leading to declines in farmland bird species¹³³, conversion of species rich grasslands¹³⁴ and wood extraction of EU's forests for energy is predicted to double from 2010 to 2020¹³⁵, further risking the efforts to stabilize biodiversity loss in forests.

The **Nature Directives have helped integrate biodiversity concerns into pan-EU initiatives**, through the establishment of an EU-wide legal framework for nature conservation. For example Commission guidance on Projects of Common Interest¹³⁶ identifies the Habitats Directive as a key tool for taking impacts on biodiversity and habitats into account.

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

¹³⁰ Pan-European Common Bird Monitoring Scheme: <http://www.ebcc.info/index.php?ID=457>

¹³¹ Burns F, Eaton MA, Gregory RD, et al. (2013) State of Nature report. The State of Nature partnership. <http://www.rspb.org.uk/ourwork/science/stateofnature/index.aspx>

¹³²

www.ieep.eu/assets/786/Analysis_of_ILUC_Based_on_the_National_Renewable_Energy_Action_Plans.pdf

¹³³ Sauerbrei et al. (2013) Increased energy maize production reduces farmland bird diversity, GCB Bioenergy (2013), doi: 10.1111/gcbb.12146

¹³⁴ www.nabu.de/imperia/md/content/nabude/landwirtschaft/gruenland/nabu_gr_nlandstudie.pdf

¹³⁵ www.egger.com/downloads/bildarchiv/187000/1_187099_DV_Real-potential-changes-growth_EN.pdf

¹³⁶ http://ec.europa.eu/environment/eia/pdf/PCI_guidance.pdf

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:

One of the most problematic areas is **agriculture**. Rapid and widespread changes to agricultural practices in last 50 years are widely recognised as the driving force behind many species declines. Still today evidence suggests that grasslands are being destroyed at an important scale across Europe, including in Natura 2000 areas. At the same time, there is hardly any evidence of farmers having been penalised for this and as a result farmland habitats are also those which are doing the worst in EEA's latest (2015) SOER report. The EU CAP subsidies indirectly incentivise production, while at the same time, farmers receive environmental payments to help prevent damage to the environment and to protect important wildlife habitats. The two instruments potentially work against one another with the former dwarfing the latter. Realignment of these incentive systems could provide the same income opportunities for farmers while reducing the depletion of natural capital.¹³⁷ The European Environment Agency observes that "*biodiversity in agro-ecosystems is under considerable pressure as a result of intensification and land abandonment*"¹³⁸ and in 2011, the European Farmland Bird Index, which monitors farmland bird populations, fell to its lowest ever recorded level¹³⁹. The well-documented decline in farmland birds is also mirrored by declines in other farmland biodiversity, as highlighted in the recent 'State of Nature report': 60% of the 1064 species studied were declining, including 64% of farmland moths, 70% of carabid beetles and 76% of the plant species preferred by bumblebees as food sources¹⁴⁰.

On the positive side it must be acknowledged that **CAP environmental measures** (Pillar II) is an important funding mechanism to secure appropriate management of Natura 2000 sites (as required under the Habitats Directive) and to provide a sufficient diversity and area of habitat for birds listed in Annex 1 of the Birds Directive. Whilst the quality of schemes currently on offer across the EU varies considerably, there is clear evidence that well designed, targeted and funded schemes can have a significant and positive effect on biodiversity (although it must be noted that such schemes represent a disappointingly small proportion of schemes overall).

Regarding **energy**, there have been some tensions between nature conservation and the development of renewable energy as well as the development energy grids. Increasingly, these have been overcome, however, and there are many good practice examples of successful integration which shows that the objectives of nature conservation and the increase in renewable energy generation are compatible¹⁴¹. **Current failures in integration are particularly linked to increased bioenergy (biofuels and biomass) use** but also new

¹³⁷

<https://nebula.wsimg.com/17ce16211194bfe53215bb754444686d?AccessKeyId=68F83A8E994328D64D3D&disposition=0&alloworigin=1>

¹³⁸ European Environment Agency (2010) 10 messages for 2010: Agricultural ecosystems;

http://www.eea.europa.eu/publications/10-messages-for-2010-agricultural-ecosystems/at_download/file

¹³⁹ Pan-European Common Bird Monitoring Scheme: <http://www.ebcc.info/index.php?ID=457>

¹⁴⁰ Burns F, Eaton MA, Gregory RD, et al. (2013) State of Nature report. The State of Nature partnership. <http://www.rspb.org.uk/ourwork/science/stateofnature/index.aspx>

¹⁴¹ <http://www.eeb.org/index.cfm/library/connecting-energy-protecting-nature/>

grid development and lack of spatial planning in deployment of new energy production. Regarding the former: while the renewable energy directive includes sustainability criteria requirements for biofuels used in the transport sector, these criteria are incomplete and for biomass used elsewhere in the energy sector, no criteria currently exists. As a consequence of the **growing bioenergy demand 4.7 – 7.9 million hectares of cropland has been dedicated for energy production only, displacing food and feed production and leading to destruction of valuable ecosystems through land conversion**¹⁴², about 0.8 million hectares of cropland has been dedicated to maize cultivation for biogas production in Germany alone, leading to declines in farmland bird species¹⁴³, conversion of species rich grasslands¹⁴⁴ and wood extraction of EU's forests for energy is predicted to double from 2010 to 2020¹⁴⁵, further risking the efforts to stabilize biodiversity loss in forests.

In **Regional Policy**, many operational programmes provide co-financing for managing Natura 2000 sites and implementing measures that support ecological coherence and connectivity in the context of regional development.¹⁴⁶

As regards the **Common fisheries policy (CFP)** the EFF (2007-2013) has worked significantly to the detriment of a more sustainable fishing sector. The European Court of Auditors found that the European Fisheries Fund (EFF) did not offer effective support for the sustainable development of aquaculture.^{147,148} A range of papers have looked into the tensions and contradictions between the the BHD and the CFP.^{149, 150} but relatively little has been published since the latest CFP reform which might have somewhat improved the relationship between the CFP and the Nature Directives.

Other EU sectoral policies have significant adverse impacts on nature and are often still a driver for unsustainable practices. Nevertheless, the existence of the Nature Directives at EU level have helped integrate biodiversity concerns into EU sectoral policies. For example Commission guidance on Projects of Common Interest¹⁵¹ identifies the Habitats Directive as a key tool for taking impacts on biodiversity and habitats into account.

In order to **help address persistent** threats to protected species and habitats in the wider countryside (outside the Natura 2000 network) the Commission should¹⁵²:

- Better integrate the objectives of the Nature Directives with EU's energy policies post 2020. The needed transition to renewable energy systems requires significant investments in new energy infrastructure and new energy sources that will cause negative impacts on the nature and environment if not done in line with EU's nature conservation objectives. Restrictions and criteria for EU bioenergy incentives are particularly needed in the 2030 climate and energy framework.

¹⁴²

www.ieep.eu/assets/786/Analysis_of_ILUC_Based_on_the_National_Renewable_Energy_Action_Plan.pdf

¹⁴³ Sauerbrei et al. (2013) Increased energy maize production reduces farmland bird diversity, GCB Bioenergy (2013), doi: 10.1111/gcbb.12146

¹⁴⁴ www.nabu.de/imperia/md/content/nabude/landwirtschaft/gruenland/nabu_gr_nlandstudie.pdf

¹⁴⁵ www.egger.com/downloads/bildarchiv/187000/1_187099_DV_Real-potential-changes-growth_EN.pdf

¹⁴⁶ http://www.ieep.eu/assets/1235/guide_multi_benefit_nature.pdf

¹⁴⁷ http://www.ea.europa.eu/Lists/ECADocuments/SR14_10/QJAB14010ENC.pdf

¹⁴⁸ WWF 2011: Reforming EU fisheries subsidies: a joint NGO discussion paper and technical resource http://awsassets.panda.org/downloads/lr_reform_fisheries_subsidies.pdf

¹⁴⁹ The Habitats and Birds Directives vs the CFP: A Paradox, URL: [file:///C:/Users/User01/Downloads/15-15-1-PB%20\(1\).pdf](file:///C:/Users/User01/Downloads/15-15-1-PB%20(1).pdf)

¹⁵⁰ <file:///C:/Users/User01/Downloads/64608.pdf>

¹⁵¹ http://ec.europa.eu/environment/eia/pdf/PCI_guidance.pdf

¹⁵² http://www.rspb.org.uk/Images/Renewable_energy_report_tcm9-297887.pdf

- Develop up-to-date guidance on “appropriate assessment” for all renewables sectors, and in particular for the appropriate assessment of plans. Increase commitment to enforcement action on infringements of the rules on development in Natura 2000 areas.
- Develop targeted information campaigns that raise awareness of the seriousness and value of Natura 2000 designation, in particular its importance for climate change adaptation, and that explain/demonstrate that businesses can thrive within Natura 2000 areas.
- Improve Member States’ understanding of EU laws on development in Natura 2000 areas. Ensure developments are not automatically refused consent if they cause no harm (and are also permitted in national legislation), or contribute to the conservation objectives of the designated area, such as sustainable agriculture and forestry practices and sustainable biomass schemes.

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:

The Directives play an essential role in **creating a level playing field for economic operators and ensuring that Member States do not try to outcompete each other in attracting investors by lowering their environmental standards**. Any repatriation of competences in this field would lead to patchier (and most likely lower) protection levels combined with distorted competition and increased burden on business operating across different EU MS which would need to juggle with different sets of rules from one country to another. This is corroborated by the findings of the UK-focused Davidson Review¹⁵³ on the “Implementation of EU Legislation” from 2006 which found that “many businesses that operate across Europe said that differential implementation across Member States, thereby undermining the single market, matters more than whether there is over-implementation in a particular country”; illustrating that businesses do struggle with different set of rules across different EU MS and in most cases will prefer harmonization, even if this implies upwards harmonisation, of environmental legislation.

This is not only true for EU-wide nature conservation legislation. Environmental standards are key for the proper functioning of the single market in purely economic terms as they help set a level playing field across the EU, and prevent any one member state deriving an unfair short-term competitive advantage by destroying its environment. EU environmental standards achieve this by establishing minimum standards for environmental protection that apply across all EU Member States. This **also serves to provide certainty for businesses operating across the EU, that the rules applicable to them are the same in all Member States**. Businesses that wish to trade within any EU Member State must comply with these rules whether they are based in the EU or outside.

¹⁵³ <http://www.bis.gov.uk/files/file44583.pdf>

In addition, a **growing body of evidence suggests that, in the long-run, environmental regulation is good for business** by opening up new market opportunities and driving cost-reducing innovation.¹⁵⁴

More generally it is necessary for European public goods to be protected through legislation at the EU level: the natural capital that the Natura 2000 network represents delivers ecosystem services benefits over multiple spatial and temporal scales; many are trans-boundary in nature. In addition, the complex ecological processes underpinning the delivery of these services also do not respect national boundaries. Protecting supra-national “public goods” must be a shared responsibility; without EU environmental standards that simply would not be possible.

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:

Many Member States have missed various opportunities to use EU funds that could be used for co-financing of Natura 2000, this is mainly due to the priority setting of competent authorities in agriculture and regional funds, but also the fault of inconsistent communication and negotiation by the European Commission.

Nature conservation has been chronically underfunded for decades, both at EU level and in most Member States. A case study for the Netherlands has shown the mismatch between financing needs and availability from provincial, national and EU funds for Natura 2000.¹⁵⁵ The Commission has acknowledged that the use of different EU instruments is still very significantly below the financial needs of Natura 2000 as defined by the Member States.¹⁵⁶ Only 9-19% of the estimated financial needs of Natura 2000 are covered by the EU funds¹⁵⁷. A recent study¹⁵⁸ by the Institute for European Environmental Policy estimates that somewhere in the region of €34bn per year would be required to cover the cost of environmentally beneficial land management on agricultural and forested land in the EU, rising to €43bn per year when supportive costs (such as advice provision) are factored in.

At the same time, the money available in the context of **Regional policy** tends to be insufficiently used by Member States. A recent report from the European Court of Auditors found that ERDF funding opportunities have not been exploited to their full potential.¹⁵⁹ The

¹⁵⁴ Rayment, M., E. Pirgmaier, et al. (2009). The economic benefits of environmental policy - Final Report., Institute for Environmental Studies.

¹⁵⁵ <https://www.vogelbescherming.nl/index.cfm?act=files.download&ui=EC990EE0-B79D-35DA-AACDF72CA70F4EB6>

¹⁵⁶ http://ec.europa.eu/environment/nature/natura2000/financing/docs/financing_natura2000.pdf

¹⁵⁷ <http://www.ieep.eu/publications/2011/03/financing-natura-2000>

¹⁵⁸ Hart K, Baldock D, Tucker G, Allen B, Calatrava J, Black H, Newman S, Baulcomb C, McCracken D, Gantioler S (2011) Costing the Environmental Needs Related to Rural Land Management, Report Prepared for DG Environment, Contract No ENV.F.1/ETU/2010/0019r. Institute for European Environmental Policy, London

¹⁵⁹ http://www.eca.europa.eu/Lists/ECADocuments/SR14_12/QJAB14012ENC.pdf

Court reported that, "Not only did many Member States allocate little or no ERDF funding directly to biodiversity, but for those which did allocate funding, the financial uptake was below the average for all cohesion policy funding. Since the beginning of the 2007–13 programming period, the financial uptake for biodiversity projects remained slow, despite the fact that, in 2011, the Commission called for the situation to be rectified".¹⁶⁰ The rather limited funding under LIFE may also have hampered success – one could probably have built on this instrument more given the number of best practice that LIFE projects have generated it could have played a much bigger role in piloting implementation across the EU and thus also have accelerated implementation.

As regards the money available via the **CAP**, the CAP's Rural Development pillar represents the single largest fund available in the EU for conservation measures but receives just €12bn per year. It is also important to note that not all of this funding is used to support more sustainable and wildlife-friendly land management. In the current CAP, Member States are required to spend at least 25% of the RD budget on 'environmental measures' however some schemes are little more than additional income support (such as the Less Favoured Area payment) or have been poorly designed by the Member State¹⁶¹ and so deliver minimal environmental benefit (the issue of limited expertise and capacity within the Commission is also at fault here as they have responsibility for scheme approval).

A CAP related case study: In a **UK context** the total cost of meeting the UK's future environmental land management requirements, not including provision of advice for farmers, was estimated to be in the region of three times the existing annual agri-environment budget¹⁶². In stark contrast, Pillar I of the CAP receives the lion's share of the CAP budget, some 75%, despite having no clear policy objective and numerous studies calling its efficacy and value for money into question¹⁶³. More worrying yet is the role of Pillar I payments in subsidising a fundamentally unsustainable approach to land management in many cases as payment rates are often still linked to historic production levels, resulting in the highest support payments going to those who produced the most (and generally intensified the most) in the reference period. The cross compliance conditions attached to Pillar I payments also leave much to be desired with the European Court of Auditors stating that the system's scope is poorly defined and can be expected to deliver only limited results at farm level¹⁶⁴.

It is clear therefore that considerably less is being spent on protecting and enhancing the natural environment than is required. While in the current MFF opportunities for funding have arguably increased, for example through the integration of the Green Infrastructure concept into regional policy¹⁶⁵, in practice not enough funding goes into implementing the Nature Directives and establishing and effectively managing the Natura 2000 network. In light of the above difficulties in ensuring EU's co-funding reaches the intended beneficiaries it might be time to reconsider the integration approach in funding and discuss a stand-alone EU environment fund.

¹⁶⁰ http://www.eca.europa.eu/Lists/ECADocuments/SR14_12/QJAB14012ENC.pdf

¹⁶¹ European Court of Auditors (2011) Special report no. 7: Is agri-environment support well designed and managed?

¹⁶² Cao, Y., Elliott, J., McCracken, D., Rowe K., Whitehead, J., and Wilson, L. (2009) Estimating the Scale of Future Environmental Land Management Requirements for the UK, Report prepared by ADAS UL Ltd and Scottish Agricultural College for the Land Use Policy Group: London.

¹⁶³ Baldock et al (2010) The Single Payment Scheme after 2013: New approach, new targets. Study for the European Parliament - Directorate General for Internal Policies Policy Department B: Structural and Cohesion Policies, Agriculture and Rural Development; Tangermann, S (2011) Direct Payments in the CAP post 2013. Study for the European Parliament - Directorate General for Internal Policies Policy Department B: Structural and Cohesion Policies, Agriculture and Rural Development;

¹⁶⁴ European Court of Auditors (2008) Is cross compliance an effective policy? Special report no. 8

¹⁶⁵ http://www.ieep.eu/assets/1235/guide_multi_benefit_nature.pdf

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:

There is a **severe gap in enforcement of EU environmental legislation, including the Nature Directives**. Member States need to be obliged to fulfill specific standards in monitoring, inspecting and sanctioning potentially illegal activities. **Filling this gap would require the EU to adopt an Environmental Inspections Directive and to adopt and Access to Justice in Environmental matters directive** to ensure that citizens or NGOs witnessing cases of non-compliance with EU's Nature Protection legislation can take the matter to court in their own countries.

A better protection of ordinary biodiversity (not listed in the annexes), outside Natura 2000 areas/across the wider landscape would also yield positive results in terms of meeting the objectives of the Nature Directives. **Currently some of the positive gains generated by the Nature Directives are offset by the unsustainable land use and fragmentation outside protected areas which undermine connectivity between protected areas**. This is why the development of green infrastructure is so important if species and habitats located at the core of Europe's green infrastructure, in Natura 2000 areas, is meant to thrive.¹⁶⁶

While there are **no gaps or inconsistencies within the Directives themselves** that hamper achievement of the objectives implementation failures at member state level have created gaps and inconsistencies that are hampering achievement of the objectives, while also, in some cases, creating a significant burden for business.

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:

The Directives **play a key role in contributing to the EU Biodiversity Strategy Objectives and target**. The Nature Directives are by far the most important and most concrete instrument at EU level to safeguard biodiversity and associated ecosystem services. They **are essential not only for achieving Target 1 of the Biodiversity Strategy, but also for Targets 2-6, to varying degrees**. By highlighting where Europe's most threatened habitats and species are to be found they help target the efforts required to achieve most of the Strategy's objectives using scarce resources effectively (eg, maintaining and restoring ecosystems, halting the loss of biodiversity and ecosystem services, combating invasive alien species, etc). In particular the **monitoring that is carried out in the context of the Directives provides valuable information that helps support the implementation of the Biodiversity Strategy**.

One of the reasons why the nature Directives can also be seen as **supporting objectives relating to the maintenance and the enhancement of ecosystem services** (ie target 2) is

¹⁶⁶ http://www.ieep.eu/assets/898/Green_Infrastructure_Implementation_and_Efficiency.pdf

that there is scientific evidence that shows that the Directives work not only for target species¹⁶⁷ but also for non-target species¹⁶⁸, thus **contributing to overall ecosystem resilience** and thus increasing the insurance value as regards the future provision of ecosystem services. This is also called the umbrella effect that certain species have which implies that measures to protect one specific species or habitat will have positive effects on a wider number of species not directly targeted by the measures put in place to improve the conservation status of the protected species. In the long term this effect, as well as the contribution in terms of landscape connectivity provided by the Natura 2000 network, will be even more important in light of climate change - scientific studies have established that **Protected Areas remain a key conservation tool in the face of climate change**, enabling species to adapt to shifting range envelopes and other climate impacts.¹⁶⁹

As regards other targets the following contribution must be acknowledged:

- **For target 3** (Increase the contribution of agriculture and forestry to maintaining and enhancing biodiversity), Directives establish framework for action and monitoring in delivering improvements in the conservation status of agricultural and forest species.
- **For target 4** (Ensure the sustainable use of fisheries resources), Directives establish basis for the creation of marine protected areas, which have a crucial role to play in delivering sustainable fisheries, and protecting marine animal and bird species.
- **For targets 3 and 4**, while Directives have been integrated into CAP and Marine Strategy Framework Directive, inadequate implementation by Member States has significantly limited the contribution of the Directives to protecting biodiversity in the wider countryside. The tools for delivering conservation in the wider countryside exist in the Directives, but Member States have been unwilling to use them.

As regards the **contribution of the Nature Directives towards ensuring biodiversity more generally** (beyond the Biodiversity strategy's objectives and targets) it must be noted that the Directives make a contribution since:

- **Role of protected areas in biodiversity conservation is scientifically proven**, delivering benefits for both habitats and species;
- **Effective nature conservation requires a coordinated international approach** given that nature does not respect borders (e.g the needs of migratory species);
- The **pan-EU approach to nature conservation introduced by the Nature Directives is essential for effective nature conservation efforts** since (a) it establishes a much needed level playing field, ensuring that no Member State can secure a short-term competitive advantage at the expense of its wildlife; (b) Pan-EU approach ensures conservation efforts by one MS are not undermined by unsustainable practices elsewhere.

Other aspects concur to making the Nature Directives a central element in achieving the overall objective of the Biodiversity Strategy as well as reaching individual targets of the Strategy:

- Birds and Habitats Directives complement nature conservation efforts in wider countryside, by protecting hotspots of biodiversity, which serve as pools of species that can colonise beyond the Natura 2000 sites.
- EEA report confirms that "the abundance of a large number of bird species is higher inside than outside the Natura 2000 network, showing that the Natura 2000 areas designated upon the presence of targeted bird species listed in Annex I of the Birds

¹⁶⁷ <http://www.sciencemag.org/content/317/5839/810.abstract>

¹⁶⁸ V. Pellissier et al. Assessing the Natura 2000 network with a common breeding birds survey, *Animal Conservation* 16 (2013) 566–574. <http://onlinelibrary.wiley.com/doi/10.1111/acv.12030/abstract>

¹⁶⁹ <http://www.pnas.org/content/109/35/14063.short>

Directive also harbor a substantial number and population of common bird species”.¹⁷⁰

- Much of the Natura 2000 network is on farmland, and so the Directives play a key role in protecting farmland and forest biodiversity.
- Birds and Habitats Directives play a key role in maintaining habitats and species, but also in delivering restoration of degraded habitats and depleted species populations. They therefore complement efforts to tackle pressures on wildlife, including climate change and invasive alien species.
- In a number of Member States, such as the UK, changes made to national law in order to comply with the requirements of the Birds and Habitats Directives have also improved the legislative framework for wider conservation efforts at national level

The many reasons mentioned above have been acknowledged by the **European Parliament**¹⁷¹ and **EU Member States**¹⁷² which have recognised that the **Birds and Habitats Directives are the cornerstone of EU efforts to conserve biological diversity**. Member States have acknowledged the very important role of the BHD Directives in Council Conclusions on the EU Biodiversity Strategy to 2020 in which they stated that the Council “Agrees that full implementation of the EU environment acquis, and in particular the EU Birds and Habitats Directives, is essential for the achievement of the new EU 2020 Biodiversity targets”¹⁷³

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 to¹⁷⁴, 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.

¹⁷⁰ http://bd.eionet.europa.eu/Reports/ETCBDTechnicalWorkingpapers/PDF/Impact_of_Natura_2000_on_non-target_species

¹⁷¹ http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/EP_resolution_april2012.pdf

¹⁷² <http://data.consilium.europa.eu/doc/document/ST-7536-2010-INIT/en/pdf>

¹⁷³ <https://www.cbd.int/doc/nbsap/EU-council-conclusions-2020-strategy.pdf>

¹⁷⁴ 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 **Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets** are the global framework within individual countries or regions efforts to halt biodiversity loss are embedded. The Birds and Habitats Directive are particularly core elements to reaching a number of goals and targets, in particular goal C “Improve the status of biodiversity by safeguarding ecosystem, species and genetic diversity” and more specifically two of the three targets under this goal:

- Target 11: “By 2020, at least **17 per cent of terrestrial and inland water**, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, **are conserved through** effectively and equitably managed, ecologically representative and **well** connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascapes.”
- Target 12: “By 2020 the **extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.**”

The Directives also make important contributions to meeting some of the targets under Strategic goal B: “Reduce the direct pressures on biodiversity and promote sustainable use” and Strategic goal D “enhance the benefits to all from biodiversity and ecosystem services”, in particular the following targets:

- Target 5: By 2020, the **rate of loss of all natural habitats**, including forests, **is at least halved and where feasible brought close to zero**, and degradation and fragmentation is significantly reduced.
- Target 14: By 2020, **ecosystems that provide essential services**, including services related to water, and contribute to health, livelihoods and wellbeing, **are restored and safeguarded** (...).

In addition to the above, the Directives are also the prime and practically the only instrument to implement key obligations of the CBD and the **Bern Convention in the EU**. They also implement many important parts of the **CMS, RAMSAR and World Heritage Convention, partly also CITES**.

In short, the Birds and Habitats Directives are Cornerstones of EU efforts to conserve biological diversity. They are the main tools for delivering on the EU's obligations under the Convention on Biological Diversity, and other international conventions, including the **Bonn Convention on Migratory Species** and accompanying agreements, and the Bern Convention on European Habitats.

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 adoption of the Birds and Habitat Directives at EU level have resulted in a **more consistent and effective approach to Nature Conservation across all European Members States** and higher levels of nature conservation in a whole range of Member States than would otherwise have existed, requiring that effective rules for nature conservation be introduced and implemented in order to comply with the BHD. This is corroborated by the findings of the UK's Government's Balance of Competences Review Environment Report found that "The majority of respondents believed that EU competence has increased environmental standards in the UK and across the EU and that this has led to improved performance in addressing several environmental issues." **For businesses operating across EU MS this has reduced uncertainty and the administrative efforts required to comply with nature conservation rules in different MS.**

In terms of benefits to biodiversity, one relatively striking and **concrete example is the effect of the Birds Directive on hunting**, in particular of migratory birds. Practices and methods used are very different today than they were at the time the Birds Directive was introduced. There is still a lot of illegal activity but when compared to the time when a lot of activity was legal the effect of the Directive is spectacular – both in terms of changing habits and in positive effects for specific bird populations which suffered much at the time (storks, flamingos, birds of prey, etc.). It is quite clear that these developments wouldn't have happened in the absence of the Birds Directive as in a range of cases the EU had to take countries to court in order for them to fully implement the Directives. It is clear that in particular the requirement for **Appropriate assessment** and requirements clarified through ECJ rulings have helped conserve valuable nature where it would otherwise have been lost and helped protect sites which would otherwise have further deteriorated.

The difference is particularly clear when looking at the situation in more recent Member States – comparing the situation before their joining the Union and after: both area covered by protected areas, stringency of the protection and number of species protected nationally. In order to comply with the EU environmental acquis and more specifically the BHD, new Member States had to **designate a number of sites that previously did not benefit from any level of protection. Clearly, Natura 2000 has expanded the protected area network across Europe and delivered synergies enhancing the results of nature conservation**

efforts of individual countries compared to a situation with very disparate approaches to nature conservation across different countries.

In addition, a number of **transnational projects and cooperation eg at biogeographic level** have been established which probably would not have emerged without the common framework provided by the Nature Directives.

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:

Without the Nature Directives the **state of many of the species and habitats protected through the Directives would be much worse in many countries** (see previous question: less protected areas, less restrictions (e.g. on hunting) etc.). Many **important comebacks of species would not have happened**, etc. Comparison with conservation situation inside the EU with any country to the south and east is striking, as described above. Indeed, in some cases, this holds even in comparison with highly developed and generally environmentally minded countries such as Switzerland and Norway. A striking case is the spectacular comeback of predators in the alps. Wolves are successfully recolonizing France, Italy and Slovenia and Bears are expanding in Slovenia and Italy while recolonization of Switzerland is being prevented by systematic persecution.

In the absence of EU nature legislation, it is likely that **uncoordinated nature conservation efforts** would have continued at national level across the EU (including the selection of sites, conservation measures, monitoring of conservation status). Evidence suggests that these approaches had not been effective prior to the adoption of the Birds and Habitats Directives, and the **absence of any international coordination would make it even harder for countries to achieving the goal of halting the loss of biodiversity**. Evidence from the UK shows that prior to the adoption of the Habitats Directive almost a quarter of nationally designated sites in England were being damaged annually.¹⁷⁵

Inconsistency of nature protection rules across EU 28 would have undermined the achievement of the single market for specific sectors whose activities affecting land and water use and increased the administrative costs associated with having to comply with very different nature conservation regimes across different countries.¹⁷⁶

¹⁷⁵ <http://www.parliament.uk/briefing-papers/rp94-90.pdf>

¹⁷⁶ <http://www.bis.gov.uk/files/file44583.pdf>

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:

Yes, EU action is more than ever required. **Sustainable development cannot be achieved if the European project focuses narrowly on economic integration**, leaving it to Member States to address social and environmental challenges in particular when many of those challenges would be aggravated by an increased economic integration that fails to consider environmental and social aspects. With an increasingly integrated European economy it is more and more clear that actions taken by one Member State affects the situation in other Member States. This has always been true for the environment and is probably even truer today than it was at the time the Directives were adopted. Nature knows no borders – this calls for a common European framework to conserve and enhance it.

Since the nature Directives were adopted knowledge about the many ecosystem services that nature delivers and the tremendous value nature generates to the economy has made the **economic case for nature conservation ever more compelling (see question Y.1 re: economic benefits)**.

At the international level, **growing concern over biodiversity loss** has spurred governments, including the EU, to sign up to **ever more ambitious biodiversity conservation targets**.¹⁷⁷ Although the nature Directives have not yet been fully implemented, and conservation funding remains inadequate, there is **scientific evidence that EU level intervention through the Birds and Habitats Directives has proven to be effective at reducing the rate of loss of biodiversity**.¹⁷⁸ **Still, overall, the State of Europe's Nature is more critical than ever.** According to the latest results from the article 17 report of the Habitats Directive only 16% of European Habitats and 23% of species of community interest are in favourable conservation status. These are preliminary results from the "State of Nature" report expected to be published during the upcoming months. Similarly, the Pan-European Common Birds Indicator¹⁷⁹ shows that biodiversity loss is continuing, despite successes of Directives.

This means that the **EU should actually do more**, in particular to **close the implementation and enforcement gap**. In addition **further integration of biodiversity** in sectoral policies both at MS and EU level are required if the objectives of the BHD are to be met one day, especially in light of the **threat of climate change** which makes the need to conserve biodiversity even more pressing than before.

Protecting Europe's unique natural heritage has been at the centrepiece of the European integration project since the early days and is therefore an integral part of the European project. In 1979, the EC signed and ratified the Bern Convention on the conservation of European wildlife and natural habitats, which explicitly recognises "that wild flora and fauna constitute a natural heritage of aesthetic, scientific, cultural, recreational, economic and intrinsic value that needs to be preserved and handed on to future generations".¹⁸⁰ As a signatory to the Convention on Biological Diversity, the EU has confirmed that the conservation of biological diversity is a common concern of humankind.¹⁸¹

Many European citizens would not understand if the EU didn't have policies in place to

¹⁷⁷ <http://www.cbd.int/sp/targets/>

¹⁷⁸ <http://www.sciencemag.org/content/317/5839/810.abstract>

¹⁷⁹ <http://www.ebcc.info/pecbm.html>

¹⁸⁰ <http://conventions.coe.int/Treaty/en/Treaties/Html/104.htm>

¹⁸¹ <http://www.cbd.int/convention/articles/default.shtml?a=cbd-00>

address their legitimate concern over the loss of Europe's natural heritage. Public concern across the EU about the environment remains high, as does public support for EU level action to tackle environmental problems¹⁸². Europe is a continent that values and protects its environment; many people believe that the nature has its own intrinsic value that cannot be traded off against purely economic values. A 2010 Eurobarometer poll found that EU citizens see the conservation of biodiversity first and foremost as moral obligation rather than as a means of protecting our own well-being and quality of life.¹⁸³

Over the years the support of business to the Nature Directives has grown to the extent that today it can be clearly stated that **most businesses also sees that there is a compelling case for EU level intervention**, not the least because of the advantages that a common set of rules brings for businesses operating across borders.¹⁸⁴

¹⁸² http://ec.europa.eu/public_opinion/archives/ebs/ebs_416_en.pdf

¹⁸³ Eurobarometer (2010). Attitudes of Europeans towards the issue of biodiversity

Analytical report Wave 2 http://ec.europa.eu/public_opinion/flash/fl_290_en.pdf

¹⁸⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284500/environment-climate-change-documents-final-report.pdf

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	<p>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.</p> <p>Art. 5: Establish a general system of protection for all birds.</p> <p>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.</p>	<p>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.</p> <p>Art. 6: Ensure SCIs and SACs are subject to site management and protection.</p> <p>Art 10: Maintain/develop major landscape features important for fauna and flora</p> <p>Art. 12-13: ensure strict protection of species listed in Annex IV.</p> <p>Art. 14: ensure the taking of species listed in Annex V is in accordance with the maintenance of FCS.</p> <p>Art. 22: Consider the desirability of reintroducing species listed in Annex IV that are native to their territory.</p>
Measures/ Operations objectives	<p>Site Protection system</p> <p>Art. 4:</p> <p>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.</p> <p>4(3): Ensure that SPAs form a coherent whole.</p> <p>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.</p> <p>Species protection system</p> <p>Art. 5 (a-e): Prohibit certain actions relating to the taking, killing and deliberate significant disturbance of wild birds, particularly during the breeding and rearing periods.</p> <p>Art. 6: Prohibit the sale of wild birds except of species listed in Annex III/A</p>	<p>Site Protection system</p> <p>Arts. 4 & 5: Select Sites of Community Importance (SCIs) and SACs, in relation to scientific criteria in Annex III.</p> <p>Art. 6(1): Establish necessary conservation measures for SACs.</p> <p>Art. 6(2): [Take appropriate steps to?] Avoid the deterioration of habitats and significant disturbance of species in Natura 2000 sites.</p> <p>Plans or projects</p> <p>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.</p> <p>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.</p> <p>Financing</p>

	<p>and, subject to consultation with the Commission, those listed in Annex III/B.</p> <p>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.</p> <p>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.</p> <p>Art. 9: Provide for a system of derogation from protection of species provisions under specified conditions</p> <p>Research</p> <p>Art. 10: Encourage research into relevant subjects, especially those listed in Annex V.</p> <p>Non-native species</p> <p>Art. 11: Ensure introductions of non-native species do not prejudice local flora and fauna.</p> <p>Reporting</p> <p>Art. 12: report each 3 years on implementation</p>	<p>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.</p> <p>Landscape features</p> <p>Art. 10: Where necessary, encourage the management of landscape features to improve the ecological coherence of the Natura 2000 network.</p> <p>Surveillance</p> <p>Art. 11: Undertake surveillance of the conservation status of habitats and species of Community interest.</p> <p>Species protection system</p> <p>Art. 12 & 13: Establish systems of strict protection for animal species and plant species of Annex IV prohibiting specified activities.</p> <p>Art. 14: Take measures to ensure that taking/ exploitation Annex V species is compatible with their maintenance at FCS</p> <p>Art. 15: Prohibit indiscriminate means of capture/killing as listed in Annex VI.</p> <p>Art. 16: Provide for a system of derogation from protection of species provisions under specified conditions</p> <p>Reporting</p> <p>Art. 17: report on implementation each 6 years, including on conservation measures for sites and results of surveillance.</p> <p>Research</p> <p>Art. 18: undertake research to support the objectives of the Directive.</p> <p>Non-native species</p> <p>Art. 22: ensure that introductions of non-native species do not prejudice native habitats and species.</p>
--	--	--

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	<ul style="list-style-type: none"> • 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	<p>Investment costs:</p> <ul style="list-style-type: none"> • 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. <p>Recurrent costs - habitat and species management and monitoring:</p> <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<p>Extent and conservation status of habitats</p> <p>Population, range and conservation status of species</p>
Ecosystem services	<p>Effects of Directives on extent and value (using a range of physical and monetary indicators) of:</p> <ul style="list-style-type: none"> • 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	<p>Effects of management and ecosystem service delivery on local and national economies, measured as far as possible in terms of:</p> <ul style="list-style-type: none"> • 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.