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FITNESS CHECK

of the EU Nature Legislation (Birds and Habitats Directives)

**Directive 2009/147/EC of the European Parliament and of the Council of 30 November
2009 on the conservation of wild birds**

and

**Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and
of wild fauna and flora**

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ACRONYMS AND ABBREVIATIONS

AA	Appropriate Assessment
AEWA	African-Eurasian Migratory Waterbirds
CAP	Common Agricultural Policy
CFP	Common Fisheries Policy
CIMT	Consultation Information Management Tool
CJEU	(Court of Justice of the EU) European Court of Justice
COPI	Cost of Policy Inaction
ECA	European Court of Auditors
EEA	European Environment Agency
EEB	European Environmental Bureau
EFAs	Ecological Focus Areas
EFF	European Fisheries Fund
EIA	Environmental Impact Assessment
ELD	Environmental Liability Directive 2004/35/EC
EMFF	European Maritime and Fisheries Fund
ERDF	European Regional Development Fund
ESPGs	Environmentally Sensitive Permanent Grasslands
ETC-BD	European Topic Centre on Biological Diversity
EU	European Union
FCS	Favourable Conservation Status
FD	Floods Directive 2007/60/EC
FTE	Full Time Equivalent
GDP	Gross Domestic Product
GI	Green Infrastructure
GWD	Ground Water Directive 2006/118/EC
HELCOM	Convention on the Protection of the Marine Environment of the Baltic Sea Area
IAS	Invasive Alien Species
IUCN	International Union for the Conservation of Nature
LIFE	Financial Instrument for the Environment
MSFD	Marine Strategy Framework Directive 2008/56/EC
MS	Member State
NEC	National Emission Ceilings Directive 2001/81/EC
ND	Nitrates Directive 91/676/EEC
NGO	Non-Governmental Organisation
NEEI	Non-Energy Extractive Industries
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
PAFs	Prioritised Action Frameworks
PCIs	Projects of Common Interest
REFIT	Regulatory Fitness and Performance Programme
RGI	Renewables Grid Initiative
SACs	Special Areas of Conservation
SEA	Strategic Environmental Assessment
SCIs	Sites of Community Importance
SDGs	Sustainable Development Goals
SIIF	Structured Implementation and Information Framework
SMEs	Small and Medium-sized Enterprises
SPAs	Special Protection Areas
Taxonomy	Classification of organisms
TEN-E	Trans-European Networks for energy
TEN-T	Trans-European Networks for transport
TSOs	Transmission System Operators
UNEP-MAP	United Nations Environment Programme / Mediterranean Action Plan
WFD	Water Framework Directive 2000/60/EC

EXECUTIVE SUMMARY

This REFIT Fitness Check provides a comprehensive policy evaluation of the Birds¹ and Habitats² Directives. It has examined their performance against five criteria: effectiveness, efficiency, relevance, coherence and EU added value. The Fitness Check, supported by a study, has involved extensive evidence gathering and consultation with many stakeholders at Member State and EU levels, including a 12 week public internet consultation that attracted unprecedented interest, with more than 552,000 responses, strongly influenced by different campaigns. The resulting analysis brings together a substantial body of evidence and seeks to identify changes that can be logically attributed to the intervention of the Directives. However, despite evidence of large scale declines in European nature during the 20th century, the work has been limited by the fact that there was no clear baseline against which to estimate how the status of flora and fauna might develop in the absence of EU action.

The evaluation on **effectiveness** focused on assessing the extent to which the objectives of the two Directives have been achieved and any significant factors that may have contributed to or inhibited progress towards meeting those objectives. The evaluation showed that **the general objectives of the Directives have not yet been met and it is not possible to predict when they will be fully achieved.** However, **it is clear that the status and trends of bird species as well as other species and habitats protected by the Directives would be significantly worse in their absence and improvements in the status of species and habitats are taking place where there are targeted actions at a sufficient scale.** Although there are still gaps for the marine environment, the terrestrial part of the Natura 2000 protected areas network is now largely established. National systems of species protection and sustainable use are in place. Progress on habitat conservation and delivery of ecosystem services beyond Natura 2000 is more limited.

The Directives have been a catalyst for increased funding for nature, improved stakeholder awareness and engagement, as well as strengthened knowledge and sharing of experience, but this has not taken place at a sufficient scale. The effectiveness of the Directives has also been hindered by delays in the establishment of Natura 2000 and in putting in place the necessary conservation measures for management and restoration of the sites and consequently the network has still not delivered its full conservation and socio-economic potential. Availability and targeting of funding, knowledge gaps, full stakeholder engagement, effective management of the Natura 2000 sites, policy integration and human resource constraints remain the most significant challenges.

The evaluation on **efficiency** has examined if the costs involved in implementation are reasonable and in proportion to the benefits achieved. However, as Member States do not have a duty to report to the Commission on the costs and benefits of the Directives, there is limited quantitative information available at the EU scale to underpin assessments on efficiency. **Compliance costs of designating, protecting and managing Natura 2000 sites have been estimated to be at least € 5.8 billion annually across the EU.** Only a qualitative assessment of opportunity costs was possible, showing that the Directives do not create barriers to investments that are sustainable and not damaging to the conservation values of the sites. The vast majority of proposed projects and plans falling

¹ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds is the codified version of Directive 79/409/EEC as amended. *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.*

within the Article 6 permitting procedures are authorised. Delays in site and species derogation permitting procedures result from a combination of factors including inadequate knowledge, difficulties in access to data and complex procedures put in place at national level. Furthermore, EU financial support applies to agriculture and forestry, the main land uses in Natura 2000 as well as to prevent damage caused by protected species (e.g. under rural development for large carnivores) or to compensate for such damages (e.g. under fisheries policy for fish-eating birds). The Directives themselves set out the framework of rules that are then developed and applied by Member States. Unnecessary administrative burdens can result from national or regional implementation approaches (e.g. permitting procedures that are more complicated than necessary). However, there is a growing body of good practice on smart implementation approaches, such as early screening of plans and projects, streamlining of permitting procedures, improving the quality and sharing of data.

The multiple benefits of the Directives, estimated at € 200-300 billion per year, significantly exceed identified costs. Their implementation contributes to local economies through job creation and tourism, especially in rural areas. However, internalization of costs has not yet been achieved as the socio-economic benefits of the many ecosystem services provided by Natura 2000 have not yet gained widespread recognition, acknowledgement and acceptance in public policy. Furthermore, there can be a mismatch between those bearing the costs, such as landowners and developers and those benefitting, such as tourism and recreational bodies and society more generally, which has implications for the design of compensation and incentive schemes.

The overall EU co-funding for Natura 2000 during the 2007-2013 period represented only 9-19% of the estimated financing needs and national co-funding was unable to cover the remaining gap. Moreover EU funding has not always been able to achieve demonstrable progress. For the 2014-2020 multi-annual financial perspective Prioritised Action Frameworks have been developed by Member States, aimed at a better definition of Natura 2000 funding needs and priorities for action to strengthen financial integration.

The examination of **relevance** considered the extent to which the objectives and measures contained within the Nature Directives are consistent with the current needs of EU natural habitats and species of wild fauna and flora, including wild birds. **Evidence shows that the Directives continue to be relevant for tackling the key pressures on habitats and species.** Their general and specific objectives remain valid, setting out what is to be achieved and leaving the responsibility for identifying and responding to specific threats to the Member States. Annexes to both Directives have been amended on a number of occasions, most recently linked to the accession of new Member States. Over 1200 species and sub-species as well as 231 habitat types are currently listed under the Habitats Directive. There are differences of views on the current need to update the Annexes to the Directives. Although the Directives do not fully cover all taxonomic groups, available studies indicate that the Natura 2000 network, through its 'umbrella effect', covers a high proportion of species of conservation concern beyond those listed in the Annexes. The evidence indicates that the Annexes in their current form provide an adequate level of protection to enable the objectives of the Directives to be met.

The analysis on **coherence** looked for evidence of synergies or inconsistencies between the Directives and other EU policies which are expected to work together, such as other EU environmental directives and other EU sectoral policies affecting land and water use and adaptation to climate change. **The Nature Directives are coherent with each other but there is continued need to promote implementation solutions that optimise the**

attainment of their conservation objectives while having full regard to the socio-economic context in which they operate, working with different stakeholder communities. Other environmental directives are consistent and complementary with the Nature Directives, although experience highlights the need and value for improved co-ordination, in particular as regards monitoring and reporting with a view to collecting data once for multiple purposes and reducing burden.

The Nature Directives and the EU 2020 Biodiversity Strategy constitute an integrated and fully coherent policy approach. The Directives are key instruments for achieving the headline target of the EU Biodiversity Strategy to ‘halt the loss of biodiversity and ecosystem services in the EU and help stop global biodiversity loss by 2020’. Several actions under the Strategy help improve ecological coherence of the Natura 2000 network in line with Article 10 of the Habitats Directive, especially target 2 of the Strategy, which focuses on maintenance and restoration of ecosystems and their services. **There is overall coherence between the objectives of the Nature Directives and relevant international Conventions and Agreements on biodiversity and nature protection that apply in the European Union.** Implementation of the Directives is central to the EU and its Member States achieving international biodiversity targets and Sustainable Development Goals.

Other sectoral EU policies have sometimes competing objectives. Given the continuing decline of species and habitats associated with agriculture, greater efforts are needed to conserve and enhance biodiversity, through more effective integration with the CAP in order to reach biodiversity objectives. Recent reforms of the CAP and of the Common Fisheries Policy have brought promising changes to the policy framework in terms of improved coherence with the Nature Directives, although more time is needed to confirm results. While the Cohesion, Energy and Transport policies have the potential for both positive and negative impacts on the species and habitats protected under the Nature Directives, several EU policies (e.g. research), instruments and procedures (e.g. SEA, EIA and appropriate assessments) are in place to identify and mitigate the possible negative impacts on nature and to develop innovative tools to improve the condition of the target species and habitats protected by the Directives and their ecosystems..

The analysis on **EU added value** assessed whether action continues to be justified at the EU level and looked for changes that can reasonably be attributed to EU intervention. **There is broad recognition that the Directives have established a stronger and more consistent basis for protecting nature than existed in Europe before their adoption. The needs and rationale for EU level action through the Nature Directives remain valid** also with a view to achieving the multiple ecosystem service benefits that they deliver to society. Nature is a shared heritage of the Member States and effective management of natural resources needs to take place across political boundaries as the ranges of many species, especially migratory ones, are dependent on suitable habitats and conditions being present simultaneously in several Member States. Different nature protection rules across the EU would lead to many diverse legal regimes for business. EU action has created a more consistent, fair and integrated approach to nature conservation and delivery of ecosystem services across the EU, generating opportunities while at the same time addressing transboundary concerns in line with international obligations.

The Directives are 'framework legislation' whose detailed implementation is regulated through national/regional law and decisions of national/regional/local authorities

supported by guidance and other EU level policy documents. **The goals of the Directives continue to reflect the needs of nature conservation and sustainable use for nature, people and the economy although more efforts are needed to achieve them.** The Directives **have already led to** improvements in conservation status of species and habitats where targeted actions have been taken at a sufficient scale. There are opportunities for enhancing the efficiency of their implementation and reducing administrative burden such as through smarter use of permitting procedures. There is a need to ensure better coherence with other EU policies, including strengthened integration with the CAP since agriculture and forestry have the most important influence on terrestrial biodiversity in the EU. Better use of limited financial resources is critical to achieving the Directives' objectives. **Within the framework of broader biodiversity policy the Nature Directives are fit for purpose but fully achieving their objectives and realising their full potential will depend on substantial improvement in their implementation in relation to both effectiveness and efficiency, working in partnership with different stakeholder communities in the Member States and across the EU, to deliver practical results on the ground.**

1. INTRODUCTION

1.1. Purpose of the evaluation

This Fitness Check is a comprehensive policy evaluation of the Birds³ and Habitats⁴ Directives. Frequently referred to as the ‘Nature Directives’, they provide a common EU legislative framework for nature conservation across the Member States. The evaluation assesses if the Directives are fit for purpose by examining their performance against five criteria: relevance, effectiveness, efficiency, coherence and EU added value. This includes examining implementation and integration successes and problems, the costs of implementation and non-implementation of the legislation, the administrative burden of implementation, and the opportunities to reduce it without compromising the integrity of the purpose of the Directives. This retrospective exercise considers what has worked well or poorly, and compares actual performance to earlier expectations. The results will be used by the Commission to inform future decisions relating to EU nature policy.

The Fitness Check does not arise from an obligation of the Directives but as an initiative under REFIT⁵, the Commission's Regulatory Fitness and Performance programme. The REFIT programme is about identifying actions to make EU law simpler, more efficient and effective, seeking to reduce any unnecessary regulatory costs, thus contributing to a clear, stable and predictable regulatory framework supporting growth and jobs. It covers all EU policy areas and looks at all kinds of steps that can be taken in the regulatory cycle – from repeals and withdrawals, to impact assessment of new proposals, monitoring and evaluation of the performance of existing measures. Whilst all evaluations and Fitness Checks must address the five criteria listed above, they pay particular attention to analysing the effectiveness and efficiency of actions resulting from EU law. The decision to carry out a REFIT Fitness Check of the Nature Directives recognises that these pieces of legislation have been in place for a number of years and that it is timely to evaluate their impact.

1.2. Scope of the evaluation

The scope of the Fitness Check, as set out in its mandate (roadmap)⁶, covers both the Birds and Habitats Directives, which aim to protect the EU's most vulnerable species and habitat types across their entire natural range within the EU. The Fitness Check also has regard to relevant commitments under the EU Biodiversity Strategy⁷ and international Biodiversity Conventions. In addition, the Fitness Check takes into account other relevant EU environmental Directives, as well as Communications, Staff working papers and guidance documents that have been issued by the Commission and its Services in support of implementation of the Nature Directives. However, whereas the evaluation examines related EU legislation under the criterion of coherence, the analysis relating to

³ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds is the codified version of Directive 79/409/EEC as amended. *OJ L 20*, 26.1.2010, p. 7–25.

⁴ 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.

⁵ For more information on REFIT see http://ec.europa.eu/smart-regulation/refit/index_en.htm

⁶ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/Mandate%20for%20Nature%20Legislation.pdf

⁷ Communication from the Commission to the European Parliament, The Council, The Economic and Social Committee and the Committee of the Regions: Our life insurance, our natural capital: an EU biodiversity strategy to 2020. (COM/2011/0244 final). <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52011DC0244>

invasive species is limited to the context of the relevant provisions of the Directives and does not address in a detailed manner the new Invasive Alien Species Regulation⁸.

The timeframe covered by the Fitness Check relates to the period since the adoption of the Directives: 1979 for the Birds Directive and 1992 for the Habitats Directive, to the present day. The geographic focus is on the European territory of the Member States to which the Treaty applies. This also has regard to successive enlargements of the EU, with 9 Member States in 1979, 12 Member States in 1992 and currently 28 Member States. Some information, such as that relating to the reporting on conservation status of species and habitats, is not available for the most recent acceding Member State, Croatia.

2. BACKGROUND TO THE INITIATIVE

2.1. Description of the Directives and their intervention logic

The Birds and Habitats Directives are the two main pieces of EU nature legislation. Together they aim to contribute to ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the EU. Adopted unanimously by the Council in 1979, the Birds Directive aims to protect all wild bird species and their habitats across the EU. The Habitats Directive, adopted unanimously by the Council 13 years later (1992), introduces very similar measures but extends its coverage to more than 1200 other rare, threatened or endemic species of wild animals and plants, collectively referred to as species of Community interest. It also, for the first time, protects 231 rare habitat types in their own right.

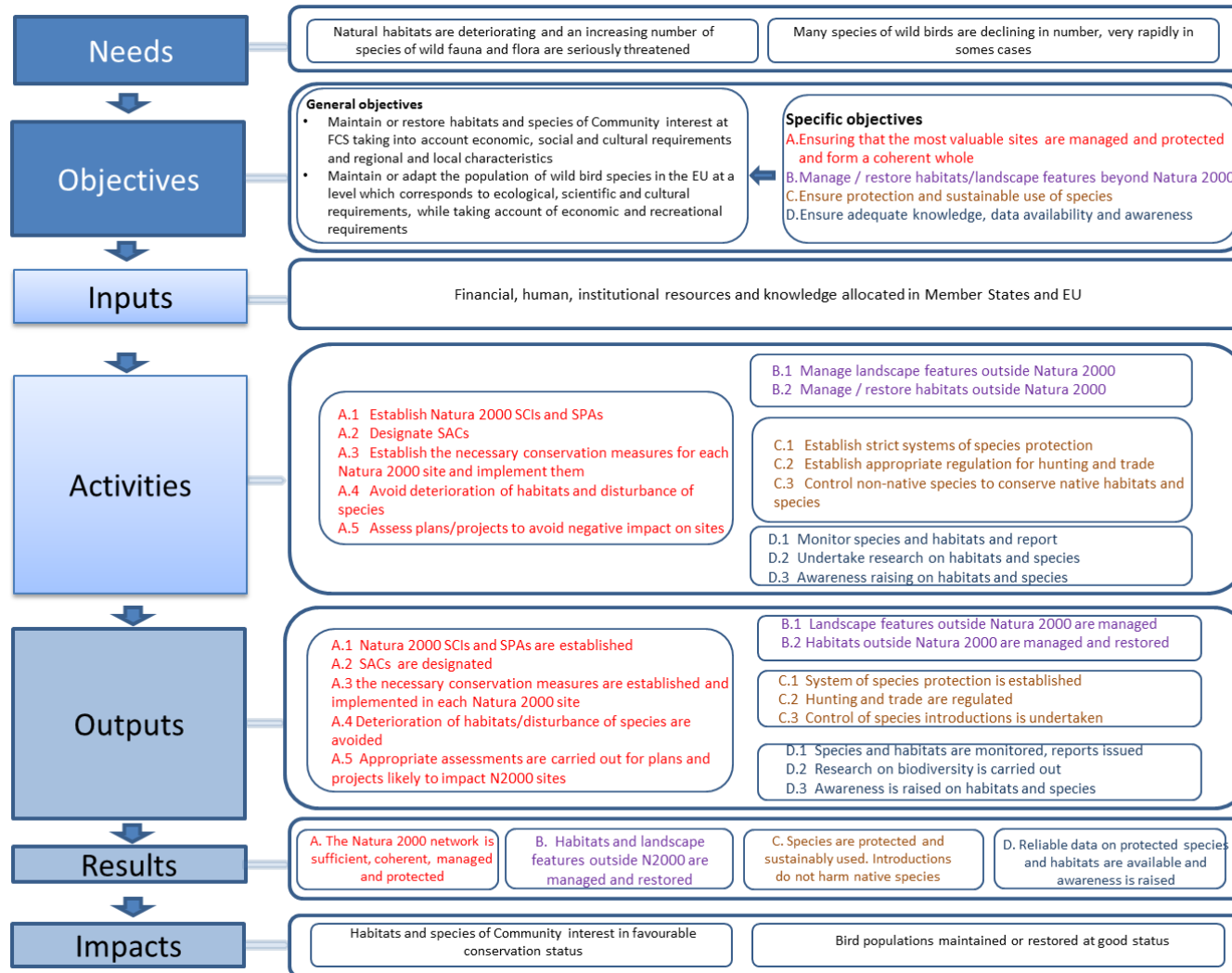
The **intervention logic**, setting out the rationale and approach for the operation of both the Birds and Habitats Directives is given in Figure 1. This includes their general and specific objectives, the activities⁹ and inputs required to achieve these objectives, and the outputs, results and impacts that were expected to be achieved through their implementation. By first understanding how the legislation is intended to work, the evaluation can more clearly assess what has happened in practice. Figure 1 also provides a code for each "Specific Objective" and related "Activities" and "Outputs", which is used as a reference throughout this document.

Both Directives respond to similar **needs** as explained in their introductory recitals. The Birds Directive recognises that species of wild birds, many of which are in decline, are mainly migratory, constitute a common heritage of the Member States and that effective bird protection is typically a trans-frontier environmental problem. This requires maintenance or restoration of a sufficient diversity and area of habitats, making certain species subject to special conservation measures, regulating hunting and preventing commercial interests from exerting harmful pressure on exploitation levels. Similarly, the Habitats Directive recognises that many natural habitats and wild species are seriously threatened, that they form part of the EU's natural heritage and that threats to them are frequently of a transboundary nature. This requires their maintenance and restoration through both site protection as well as through a general system of protection for certain species of flora and fauna, complementary to the Birds Directive, and allowing management measures for certain species, if their conservation status so warrants.

⁸ Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species (*OJ L 317, 4.11.2014, p. 35–55*) entered into force on 1 January 2015.

⁹ Rather than listing operational objectives, these have been translated into the associated activities.

Figure 1 - Intervention logic for Birds and Habitats Directives



In response to these needs the **general objective** of the Birds Directive is for Member States to maintain the population of all species of naturally occurring birds in the wild in the EU at a level according to the ecological, scientific and cultural requirements, while taking account of economic and recreational requirements. The Habitats Directive requires Member States to adopt measures to maintain or restore natural habitats and species of Community interest to favourable conservation status (FCS), taking into account economic, social and cultural requirements, as well as regional and local characteristics. The concept of FCS is defined for both species and habitat types in Article 1 of the Directive¹⁰. The general objective of both Directives is therefore more than just halting further decline or disappearance but to ensure that species and habitats recover sufficiently to enable them to flourish over the long-term.

The **specific objectives** of both Directives aim to create a conservation framework, for species, habitats and sites protected by the Directives.

- A. Ensuring that the most important sites are protected and managed and form a coherent whole relates to the Natura 2000 network, established for species and habitat types listed in Annex I and II of the Habitats Directive and Annex I of the Birds Directive, as well as for migratory birds. This is made up of Sites of Community Importance (SCIs) adopted by the Commission then later designated by Member States as Special Areas of Conservation (SACs) under the Habitats Directive as well as Special Protection Areas (SPAs) classified by Member States under the Birds Directive.
- B. The Directives also require and encourage Member States to take habitat conservation measures beyond the Natura 2000 network.
- C. Member States must establish a strict protection regime for all naturally occurring wild bird species and other endangered species listed in Annex IV of the Habitats Directive, both inside and outside Natura 2000 sites. Certain bird species listed in Annex II may be hunted and other species listed in Annex V of the Habitats Directive may be exploited, but Member States must ensure that this exploitation is sustainable and does not jeopardise conservation efforts.
- D. Member States must also ensure adequate knowledge, data availability and awareness to underpin implementation of the Directives.

The specific objectives are translated into **activities** to be taken by Member States to implement the Directives. The **selection of Natura 2000 sites** (Activity A1) under both Directives is exclusively based on scientific grounds to ensure that a sufficient number of the most important areas in the EU are protected for the species and habitats of EU importance.

Knowledge on the number and distribution of birds, as well as greater availability of scientific references such as the lists of 'Important Bird Areas (IBAs)¹¹' has been much better than for most other groups of species. Therefore the process for site selection is

¹⁰ FCS for habitat types means natural range/areas covered are stable or increasing, structure and functions for long term maintenance exist, and status of their typical species is favourable. FCS for species means long term viability of population, range maintained and sufficient large habitat.

¹¹ Applying objectively verifiable ornithological criteria lists of Important Bird Areas (IBAs) have been developed to assist implementation of the Birds Directive. Relevant scientific criteria already existed at the time of adoption (see Temple Lang, J. (1981) The European Community Directive on bird conservation. *Biological Conservation* 22, 11-25) and were further elaborated in developing the reference lists. The first list of IBAs was developed under contract for the European Commission in 1981 (Osieck, E.R. and Morzer Bruyns, M.F. (1981) *Important bird areas in the European community*. Cambridge, UK: International Council for Bird Preservation). There have been regular updates of these scientific references, more recently by BirdLife International. Several Member States such as the UK have developed national inventories of IBAs. In assessing the completeness of the SPA networks the Commission has made use of the IBA lists, national reference lists and other scientific information.

more straightforward than under the Habitats Directive. For Special Protection Areas (SPAs) under the Birds Directive Member States identify and classify the most suitable territories, on the basis of objectively verifiable ornithological criteria, (Activities A1 and A2) and notify the European Commission, which ensures that they form a coherent network.

Selection of sites for habitat types and species protected under the Habitats Directive, which includes an assessment at biogeographical level, is a more complex and iterative process. Each Member State first identifies and proposes important locations for protection for those species and habitats present on their territory. The Commission then selects, with the assistance of the European Environment Agency's (EEA's) Topic Centre for Biodiversity and scientific experts and in agreement with the Member States, Sites of Community Importance (SCIs) within the framework of each of nine biogeographical regions covered by the Directive. If a national list is determined to be insufficient in proportion to the representation within its territory of the natural habitat types and the habitats of species, in order to ensure a fair and balanced process, the Commission requests the Member State to propose further sites to complete the network. Once selected, by way of Commission Decisions¹², the SCIs become part of the Natura 2000 network. Member States then have up to six years to designate them as Special Areas of Conservation (SAC) (Activity A2) and to introduce the necessary conservation measures (Activity A3), in line with site conservation objectives, to maintain or restore the species and habitats present to a good status. The EEA and the Commission have developed a Natura 2000 viewer, which provides spatial information as well as access to the Standard Data forms containing ecological information for each site, officially supplied by the Member States¹³.

Conservation measures can include both site-specific measures (i.e. management actions and/or management restrictions), and horizontal measures that apply over a larger area (e.g. measures to reduce nitrogen pollution or to regulate hunting or resource use). Appropriate instruments for implementing these conservation measures can include management plans specifically designed for the sites or integrated into other development plans, and/or appropriate statutory, administrative or contractual measures. Although it does not explicitly require the establishment of the necessary conservation measures for SPAs there are analogous provisions set out in Articles 4.1 and 4.2 of the Birds Directive (Activity A3). Although management plans are not an obligation for Natura 2000 sites, they are recommended by the Commission in different guidance documents¹⁴ as a tool in which the necessary conservation measures for the sites are developed and presented. Article 8 of the Habitats Directive foresees EU co-funding for Natura 2000 to support the delivery of conservation measures,

With regard to the protection of Natura 2000 sites Member States must take appropriate steps to avoid activities that could significantly disturb the species or deteriorate the habitats for which Natura 2000 sites are designated (Activity A4). Having regard to the socio-economic context in which the Directives operate developments that are likely to have an adverse effect on a site must be subject to an appropriate assessment in light of the site's conservation objectives (Activity A5). The competent authorities may

¹² Commission Decisions, adopting lists of sites of community importance are made at the level of the Biogeographical Regions and have been regularly updated to take account of new site proposals by Member States. All the Decisions are available at http://ec.europa.eu/environment/nature/natura2000/sites_hab/biogeog_regions/index_en.htm

¹³ <http://natura2000.eea.europa.eu/#>

¹⁴ See for example *Establishing conservation measures for Natura 2000 Sites A review of the provisions of Article 6.1 and their practical implementation in different Member States* <http://ec.europa.eu/environment/nature/natura2000/management/docs/conservation%20measures.pdf>

normally only approve such a plan or project once they have ascertained that it will not adversely affect the integrity of the site. However, exceptions may be justified in cases where there are imperative reasons of overriding public interest, no other alternatives, and compensatory measures to offset the loss of or damage to the site are in place to ensure the overall coherence of the network is protected. There is an extra safeguard clause applying to sites hosting habitat types and species that have priority status¹⁵ under the Habitats Directive.

Beyond Natura 2000 sites the Habitats Directive requires Member States to endeavour, where they consider it necessary, in their land-use planning and development policies and, in particular, with a view to improving the ecological coherence of the Natura 2000 network, to encourage the management of features of the landscape which are of major importance for wild fauna and flora (Activity B1). The Birds Directive also requires the preservation, maintenance and re-establishment of a sufficient area and diversity of biotopes and habitats inside and outside the protected zones (Activity B2). There is no mechanism set out in either Directive to consider compensation for the loss of habitats and landscape features beyond Natura 2000.

Member States are required **to establish a general system of protection for all species of birds** (Activity C1) covered by the Birds Directive, to prohibit their commercialisation except for species listed in Annex III, to regulate hunting of species listed in Annex II (Activity C2), and to prohibit the use of all means of large-scale or non-selective killing of birds, especially those listed in Annex IV. Where there is no other satisfactory solution, Member States may derogate from these species protection provisions under certain circumstances set out in the Directive. Similarly, Member States must **establish a system of strict protection for animal and plant species** listed in Annex IV of the Habitats Directive (Activity C1). They must ensure that the taking in the wild of species listed in Annex V of the Directive, as well as their exploitation, is compatible with their being maintained at FCS. They must prohibit all indiscriminate means of capturing or killing wild fauna listed in Annex V(a) and any listed in IV(a) (Activity C2). They must prohibit methods and means of capture and killing set out in Annex VI(a) and any form of capture or killing from the modes of transport listed in Annex VI(b). These species protection measures may be subject to derogations under certain circumstances set out in the Directive, provided that there is no satisfactory alternative and they are not detrimental to the maintenance of the populations of the species at FCS. Member States must ensure that introductions of **non-native species** do not prejudice native habitats and species (Activity C3).

Member States must undertake **monitoring** of the conservation status of habitats and species of Community interest under the Habitats Directive. They also monitor status and trends of birds as a basis for assessing implementation of the Birds Directive (Activity D1). Both Directives require Member States to encourage **research and scientific work** to support the implementation of the Directives (Activity D2). Member States also undertake awareness raising, including in relation to education and providing information (Activity D3).

The intervention logic shows that these activities are translated into a series of **outputs** for each of the four specific objectives. The **results** of these represent a set of expectations in relation to attainment of the Directives' objectives. Therefore, a fully

¹⁵ This relates to a sub-set of the most threatened Annex I habitat types and Annex II species (indicated by an asterisk in annexes) for which the EU has particular importance in view of the proportion of their natural ranges that falls within the territory covered by the Directive.

functional Natura 2000 network that is sufficient, coherent, managed and protected should be in place (Result A). Habitats and biotopes¹⁶ as well as landscape features beyond Natura 2000 should be managed and restored as necessary (Result B). Species protection systems, including regulation of hunting, should be fully operational, and introductions should not harm native species (Result C). Monitoring, research, and awareness raising necessary to underpin the implementation of the Directives should be undertaken (Result D). Finally, these results should contribute to longer term **impacts** at the EU level which are the attainment of good status for bird populations and for other species and habitats types to be in favourable conservation status. However, apart from putting in place the necessary transposition measures and establishment of Natura 2000, for which timeframes are set out in the Habitats Directives, the Directives do not set out explicit deadlines for achievement of their general objectives.

Achievement of the objectives of the Nature Directives is also influenced by **external factors** operating during the period since adoption of the Directives. Developments in the Member States, including significant land use changes over time but also factors such as the recent economic crisis, have an important influence on implementation. Scientific developments include changes in knowledge and understanding of ecosystems and their services. Linked to this is growing awareness of the economics of ecosystems and biodiversity and of their critical role in economic growth and sustainable development¹⁷. Related to this is the evolving context of international biodiversity conventions. Many migratory species are subject to threats and pressures outside the EU, which can significantly affect their conservation status. Finally, climate change represents an increasingly relevant external factor to consider.

2.2. Baseline

As impact assessments were not carried out when the Birds or Habitats Directives were being proposed, no systematic EU wide baseline exists to describe the situation prior to their adoption. However, a 1977 study for the Commission on 'Bird Conservation in Europe'¹⁸ showed that many species had undergone serious declines in the 20th century, and that populations of some groups such as birds of prey had been greatly depleted. A range of pressures and threats were invoked, of which the most significant was considered to be habitat changes (including as a result of large scale drainage of wetlands), pollution (including unintended consequences of use of pesticides) as well as hunting and trapping. A separate evaluation of the then nine Member States concluded that laws on bird protection differed widely, not only at national but also at provincial level¹⁹. Hunting of wild birds appears to have been generally more extensive, with more species hunted, longer hunting seasons, extending in some countries significantly into the Spring migration period.

As the situation regarding wetlands in Europe was of particular concern, the Commission issued a Communication in 1995 on the wise use of wetlands. This reported that Europe

¹⁶ Article 3 of the Birds Directive refers to habitats and biotopes. However, as the term biotope is largely synonymous with the term 'habitat' only the more commonly used term 'habitat' is used throughout this document.

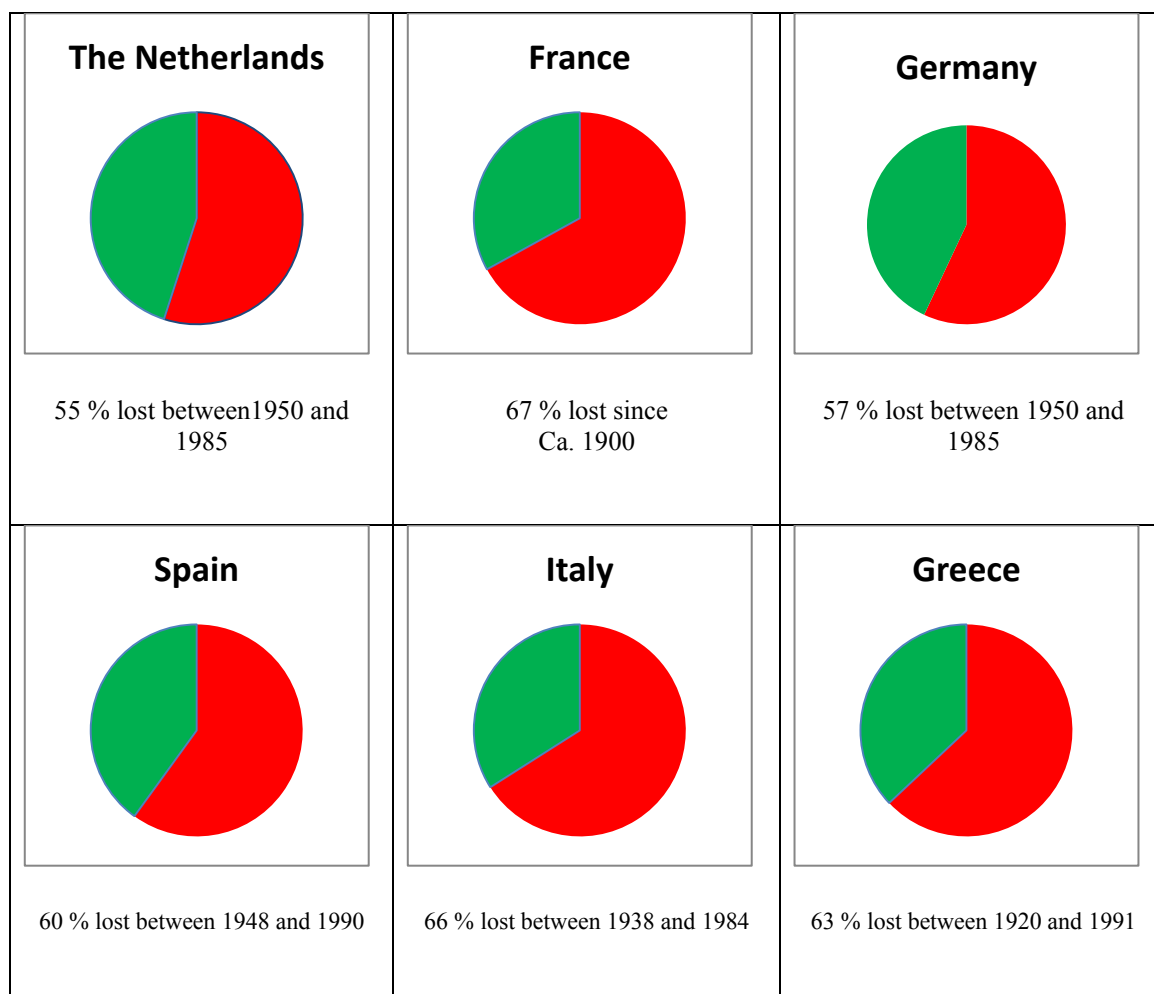
¹⁷ A global initiative called 'The Economics of Ecosystems and Biodiversity (TEEB) has been developed, aimed at making nature's values visible with the prime objective of mainstreaming the values of biodiversity and ecosystem services into decision-making at all levels <http://www.teebweb.org/about/>

¹⁸ Bird Conservation in Europe by Stanley Cramp. Her Majesty's Stationary Office (1977).

¹⁹ Wolfgang Poltz; Bernt Conrad Radolfzell-Möggingen. (1974). Expertise on the position of bird protection in the individual EEC States : final report.

had lost two thirds of its wetlands²⁰ between 1900 and the mid-1980s (Figure 2). Rivers and floodplain wetlands had been heavily subject to hydraulic and flood protection works²¹. Wet meadows, flooded grasslands and temporary freshwater marshes had suffered extensive losses due to dam building along rivers, followed by drainage and transformation of wet meadows into dry pastures and arable land²². Saltmarshes had been progressively reclaimed, mainly for conversion into arable or industrial land²³. Peatlands had been considerably destroyed through unsustainable peat extraction and afforestation²⁴.

Figure 2: Level of estimated Wetland Loss (indicated in red) in some European Union Member States during (parts of) the 20th century²⁵



²⁰ Communication from the Commission to the Council and the European Parliament 'Wise use and conservation of wetlands'- COM(1995) 189 final, 29.05.1995.

²¹ Of the 40,000 ha of riverine forests existing along the Alsatian side of the Rhine in 1830, only 8,500 ha remaining, of which only 400 ha were still flooded by high water levels.

²² During the 1970s, annual losses were about 2,400 ha in Denmark, 4,000 to 8,000 ha in England and Wales, and 10,000 ha in France.

²³ In the Wadden Sea region, 20,000 ha of saltmarsh were lost between 1950 and 1984, with a total of 40,000 ha remaining. In the Rhone delta, the saltmarsh area was reduced from 23,900 ha to 10,400 ha between 1942 and '1984.

²⁴ In the United Kingdom, it was estimated that there was less than 6,200 ha of undamaged active raised bogs remaining, representing only six per cent of the original area. In the Netherlands the remaining raised bogs represented ten per cent of the area which existed at the beginning of the 20th century.

²⁵ Sources of information provided on p.7 of the 1995 Commission Wetland Communication.

The first environmental assessment by the European Environment Agency's 1995 'Europe's Environment – the Dobříš Assessment'²⁶ – provided a Pan- European overview of the state of nature and wildlife in around the time of adoption of the Habitats Directive. Although it emphasised that comprehensive data on the current state and distribution of ecosystems did not exist at the time across Europe, this assessment also confirmed that major losses of different habitat types had occurred in the 20th century, not only of wetlands such as rivers, lakes, bogs, fens and marshes but also including natural and semi-natural grasslands. It also confirmed that many European plant and animal species were declining and threatened with extinction (53% of fish species, 45% of reptiles, 42% of mammals, 30% of amphibians and 21% of Europe's 12 500 higher plant species). The main threats highlighted included land use changes, drainage of wetlands, modification of coastlines and river courses, infrastructure developments and urbanisation.

There is no systematic EU overview of protected areas from the time of adoption of the Birds or Habitats Directives. Protected areas have a long history in Europe and many types, including national parks and nature reserves, existed in all Member States at the time of adoption of the Directives. The 'Dobříš Assessment' however, highlighted that there were dramatic differences between countries and that most protected areas in Europe were under pressure. The qualities of some were being destroyed, due to both external threats and a lack of management resources. It was also acknowledged that, whereas there had been some progress in creating marine protected areas in the Mediterranean and the Baltic, marine protected areas generally lagged behind those of land.

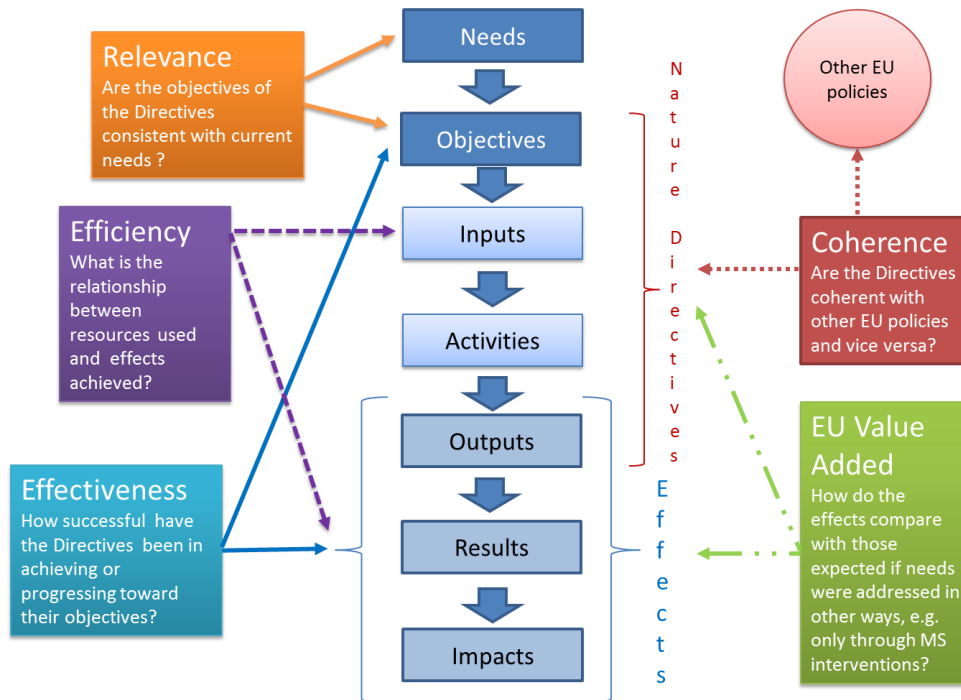
Despite the lack of baselines monitoring and reporting schemes that have been established under both Directives include evaluation of status and trends of species and habitats and thus provide a basis for measuring progress towards the general objectives of the Directives.

3. EVALUATION LOGIC

The Fitness Check evaluation logic is framed under five different evaluation categories: Relevance, Effectiveness, Efficiency, Coherence and EU Added Value (Figure 3). Effectiveness considers how successful the Directives have been in achieving or progressing towards their objectives by comparing those with the effects generated by the Directives (outputs, results, and impacts). Efficiency considers the relationship between the resources used (inputs) and the effects generated by the Directives (outputs, results, and impacts). Relevance looks at the relationship between the needs of species and habitats of EU concern and the objectives of the Directives. Coherence looks for evidence of synergies or inconsistencies between the Directives and other EU policies which are expected to work together. EU added value assesses whether action continues to be justified at the EU level and looks for changes which it can reasonably be argued are due to EU intervention, rather than any other factors. For each of these categories a series of evaluation questions, set out in the mandate, are given. These questions are presented under Chapter 6 for each category and are also given in Annex 4.

²⁶ <http://www.eea.europa.eu/publications/92-826-5409-5>.

Figure 3 - Fitness Check evaluation logic



4. METHOD/PROCESS FOLLOWED

4.1. Process/Methodology

Preparations for the Fitness Check commenced shortly after its announcement by the Commission in October 2013²⁷. Although the Better Regulation Guidelines were not officially adopted until 19 May 2015, every effort has been made to conform with them as they were developed. The initial phase of the Fitness Check involved preparation of the Fitness Check mandate (roadmap) and establishment of a Steering Group of relevant Commission Services to oversee the evaluation. It met regularly throughout the entire process (see Annex 1). The mandate was approved by the Steering Group at its first meeting in February 2014²⁸ and made publicly available shortly afterwards. They also agreed the terms of reference for a supporting study (hereafter referred to as "the Study"), launched in May 2014. This was awarded in October 2014 to a consortium of experts led by Milieu Ltd, and also comprised of the Institute for European Environmental Policy (IEEP), ICF International and Ecosystems Ltd²⁹. The consortium worked closely with the Commission throughout the different phases of the Study. The Commission also established a dedicated web page to share information and provide feedback to stakeholders about the Fitness Check³⁰. The Study draws upon the analysis of evidence gathered from literature research, including earlier studies carried out for the Commission, and received contributions from the various stakeholder consultation activities³¹. Evidence was analysed with a view to prove relationships between the

²⁷ Communication from the Commission: Regulatory Fitness and Performance (REFIT): Results and Next Steps. COM(2013) 685 final.

²⁸ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/Mandate%20for%20Nature%20Legislation.pdf

²⁹ Contract number: ENV.B.3/ETU/2014/0014 for the Commission's Directorate General Environment.

³⁰ http://ec.europa.eu/environment/nature/legislation/fitness_check/index_en.htm

³¹ See annex 2 – synopsis report on stakeholder consultation.

different actions (inputs, activities) and the final effects (outputs, results, impacts) using triangulation³². No new modelling was conducted for the Study.

4.1.1. Evidence gathering (November 2014-November 2015)

The approach taken in the Study to evidence gathering was structured around the questions set out in the mandate. The consultants carried out an initial scoping exercise for each question, identifying the types and sources of information needed to answer the questions³³. Evidence gathering consisted of the following steps:

A. Literature review (November 2014 – February 2015)

Throughout the evaluation period over 1,800 legal and policy documents, studies, reports, datasets and other pieces of written evidence were reviewed. This desk research resulted in a list of relevant literature feeding into the consultation and evaluation processes³⁴.

B. Stakeholder consultation (February 2015 –November 2015)

The stakeholder consultation was designed to reach a wide range of stakeholders in various sectors and at different geographical levels. The main aim of the various targeted consultation activities was to access the experience and knowledge of those most closely engaged in and affected by implementation of these Directives and to seek as much quantitative and qualitative information on what has happened, obtain examples of good practice as well as examples of where there had been problems. The consultation activities also included an open public consultation to gather opinions from a wider range of stakeholders and the general public. A summary of the approach taken is presented below (further details are given in Annex 2).

i) A targeted stakeholder consultation was carried out from February to July 2015, using a specifically designed ‘evidence gathering questionnaire’, based on the evaluation mandate. This was sent to a selected set of 4 stakeholders in each Member State (the statutory nature protection authority, a nature conservation NGO, another public authority and a private sector representative from relevant fields such as energy, transport, tourism, finance, trade, agriculture, forestry, and fisheries³⁵). Selections were made to ensure a diversity of stakeholder interests across the EU. The questionnaire was also sent to 47 relevant EU level organisations representing stakeholder interests composed of representatives from environmental NGOs, user groups (hunters and anglers), infrastructure development and industry, and agriculture and forestry³⁶. Meetings with these stakeholders were held in March 2015 to brief them on the evaluation with a view to facilitating their response to the questionnaire and to them

³² Triangulation is an analytical technique that facilitates validation of data through cross verification from two or more sources.

³³ http://ec.europa.eu/environment/nature/legislation/fitness_check/index_en.htm

³⁴ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/List%20Key%20documents.pdf

³⁵ The list of the contacted organisations and bodies in different Member States is available at http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/List%20of%20MS%20Stakeholders.pdf

³⁶ The list of the contacted organisations and bodies at EU level is available at http://ec.europa.eu/environment/nature/legislation/fitness_check/index_en.htm

promoting outreach with their national organisations. The completed questionnaires were made available from June 2015 on the Commission's web site³⁷.

ii) In order to get a more thorough insight into key evaluation issues, there were follow up visits to meet with Member State authorities and different stakeholder interest groups in 10 selected Member States, involving the study contract team and Commission representatives (April 2015 – June 2015). Meetings focused in particular on evidence related to the cost and benefits of the two directives, on any excessive or unnecessary administrative burden they may cause and why, and on implementation challenges and successes. The countries were chosen to reflect different sizes, geographical regions, governance systems and length of experience with implementation. Those selected were Estonia, France, Germany, Malta, Netherlands, Poland, Slovakia, Spain, Sweden, and the United Kingdom. Drawing on information provided in the evidence gathering questionnaires these visits helped better interpret the responses and evidence given in the questionnaires and frequently led to the provision of additional evidence.

iii) A 12 week on-line public consultation was undertaken from 30 April-26 July 2015³⁸. Part I of the questionnaire was targeted at the wider public whereas part II was targeted at stakeholders with a more detailed knowledge of the Directives. The questionnaire was available in 23 EU languages. An initial summary report of the findings was published in July 2015³⁹ and the full report of the public consultation was published on the Fitness Check website in October 2015⁴⁰. Further details are provided in Annex 2, including a summary outcome of the campaigns by different stakeholder groups.

iv) A High-level conference (20 November 2015) to present emerging findings from the Study was attended by approximately 400 stakeholders. The views of the European Parliament (EP)⁴¹ and of the Committee of the Regions⁴² on the Fitness Check were presented. The conference provided a final opportunity for stakeholders to comment on the emerging findings and to signal if there were any gaps in the evidence, if any evidence was misinterpreted or if there was any imbalance in interpreting the evidence. The emerging findings for each of the evaluation criteria were presented. Panellists representing each of the four stakeholder groups addressed by the targeted consultation were then invited to respond to the findings and there were questions and statements from the audience. All conference presentations and speeches as well as the background document presenting the consultants' emerging findings are available online⁴³.

4.1.2. Collation and analysis of evidence

No new modelling approaches were used in the Study. The analysis was based on bringing together very substantial evidence, from existing Commission studies, the literature review and from the evidence gathering process. Due to the qualitative nature

³⁷ http://ec.europa.eu/environment/nature/legislation/fitness_check/evidence_gathering/index_en.htm

³⁸ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/questionnaire.pdf

³⁹ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/Public%20consultation%20prelim%20summary.pdf

⁴⁰ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/consultation/public%20consultation_FINAL.pdf

⁴¹ Mr Mark Demesmaeker, MEP, was rapporteur for the EP Report on the mid-term review of the Biodiversity Strategy <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A8-2016-0003+0+DOC+PDF+V0//EN>

⁴² Mr Roby Biwer was rapporteur for an Opinion of the Committee of the Regions on the Fitness Check of the Nature Directives <http://cor.europa.eu/en/activities/opinions/pages/opinion-factsheet.aspx?OpinionNumber=CDR%202624/2015>

⁴³ http://ec.europa.eu/environment/nature/legislation/fitness_check/conference_en.htm

of most of the evidence submitted, and the wide range of topics and issues covered, contribution analysis⁴⁴ was chosen as the overall methodological approach to assess the evidence.

The study team developed a reference database from the literature research as well as an Excel-based 'Consultation Information Management Tool' (CIMT) to log, store, filter and analyse data from the stakeholder consultation. The CIMT allowed the identification of all the evidence relevant to a particular issue. The Study then involved an overall assessment of the evidence in relation to its quality and reliability, based on expert judgement, according to the following criteria: precision and reliability, sample size and representativeness, temporal and geographic relevance, independence of source. Wherever possible, corroboration of evidence from different sources was attempted. A summary of the approaches used in the Study is at Annex 3.

The draft final report of the Study was presented to the Steering Group in January 2016 and following feedback and comments from the Group the revised final version was submitted to the Commission on 9 March 2016⁴⁵.

Drawing upon the Study, the specific assessment aspects required to answer each evaluation question (presented in Annex 1 of the Study) were refined and form the basis for the Commission's analysis of the evaluation questions (Annex 4). Judgements as to conclusions on the mandate questions in this document were based on these assessments, taking into account the quality of evidence available and extent to which views were corroborated from different sources.

4.2. Limitations – robustness of findings

With over 1,800 documents referenced in the database for this Fitness Check, it is unlikely that important published sources of relevant data and information have been overlooked.

Restricting the issue of the evidence gathering questionnaires to four stakeholders per Member State did limit the response base but was necessary to make the exercise manageable. Nevertheless efforts were made to ensure a wide range of stakeholder types were included at national and at EU level. The evidence gathering questionnaires asked relatively open questions, with some guidance as to what was being sought, in order to allow flexibility for the respondents to make the points they wished to. This led to a great variety in scale, scope, depth and quality of responses which also created challenges in analysis. For some questions, notably some of those seeking financial and resource assessments under the Efficiency section, a limited number of respondents were able to supply data. While particular efforts were made to follow up on this issue, especially during the visits to the ten Member States, it was concluded that consistent, comparable and reliable data were not available at EU level to provide definitive answers to all aspects of some questions.

⁴⁴ Contribution analysis is frequently used for the evaluation of complex regulatory measures (interventions). It consists of gathering and analysing evidence to reconstruct the relationship between cause and effect, deducted from the intervention logic.

⁴⁵

http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/study_evaluation_support_fitness_check_nature_directives.pdf

The online public consultation yielded an unprecedented amount of replies (552.472) including 10.213 replies to the open question which again presented significant resource challenges for the analysis. A stratified sample of 10% of the open question responses was looked at in more detail⁴⁶. An ongoing follow up study⁴⁷ has demonstrated that this level of sampling was sufficient to identify the main issues. The targeting of the online public consultation by a number of stakeholder campaigns had a significant influence on the results and required a more extensive analysis of the responses. The large scale campaigning by different groups and opposing viewpoints, while demonstrating a high level of interest in the evaluation, cannot be taken as a representative view of society as they do not represent a random sample (see Annex 2).

Differences in the timing and methodology of studies and reports can make comparison more challenging. Similarly, recent changes such as the start of the new funding periods for key elements of EU support such as Common Agricultural Policy (CAP), Common Fisheries Policy (CFP) and Cohesion funding (2014-2020) mean that the impact of changes to these mechanisms cannot be fully reflected here although many stakeholders offered views on their likely impacts.

Since at the time nature legislation was adopted, no ex-ante impact assessment was performed and clear baselines were not established, it was not possible to draw up a clear counterfactual for the Fitness Check. Analysis therefore focuses on seeking to identify significant changes which can be logically attributed to the intervention of the Directives and to explain the causal link. A limited amount of comparison has been possible with the situation in analogous countries and by comparison of Member States who commenced implementation at different times.

Since Member States do not have a duty to report to the Commission on the costs and benefits of the Directives, including in relation to costs of permitting activities and other administrative burdens, there is limited quantitative information available at the EU scale to underpin assessments on efficiency. As a consequence, this evaluation largely relied on EU and national studies of specific elements of costs and benefits, particularly for Natura 2000. Together with limits in identifying funding allocated to actions under the Directives, this constrained the ability to analyse and comment on the relationships between resources allocated to certain activities and the associated costs and benefits.

5. IMPLEMENTATION, STATE OF PLAY AND RESULTS

There have been significant challenges with transposition and implementation of both Directives. In response to non-communication of the national transposition measures the Commission launched 68 infringement procedures, of which 23 concern only the Birds Directive, 14 only the Habitats Directive and 31 both. Conformity checks of the national measures transposing both Directives resulted in 43 infringement procedures related to the Birds Directive, 39 cases to the Habitats Directive and 15 cases concerning both Directives. All of these procedures were closed following legislative measures put in place by Member States to correctly transpose both Directives.

⁴⁶ This methodological approach was based on a combination of type of respondent and main field of interest, using samples of 10% of replies in each stratum. In total, 1,017 replies were analysed.

⁴⁷ Consultation Support and Development of Advice. Specific Contract No SG/2015/10 under Framework Contract ENTR/172/PP/20-12-FC Lot 3; Final Report prepared for Secretariat-General

There have been delays in selection of sites to be designated as SCIs and SPAs in all Member States, which has caused delays in the adoption of SCIs by the Commission, according to the procedure laid down in Article 4(2) of the Habitats Directive. This has had a cascade effect also in terms of timing of designation of SACs, according to Article 4(4) as well and to the establishment of the necessary conservation measures according to Article 6(1) of the Habitat Directive.

There have been many complaints addressed to the Commission in relation to alleged bad implementation of some provisions of the Nature Directives⁴⁸, notably in relation to the protection and procedural safeguards applying to Natura 2000 sites under Article 6(2) and 6(3) of the Habitats Directive and to hunting activities under Article 7 of the Birds Directive. Some of those complaints have led to the opening of bad application infringement procedures, in addition to those launched by the Commission acting on its own initiative. More details are given in the following sections, in relation to each of the specific objectives of the Directives.

The following section summarises the current situation in relation to the four specific objectives set out in the intervention logic (see Figure 1). It also summarises the current status of species and habitats based on the latest EU State of Nature assessment⁴⁹.

5.1. Ensuring that most valuable sites are protected and managed

In response to delays in establishing Natura 2000 (Activity A1) a series of cases were brought to the Court of Justice of the EU (CJEU) under both Directives^{50,51} for failures to classify the most suitable territories as SPAs and to propose complete lists of SCIs. Following these proceedings, the number of Natura 2000 sites increased substantially from the late 1990s (Figure 4). This was also probably due to the incentive for compliant Member States to benefit from funding under the [Cohesion Policy funds](#), which has existed from the early period of application of the Habitats Directive.

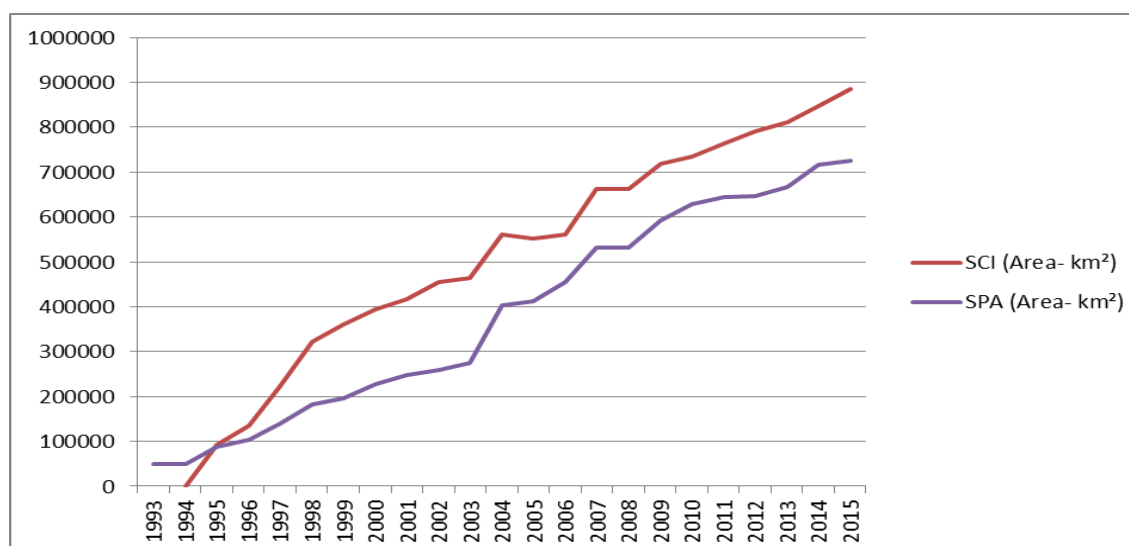
⁴⁸ The Commission had recorded over 4 000 potential breaches of the Directives since adoption of the Birds Directive came into force in 1981. Most of these cases (79 %) were closed without further procedural steps. In the other cases, the Commission needed to further investigate the file and request additional clarification from the complainant and/or the Member State.

⁴⁹ EEA Technical report on State of Nature in the EU, May 2015 - <http://www.eea.europa.eu/publications/state-of-nature-in-the-eu>

⁵⁰ Birds Directive: C-3/96 Commission v the Netherlands, C-240/00 Commission v Finland, C-202/01 Commission v France, C-378/01 Commission v Italy, C-235/04 Commission v Spain, C-334/04 Commission v Greece, C-418/04 Commission v Ireland.

⁵¹ Habitats Directive: C-67/99 Commission v. Ireland, C-71/99 Commission v. Germany, C-220/99 Commission v. France.

Figure 4: Cumulative surface area of the Natura 2000 network from 1993 to 2015



Based on information officially provided by Member States the Commission and the European Environment Agency have developed a 'Natura 2000 barometer' that summarises progress on the establishment of Natura 2000 in each Member State. Updates of this barometer are published in the Commission's Natura 2000 newsletter⁵². The latest barometer, summarising the situation until January 2016, shows that Natura 2000⁵³ is comprised of 27,312 sites, covering 1,147,956 km². The terrestrial component covers 787,606 km² (more than 18% of the EU's land surface) and the marine component 360,350 km² (estimated at about 6% of the EU marine surface). This represents the largest co-ordinated supranational network of nature conservation areas in the world.

The Natura 2000 barometer also shows that there are large differences between Member States in the proportion of their terrestrial environment included in Natura 2000, ranging from 38% of Slovenia's land area designated and 35% of Bulgaria down to 8% in Denmark and the United Kingdom. This is in part due to the amount of natural and semi-natural habitat that each country hosts. For example a much higher proportion of habitat types and species protected under the Directives are to be found in the Mediterranean, Continental, and Alpine Regions than the Atlantic Region (Figure 5). Furthermore, some countries have been historically subject to higher levels of intensive land use and fragmentation resulting in a smaller natural resource for protection under the Directives. Natural and semi-natural habitats and species such as large carnivores are generally much more plentiful and extensive distributed in the Central and Eastern European Member States that joined the EU from 2004 onwards than in the some older Member States.

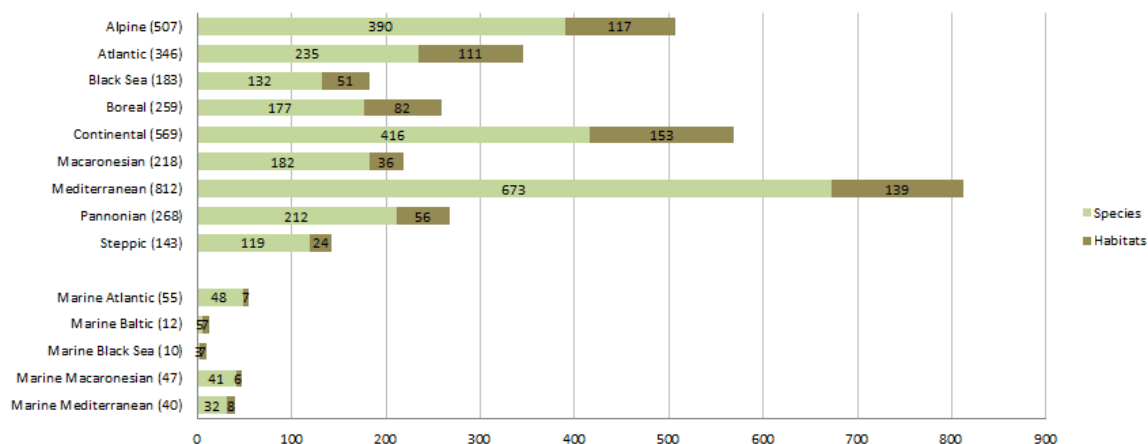
It also results from different approaches Member States have taken in delineation of boundaries of sites selected for designation. Several Member States have proposed broadly delineated large Natura 2000 sites embracing a more holistic approach that includes areas of non-qualifying habitat. Others have delineated their sites more exactly, limiting them more to the area of qualifying habitat. As smaller sites are more likely to be vulnerable to outside pressures the duty of protection of these sites and avoiding deterioration and significant disturbance places a greater responsibility on these Member

⁵² http://ec.europa.eu/environment/nature/natura2000/barometer/index_en.htm

⁵³ Sites designated as SPA and/or SCI, including SCIs already designated as SACs and potential SCIs submitted to the Commission. See also the Natura 2000 Viewer at <http://natura2000.eea.europa.eu/#>

States to address outside pressures, which may justify the use of buffer zones. Larger sites also allow for more flexible management systems involving systems of zonation in relation to the sensitivity of protected features and their location within the sites, providing greater opportunities for sustainable economic activities, such as tourism, within protected areas.

Figure 5: Number of habitats types and species per biogeographical region (based on data used for Article 17 Habitats Directive assessment for the period 2007-2012)⁵⁴



Although management plans are not a legal obligation of the Directive they are a good indicator of progress in establishing conservation measures and some Member States require them to be written⁵⁵. Member States have been asked to provide information on the numbers of sites with management plans within the framework of their reporting under the Directives (Activity A3). By the end of 2012 only 50% of sites were reported to have comprehensive management plans. There are large differences between Member States in the extent to which they have developed such plans ranging from Slovenia reporting that 100% of its Natura 2000 sites have comprehensive management plans to Bulgaria and Ireland all reporting that they have no plans finalised⁵⁶.

There has been significant progress in implementing the obligations of site protection (Activity A4) and assessment of projects/plans not directly connected with or necessary to the management of Natura 2000 sites but likely to have a significant effect thereon (Activity A5). This has often been led by infringement proceedings, which resulted in a good body of jurisprudence in relation to the site protection provisions under Article 6 of the Habitats Directive⁵⁷.

5.2. Manage habitats/landscapes beyond Natura 2000

The conservation status of many species and habitat types protected under the Directives also depends on the management of habitats outside of the Natura 2000 network. Articles

⁵⁴ Source: Figures 3.9 (habitats) and 3.15 (species) of the EEA State of Nature report <http://www.eea.europa.eu/publications/state-of-nature-in-the-eu>

⁵⁵ Of 24 Member States that responded to a questionnaire asking if there is a requirement to produce management plans for Natura2000 sites in their country 15 indicated that they are obligatory at national level or at least in some of their regions (see Section 1.1 of the Fact Sheets on Natura 2000 Management Planning in the Member States – Situation in 2011). <http://ec.europa.eu/environment/nature/natura2000/management/docs/conservation%20measures-Annex%202.pdf>

⁵⁶ EEA Technical report on State of Nature in the EU, May 2015 - <http://www.eea.europa.eu/publications/state-of-nature-in-the-eu>

⁵⁷ A compilation of relevant rulings of the Court of Justice of the EU until June 2014 related to Article 6 of the Habitats Directive is available at http://ec.europa.eu/environment/nature/legislation/caselaw/index_en.htm

3 and 4 of the Birds Directive require the management and restoration of habitats (Activity B2) outside the network. Articles 3 and 10 of the Habitats Directive aim at encouraging the management of features of the landscape that are important for wild fauna and flora (Activity B1), particularly with a view to improving the ecological coherence of the Natura 2000 network. There is limited jurisprudence in relation to this duty apart from a CJEU ruling in 2002 concerning the failure to take the measures necessary to safeguard a sufficient diversity and area of habitats for the Red Grouse (*Lagopus lagopus*)⁵⁸.

The state of play on habitat conservation measures outside of Natura 2000 is difficult to document as Member States are not required to report on specific measures taken. It appears that a wide range of habitat protection measures are applied. Some Member States such as Estonia, France, Germany and the Netherlands have made progress in the development of initiatives aimed at ecological networks that also promote connectivity (Outputs B1 and B2). A study for the Commission has provided guidance⁵⁹ but this approach does not yet appear to be widely applied across the Member States.

5.3. Ensuring the protection and sustainable use of species

The state of play on implementation of the species protection provisions (Activity C1) of both Directives is difficult to document as the reporting duties under the Directives provide limited information on measures that have been taken, except for derogation reporting under Article 9 of the Birds Directive and Article 16 of the Habitats Directive. Problems in implementation of these provisions have generally been highlighted in the context of complaints received by the Commission. The main instances of bad application have primarily been related to species protection provisions under Article 5 of the Birds Directive and under Article 12 of the Habitats Directive and to the hunting provisions under Article 7 of the Birds Directive (Activity C2). Several infringement cases were launched by the Commission concerning the misuse of derogations to allow hunting/trapping of species in violation of the Directives⁶⁰. The general principle established by the CJEU has been that the conditions set in Art. 9 of the Birds Directive are intended to limit derogations to what is necessary and justified and to enable the Commission to supervise them⁶¹. Moreover, the CJEU has also held that the burden of proof regarding compliance with the Art. 9 requirements in respect of each derogation rests with the national authority taking the decision⁶².

5.4. Ensuring adequate knowledge, availability of data and awareness

Member States periodic reporting on implementation of both Directives has increasingly focused on the results of monitoring the status and trends of species and habitats protected by the Directives (Activity D1). Although there are still gaps in knowledge,

⁵⁸ Case C-117/00 Commission v Ireland.

⁵⁹ Kettunen, M, Terry, A., Tucker, G. & Jones A. 2007. Guidance on the maintenance of landscape features of major importance for wild flora and fauna - Guidance on the implementation of Article 3 of the Birds Directive (79/409/EEC) and Article 10 of the Habitats Directive (92/43/EEC). Institute for European Environmental Policy (IEEP). http://ec.europa.eu/environment/nature/ecosystems/docs/adaptation_fragmentation_guidelines.pdf

⁶⁰ For those countries that were Member States at the time of adoption of the Directives as well as subsequent acceding countries this usually applied in the early years of implementation, [although issues of compliance still arise..](#)

⁶¹ Case C-118/94 Associazione Italiana per il World Wildlife Fund and Others v Regione Veneto (point 21).

⁶² C-507/04 Commission v Austria; C-344/03 Commission v Finland; C-60/05 WWF Italia and others.

particularly for the marine environment, there has been a major improvement in the availability, quality and standardisation of information (Output D1), most clearly exemplified under the Habitats Directive, where the number of 'unknown' EU-level assessments have been halved (from 18% to 7% for habitats and from 31% to 17% for non-bird species) between the last two reporting cycles⁶³.

Whereas Member States are not required to notify the Commission about research undertaken (Activity D2), the Directives have stimulated a major increase in research in support of implementation, particularly in relation to Natura 2000 as indicated by recent scientific reviews⁶⁴ (Output D2). The Directives have also been a trigger for many other aspects of research, including the development of European Species Red Data lists by IUCN⁶⁵ and BirdLife International⁶⁶ reviewing the conservation status of ca. 6,000 European species (mammals, reptiles, amphibians, freshwater fishes, butterflies, dragonflies, and selected groups of beetles, molluscs, and vascular plants) (output D2). A European Red Data list for habitats has recently been concluded⁶⁷. There is no overview of awareness-raising, education and information undertaken by the Member States. Periodic Eurobarometer surveys on attitudes to biodiversity, most recently from 2015⁶⁸, provide relevant information on the Directives.

5.5. The status of habitats and species

The main source of EU-wide information on the status and trends of species and habitat types protected under the Nature Directives comes from official reporting by Member States in fulfilment of the requirements of Article 17 of the Habitats Directive and Article 12 of the Birds Directive (Output D1). The most comprehensive and recent assessment, 'the State of Nature in the EU', covers the period 2007-2012 and was published in May 2015⁶⁹.

Birds: An analysis of more than 400 bird species and sub-species revealed that 52% of them have a secure population in the EU, while 17% are threatened and 15% are near threatened, or have a declining or depleted population. The population status of 16% of bird species in the EU is unknown (Figure 6 A). The shorter term trend analysis (2001 to 2012) shows that 30% of bird populations have decreasing trends, 28% increasing, 21% stable and 2% fluctuating, with a further 19% unknown. The longer term trends analysis (1980 to 2012), which largely corresponds to the period since adoption of the Birds Directive, shows that 27% of bird populations have decreasing trends, 31% increasing, 11% stable and 1% fluctuating. The long-term trends of 30% of the breeding bird taxa are unknown or uncertain. Species and sub-species listed on Annex I of the Birds Directive (currently 194), for which the designation of SPAs is a key measure, generally have a much better breeding population trend than other species.

⁶³ The State of Nature in the EU: COM (2015) 219 final - http://ec.europa.eu/environment/nature/pdf/state_of_nature_en.pdf

⁶⁴ McKenna, D., Naumann, S., McFarland, K., Graf, A. & Evans, D. (2014) *Literature Review, the ecological effectiveness of the Natura 2000 Network. ETC/BD report to the EEA*. [online]. p.pp. 30. Available from: http://bd.eionet.europa.eu/Reports/ETCBDTechnicalWorkingpapers/PDF/Ecologic_Effectiveness_of_Natura2000_LitReview_Report.pdf. & Popescu, VD, Rozyłowicz, L, Niculae, IM, Cucu, AL, and Hartel, T. 2014. 'Species, habitats, society: an evaluation of research supporting EU's Natura 2000 network.' PLoS ONE, Vol. 9, Issue 11: e113648-doi:10.1371/journal.pone.0113648.

⁶⁵ <http://www.iucnredlist.org/initiatives/europe>

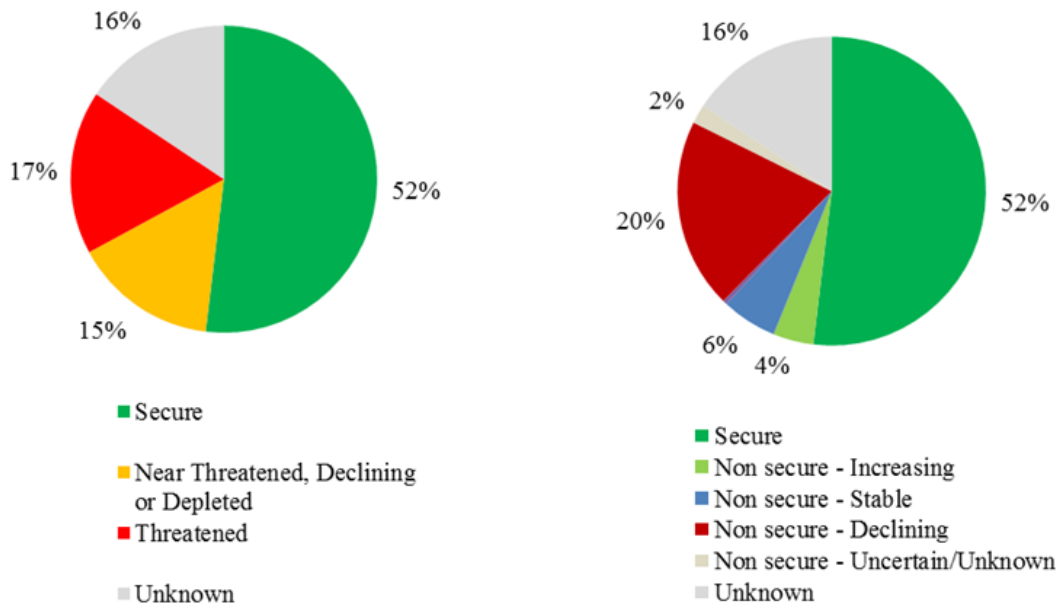
⁶⁶ <http://www.birdlife.org/sites/default/files/attachments/RedList%20-%20BirdLife%20publication%20WEB.pdf>

⁶⁷ http://ec.europa.eu/environment/nature/knowledge/redlist_en.htm

⁶⁸ Special Eurobarometer 436 "Attitudes of Europeans towards biodiversity"

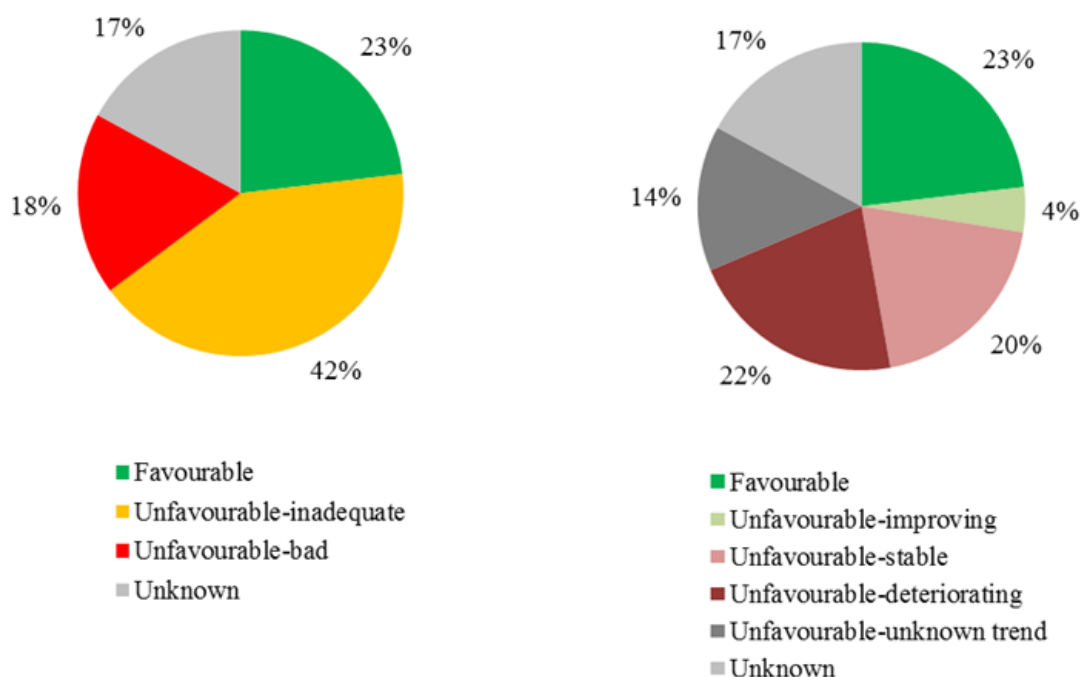
⁶⁹ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2015:219:FIN>

Figure 6: A) Bird population status and B) Bird population status also showing short-term population trends for non-secure birds



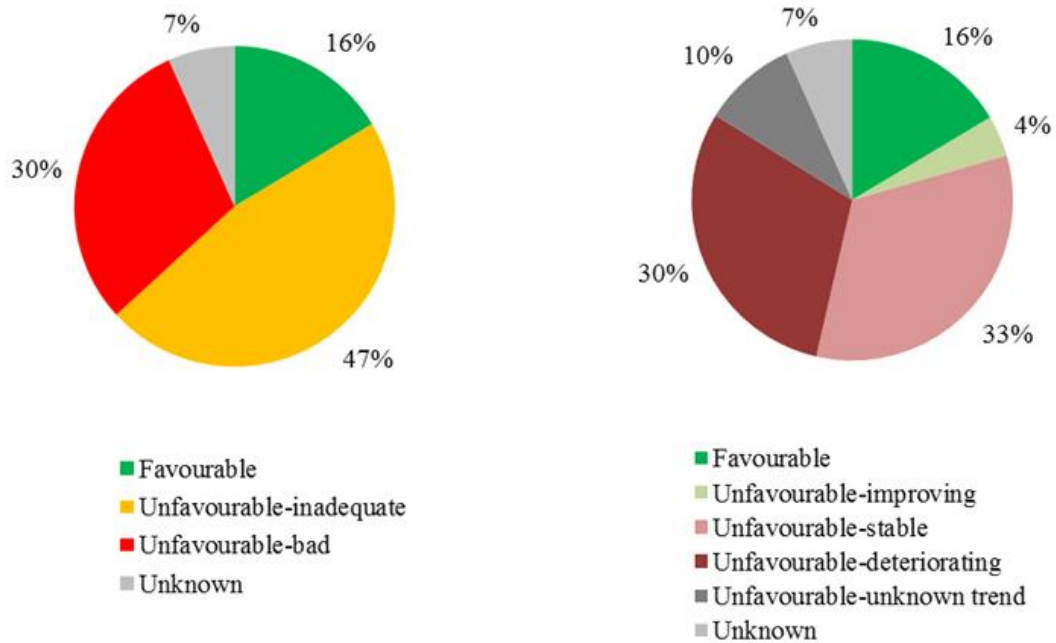
Non-bird species: Conservation assessments for species of Community interest are made at the level of each of the nine Biogeographical Regions covered by the Habitats Directive. On the basis of the most recent Member State reports, the analysis revealed that almost a quarter (23%) of the biogeographical level assessments are favourable. However, the large majority of them are in unfavourable (42% are unfavourable-inadequate whilst 18% are unfavourable-bad). There are still knowledge gaps with 17% of the species having unknown status (Figure 7A). As regards trends, 22% of the species assessments are unfavourable-deteriorating, 20% are unfavourable but stable whilst 4% are unfavourable and improving (Figure 7B). The highest shares of favourable terrestrial species assessments were reported from the Black Sea and Alpine regions (exceeding 30%), whilst the highest shares of unfavourable-bad assessment were reported in the Atlantic (32%) and Boreal regions (29%). Among species groups there is less variation in the proportion of favourable assessments than among habitats, ranging from 29% in vascular plants down to 14% in invertebrates (other than molluscs and arthropods). However, there is more variation in the proportion of unfavourable assessments that are bad, with molluscs, fish and non-vascular plants having high proportions in this category. Furthermore, a particularly high proportion of fish with an unfavourable status are declining.

Figure 7: A) Conservation status of species B) Conservation status of species with trends for those assessed as unfavourable



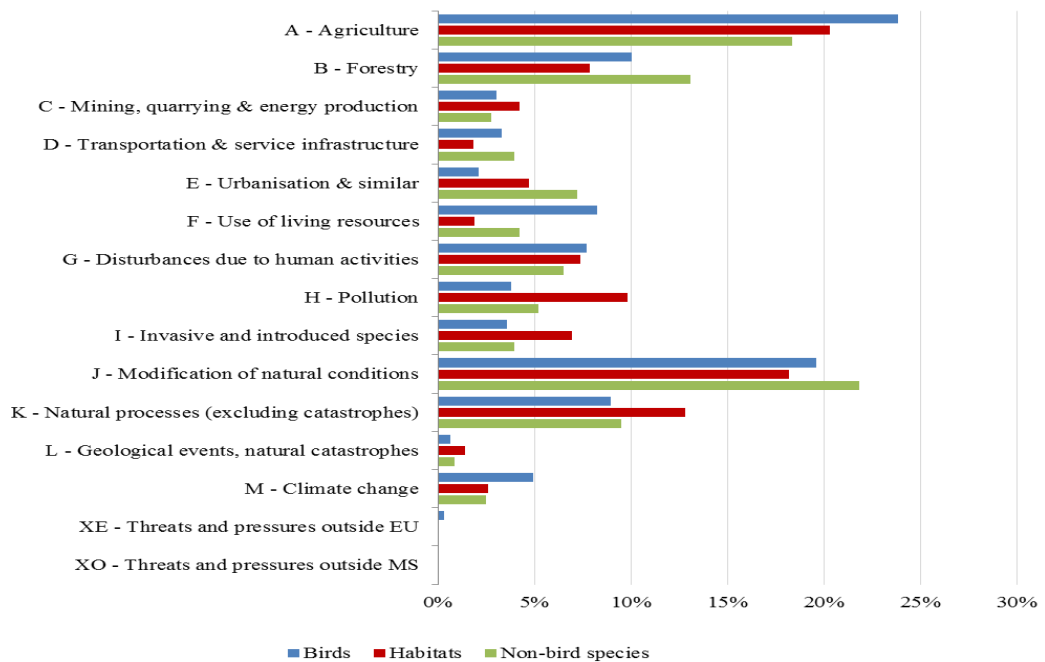
Habitat types: Habitat types of Community interest generally have a worse conservation status and trend than species. Across the EU, only 16% of the habitat assessments at biogeographical level are favourable, while more than two-thirds are unfavourable. Despite improvements in knowledge 7% remain of unknown status, with significant gaps in particular for the marine environment (Figure 8A). As regards trends, 33% of the habitat type assessments are unfavourable-stable, 30% are unfavourable-deteriorating whilst 4% are unfavourable-improving (Figure 8B). Grasslands, wetlands and dune habitats are of particular concern. On the other hand, heathland, scrub and sclerophyllous scrub (e.g. maquis) habitats are doing better than the average. Forests and freshwater habitats are predominantly unfavourable but stable. The Alpine, Macaronesian and Steppic Regions have the highest share of favourable terrestrial habitat status assessments (from 25% to 50%), while favourable marine habitat assessments have been reported only for the Marine Macaronesian region (33.3%) and the Marine Black Sea region (14.3%).

Figure 8: A) Conservation status of habitat types & B) Conservation status of habitat types with trends for those assessed as unfavourable



Pressures and threats: Member States have also reported on what they consider to be the principal causes of species loss and habitat degradation. For terrestrial ecosystems, the most frequently reported pressures and threats are "agriculture" and "human-induced modifications of natural conditions" (Figure 9). This applies to all three groups (birds, other species and habitats).

Figure 9: Frequency (%) of high ranked pressures and threats for terrestrial environment⁷⁰



⁷⁰ Source: 2015 State of Nature in the EU assessment - As part of their reporting Member States ranked each reported threat/pressure in terms of its significance as 'high', 'medium' or 'low'.

For agriculture, the modification of cultivation practices, grazing by livestock (including the abandonment of pastoral systems/lack of grazing), fertilisation and pesticides are the most frequently mentioned pressures and threats. For modifications in natural conditions, changes in water-body conditions, hydrological regimes, reduction of habitat connectivity and water abstraction are the most frequently reported pressures. This is consistent with the recent assessments carried out under the Water Framework Directive⁷¹. The three most important pressures and threats indicated for marine ecosystems are the "use of living resources" (especially for species), followed by "modification of natural conditions" (especially for habitats) and "pollution". The first of these relates to various fishing activities and the harvesting of other aquatic resources. Marine pollution includes waste products such as plastic bags, and non-synthetic compounds, as well as oil spills at sea. Modification of natural conditions (dredging, modification of hydrological regimes and coastline management) and disturbances due to human activities are also identified as significant. For marine birds in particular climate change is beginning to emerge as an important threat.

Implementation of the Directives has taken place in the broader context of accelerating rates of urbanization, changing demographic and diet patterns, technological changes, deepening market integration, and climate change, all of which place unprecedented demands on land⁷². 'Land take' dominates in Europe, with artificial areas and agricultural intensification, resulting in land degradation, worsened by high fragmentation on 30% of land area⁷³. Between 1990 and 2006 industrial areas and infrastructure in Europe expanded by 45%, residential areas grew by 23% and population increased by 6%⁷⁴. Whereas much of the ecological footprint of the consumption and production patterns in Europe is exerted outside EU borders it also has major implications for natural capital within the territory of the Member States. European consumption patterns are generally resource intensive by global standards.

6. ANSWERS TO THE EVALUATION QUESTIONS

This section summarises the main findings in relation to the analysis of each of the questions set out in the Fitness Check mandate. Most questions are dealt with individually, although a few have been combined, where there are significant overlaps in information justifying a unified approach. This section should be read in conjunction with Chapter 5 which provides relevant information on the state of play with regard to the specific objectives as well as the summary of the state of nature protected by the Directives. The evaluation questions from the mandate are re-stated in the title of each of the sub-sections and key elements of the findings are highlighted in bold.

⁷¹ See Blueprint to Safeguard Europe's Water Resources COM(2012) 673 - <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52012DC0673> and Commission Communication on the Water Framework Directive and the Floods Directive: Actions towards the 'good status' of EU water and to reduce flood risks COM(2015) 120 - <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52015DC0120>

⁷² EEA 2015: The European Environment. State and outlook 2015. Assessment of global megatrends.

⁷³ EEA 2015 The European Environment State and Outlook 2015. Synthesis report, European Environment Agency, Copenhagen, Denmark.

⁷⁴ EEA 2013 , Environmental indicator report 2013 – natural resources and human well-being in a green economy, European Environment Agency, Copenhagen, Denmark.

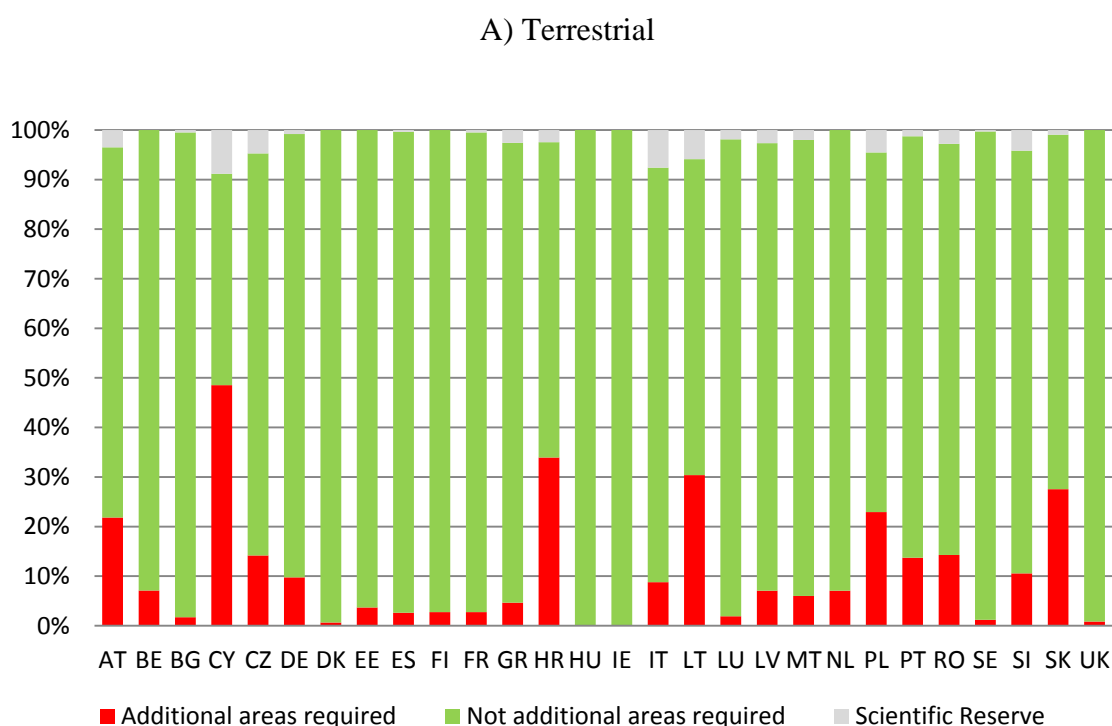
6.1. Effectiveness

The evaluation focused on assessing the extent to which the objectives of the Birds and Habitats Directives have been achieved and any significant factors that may have contributed to or inhibited progress towards meeting those objectives.

6.1.1. What progress have Member States made over time towards achieving the objectives set out in the Directives and related policy documents? Is this progress in line with initial expectations? When will the main objectives be fully attained?

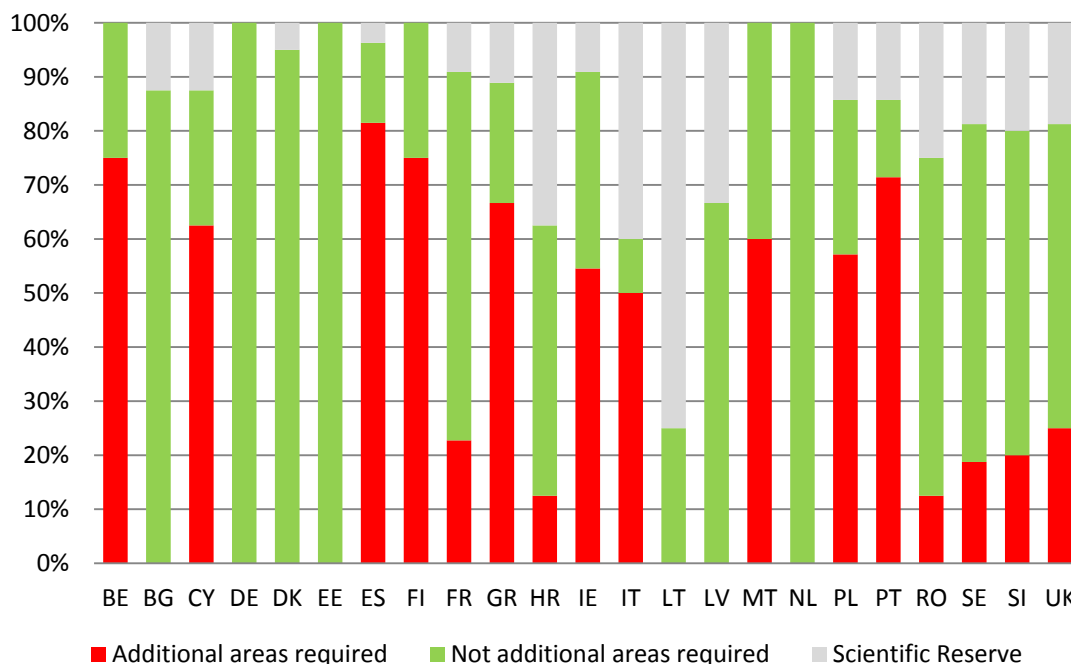
Sites become part of Natura 2000 either when they are designated as Special Protection Areas (SPAs) or adopted by the Commission as Sites of Community Importance (SCIs). As shown by Figure 4, **substantial progress has been made over time in the establishment of the Natura 2000 network** (Output A1). The sufficiency of Member State proposals for SCIs for species and habitats protected under the Habitats Directive has been monitored by the Commission, with technical support from the European Topic Centre for Biodiversity.

Figure 10: Sufficiency of Sites of Community Importance A) Terrestrial and B) Marine⁷⁵



⁷⁵ This is based on analysis by the Commission and the European Environment Agency's European Topic Centre for Biodiversity of data supplied by the Member States up to the end of 2014. The graph indicates the proportion of habitat types and species (for which Natura 2000 sites are required) for which a sufficient (green) and insufficient (red) number of sites has been proposed. It does not indicate the degree of insufficiency (how many additional sites are required) for each species and habitats. Scientific reserves (grey) indicates the proportion of species and habitats for which knowledge gaps need to be clarified. It should be noted that this is a constantly evolving situation and some Member States have since made significant progress towards completing the networks, including for the marine environment.

B) Marine



The completeness of the network of SPAs in terms of Member States designating the 'most suitable territories' under the Birds Directive has also been assessed by the Commission⁷⁶. Based on these assessments it is concluded that **establishment of the terrestrial component of the Natura 2000 network is largely complete**. However, **there are still important gaps for the marine environment**, particularly for the offshore environment, requiring additional sites to be proposed by the Member States, although there is a growing impetus towards its completion⁷⁷.

Even though SCIs are already part of Natura 2000 Member States must still **designate them as Special Areas of Conservation (SACs) (Activity A2) and establish the necessary conservation measures (Activity A3) for which an additional 6 years is allocated under the Habitats Directive. Progress is very insufficient for both terrestrial and marine sites for nearly all Member States in meeting this deadline and is not in line with expectations (Output A2)**. This is a serious shortcoming as without effective management and restoration of sites the Natura 2000 network is not fulfilling its contribution to achieving the objectives of the Directives, including its socio-economic potential.

Out of the 22, 419 Sites of Community Importance existing in January 2010, one third had not been designated as Special Areas of Conservation by January 2016, beyond the expiry of the six-year deadline in most cases. Three Member States⁷⁸ had not yet designated any SACs on time. While these data might be outdated or incomplete to a certain extent and the situation is constantly evolving, the evidence shows that major

⁷⁶ This is assessed by comparison with important bird areas prepared by BirdLife International (<http://www.birdlife.org/europe-and-central-asia/programmes/important-bird-and-biodiversity-areas-ibas-europe-and-central>) or equivalent national reviews (e.g. for UK). Although this reference list is not legally binding the Commission uses this list, in the absence of scientifically established national references to assess progress in completion of the SPA network.

⁷⁷ For further details on progress in establishment of Natura 2000 see section 5.1.3.1.1 starting at p. 88 of consultant's report.

⁷⁸ Malta, Poland, Romania.

advances are still urgently needed to meet fully this objective of the Habitats Directive. The 2015 state of nature assessment also reported that **only 50% of Natura 2000 sites are reported as having comprehensive management plans** (Output A3). In cases where Member States have failed to make sufficient progress in designating SACs and establish the necessary measures the Commission has commenced legal action to speed up action and ensure compliance.

Substantial progress has also been achieved **in applying the legal protection** (avoid deterioration) (Output A4) **and procedural safeguards** (in relation to plans and projects) **to Natura 2000 sites** (Output A5), **although problems still arise in their application**, including in relation to the quality of appropriate assessments (see section 6.1.2). This has also recently been highlighted in the context of an ongoing European Court of Auditor (ECA) performance audit on the implementation and financing of the Natura 2000 network, in particular as regards weaknesses in assessing cumulative impacts and in following up on the implementation of mitigation measures. General guidance on Article 6 as well as specific guidance for different sectors has been developed by the Commission Services to facilitate good application of these provisions⁷⁹. However, some of these are not adequately used by competent authorities and different stakeholders..

The protection regime of Natura 2000, set out in Article 6 (4) of the Habitats Directive includes a provision to ensure that justified developments that are damaging to a site are offset by compensation measures aimed at ensuring that the overall coherence of Natura 2000 is protected. The Commission is notified by Member States about the compensatory measures taken in application of this provision. In relation to sites hosting priority habitat types and species a Commission Opinion is required⁸⁰. During the period January 2007 to January 2016 the Commission received 154 compensation notifications from 14 Member States⁸¹, the largest number of which came from Germany, Italy and the United Kingdom. The Commission issued 9 Opinions, 8 to Germany and 1 to Hungary⁸². Compensation measures vary in nature from habitat creation and restoration to enlarging existing sites and including new sites in the Natura 2000 network. Commission reports have highlighted weaknesses in the application of these provisions⁸³ and have resulted in the development of a more standardised reporting format for Member States in relation to the information to be supplied in the notifications. **The effectiveness of the compensation measures to offset loss of or damage to Natura 2000 sites has not yet been fully assessed.**

With regard to **habitat conservation beyond Natura 2000** (Specific Objective B) there is **no systematic overview of the implemented measures and of the extent to which these measures are effective in terms of habitat conservation**. There is no specific mechanism under the Directives to compensate for loss or damage to habitats beyond Natura 2000 and Member States are not required to report on habitat measures beyond the network. However, **it appears that the Directives have been far less successful in**

⁷⁹ http://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm

⁸⁰ Whereas the Commission Opinion relates to considerations of overriding public interest, in assessing this the Commission also checks to ensure that the provision relating to compensatory measures is complied with.

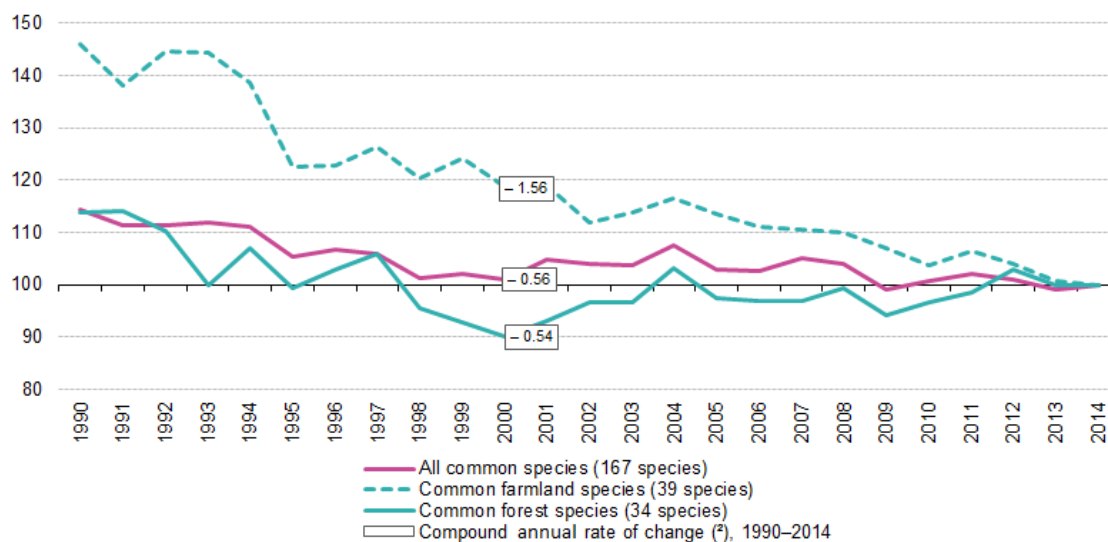
⁸¹ Austria (1), Belgium (3), Germany (63), Spain (11), France (3) Hungary (3), Italy (26), Latvia (1), Luxembourg (1), Netherlands (1), Poland (8) Portugal (7), Romania (3), United Kingdom (23).

⁸² All Opinions pursuant to Article 6(4) of the Habitats Directive are published on the Commission's web site at http://ec.europa.eu/environment/nature/natura2000/management/opinion_en.htm

⁸³ See Commission report for 2004-2006: http://ec.europa.eu/environment/nature/knowledge/rep_habitats/docs/art_6_4.pdf and for 2007-2011: http://ec.europa.eu/environment/nature/knowledge/rep_habitats/docs/analysis%202007-2011_article%206-4.pdf

contributing to the maintenance and restoration of habitats as well as the management of features of the landscape outside of the network (Outputs B1 and B2). The common bird index, although species based, reflects the condition of the habitats supporting these birds and shows declining trends over the period from 1990 to 2014 for the more widespread common farmland and common forest bird species which are most dependent on habitats outside protected areas (Figure 11). This pattern was even sharper before 2000 for common farmland birds, resulting in a huge decline by 46 % between 1990 and 2014 (indexed on 2014). Many of these losses can be attributed to changes in land use and agricultural practices, including the intensification of crop rotation patterns and of pesticide use.

Figure 11: Common bird index for the EU 1990-2014⁸⁴



(*) Estimates. EU: aggregate changing according to the context.

(*) This variable is independent of the base year chosen and gives the same result for any of them, using the formula $RCH_{A,C} = \frac{Y_t - Y_{t_0}}{Y_{t_0}} \times 100$, where: t_0 = the earliest year; t = the most recent year; Y_{t_0} = indicator value in the earliest year; and Y_t = indicator value in the most recent year. This variable makes it possible to compare the average annual rates of change between countries with different starting and end years of their time series. In economics, this variable is known as the compound annual growth rate and measures e.g. return on an investment over a defined period of time.

There has been **substantial progress in relation to the species protection objectives of both Directives** (Specific Objective C). Although not mandatory under the Directives Species Action Plans are tools that support delivery of this objective as well as Specific objectives A and B. Since 1993 the **EU has funded the development of Species Action Plans for around 50 of the most threatened species listed in Annex I of the Birds Directive⁸⁵ to support implementation** (Activity C1) and help better target investments for these species under the LIFE Nature programme. A 2010 evaluation of the Plans for 23 of these species revealed that **high levels of implementation have been achieved for species which occur in small number of countries and are well covered by protected areas** (e.g. Fea’s and Zino’s petrels, Dalmatian pelican) (Output C1). **Implementation has been weaker for more dispersed species** (e.g. lesser spotted eagle, lesser kestrel)⁸⁶. The 2010 evaluation concluded that well-resourced and coordinated implementation efforts deliver positive species recovery results. Eight species had clearly improved their

⁸⁴ EUROSTAT Biodiversity Statistics, November 2016. http://ec.europa.eu/eurostat/statistics-explained/index.php/Biodiversity_statistics Source of data: EBCC / RSPB / BirdLife / Statistics Netherlands; Eurostat (online data code: EUROSTAT env_bio3).

⁸⁵ http://ec.europa.eu/environment/nature/conservation/wildbirds/action_plans/index_en.htm

⁸⁶ http://ec.europa.eu/environment/nature/conservation/wildbirds/action_plans/docs/Final%20report%20BirdLife%20review%20SAPs.pdf

population trend (from declining or stable to increasing) and one had continued to recover, which could be largely attributed to successful conservation work on the ground. The decline of four species had been halted, while five others remained stable or had levelled off. EU management plans have also been developed for 13 huntable bird species of Annex II⁸⁷ considered to be in unfavourable status and for three species of the Habitats Directive⁸⁸ (Activity C2). However there is scarce information on the status of their implementation by Member States (Output C2). **Limited information is available on the extent of implementation under the Directives regarding invasive species** (Activity C3). However, **actions have been taken in relation to eradication and control**, particularly in relation to threats to the conservation of Natura 2000 sites, frequently supported under the LIFE Nature programme⁸⁹ (Output C3).

The **regulation of hunting**, which is carried out under national legislation, **has proven to be the most controversial element of species protection under the Birds Directive in the early years of implementation** (Activity C2). The development of an EU sustainable hunting initiative in 2001, involving a wide range of actions that included preparation of EU guidance on hunting under the Birds Directive with Member States and stakeholders, as well as improved biological information explaining the key concepts of Article 7(4) of the Directive in relation to pre-nuptial migration and reproduction of huntable species in each Member State⁹⁰ have provided **a clearer basis for application of the hunting provisions, resulting in fewer instances of bad application** (Output C2). The **illegal killing of birds, particularly of migrants in the Mediterranean but also of birds of prey in some Member States, remains a cause for concern**.

Problems of coexistence with human activities have been highlighted in some Member States in relation to a small number of strictly protected species under both Directives that are returning to areas where they have been absent for a long time or that are increasing or have become (locally/regionally) common. EU initiatives have also been taken in the context of managing conflicts relating to the Cormorant (*Carbo phalacrocorax*)⁹¹ and fisheries and in relation to co-existence between people and large carnivores⁹².

Although knowledge gaps remain, there has been major progress in relation to research and monitoring under both Directives (Activities D1 and D2), which has encouraged actions on non-native species, reintroduction programmes and education activities, although there is insufficient information for a definitive assessment of progress. The integration of datasets on the status of habitats and species with land-based data, as part of the mapping and assessment of ecosystems and their services (MAES), is improving the knowledge base in support of decision-making. There are important initiatives to promote awareness about Natura 2000, including the recently development EU "Natura 2000 Award" aimed at bringing successful management of the Natura 2000 network to the public's attention and demonstrating its importance for protecting biodiversity across the EU (Activity D3)⁹³. However, it is **not possible to determine**

⁸⁷ http://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/managt_plans_en.htm

⁸⁸ http://ec.europa.eu/environment/nature/conservation/species/action_plans/index_en.htm

⁸⁹ http://ec.europa.eu/environment/life/publications/lifepublications/lifefocus/documents/life_ias.pdf

⁹⁰ http://ec.europa.eu/environment/nature/conservation/wildbirds/action_plans/guidance_en.htm

⁹¹ http://ec.europa.eu/environment/nature/cormorants/home_en.htm

⁹² http://ec.europa.eu/environment/nature/conservation/species/carnivores/index_en.htm

⁹³ http://ec.europa.eu/environment/nature/natura2000/awards/index_en.htm

progress in awareness raising, education and information about the Directives, including in relation to Natura 2000 although Eurobarometer results suggest that this varies significantly between Member States (see also section 5.4 and section 6.5.3).

Assessing the overall results and impacts of the Directives needs to have full regard to the fact that species and habitats have been listed under the Directives due to the fact that they are of EU conservation concern, with many of them having suffered very significant declines as a result of major pressures and threats (see section 5.5), some of which still persist. **At the time of adoption of the Directives some species and sub-species were highly endangered and at risk of disappearance from the EU.** The adoption of the Birds Directive **probably come too late for the critically endangered Slender-billed Curlew** (*Numenius tenuirostris*) as there have been no recent sightings of this migrant bird in Europe, which may now be extinct⁹⁴. The adoption of the Habitats Directive in 1992 **also came too late for the Pyrenean Ibex** (*Capra pyrenaica pyrenaica*) which became extinct in 2000. **No other listed species or sub-species protected under the Directives has become extinct at the EU level since their adoption.**

There is a **growing body of evidence to show that where fully and properly implemented the Directives have effectively reduced pressures on biodiversity, slowed declines and, with time, led to some recoveries of habitats and species** (Results A, B, and C). Based on case studies of mammals and birds protected under Directives which have shown remarkable recoveries of some species in Europe a 2013 study concluded that with continued strong legal protection, active boosting of existing wildlife populations or by reintroductions setting up new ones, using growing nature and wildlife based tourism combined with increasing tolerance towards wildlife, this recovery can be extended to other species⁹⁵.

The **impact of the Directives is best documented for Annex I birds**⁹⁶, for which there is **strong scientific evidence to show the beneficial impact** on these species, which are the subject of SPA designation and for which many have benefitted from action plans, as well as LIFE projects. Trends for these species are more positive within the EU than outside it. This is true for both long term (1980-2012) and short term (2001-12) trends for EU15 Member States. For countries that joined the EU from 2004 the positive effect was also evident in relation to short-term population trends. This positive impact even applied to species predicted to have suffered from climate change. The only group of bird species not showing this positive impact were long distance migrants that spend much of their lives outside the EU, underlining the role of external factors.

Habitats and non-bird species with an unfavourable conservation status are also more likely to show positive trends where a high proportion of their area or population occurs within Natura 2000 sites⁹⁷. It can reasonably be concluded that the status and trends of Annex I birds and species and habitats of Community interest would

⁹⁴ <http://www.birdlife.org/datazone/speciesfactsheet.php?id=3011>

⁹⁵ 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. <https://rewildingeurope.com/wp-content/uploads/2013/11/Wildlife-Comeback-in-Europe-the-recovery-of-selected-mammal-and-bird-species.pdf>

⁹⁶ Sanderson, F.J et al 2015. Assessing the performance of EU nature legislation in protecting target bird species in an era of climate change. Conservation letters doi: 10.1111/concl.12196.

⁹⁷ See section 6.1 (pages 16-17) of the 2015 state of nature in the EU assessment: COM/2015/0219 final <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2015:219:FIN>

be significantly worse in the absence of the Directives. However, the EU State of Nature assessment shows that an unacceptably high proportion of species and habitat types protected under the Directive are still in an unfavourable conservation status and are continuing to deteriorate (see section 5.5). It can only be concluded that the impacts of the measures taken so far to address the pressures and threats on species and habitats are not yet sufficient in scale to meet the general objectives of the Directives and hence deliver the desired impacts.

Given the lack of a well-defined baseline and precise timelines/targets in relation to achieving the general objectives of the Directives it is difficult to fully judge whether progress is in line with expectations. **Progress in relation to meeting deadlines in establishing, designating and managing the Natura 2000 network has been much slower than foreseen** in relation to the timeframes set out in the Directives and **ensuring a fully functional network of sites remains to be achieved**. In light of the above, and also having regard to constraining factors (see section 6.1.2) **it is currently not possible to determine when the general objectives of the Directives will be achieved**.

6.1.2. 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?

A wide range of factors are considered to have contributed to or inhibited progress towards achievement of the objectives of the Directives (Table 1). Unless otherwise stated these factors apply to each of the four specific objectives of the Directives, as described in the intervention logic (Figure 1).

It is difficult to determine the overall significance or weighting of different factors or to treat them in isolation. **Caution also needs to be exercised in generalising across 28 Member States** as each country has its own unique set of circumstances and issues that have influenced implementation (e.g. nitrogen deposition in the Netherlands, protection of raised bogs and turf cutting in Ireland). However, **funding availability, stakeholder awareness and cooperation, and availability of knowledge were the most frequently mentioned factors** during this evaluation, generally seen as deficient and hindering progress⁹⁸.

Table 1: Main factors considered by stakeholders as affecting implementation of the Directives.

Factor	Listed by	Supporting	Hindering	Mixed Views
General funding availability	58%	8%	50%	0%
• Funding availability for management measures (including compensation / incentives for land owners)	38%	3%	30%	5%
• Funding availability for nature / environment authorities and their capacity	27%	0%	27%	0%

⁹⁸ Source is Table 14 of the Study report. This gives the percentage of respondents that were judged to have included the listed factor, as well as whether they considered it to support or hinder the implementation of the Directives. It is based on an analysis of 88 clear and relevant responses to this question in the targeted evidence gathering questionnaire (from 23 nature authorities, 10 other authorities, 35 NGOs and 20 from private enterprise / industry).

Factor	Listed by	Supporting	Hindering	Mixed Views
General stakeholder awareness & cooperation - GENERAL	51%	9%	31%	11%
• Awareness and collaboration - landowners, farmers and foresters	28%	5%	19%	5%
• Awareness and cooperation - nature conservation / science organisations	16%	15%	1%	0%
• Awareness and cooperation - businesses	14%	9%	5%	0%
• Awareness and cooperation - hunters and anglers	6%	1%	3%	1%
Available knowledge	48%	3%	40%	5%
Court rulings and Commission guidance	36%	16%	11%	9%
Coherence with other EU policies and funds⁹⁹	30%	2%	26%	1%
Political ambitions and support	28%	1%	27%	0%
Objective setting and management planning processes	24%	6%	17%	1%
Governance, including cooperation across government departments, and between national, regional and local levels	23%	1%	20%	1%
Enforcement of legislation and penalties	17%	1%	16%	0%
Authorities' expertise and experience (e.g. AAs and permitting)	11%	2%	9%	0%
Integration with spatial planning, SEA and EIA	9%	3%	6%	0%

The **limited availability of funding is consistently raised as probably having the strongest (negative) influence on implementation**, as all of the required activities take time and more importantly money (for more detail see section 6.2.2). As a result of explicit provisions under different EU funding instruments, particularly for Natura 2000, the Directives have undoubtedly increased the availability of EU funding for nature, such as through the LIFE programme, CAP agri-environment measures and Cohesion Funds. However, there is strong evidence to suggest that both EU and national funding is markedly insufficient and that available resources are not fully exploited in the best way and for the most effective purposes. This has also been highlighted in Court of Auditor¹⁰⁰ investigations of the use of funds for biodiversity and represents a major constraint on implementation. Funding constraints on authorities have adversely affected the establishment of the Natura 2000 network, as well as other important actions, such as the establishment and implementation of conservation measures, stakeholder engagement, management planning, permitting and enforcement measures. Furthermore, funding incentives can also encourage agricultural, forestry and fishery systems and practices that

⁹⁹ For evaluation of coherence with other EU policies see section 6.4.4.

¹⁰⁰ (e.g. *Is the ERDF effective in funding projects that directly promote biodiversity under the EU biodiversity strategy to 2020?* (Special Report No 12/2014, Publications Office of the European Union, Luxembourg).)

compete with investments in Natura 2000. There are limited opportunities to use EU funds to establish and run management bodies, and to undertake ongoing management and monitoring of Natura 2000 sites, whereas activities linked to one-off investments appear to be better covered¹⁰¹. This is confirmed by an EEB study indicating that site management and monitoring suffer most from under-financing. The same study finds that funding for staff capacity is also lacking, as is funding for implementing landscape scale measures to improve environmental quality in general in and around Natura 2000 areas¹⁰².

Lack of awareness of the implications of the Directives and concerns among landowners and local communities over possible impacts of Natura 2000 on land uses and property rights, **combined with inadequate or absent funding for management measures, led to a significant level of objections from land owners and slowed the establishment of Natura 2000 in some Member States.** The consultation process with land owners in some Member States such as Ireland and Finland on sites being considered for proposed inclusion in Natura 2000 led to very significant appeals, delaying the establishment process in these countries. This led in the most extreme case in France to a decision to temporarily freeze establishment of Natura 2000 between July 1996 and February 1997 until an appropriate system of consultation with landowners and users was put in place. The remarkable improvement in the situation in France since then can be attributed to the strong involvement of local stakeholders, which allowed adaptation to local specificities, as well as establishment of a network of facilitators to support the process¹⁰³.

Strong stakeholder awareness and cooperation has been highlighted as a major factor for success. This has had positive and negative consequences depending on whether, when and to what extent stakeholders, particularly landowners, farmers and foresters but also other users of nature, such as hunters, fishers and sport anglers, were engaged. Partnerships between nature authorities and nature conservation organisations have been instrumental in greatly increasing surveying, monitoring, research and management planning. An understanding about how to improve engagement with businesses also has had a role to play, as they have become increasingly aware of both the need to manage biodiversity associated business risks and the opportunities to make positive contributions to biodiversity objectives. Concerns were still expressed in some Member States about a lack of stakeholder participation in site management decisions but there is no comprehensive overview on this issue.

The limited level of ecological knowledge, such as the distribution of protected species and habitats and their ecological requirements, **has had an important influence on slowing down implementation.** Extensive surveys were required in Member States in order to identify sites for protection in Natura 2000. Given knowledge gaps for the marine environment this required significant additional work and resources in all maritime Member States. As stated in the EU Biodiversity Strategy mid-term review¹⁰⁴,

¹⁰¹ Kettunen, M, Baldock, D, Gantioler, S, Carter, O, Torkler, P, Arroyo Schnell, A, Baumüller, A, Gerritsen, E, Rayment, M, Daly, E, and Pieterse, M. 2011. *Assessment of the Natura 2000 co-financing arrangements of the EU financing instrument. A project for the European Commission - final report* (Institute for European Environmental Policy, Brussels, Belgium).

¹⁰² EEB. 2011. Where there is a will there is a way. Snapshot report of Natura 2000 management (European Environmental Bureau, Brussels).

¹⁰³ Fabienne Allag Dhuisme, Christian Barthod (coordonnateur), et al (2015) - Analyse du dispositif Natura 2000 en France. Rapport CGEDD n° 009538-01, CGAAER n° 15029. Ministère de l'écologie, du développement durable et de l'énergie et Ministère de l'agriculture de l'agroalimentaire et de la forêt.

¹⁰⁴ Report from the Commission to the European Parliament and the Council The Mid-Term Review of the EU Biodiversity Strategy to 2020 (COM(2015) 478 final). See Chapter 3.3 'Strengthening the knowledge base' - <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52015DC0478>

further important gaps concern the assessment of ecosystem health and links to ecosystem services and resilience, as well as the integration of — and open access to — data from biodiversity monitoring and reporting under relevant EU legislation. The LIFE fund supported national surveys underpinning Natura 2000 site selection both for the terrestrial and the marine environment in some Member States¹⁰⁵. Limited ecological knowledge has also resulted in difficulties in assessing the potential impacts of activities on species and habitats, both within and beyond Natura 2000 sites.

The degree of political support for the Directives was frequently indicated by stakeholders as a key factor, having a positive effect where support was high and a more negative one where support was lower. It affected implementation through its effects on funding (e.g. with respect to the prioritisation of funding) and the timing/taking of key implementation decisions, particularly in relation to establishment of the Natura 2000 network and of conservation measures under Article 6(1) of the Habitats Directive. Furthermore, the existence of more attractive payments that encourage competing agricultural, forestry and fishery systems and practices, has made it difficult in some circumstances to secure appropriate management and restoration of habitats, both inside and outside of Natura 2000 sites, although this has not been fully documented.

Enforcement action has been central to progress in implementing the Directives. The relatively high number of infringements and complaints dealt with by the Commission has reflected the high level of interest of citizens and civil society groups in the Directives as well as weaknesses of governance and systemic failures within Member States in applying the Directives. **Historically, some uncertainty regarding the implications of certain legislative provisions has also contributed to some delays** in transposition, leading, in turn, to infringement procedures, legal cases and further delays. Examples include the need for legal clarification on a range of provisions including regulation of hunting seasons under the Birds Directive¹⁰⁶, that economic considerations could not be invoked in the selection and delineation of Natura 2000 sites (under both Directives this was to be exclusively based on scientific grounds¹⁰⁷), the applicability of the Directives to offshore marine waters¹⁰⁸.

The case law, much of which dates from the 1990s, has clarified these matters and the **process of learning** in collaboration with stakeholders has also been supported by **guidance from the Commission services**, the development of which has been seen as a **positive supporting factor** by different stakeholder groups¹⁰⁹ (see also Section 5). However, most complaints and infringements handled by the Commission have related to undue delays in implementation such as in transposition and in the establishment of the Natura 2000 network or instances of bad application such as failures to avoid deterioration of Natura 2000 sites or to protect bird species during their pre-nuptial migration. **Problems have arisen as a result of limited expertise, insufficient staff resources and inconsistent standards with impact assessments and permitting**

¹⁰⁵ e.g. in 1992/1993 the development of national inventories to support the identification for sites to be proposed under Habitats Directive were funded in Ireland, Italy, Portugal, and Spain.

¹⁰⁶ C-157/89 Commission v Italy; C-38/99 Commission v France; C-435/92 "Association pour la protection des Animaux Sauvages and others".

¹⁰⁷ 'Lappel Bank' Case C-44/95 Regina v. Secretary of State for the Environment; Case C-355/90, Commission v. Spain; Case C-3/96, Commission v. Netherlands; Case C-418/04, Commission v. Ireland; Case C-57/89, Commission v. Germany; C-226/08 Stadt Papenburg V Germany; C-67/99 Commission v Ireland; C-71/99 Commission v Germany; C-220/99 Commission v Germany; C-117/03 Dragaggi and others.

¹⁰⁸ Case C-6/04 – Commission of the European Communities v. United Kingdom of Great Britain and Northern Ireland.

¹⁰⁹ Relevant guidance documents of the Commission Services on Natura 2000 are available at http://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm

procedures. This is consistent with the findings of an earlier study on permitting and Natura 2000 for the Commission which also identified examples of approaches (such as training, use of guidelines, early dialogue, access to data) that enable more consistent, effective and efficient implementation¹¹⁰. Problems with enforcement have been highlighted in relation to hunting, insufficient regard to the impacts of intensive agriculture and forestry on protected species and habitats, the implementation of compensation measures for impacted sites and the impacts of pollution incidents. Even when enforcement activities are carried out, the penalties are often considered inadequate to deter further offences.

Some of the problems listed above are largely historical, because the issue in question is now advanced or complete (e.g. problems related to transposition, interpretation of legal provisions or in establishment of the terrestrial Natura 2000 network). **There is improving practice** such as in relation to permitting and Natura 2000 sites, facilitated by experience sharing, training and guidance from the Commission services and national/regional authorities, although **some Member States appear to have made more progress than others.** However, other highlighted problems, including in relation to available funding, full policy integration and human resource constraints remain significant challenges as well as continuing pressures on land and nature from urbanisation and infrastructure.

6.1.3. 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?

Many non-target species across all taxa are also protected indirectly by the Directives, in particular via the protection offered by the Natura 2000 network (specific objective A). Whereas there are **inevitably some deficiencies in knowledge about the distribution of biodiversity,** the emerging findings from a separate study for the Commission show that **Natura 2000 sites provide a so-called "umbrella benefit" for a wider range of species and habitats**¹¹¹. A greater proportion of common animal species and other animal species that are not the target of Natura 2000 protection occur inside than outside the network, in particular breeding birds, and butterflies. Animal species for which Natura 2000 areas were not specifically designated therefore gain benefit from the protected areas network. Likewise, in relation to vascular plants, International Union for the Conservation of Nature (IUCN) **red listed species and some other rare species that are not protected under the Habitats Directive occur significantly more inside than outside Natura 2000 sites.**

The mid-term review of the implementation of the EU Biodiversity Strategy¹¹² supports the conclusion that **as expected the Directives make a major contribution to achievement of the EU's biodiversity goals.** The central role of these Directives in achieving the EU biodiversity target has also been underlined in the follow up Conclusions of the Council¹¹³, the Resolution of the European Parliament¹¹⁴ and the Opinion of the European Economic and Social Committee¹¹⁵ on the mid-term review.

¹¹⁰ Study on evaluating and improving the Article 6.3 permit procedure for Natura 2000 sites Contract N° 07.0307/2012/623211/SER/B3 . http://ec.europa.eu/environment/nature/natura2000/management/docs/AA_final_analysis.pdf

¹¹¹ How much biodiversity does Natura 2000 cover? Study Contract ENV/B.3/SER/2014/0019. HTTP://EC.EUROPA.EU/ENVIRONMENT/NATURE/KNOWLEDGE/HOW_MUCH_BIODIVERSITY_IN_NATURA2000_EN.HTM

¹¹² COM/2015/0478 final - <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52015SSC0187>

¹¹³ <http://www.consilium.europa.eu/en/meetings/env/2015/12/16/>

Target 1 of the EU Biodiversity Strategy directly focuses on implementation of the Directives and sets measurable goals for improving the conservation status of habitats and species protected by the nature Directives. Action for conservation of targeted habitats and species resulting from the Directives covers a high proportion of semi-natural habitats and threatened species, especially amongst vertebrates, in the EU. However, based on the latest assessment published in the 2015 State of Nature in the EU report¹¹⁶ and the information summarised above, it can be concluded that **unless there is a significant improvement in trends of both species and habitat types protected under the Nature Directives it will not be possible to achieve Target 1 by 2020.**

The Directives support other targets of the EU's Biodiversity Strategy, especially Target 2 which promotes restoration of degraded ecosystems and their services and the wider application of green infrastructure (GI). Rich in natural and semi-natural habitats and species Natura 2000 areas provide a reservoir of biodiversity that can be drawn upon to repopulate and revitalise degraded ecosystems outside of the network. It therefore represents the backbone of the EU's GI, which aims to achieve a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services. EU funded projects under the LIFE programme also underline the contribution of Natura 2000 to GI¹¹⁷. As GI aims to also help reduce the fragmentation of the ecosystem, improving the connectivity between sites in the Natura 2000 network it contributes to the objectives of Article 10 of the Habitats Directive¹¹⁸ (Specific Objective B). A study for the European Commission, based on analysis of data on the current status of habitats and species protected under the Directives (Activity D2) also underlines the fact that **achieving the restoration efforts required to meet the objectives of the Directives will also significantly contribute to Target 2**¹¹⁹.

Implementation of the Directives also contributes to **Target 3**, which aims to increase the contribution of agriculture and forestry to biodiversity conservation. In particular, the **development of management plans for Natura 2000 sites** (Activity A3) has helped to identify and prioritise appropriate agri-environment climate scheme measures, as well as **informing and inputting to forest management planning**. This is supported by guidance from the Commission Services on farming and Natura 2000¹²⁰ demonstrating how to support Natura 2000 farming systems to achieve conservation objectives, based on Member States good practice experiences¹²¹. Guidance has also been developed by the

¹¹⁴ <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P8-TA-2016-0034+0+DOC+XML+V0/EN>

¹¹⁵ The biodiversity policy of the EU. (NAT/681 EESC-2016-00799-00-01-AC-TRA) <http://www.eesc.europa.eu/?i=portal.en.nat-opinions.38740>

¹¹⁶ Summarised in Section 3.5 and Figure 8 of the State of Nature in the European Union (COM (2015) 219 final - <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2015:219:FIN>

¹¹⁷ http://ec.europa.eu/environment/life/publications/lifepublications/lifefocus/documents/green_infra.pdf

¹¹⁸ Communication from the Commission. Green Infrastructure (GI) — Enhancing Europe's Natural Capital: COM(2013) 249 final - <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0249:FIN:EN:PDF>

¹¹⁹ Restoration efforts required for achieving the objectives of the Birds and Habitats Directives Contract n°: 07.0307/2013/661895/ETU/ENV.B3: bio by Deloitte. http://ec.europa.eu/environment/nature/knowledge/restoration_and_natura2000_en.htm

¹²⁰ <http://ec.europa.eu/environment/nature/natura2000/management/docs/FARMING%20FOR%20NATURA%202000-final%20guidance.pdf>

¹²¹ <http://ec.europa.eu/environment/nature/natura2000/management/docs/Farming%20for%20Natura%202000-Annex%20E-Case%20studies.pdf>

Commission Services on Forestry and Natura 2000¹²², which is also supported by case studies of good practice across the Member States^{123,124}. The wider countryside objectives of the Directives (Specific Objective B) are also relevant to Target 3.

Target 4 is about ensuring the **sustainable use of fisheries resources**. Here the **contribution of the Directives is more limited** as no major commercially harvested fish species is protected under the Habitats Directive. Such species are only supported indirectly to the extent that they may benefit from actions for species and habitats protected under the Directives, particularly as a result of marine Natura 2000 areas. Whereas international studies show that protected areas that include no-take zones benefit fish population¹²⁵, as the management of marine Natura 2000 areas is still being established, this has not yet been demonstrated for the network.

As the Directives require measures to be taken to **prevent the introduction of invasive alien species** (IAS) (Activity C3) and to address their impacts on protected species, they contribute to **Target 5** and are **complementary to the recently developed Invasive Alien Species Regulation**¹²⁶. Many actions have been taken by Member States to address IAS impacts in habitats and species protected under the Directives such as controlling and eradicating the American Mink, which threatens native fauna, including breeding birds, both within Natura 2000 sites and in the wider environment (Output C3). The EU LIFE programme has co-financed more than 260 IAS projects across Europe since 1992, investing a total of some EUR 70m in the problem¹²⁷ and protecting species such as the White-headed Duck, an endangered species that is threatened by hybridisation from the invasive Ruddy Duck. Many of these projects are directly linked to implementation of the Nature Directives involving the necessary management measures for Natura 2000 sites (Activity A3) and represent an important contribution to the EU Biodiversity Strategy's target on IAS.

6.1.4. Have the Directives led to any other significant changes both positive and negative?

A number of significant unintended changes arising from the legislation have been highlighted in this evaluation, with implications for its effectiveness in a positive or negative way. Some of these developments may not be entirely unexpected and there is no baseline or definition of expectations by which to assess them. Whether they are positive or negative is seen in the context of any significant environmental, social or economic effects or changes.

Positive changes were more frequently signalled. The one most frequently mentioned by stakeholders is a greater than anticipated **increase in public awareness and participation leading to behavioural changes with a positive social impact.**

¹²² <http://ec.europa.eu/environment/nature/natura2000/management/docs/Final%20Guide%20N2000%20Forests%20Part%20I-II-Annexes.pdf>

¹²³ <http://ec.europa.eu/environment/nature/natura2000/management/docs/Final%20Guide%20N2000%20Forests%20Part%20III.pdf>

¹²⁴ Further good practice examples in different Member States are provided in section 5.2.3.2.4 of the Study.

¹²⁵ e.g. Roland et al (2013) Lobster and cod benefit from small-scale northern marine protected areas: inference from an empirical before–after control–impact study. *Proc R Soc B* 280: 20122679.

¹²⁶ [Regulation 1143/2014 on invasive alien species](http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1468477158043&uri=CELEX:32016R1141) entered into force on 1 January 2015. The first list of invasive alien species of Union concern was adopted in July 2016. (OJ L 189, 14.7.2016, p. 4–8) <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1468477158043&uri=CELEX:32016R1141>

¹²⁷ http://ec.europa.eu/environment/life/publications/lifepublications/lifefocus/documents/life_ias.pdf

Stakeholder participation and involvement in the management of Natura 2000 sites appears to have facilitated progress in implementation. The Nature Directives have also promoted **a more innovative approach to nature conservation and sustainable development**. This has had a **positive economic impact**, generating new business opportunities in particular sectors, i.e. in tourism and innovation in sustainable farming or fishing practices, which has also led to new governance approaches at national and EU levels¹²⁸.

However, there were a **number of instances where the private sector and some nature authorities considered that an over-precautionary approach had been taken by authorities to prohibit some types of activity** that might affect the condition of a Natura 2000 site¹²⁹. In some of these cases it was argued that the authorities had disproportionate requirements for their authorisation in terms of required levels of evidence. The evidence provided consisted of a series of individual cases, where stakeholders consider that overly precautionary approaches were applied but which do not allow for an accurate estimation of the extent of the problem. Nevertheless, this perception exists among certain private and public interests and is a factor in determining their attitudes to the Directives.

While sectoral guidelines of the Commission services (e.g. on renewable energy, extractive industries) may demonstrate how to allow the development of socio-economic activities under certain conditions, the CJEU has confirmed Member States' discretion to adopt more stringent measures. Article 14 of the Birds Directive explicitly states that Member States may introduce stricter protective measures than those provided for under this Directive. However, strict rules may partly result from legal challenges brought to national or EU courts, although other factors such as human resource constraints cannot be discounted. This may have contributed in some cases to **risk-averse decision-making on authorisations or activities that may affect Natura 2000 sites**, although it is not possible to determine how significant this is on the basis of the evidence provided in this evaluation.

Concern has also been expressed by industrial stakeholders about the **implications for brownfield sites earmarked for development being colonised by species protected under the Directives, with negative implications for further development**. This has led to negative responses. For example, fallow plots in Rotterdam Harbour were ploughed regularly in order to prevent a natural environment from developing there. These concerns have resulted in the Netherlands and the Flemish region in Belgium developing innovative, flexible approaches (such as the concept of 'temporary nature'¹³⁰) which increase private landowners' and developers participation in restoration outside of Natura 2000 sites. Specific guidelines on how best to find appropriate solutions for species protection and industry do not exist at the EU level.

6.2. Efficiency

This criterion examines if the costs involved in implementation are reasonable and in proportion to the results (benefits) achieved. The evaluation of costs included examining evidence of any unnecessary administrative burden placed on businesses and citizens.

¹²⁸ Examples are provided in section 5.4.3.2 of the Study.

¹²⁹ Examples are provided in section 5.4.3.3 of the study.

¹³⁰ <https://mijn.rvo.nl/tijdelijke-natuur>

The evaluation of benefits not only considered evidence about achieving the conservation objectives but also the benefits from the delivery of ecosystem services that derive from nature, such as water purification, carbon sequestration or the many cultural services such as tourism, and their value for people and the economy. However, as Member States do not have a duty to report to the Commission on the costs and benefits of the Directives, including in relation to costs of permitting activities and other administrative burdens, there is limited quantitative information available at the EU scale to underpin assessments on efficiency. As a consequence, this evaluation largely relied on EU and national studies of specific elements of costs and benefits, particularly for Natura 2000.

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

The implementation of the two Directives implies different types of costs, such as compliance costs as well as opportunity costs resulting from missed or delayed opportunities for development or other activities. As Member States are not obliged to report cost data under the two Directives an EU wide figure for the total costs associated with their implementation is not available.

The most complete EU-wide assessment relates to the **compliance costs of designating, protecting and managing Natura 2000 sites** (Activities A1-A5). Based on data supplied by 25 Member States¹³¹, the most recent assessment for EU27 in **2010 estimated that the total investments costs required for managing the network were at least € 5.8 billion per year**¹³². The cost typology¹³³ (See Annex 5a) used for this determination distinguished between one-off costs (both management and investment costs) and recurrent costs (for management planning and for habitat management and monitoring).

The average cost of implementing the network was estimated at € 63.4 per hectare per year, across the 25 responding Member States. This was comprised of an average of € 42.6 per hectare per year for recurrent costs and of € 20.8 per hectare per year for one-off costs. The figures revealed wide variations in mean costs per hectare between Member States (see question 6.2.3). The estimated costs of implementing the Natura 2000 network were arrived at by scaling up the cost estimates provided by 25 Member States (€ 5,101 million) on an area basis, to fill gaps resulting from the unavailability of cost estimates from two Member States (Finland and Romania).

One third of the costs estimates related to one-off investments (€ 1,672.1 million for the 25 Member States replying to the questionnaire); the **remainder relate to recurring management of the sites** (€ 3,429.1 million for the 25 Member States replying to the questionnaire). The balance of one-off and recurring costs varies from one region to another and between sites, depending on different factors, including the way Member States interpreted the questions¹³⁴ and the degree of completion of the network. Recurrent

¹³¹ This data was officially collected by the Commission in the context of defining EU funding needs for Natura 2000 for the 2014-2020 multiannual financial framework. Responses were provided by 25 Member States (excluding Finland and Romania). Croatia was not yet a Member State therefore it was not requested to provide data.

¹³² Gantioler, S, Rayment, M, Bassi, S, Kettunen, M, McConville, AJ, Landgrebe, R, Gerdes, H, and ten Brink, P. 2010. Costs and Socio-Economic Benefits associated with the Natura 2000 Network (Final Report to the European Commission, DG Environment on Contract ENV.B.2/SER/2008/0038, Institute for European Environmental Policy / GHK / Ecologic, Brussels). Commission Staff Working Paper: Financing Natura 2000 – Investing in Natura 2000: Delivering benefits for nature and people. SEC (2011) 1573 final - http://ec.europa.eu/environment/nature/natura2000/financing/index_en.htm

¹³³ Further details on the 17 categories of costs used in the typology are given in Annex 5a to this report.

¹³⁴ Analysis of the data submitted by Member States revealed a number of issues, such as the variability in the degree of detail submitted, the incomplete coverage of some Member States, the variability in description of the methodology employed and the

costs were reported to be much higher than one-off costs in Spain, Germany, France, Italy, Ireland, UK, Portugal, and the Netherlands, reflecting the more established network and the need for its management. Only 19% of the total estimated costs were reported from EU12¹³⁵ and 43% of this share related to one-off costs, reflecting the fact that investing in the establishment of the network and the supporting infrastructure was still seen a priority in these Member States.

However, **even the € 5.8 billion value appears to be an underestimate as most countries focused on historic and/or budgeted expenditures.** As few Member States providing information on future needs, the full cost of achieving the general objective of Favourable Conservation Status was only captured to a limited extent. Spain was the only Member State providing two estimates of costs – "real" costs (those actually being incurred) and "desirable" costs (those expenditures which it could be desirable to make). Also, the cost of implementing marine Natura 2000 sites was under-represented, partly linked to slow progress but also to knowledge gaps (Activities D1/D2). The overall costs were not expected to decline in the future, as a gradual shift was expected from one-off investments to ongoing expenditure on site protection and management.

Evidence provided for different Member States during this evaluation confirms that a **large proportion of implementation costs relate to ongoing land management and** also indicates that **national strategies**, such as decisions on whether or not to purchase land, **have a significant influence on overall costs.** However, in many countries it is **not easy to separate costs of Natura 2000 from expenditure on national conservation measures** for national parks and other protected areas, many of which are also included in Natura 2000.

There are also private administrative costs and burdens, such as those linked to time and fees involved in applications and permitting in Natura 2000 areas, including conducting Appropriate Assessment (AA) and associated surveys, studies and evidence gathering, time and fees involved in compliance with species protection measures, including applications for permits and derogations; and delays and uncertainties relating to permitting processes. No overview of such costs is available at the EU level.

Opportunity costs¹³⁶, where the **protection of sites and species restricts development, land use change and land management that are incompatible with the requirements** of the Directives, was highlighted in the evaluation as a **concern by certain stakeholders.** This also relates to **significant time delays** where permits are required, with implications for the cost of projects. However **available evidence suggests that it affects a small proportion of all proposed developments** in the EU. For example Natural England, the statutory nature conservation adviser in England, receives around 26,500 land use consultations annually of which they 'object' to less than 0.5 % on the basis of EU Nature Directive grounds. Most of these objections are successfully dealt with at the planning stage (see also section 6.2.7). **In many parts of the EU land managers are provided with financial support for restrictions and requirements on agriculture and forestry related to obligations under the Directives.** A study of the

variability in assumptions and estimation methods (e.g. cost estimates by some Member States were aspirational while those of others reflected resources actually spent and committed), which justify some caution while using these cost estimates.

¹³⁵ Excluding Romania, which did not respond to the questionnaire.

¹³⁶ Opportunity costs include development opportunities foregone as a result of 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 economic output (e.g. agricultural or forestry production) resulting from species and site protection measures; and restrictions on other activities (e.g. recreation, hunting) resulting from species and site protection measures.

opportunity costs of biodiversity in the EU¹³⁷ found that the **true extent of opportunity costs for which no compensation is paid is unknown**. Whereas the costs of delay and relocation should not be ignored, the authors argued that protection of the sites is generally likely to have displaced development to more appropriate locations and that net reduction in economic development at EU level as a result of Natura 2000 is likely to be small, although further assessment would be needed to confirm this.

Another assessment for the Commission in 2013¹³⁸ considered the extent to which the Directives block development by examining how many **developments are proposed affecting Natura 2000 sites and how many of those are screened out as not requiring an appropriate assessment** procedure under Article 6(3) of the Habitats Directive (Activity A5). They noted that there is limited data available, but found **some evidence at national level indicating that, only a very small proportion of development proposals are subject to a full appropriate assessment. In most cases, these proposals are allowed to proceed, some of which would involve modifications.**

These findings would appear to be supported by evidence provided during this evaluation by reference to national assessments in Germany, the Netherlands and UK (England), although some representatives of land management, mining and business interests expressed concern that the Directives provide a constraint to development and economic output.

The **costs of damage caused by protected species and resulting compensation payments** related to activities such as, aquaculture, and livestock, **have also been highlighted** in the evaluation. Damage by large carnivores and losses from several fish-eating birds that impact on aquaculture can be significant at a local level but account for a small proportion of overall (national) costs. Payments are made in accordance with compensation systems that have been established by the relevant national authorities. Certain damage prevention measures are eligible for support under EARDF¹³⁹ and compensation is possible under EMFF funding¹⁴⁰. In Bulgaria compensation for damage caused by Brown Bears to agriculture and livestock (including to beekeeping) amounted to €40,000 in 2014. In Finland, large carnivores cause damage to livestock and reindeer, for which compensation of € 7.5m was paid in 2014. In France damage prevention and compensation measures for damage by wolves to livestock cost more than € 12m in 2013. In Sweden, the annual expenditure on management of large carnivores by the Swedish authorities was estimated at € 16m/ year. In Hungary the cost to the 900 ha Aranypony Fish Farm for scaring the Great Cormorant is estimated at about HUF 5m (€ 16,000) per year. Fish consumption by cormorants in Hungary is estimated at 2,427,700 kg, which is about 13% of the total pond fish production, which equates to gross annual

¹³⁷ Kaphengst, T, Bassi, S, Davis, M, Gardner, S, Herbert, S, Lago, M, Naumann, S, Pieterse, M, and Rayment, M. 2011. *Taking into account opportunity costs when assessing costs of biodiversity and ecosystem action* (ENV.F.1/ETU/2009/0094r Ecologic, IEEP, GHK, Berlin). <http://ec.europa.eu/environment/enveco/biodiversity/pdf/OpportunityCostsOfBiodiversityAndEcosystemAction.pdf>

¹³⁸ Sundseth, K and Roth, P. 2013. Study on Evaluating and Improving the Article 6.3 Permit Procedure for Natura 2000 Sites. Main report and case study compilation (Ecosystems Ltd, Brussels).

¹³⁹ Of particular relevance are **Measure 4.1** (Support for investment in agricultural holdings) and **Measure 4.2** (Support for non-productive investments linked to the achievement of agri-environment(-climate) objectives), both under **art 17** of Regulation (EU) No 1305/2013. Then **Measure 10.1** (Agri-environment-climate) under **art 28** and **Measure 7.6** (support to studies and investments associated with the maintenance, restoration and upgrading of the cultural and natural heritage of villages, rural landscapes and high nature value sites, including related socio-economic aspects, as well as environmental awareness actions) under **Article 20**

¹⁴⁰ REGULATION (EU) No 508/2014 (Article 40(1)(h) "schemes for compensation for damage to catches caused by mammals and birds protected by Directives 92/43/EEC and 2009/147/EC)

losses of about HUF 1,213m (about € 4m) for the fish farmers. In the Czech Republic direct losses of fish caused by cormorants in aquaculture have been reported by the Czech Fish Farmers' Association at € 3m - 3.5m/year. Additional costs are incurred in hunting and scaring. They have also estimated the losses caused by herons at € 1m/year (without compensation) and by otters € 1.4m/year (with compensation estimated to amount to 18% of losses). The Association also estimated damage by beavers to ponds, flooding systems and reservoirs at more than € 5m/year. **While the above species are protected under the Birds and Habitats Directives, the extent to which the costs identified are the result of the Directives themselves is unclear, particularly since both Directives allow derogations to enable the control of species which cause serious damage to fisheries, crops, livestock, forests and other types of property.**

The evidence also shows that **implementation of the Directives delivers substantial benefits**. These range from the benefits to species and habitats to the ecosystem services provided by Natura 2000 and the economic impacts to local and national economies¹⁴¹. As expected, **core benefits are the protection and improved conservation status of habitats and species. Protection of sites and species also helps to safeguard and enhance the delivery of a wide range of provisioning services** such as food, water, timber, and fiber; **regulating services** such as climate regulation, (including carbon sequestration and storage), increased resilience to natural hazards and reduction of the risk of extreme events and weather-related disasters such as, floods, disease, and water quality; **cultural services** that provide recreational, aesthetic, and spiritual benefits; and **supporting services** such as soil formation, photosynthesis, and nutrient cycling; **all of which enhance human wellbeing**.

Forests, wetlands, peatlands, grasslands, marine and coastal areas, ecosystems which are protected in many Natura 2000 sites are important current stores of carbon and offer significant opportunities for further carbon sequestration. It is estimated that the **above and below ground carbon stocks per unit area of Natura 2000 sites are 43% higher than average across the rest of the EU**¹⁴². It is also 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 and 1,130 billion (stock value in 2010), depending on the price attached to a ton of carbon¹⁴³. These values are expected to increase in the future, especially if the conservation status of the network improves.

Natural hazard mitigation is offered by healthy, intact and robust ecosystems. For instance, in the Kalkense Meersen Natura 2000 site in Belgium, it has been estimated that the restoration of the original river landscape by means of wetlands and estuarine habitats restoration will bring flood mitigation benefits of between EUR 0.64m–1.65m per annum. With regard to water purification and provision Berlin, Vienna, Oslo and Munich are each estimated to receive annual economic benefits of between € 7m and € 16 m from

¹⁴¹ A typology of the different types of benefits used in this evaluation is given in Annex 5b.

¹⁴² Beresford, A. E., Buchanan, G. M., Sanderson, F. J., Jefferson, R. and Donald, P. F. (2016), The Contributions of the EU Nature Directives to the CBD and Other Multilateral Environmental Agreements. CONSERVATION LETTERS, 9: 479–488
<http://onlinelibrary.wiley.com/doi/10.1111/conl.12259/full>

¹⁴³ The carbon density for terrestrial ecosystems has been calculated based on total carbon stored by each land-use category in aboveground biomass and soil organic carbon stored up to 1 m depth belowground (World Bank, 2009). For Natura 2000 the total carbon stock by habitat has been calculated by multiplying the carbon density of each habitat type by the total area of the existing habitat. There are high measurement uncertainties when quantifying the total carbon stored. Nevertheless, total carbon sequestered in all Natura 2000 sites is estimated at 9,6 giga tons. A range of shadow prices has been applied in order to value the carbon sequestration services of Natura 2000. The EC values (EC 2008, DECC2009) were used for the lower estimate, French values (Centre d'analyse stratégique, 2009) for the higher value. See also synthesis report 'The economic benefits of Natura 2000 network' http://ec.europa.eu/environment/nature/natura2000/financing/docs/ENV-12-018_LR_Final1.pdf

water purification and between € 12m and € 91m through water provision from Natura 2000. **Insect pollination services**, which are currently under threat have been estimated as having an annual value estimated at €14bn per year in the EU, representing 10% of the value of agricultural food production in 2005¹⁴⁴. **Existing data do not allow the contribution of Natura 2000 to be quantified.**

A study for the Commission presented **overall estimates of the value of the ecosystem benefits of Natura 2000**¹⁴⁵. This used the framework provided by the UN Millennium Ecosystem Assessment (MA) for categorising, assessing and valuing the services provided by ecosystems¹⁴⁶. As **the assessment** is based on a relatively small number of studies scaled up to the EU¹⁴⁷ it **would benefit from further refinement** through subsequent analysis. However, it was estimated that the network provides benefits of **between € 200-300 billion per year, amounting to around 1.7 - 2.5 % of EU GDP**. Site-based¹⁴⁸ and habitat-based valuations approaches were applied, as well as an estimate for selected ecosystem services to assess the overall benefits of Natura 2000 and to aggregate them to assess the overall benefits of the network.

Numerous **estimates of the value of the benefits** of these services for particular sites have been provided showing that they **vary widely between sites**, ranging from less than € 50 per hectare per year to almost € 20,000 per hectare per year. These findings are supported by a range of national studies in different Member States. The human health and social inclusion benefits of Natura 2000 and other green spaces are difficult to monetise but are increasingly recognised¹⁴⁹. As 65% of EU citizens live within 5 km of a Natura 2000 site and 98% within 20 km, the sites have considerable potential to deliver ecosystem service benefits to a high proportion of the EU's population¹⁵⁰.

Implementation of the Nature Directives also contributes to local economies through job creation and tourism. A 2011 study for the Commission¹⁵¹ **estimated that Natura 2000 sites attract an annual expenditure on tourism and recreation of € 50-85 billion**¹⁵². During this evaluation examples were provided where wildlife tourism contributes to national and local economies. For example in Scotland this represents GBP

¹⁴⁴ The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services has estimated that 5-8 per cent of current global crop production, with an annual market value of \$235 billion-\$577 billion in 2015¹⁴⁴, directly depends on animal pollination. <http://www.ipbes.net/publication/thematic-assessment-pollinators-pollination-and-food-production>

¹⁴⁵ Ten Brink et al (2011) The economic benefits of the Natura 2000 network http://ec.europa.eu/environment/nature/natura2000/financing/docs/ENV-12-018_LR_Final1.pdf

¹⁴⁶ <http://www.millenniumassessment.org/documents/document.356.aspx.pdf>

¹⁴⁷ The site-based evaluation compiled data from 21 studies. The habitats-based evaluation compiled data from 33 study numbers for 7 habitat groups - coastal, freshwater, heath and sand, grasslands, bogs and mires, forests. Results from both methods are currently possible preliminary indicative values, to be used with care, also because they are highly dependent on studies from UK and the Netherlands.

¹⁴⁸ The site based approach estimated overall value at €223-314 bn/yr and the habitat based approach estimated overall value at €189-308 bn/yr.

¹⁴⁹ "The Health and Social Benefits of Nature and Biodiversity Protection" - (ENV.B.3/ETU/2014/0039) - <http://ec.europa.eu/environment/nature/biodiversity/intro/docs/Health%20and%20Social%20Benefits%20of%20Nature%20-%20Final%20Report%20Main%20sent.pdf>

¹⁵⁰ Beresford, A. E., Buchanan, G. M., Sanderson, F. J., Jefferson, R. and Donald, P. F. (2016), The Contributions of the EU Nature Directives to the CBD and Other Multilateral Environmental Agreements. CONSERVATION LETTERS, 9: 479-488 <http://onlinelibrary.wiley.com/doi/10.1111/conl.12259/full>

¹⁵¹ BIO Intelligence Service. 2011. *Estimating the economic value of the benefits provided by the tourism/recreation and employment supported by Natura 2000* (Report for the European Commission DG Environment, BIO Intelligence Service, Ecotrans, OAR and Dunira Strategy, Paris).

¹⁵² http://ec.europa.eu/environment/nature/natura2000/financing/docs/Estimating_economic_value.pdf

1.4 billion (€ 2 billion) of annual visitor spending and 39,000 full time equivalent (FTE) jobs. **Based on the current levels of expenditure, a preliminary assessment indicates that an estimated 52.000 full time equivalent (FTE) jobs are directly and indirectly related to the conservation of the network and that full implementation of Natura 2000 would support 104,000 FTE jobs directly and 174,000 FTE jobs in total**¹⁵³. The expected types of jobs not only relate to site management but also involve education, recreation and tourism, particularly if visitor infrastructure is available. Further examples are given for different Member States during the evaluation, including in relation to agriculture and food production¹⁵⁴.

However, the **distribution of benefits and costs is uneven**. There is **often a mismatch between those subject to opportunity costs (such as land owners and developers) and those benefitting (such as the tourism and recreational sectors and society at large)**. **Biodiversity protection and Natura 2000 are still often perceived by some businesses and public authorities as mainly imposing costs and restrictions**. There is **insufficient awareness or recognition in public policy of the multiple benefits provided by Natura 2000 and biodiversity at large**, which do not appear to have been factored sufficiently into the design and implementation of management measures for the sites or captured through economic models more broadly.

6.2.2. Are availability and access to funding a constraint or support?

As already underlined in Section 6.1.2 the **availability or lack of funding is likely to have had the most influence on the implementation** of the Directives. The **Directives do not set out how funding is to be achieved** and whilst it was expected funding would be made available via public and private sources, the extent to which this should come from any particular source was not indicated. Although some private sector funding sources (e.g. from non-governmental organisations, foundations) and market based instruments (e.g. entrance fees to sites and revenue from tourism) are used, investment largely comes from public funds (EU, national, regional and local). Article 8 of the Habitats Directive foresees some EU co-funding for Natura 2000 (i.e. funding provided via one of the EU financial programmes that is matched/complemented by funding from Member States) but the main responsibility for funding was always expected to lie with the Member States. The integration of Natura 2000 funding needs into other EU sectoral funds is further considered in Section 6.4.7.

Quantitative information assessing available funding against the identified funding needs (i.e. the funding gap) is very limited. The existing evidence is primarily focused on the financing of the Natura 2000 network (Activities A1-A4) and there is little evidence available with respect to funding in support of other objectives of the Directives (e.g. species protection measures (Activities C1 and C3), or measures for ecological coherence under Article 10 of the Habitats Directive (Activity B1).

A 2011 study for the **Commission estimated that allocations from EU funds towards managing the Natura 2000 network during the 2007-2013 EU financing period were between € 550–1,150 million per year**¹⁵⁵. This represents **only 9-19% of the estimated financing needs of € 5.8 billion per year** to finance Natura 2000. This did not include

¹⁵³ http://ec.europa.eu/environment/pubs/pdf/biodiversity/Biodiversity%20and%20Jobs_final%20report.pdf

¹⁵⁴ For further examples of contribution to jobs and the economy see Boxes 22-24 of the Study.

¹⁵⁵ Kettunen, M, Baldock, D, Gantioler, S, Carter, O, Torkler, P, Arroyo Schnell, A, Baumüller, A, Gerritsen, E, Rayment, M, Daly, E, and Pieterse, M. 2011. *Assessment of the Natura 2000 co-financing arrangements of the EU financing instrument. A project for the European Commission - final report* (Institute for European Environmental Policy, Brussels, Belgium).

funding provided by the Member States, including both the required co-funding to match the EU funds and other national, regional and local funding sources, for which information was not provided. However, it concluded that it is **unlikely that national funding would be able to cover the significant gap (80-90%)** between the estimated total needs and available EU allocations.

All groups of stakeholders emphasised that both a severe shortage of funding and different constraints in uptake of funding inhibit progress towards the objectives of the Directives. **Funding shortages have been highlighted across all Member States**, and are **particularly apparent with respect to the ongoing management and monitoring** of the Natura 2000 network. Nature authorities and associated public management bodies are also affected, with **implications for staffing**, which can have an **impact on implementation due to delays in site designation, management planning and permitting**.

Apart from the allocation under the LIFE programme¹⁵⁶ there is no earmarking of funds for nature and biodiversity under different EU funds. As Member States are not obliged to fully avail of the opportunities for financing Natura 2000 available under different EU funds this can result in relatively low levels of allocation in the context of national programmes. This is commonly identified as a major constraint, and is pointed out in reports of the European Court of Auditors highlighting the lack of integration of biodiversity into the key funds (e.g. **Cohesion Policy funds**)¹⁵⁷. Whereas activities linked to one-off investments and remaining designations are relatively well covered, there are **relatively limited opportunities to use EU funds to establish and run management bodies, and to undertake ongoing management and monitoring of Natura 2000 sites.** There is also a lack of capacity of national administrators and stakeholders to absorb EU funding even when available¹⁵⁸. The lack of coherence, coordination and planning in Member States in using different EU and national funding sources makes it difficult to form an overall picture of the actual financing needs and how these needs should be met. The Prioritised Action Frameworks have been developed with a view to addressing this issue during the 2014-2020 funding period.

Furthermore, apart from investments under the LIFE fund, which are closely monitored in relation to delivery of results, **less information is available about how efficiently the other available funding instruments are delivering outcomes** that help achieve the objectives of the Directives. Results-based payment schemes are still not widely applied in the Member States¹⁵⁹ and the information to assess whether funding schemes are designed in the best possible way to deliver targeted and cost-effective results is currently not available.

¹⁵⁶ Pursuant to Article 9(2) of the current LIFE Regulation (No 1293/2013) at least 55 % of the budgetary resources allocated to projects supported by way of action grants under the sub- programme for Environment shall be dedicated to projects supporting the conservation of nature and biodiversity

¹⁵⁷ European Court of Auditors. 2011a. *Is agri-environment support well designed and managed?* (Special Report No 7/2011, Publications Office of the European Union, Luxembourg). European Court of Auditors. 2013. *Can the Commission and Member States show that the EU budget allocated to the Rural Development Policy is well spent?* (Special Report No 12/2013, Publications Office of the European Union, Luxembourg). European Court of Auditors. 2014a. *Is the ERDF effective in funding projects that directly promote biodiversity under the EU biodiversity strategy to 2020?* (Special Report No 12/2014, Publications Office of the European Union, Luxembourg).

¹⁵⁸ Assessment of the Natura 2000 Co-Financing Arrangements of the EU Financing Instrument Contract 070307/2010/567338/ETU/F1 http://ec.europa.eu/environment/enveco/biodiversity/pdf/assessment_natura2000.pdf

¹⁵⁹ http://ec.europa.eu/environment/nature/rbaps/index_en.htm

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

There is **limited information available** and the most up to date comparison of Member States is a 2010 study for the Commission¹⁶⁰, which based on information supplied by the Member States, found **considerable variations in average annual cost estimates of implementing the Natura 2000 network** (Activity A1-A5). These **ranged from € 14 per hectare in Poland to more than € 800 per hectare in Cyprus, Luxembourg and Malta.**

The higher cost estimates suggest that **economies of scale are a significant issue but may also be influenced by the fact that smaller sites in proximity to urban areas face higher per hectare costs**, given existing pressures. They may also reflect differences in ambition with high cost strategies being proposed in some Member States (involving, for example, high levels of land purchase, e.g. Cyprus) compared to more conservative programmes in others (e.g. Bulgaria, Czech Republic, France, Italy, Malta, Slovakia and the UK) indicated that land purchase is only considered in rare circumstances.

However, **average costs per hectare were generally found to be higher for older (EU-15) than for newer Member States (EU-12).** In absolute terms, by far the largest overall cost estimate was for Spain, at € 1.56 billion per year, reflecting both the large size of the network and the relatively high unit cost estimates applied by that country to ensure adequate management of its network (€ 114/ha).

The 2010 study suggested that the **main drivers of cost differences** include the overall **extent of the Natura 2000 network within different Member States, the degree of ambition applied to its implementation, economic factors (e.g. land and labour costs), national circumstances (e.g. type and size of site, land use, land prices, location, ecological status, pressures), management strategies.** However **differences in estimation methods and scope of costs (e.g. total or incremental costs, and actual, planned, required or aspirational expenditures) were also considered as contributing to these variations.**

In relation to **permitting** under Article 6(3) of the Habitats Directive (Activity A5) there is a **scarcity of data on costs.** There is no duty under the Nature Directives to collect and report this information to the Commission. In the absence of a systematic approach there is also a risk that problem cases rather than more normal application of permitting provisions get recorded. **The real costs and timing associated with permitting are determined by the detailed rules established by Member States** under the framework set up under the Directive. A 2013 study for the Commission¹⁶¹ found that **the way in which Article 6(3) permit procedure is applied varies greatly** from one country to another and even from one region to another within a Member State: more than 70 different approaches were estimated to have been set up by either national or regional legislation across the EU.

The same Commission study reported that a **lack of understanding of, or willingness to accept, the Article 6(3) procedure among certain authorities and/or sectors had led**

¹⁶⁰ Costs and Socio-Economic benefits associated with the Natura 2000 network. Study contract No.: ENV.B.2/SER/2008/0038 http://ec.europa.eu/environment/nature/natura2000/financing/docs/natura2000_costs_benefits.pdf

¹⁶¹ Sundseth, K and Roth, P. 2013. *Study on Evaluating and Improving the Article 6.3 Permit Procedure for Natura 2000 Sites.*

to difficulties in implementation, resulting in more frequent delays, inconsistencies in application and frustration among developers, authorities and NGOs. Another 2015 study for the Commission¹⁶², examining the reasons for differences in time delays between Member States in undertaking appropriate assessments under Article 6(3), identified similar factors to those highlighted in the 2013 study. While **aspects such as the size and complexity of projects, processes of communication and the quality of data and appropriate assessments are project specific, others may result from differences in approaches between Member States**. These include the capacity and expertise of permitting authorities, procedures for appeals, and the degree of co-ordination with environmental impact assessment (EIA) and strategic environmental assessment (SEA) procedures.

During this evaluation **examples of good practice in improving the efficiency and timescales involved in appropriate assessments have been highlighted**. These include simplified planning processes and strategic spatial planning in Denmark that has helped remove potential conflict at an early stage (e.g. in relation to wind farm development) and the 2010 Crisis and Appeal Act in the Netherlands that has reduced the time taken for objection and appeal procedures.

6.2.4. Can any costs be identified (especially regarding compliance) that are out of proportion with the benefits achieved? In particular, are the costs of compliance¹⁶³ proportionate to the benefits brought by the Directives?

Whereas there are **contrasting views of stakeholders**, as confirmed by the public consultation **in relation to whether costs are proportionate in relation to benefits** of the Directives there is **no systematic collection of information** to answer this question. Some stakeholders in the public consultation¹⁶⁴ (eg forestry in Sweden, Germany and Austria) considered that costs outweighed benefits and that socio-economic factors were not sufficiently addressed in implementation. **Several local studies support the view that generally the benefits of Natura 2000 sites generally greatly exceed the costs of management**. This is also supported by more extensive studies (e.g. in Scotland and England). Case studies are also provided to show high benefit/cost ratios from habitat restoration (e.g. peatlands, floodplains)¹⁶⁵.

Examples have also been provided where the costs of implementation were considered disproportionate to the benefits. The **most frequently cited examples relate to species protection**, particularly the protection of species that are more widespread and common in parts of their EU range (e.g. Great Crested Newt) affected by development. Some stakeholders have expressed concern about the level of demands that are made on them

¹⁶² Farmer, A, Watkins, E, Withana, S, Paquel, K, Illés, A, Oosterhuis, F, Kuik, O, Haines, R, Rayment, M, McNeil, D, Martínez-Granado, M, and Greño, P. 2015. *Study to analyse differences in costs of implementing EU policy* (A project under DG Environment's Framework contract for economic analysis ENV.F.1/FRA/2010/0044, Institute for European Environmental Policy with IVM, ICF International and naider, London/Brussels).

¹⁶³ In the context of gathering evidence for this evaluation the following definitions were applied: **Compliance costs** can be further divided into administrative costs and costs of habitat and species management. **Administrative costs** refer to the costs of providing information in its broadest sense (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**.

¹⁶⁴ See under Annex 2 to this document.

¹⁶⁵ See Boxes 33-34 of the Study.

in the context of application of derogations, including in relation to information needs, to avoid killing protected individuals of a species, irrespective of population size and the need for better guidelines to help ensure workable protection standards and streamlined procedures for such species protection provisions. However, other factors may be relevant to species in very bad conservation status where the costs for recovery are high and could be considered disproportionate in certain areas of the EU (e.g. Freshwater Pearl Mussel).

There are also **cases of specific plans and projects that are perceived to have resulted in disproportionate costs**¹⁶⁶. These examples suggest the **underlying causes are complex and are influenced by national approaches to implementation, as well as the interaction of the Directives with other legislative and permitting requirements**. Factors that have led to disproportionate costs in the UK include a lack of evidence to inform decision-making, creating a risk-averse approach by developers and land managers.

This is supported by the 2013 study for the Commission on permitting and Natura 2000, which found that there was a **general lack of data on the costs and benefits of appropriate assessment (AA) (Activity A5), making it impossible to determine claims made by certain sectors that permitting procedures generate high costs or burdens**. The authors noted that all permitting systems incur costs, arguing the need both for better data and for clearer definitions of disproportionate costs.

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

There are **many examples of good practice across Member States that can contribute to cost-effective implementation of the Directives**.

A 2012 review¹⁶⁷ of implementation of the Nature Directives in England identified a number of **initiatives enhancing the cost effectiveness of implementation and reducing burdens on business** and has led to initiatives to facilitate nationally important infrastructure projects, including through streamlined processes for assessment and permitting and advance collection of data and early identification of any issues relevant to the Directives. This involved improving the quality, quantity and sharing of data, including a new group to develop and share marine evidence, consultation on standards of evidence for decision-making, plans for enhanced sharing of environmental evidence, and improved surveillance of protected species. Other elements of this initiative included improving the ‘customer experience’ for developers, including new partnership approaches as well as improving implementation processes and streamlining guidance. The review identified a number of examples of good practice in the UK, highlighting the advantages of early and constructive engagement and data-sharing among developers, regulatory authorities and nature conservation organisations.

The 2013 study for the Commission on **permitting procedure under Article 6(3) of the Habitats Directive** identified **factors that contribute to cost-effective implementation**. These include providing **improved access to data** on Natura 2000 sites and protected

¹⁶⁶ See Box 38 of the Study.

¹⁶⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69513/pb13724-habitats-review-report.pdf

species/habitats; **training** on the Natura 2000 permitting procedure (Activity A5) for competent authorities and project promoters; targeted, user-friendly **guidance**, forms and checklists for the various stages of the AA ensuring a more robust and consistent framework for **screening** plans and projects. Encouraging **early dialogue** and cooperative working among the competent authorities, potential project or plan proponents and between different sectors within government as well as promoting a more inclusive strategy during the decision-making process in order to take account of Natura 2000 at the earliest possible opportunity reduces the potential for later conflict through encouraging a win-win approach.

The 2015 study identified similar good practices including **simplified planning processes and strategic spatial planning which helps remove potential conflicts between proposed developments and Natura 2000 sites at an early stage** i.e. prior to project identification and permit application. It also identified technical guidance and protocols to help to ensure AAs are of sufficient quality to inform decision-making processes. It underlined the importance of employing appropriate specialists with the skills and training required to oversee AA processes. It also underlined that streamlining of appeal procedures helps reduce delays in permitting processes.

These reviews **generally correspond to the wide range of factors that were identified by stakeholders during the evaluation as contributing to cost-effective implementation**. The most frequently cited examples from the evidence gathered refer to examples of strong participation, consultation and stakeholder engagement; transparent and accessible strategic planning approaches to manage conservation and other land uses; provision of guidance to stakeholders affected by the Directives; coordinated collection and sharing of information to reduce information costs; partnerships and joint initiatives between industry, NGOs and the nature authorities to meet common objectives.

Many good practice cases have been provided by Member States and stakeholders during this evaluation¹⁶⁸. These include **smart approaches to using information** which can help reduce costs for stakeholders, the **development of new institutional arrangements** to aid cost-effective implementation in Germany, France and the Netherlands, good practice in relation to undertaking appropriate assessments and permitting and strategic approaches to planning and information gathering to streamline decision making for infrastructure development, development of new and more cost-effective approaches to pollution control (as in tackling nitrogen pollution in the Netherlands), development of multiple benefit initiatives that also contribute to the aims of other policies such as in freshwater and marine, development of codes of conduct and licencing arrangements for species protection, strengthening the role of volunteers. **Certain sectors, such as ports, renewable energy and the extractive industries, have many years of experience of working with the Directives and in meeting their requirements while facilitating the development of the industries concerned.**

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

As there has been **no systematic assessment it is not possible to quantify the costs on non-implementation of the Directives**. However, insights from Cost of policy inaction (COPI) studies have shown that **biodiversity loss and degradation lead to ecosystem service losses** (ranging from water purification and supply, flood control, air pollution,

¹⁶⁸ For further details on these cases see Boxes 42-45 of the Study.

noise mitigation and climate change mitigation, adaptation, and enhanced resilience to natural disasters, to cultural services such as recreation and tourism, as well as education and scientific understanding¹⁶⁹). They suggest that non-implementation or partial implementation of the Directives would result in a continuing erosion of the many ecosystem service benefits to citizens and the economy provided by the species, habitats and sites protected by the Directives.

According to the benefits estimates for Natura 2000 (see section 6.2.1), **a 1% reduction of the ecosystem services flowing from the Directives would lead to losses of € 2-3 billion per year**, which would accumulate over time. Non-implementation would also lead to **missed opportunities for the growth of benefits in protected areas**, when management and investment do not take place.

Case studies illustrating the costs of inaction and possible consequences of non-implementation were provided for different Member States in the evaluation. These include examples where damage to peatlands had implications for the quality of drinking water and where construction in mountainous areas can increase the risk of landslides. **Incomplete or late implementation of the Directives** (i.e. late designation of Natura 2000 sites) **has also been linked by a range of countries to the risk of deferred investment due to legal uncertainty, which can lead to both higher costs and delayed benefits from these investments**¹⁷⁰.

6.2.7. Taking account of the objectives and benefits of the Directives, is there evidence that they have caused unnecessary administrative burden?

Implementation of the Directives is highly dependent on information¹⁷¹, **making significant administrative burdens inevitable if the objectives are to be met**¹⁷². Stakeholders are divided as to the extent to which the current scale of administrative burdens is necessary to achieve the objectives of the Directives.

However, **relevant information**, such as in relation to permitting, **is not systematically collected and reported across the Member States**. In the context of this evaluation the only available quantitative estimate of administrative burdens resulting from the Nature Directives came from the Netherlands. Here, the annual costs of administrative burdens to business arising from the Dutch laws that implement the Birds and Habitats Directives were estimated at € 39 million in 2014. The costs to the authorities were estimated at an additional € 10 million. However, this does not indicate to what extent such expenditure is unnecessary. It is therefore difficult to assess administrative burden and make judgements as to whether and to what extent any of this is unnecessary.

A 2013 study for the Commission¹⁷³ examined evidence of the **extent of administrative burdens with respect to AA required for plans and projects** under Article 6(3) of the Habitats Directive (Activity A5). The review showed that **cost can be extremely varied**

¹⁶⁹ For further details see page 255 of the Study.

¹⁷⁰ For further details see Boxes 66 & 67 of the Study.

¹⁷¹ For a list of key knowledge requirements for implementation see Annex 6.

¹⁷² Administrative burdens include the costs to the authorities of implementing and administering the Directives, the costs, time and resources of developers and other stakeholders in providing information required for compliance as well as to provide information to comply with administrative processes and the costs resulting from delays and uncertainties caused by the administrative process.

¹⁷³ Sundseth, K and Roth, P. 2013. *Study on Evaluating and Improving the Article 6.3 Permit Procedure for Natura 2000 Sites*.

depending on the nature of the projects and concluded that the AA procedure, like other administratively regulated permitting procedures, imposes burdens on those involved, which increase if it is not correctly implemented (e.g. in relation to the poor quality of the assessments due to lack of expertise or poor quality data).

A government review of implementation of the Nature Directives in England in 2011-2012, also focusing on permitting and Natura 2000, concluded that in the large majority of cases the implementation of the Directives are working well, allowing both development and key infrastructure and ensuring a high level of environmental protection¹⁷⁴. It identified four **areas to improve the efficiency of implementation** aimed at facilitating nationally significant infrastructure projects: **improving implementation processes and streamlining guidance, improving the quality, quantity and sharing of data, improving the customer experience.**

Evidence provided within this evaluation also indicates that **implementation approaches have implications for administrative burdens**. Case studies also reveal approaches being taken in different Member States to reducing unnecessary administrative burdens. Early screening of plans and projects can reduce administrative burden through less need for AA but in some Member States stakeholders argue that screening is required for an excessive number of developments and creates unnecessary burden. In some MS, alignment of AA, EIA and SEA has been found to work efficiently in providing joined up assessments while in others it is considered as having created burdens as it can lead to an increase in duration and costs. Scientific uncertainties due to a lack of data can increase administrative burdens, especially where this leads to a precautionary approach. A lack of capacity in the administrative authorities can lead to administrative burdens on business.

The largest administrative burdens in implementing the Directives are often related to infrastructure projects such as building roads, expanding ports. Some infrastructure developers have argued that better implementation of the Directives would reduce administrative burdens¹⁷⁵. They argue that the Directives provide a clear legal framework and that, in their absence, a loss of legal certainty would be expected to increase administrative burdens.

Other areas of administrative burden highlighted in the evaluation were in relation to **species protected under the Directives that are widely distributed or relatively more common in certain parts of their EU range and reporting obligations under the Directive**. Several species are frequently encountered in the assessment of plans and projects in some Member States. These include the Great Crested Newt (in the UK, Sweden and Germany), Natterjack Toad (France and Germany), Sand Lizard (Germany), Maltese Wall Lizard (Malta), and various bat species (UK, Poland, Sweden and Germany) and can account for a significant proportion of the overall burdens related to species protection in these Member States. Several nature protection authorities consider that the requirements for reporting to the Commission in relation to the use of derogations under the Directive (Activity C2) cause unnecessary burden¹⁷⁶.

¹⁷⁴ DEFRA (2012) Report of the Habitats and Wild Birds Directives Implementation Review
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69513/pb13724-habitats-review-report.pdf

¹⁷⁵ Renewable Grid Initiative. 09/29/2014. The need for clear, stable nature and climate mandates for grid investment (Press release).
<http://renewables-grid.eu/publications/press-releases/detail/news/open-letter-to-jean-claude-juncker-the-need-for-clear-stable-nature-and-climate-mandates-for-grid.html>

¹⁷⁶ Further examples of case studies are provided in Boxes 68-76 of the Study.

The implication for small and medium sized enterprises (SMEs) of the Directives was also raised by some stakeholders during the evaluation (e.g. in relation to housing/residential development, fisheries, energy/wind industry). There was **concern that some SMEs may find the administrative burden in addressing obligations, such as carrying out appropriate assessments more difficult.**

6.2.8. Is the knowledge base sufficient and available to allow for efficient implementation?

There is no detailed EU level assessment of knowledge requirements and gaps, apart from the 2015 State of Nature in the EU assessment, which provides the most complete overview on knowledge in relation to the conservation status and trends of protected species and habitat types (Output D1). Adequate and reliable knowledge is fundamental to many activities associated with implementation of the Directives, including identifying appropriate sites for inclusion in the Natura 2000 network (Activity A1), developing site conservation objectives and management plans (Activity A3), identifying funding requirements, working with stakeholders to establish management measures and funding, developing guidance, undertaking appropriate assessment of possible impacts from activities (Activity A5), permitting, assessing conservation status, as well as monitoring (Activity D1) (See Annex 6).

The Directives have stimulated a significant increase in research and monitoring activities (Outputs D1 and D2), essential for efficient implementation, in particular in relation to the Natura 2000 network¹⁷⁷. However, **in most, if not all Member States, there are significant data and knowledge gaps that constrain efficient and effective implementation.** The most frequently mentioned gaps relate to the **distribution and precise location of protected habitats and species.** Deficiencies in knowledge have affected the efficiency of implementation including identification of marine Natura 2000 sites. Other issues raised in during the evaluation included the lack of understanding of the ecological requirements of some species and habitats in order to define appropriate management measures (Activity A3), quantifying the values of ecosystem services provided by EU protected habitats and species in Natura 2000 sites and elsewhere, knowledge of the potential impact of certain human activities such as hunting, marine noise, biomass production on some protected species and habitats.

Knowledge gaps have sometimes led to implementation problems, contributing to costs and administrative burdens. For example uncertainty about the potential designation of areas as Natura 2000 sites has led to project delays. The lack of site conservation objectives has made it difficult to assess the possible impacts of activities, contributing to delays and/or risk-averse decision-making. It has also had negative implications for the efficiency of Natura 2000 management, including the establishment of targeted agri-environment climate measures. The lack of knowledge on the distribution and occurrence of protected species beyond the Natura 2000 network has also caused problems.

Several stakeholders consider that reliable certified information on Natura 2000 sites is often inadequate or unavailable from the competent authorities, resulting in additional costs for the project proponent to collecting the information themselves and which can lead to unnecessarily costly and time consuming authorisation procedures. Steps are being taken to overcome barriers to the uptake of acquired knowledge, with

¹⁷⁷ Examples given in Boxes 77 and 78 of the Study.

many initiatives on the web sites of national nature/environmental authorities. A 2015 study for the Commission¹⁷⁸ assessed the availability of online official information relating to the Nature Directives and the extent to which spatial data are compliant with the **INSPIRE Directive** (which aims to ensure that spatial data are usable in an EU and cross-border context). That study has provided recommendations on how **information could be improved, including through the potential development of a Structured Implementation and Information Framework (SIIF)¹⁷⁹ for the Nature Directives.**

6.3. Relevance

The examination of relevance considered the extent to which the objectives and measures contained within the Nature Directives are consistent with the current needs of species and habitat types of EU conservation concern.

6.3.1. *Are the key problems facing species and habitats addressed by the EU nature legislation?*

A key source of evidence to identify the main threats that species and habitats in the EU are currently facing is the results of monitoring (Output D1) published in the 2015 State of Nature in the EU report (See section 5.4 of this document). This evaluation has also brought together and examined a considerable amount of published literature on the issue¹⁸⁰. This presents a consistent view that **the main threats come from land use changes affecting natural and semi-natural habitats, resulting in a loss of plant and animal species diversity, including rare species.** These pressures come from a range of activities including both intensive agriculture and abandonment of extensive agriculture, some kinds of forestry, transport, urbanisation, power generation, mineral extraction and water management. In the marine environment impacts are mainly from fisheries and from infrastructure development such as ports and harbours. **Such pressures were in existence when the Directives were introduced and are still relevant. The degree of threat varies in intensity both geographically and in relation to the different kinds of activity.**

In addition, **there are more diffuse pressures on habitats and species such as pollution, climate change and impacts from invasive alien species.** Since the Directives were first introduced there have been significant measures to reduce levels of pollutants although some issues, such as the effects of diffuse nitrogen pollution were reported as still being highly significant in several Member States¹⁸¹. Although climate change was not reported as a current key threat in the latest state of nature in the EU assessment, several studies predict that it is likely to increasingly impact on Europe's biodiversity, with evidence already showing geographical shifts in distribution of some species (e.g. birds¹⁸², butterflies, dragonflies). Finally, **there is a range of potential and actual threats through human use such as hunting and recreation.** Hunting pressure was one of the original motivations for this legislation, reflected in the fact that the Birds

¹⁷⁸ Peters, R.L., et al (2014) Active dissemination of environmental information in relation to the Birds and Habitats Directive. Study Contract ENV.D.4/ETU/2013/0063r. http://ec.europa.eu/environment/aarhus/pdf/siif_report.pdf

¹⁷⁹ A SIIF would aim to help Member States set up transparent information systems that make relevant information accessible online.

¹⁸⁰ Referred to in section 7.1.3 of the Study.

¹⁸¹ Further details in section 7.1.3.1.6 of the Study.

¹⁸² Delgado, MP, Morales, MB, Traba, J, and Garcia De La Morena, EL. 2009. 'Determining the effects of habitat management and climate on the population trends of a declining steppe bird.' *Ibis*, Vol. 151, Issue 3: 440-451.

Directive has specific articles on hunting (articles 7, 8, Annex II and IV) (Activity C2) and although the impact of hunting is not sufficiently documented to make a comprehensive assessment, and illegal killing remains a pressure on a number of species¹⁸³, there is evidence that it is generally much better regulated since the Directives were introduced¹⁸⁴ (Output C2). Although recreational pressures can be intense at local level, and some species have been shown to be very sensitive to disturbance from recreational activities¹⁸⁵, significant pressures seem to be more associated with infrastructure developments related to tourism and recreation in sensitive areas.

The Directives do not systematically list specific activities aimed at addressing particular pressures, except for measures aimed at controlling the exploitation and commercialisation of species. Instead, **by setting out the outcome to be achieved, the responsibility for identifying and responding to specific threats is left to Member States**. This approach has the **advantage that the Directives do not require updating to deal with new types of problems** posed to the habitats and species they protect but **the disadvantage that it is harder to assess progress** against an obligation to achieve a given result than an obligation to carry out a specific action.

In the more specific case of assessing possible impacts on Natura 2000 sites (Activity A5), the Directives take a similar approach and do not specify particular types of development to be assessed, but require Member States to consider any activity that could have a significant impact on the site. Likewise, while the Directives do not contain specific measures on climate change mitigation or adaptation, Member States must take the effects of climate change on protected species and habitats into account, for example in relation to the management of Natura 2000 sites (Activity A3), as underlined by guidance from the Commission services on this subject¹⁸⁶.

In conclusion, it can be stated that the approach taken in Nature Directive is outcome-oriented and therefore currently capable of addressing all types of pressures facing protected species and habitats in the EU. **Avoiding or mitigating the effects of more diffuse threats such as pollution and climate change is more difficult as the effects are often long term and can be harder to identify**. Nevertheless, the requirement to avoid damage and deterioration of sites, and negative impacts on species remains the same and **the Directives provide a framework to address emerging problems**.

6.3.2. Have the Directives been adapted to technical and scientific progress?

There appears to be **consensus that both the general and specific objectives of the Directives, and the activities required to achieve them, remain valid and that scientific and technical progress has not called these into question**. Many respondents to the request for evidence during the evaluation, especially among the nature conservation NGOs, explicitly stated that the Directives' principles and overall approach remain valid and appropriate. Fewer comments were received from other stakeholders on the principles and aims of the Directives, but none proposed any fundamental changes to

¹⁸³ Examples given in Section 7.1.3.1.7 of the Study.

¹⁸⁴ Further details in Section 5.1.3.1.5 of the Study.

¹⁸⁵ Moss, R, Leckie, F, Biggins, A, Poole, T, Baines, D, and Kortland, K. 2014. 'Impacts of human disturbance on Capercaillie Tetrao urogallus distribution and demography in Scottish woodland.' *Wildlife Biology*, Vol. 20, Issue 1: 1-18.

¹⁸⁶ <http://ec.europa.eu/environment/nature/climatechange/pdf/Guidance%20document.pdf>

the provisions in response to scientific and technical progress¹⁸⁷. The development of scientific and economic thinking in relation to the value of ecosystems and natural capital indicates that the social and economic (as opposed to the purely environmental) value of biodiversity and healthy natural systems has been considerably undervalued¹⁸⁸. While the Directives do not use the language of ecosystem services or natural capital they seek to protect an essential element underpinning those services. The economic benefits of ecosystem services provided by the Natura 2000 are starting to become recognised and applied in nature policy¹⁸⁹.

There has been more comment during the evaluation as to whether the Annexes to the two Directives have been sufficiently updated to reflect improvements in scientific knowledge (Output D2), for instance in relation to changes in taxonomy but also, more importantly, in status and distribution of species (Output D1). There was little comment on the listing of habitats in Annex I of the Habitats Directive. **The current listing of a small number of species as strictly protected under the Directives is questioned by some stakeholders** on the basis that these species have extended their range and are now more abundant than when the Directives were adopted (e.g. wolf), or are sufficiently abundant within a particular Member State to justify a lower level of protection (e.g. some species of geese). **Other stakeholders, notably among conservation NGOs, argue that conflicts between the protection of these species and human activities can be fully addressed within the existing legal framework**, pointing to work on the development of 'action plans' on a European scale for certain species, or groups of species such as geese¹⁹⁰, as well as ongoing initiatives such as for the large carnivore platform¹⁹¹, together **with available derogations** under the Directives to **provide the necessary flexibility as appropriate**.

Both Directives foresee the amendment of Annexes and since their adoption they have been subject to a series of technical adaptations, mainly with a view to each enlargement of the EU. This was required to apply the Directives in the new Member States in a way that would have full regard to their relevance and importance for the protection of species and habitat types of EU conservation concern. This has led to significant changes, through the introduction in the Habitats Directive of three new Biogeographical Regions (Pannonian, Steppic and Black Sea) as well as to the Annexes of both Directives. Annex I of the Birds Directive, which originally covered 74 species and sub-species, has been amended on seven occasions, three of which were directly linked to Accessions, and now covers 193 species and sub-species. In addition to a technical adaptation of Annexes I and II of the Habitats Directive in 1997, each of the four enlargements of the EU since adoption of the Directive has led to further amendments to the Annexes of this Directive. There are currently over 1200 species and sub-species as well as 231 habitat types listed under the Habitats Directive.

¹⁸⁷ Further information provided in section 7.2.3.1.5 of the Study.

¹⁸⁸ This was recognised in March 2007, when environment ministers from the G8+5 countries meeting in Potsdam, Germany proposed to initiate a process of analyzing the global economic benefit of biological diversity, the costs of the loss of biodiversity and the failure to take protective measures versus the costs of effective conservation leading to the establishment of The Economics of Ecosystems and Biodiversity (TEEB) initiative <http://www.teebweb.org/about/the-initiative/>

¹⁸⁹ <http://www.teebweb.org/>

¹⁹⁰ An international plan for geese is currently being prepared under the auspices of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds.

¹⁹¹ An EU Platform on Coexistence between People and Large Carnivores was set up in June 2014 involving different stakeholder groups with the aim *"To promote ways and means to minimize, and wherever possible find solutions to, conflicts between human interests and the presence of large carnivore species, by exchanging knowledge and by working together in an open-ended, constructive and mutually respectful way"* http://ec.europa.eu/environment/nature/conservation/species/carnivores/coexistence_platform.htm

Although some comments were received about taxonomic changes, the issue of outdated taxonomic nomenclature has been subject of clarification and advice from the European Topic Centre and therefore **changes in taxonomy are not in fact an obstacle to attainment of the Directives' objectives.**

Likewise, while it is recognised that the Annexes to the Directives do not fully cover all taxonomic groups, available studies indicate that the Natura 2000 network, through its 'umbrella effect' covers a high proportion of species of conservation concern beyond those listed in the Annexes¹⁹². Combined with other actions taken under the EU Biodiversity Strategy, therefore, **it does not appear that the current omissions from the existing Annexes constitute a serious obstacle to achieving the Directives' general objectives.**

Any changes to the Annexes would require significant technical work based on a comprehensive review of the scientific literature, including red data lists. Updating Annexes could lead to the addition or removal of species or habitat types or to moving them from one Annex to another. During the evaluation the sensitivity surrounding certain Annex listings (e.g. of huntable bird species in Annex II of the Birds Directive) was made clear, as was the potential for a highly polarised debate between stakeholders in the context of any updating. **Evidence from the evaluation has highlighted the complexity of amending the Annexes**, requiring further development of a technical, robust and transparent assessment methodology, also having regard to relevant legal commitments under relevant international nature conventions and agreements such as the Bern Convention, the Convention on Migratory Species and the Agreement on the Conservation of African-Eurasian Migratory Waterbirds, to which the EU is a contracting party. This would need to be applied to different categories of species and habitat types for both the terrestrial and marine environment. Information from European red data lists for different groups of species and habitat types, has shown that that this could lead to significant net additions to the Annexes, with implications for administrative burden.

Amending the Annexes of species and habitats that are triggers for the selection of Natura 2000 sites could have significant implications for the configuration of the network. Concerns have been expressed by a range of stakeholders, including some Member States and businesses, that change to the list of habitats and species listed in the Annexes at this stage could introduce legal uncertainty as a crucial time when the Natura 2000 network is being finalised.

6.3.3. How relevant are the Directives to achieving sustainable development?

The Nature Directives are a key element of the environmental pillar of sustainable development, which has the conservation of biodiversity as an objective, and are relevant to the Sustainable Development Goals (SDGs) of the Agenda 2030¹⁹³. They are directly relevant to Sustainable Development Goals 14 on 'Marine ecosystems' and 15 on 'Ecosystems' as recognised in the Commission's plans for a sustainable European future¹⁹⁴. They are also relevant to a range of other Sustainable Development Goals such

¹⁹² see also response to question 6.1.3.

¹⁹³ <https://sustainabledevelopment.un.org/post2015/transformingourworld>

¹⁹⁴ Commission Communication on Next steps for a sustainable European future. COM(2016) 739 final
https://ec.europa.eu/europeaid/sites/devco/files/communication-next-steps-sustainable-europe-20161122_en.pdf

as 3 (Health), 6 (Water), 8 (Economy), 11 (Habitation), 12 (Consumption), and 13 (Climate). These goals emphasise the sustainable use of resources and therefore exploitation of resources that would progressively reduce natural resources such as biodiversity is self-evidently unsustainable.

Some stakeholders from commercial and business interests expressed the view that the Directives were 'unbalanced' by giving primacy to the objectives of protecting nature as opposed to social and economic objectives. However, other respondents emphasised that the Directives have been created with the purpose of principally supporting the environmental pillar of sustainable development while many other EU policies are aimed primarily or exclusively at social or economic objectives. **While aiming at environmental goals, the Directives do allow flexibility to have regard to socio-economic factors in achieving those goals.** They do not contain blanket prohibitions on development in protected areas. Account of socio-economic interests can be taken in both the management of Natura 2000 sites and in operating the procedures set out in the Habitats Directive to assess plans or projects likely to negatively affect Natura 2000 sites (Activity A5). This also the case for protection of species beyond Natura 2000 where derogations can be provided as long as certain criteria are met (Activity C1).

Some respondents have suggested that national court rulings may have reduced the scope for flexibility in applying some provisions of the Directives but the evidence was not conclusive. **Many examples of good practice in assessing and accommodating appropriate economic activities were provided during this evaluation**¹⁹⁵.

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

There is strong evidence of concern among Europeans regarding biodiversity. According to the most recent Eurobarometer report from 2015, which aims to get a representative sample of views across Europe, 80% of Europeans think it is a serious issue in Europe, and six out of ten say they are or will be personally affected by the degradation of nature. 56% agree that biodiversity and nature are important for long-term economic development. 55% consider that the EU should better enforce existing nature and biodiversity conservation rules while 61% believe the EU should better inform its citizens about the importance of biodiversity¹⁹⁶.

There is therefore **good evidence to suggest the issue is of widespread interest and concern to EU citizens.** There is **less awareness generally of the Nature Directives themselves and awareness of the Natura 2000 network varies greatly between Member States.** The public consultation carried out during the Fitness Check broke records with 552,472 responses. While this consultation was targeted by a series of campaigns, particularly an NGO run campaign called Nature Alert that produced a huge majority in support of the Directives, together with information from Eurobarometer surveys, it indicates a high level of interest and concern across the continent¹⁹⁷.

Thus, while it is easier to show that citizens support the objectives of the Directives rather than it is to show direct support for the specific requirements of the Directives,

¹⁹⁵ Further information provided in Section 6.2 of the Study.

¹⁹⁶ <http://ec.europa.eu/COMMFrontOffice/PublicOpinion/index.cfm/Survey/getSurveyDetail/instruments/SPECIAL/surveyKy/2091>

¹⁹⁷ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/consultation/public%20consultation_FINAL.pdf

with which they are clearly less familiar, the exercise did demonstrate that **weakening of nature protection measures would be unpopular with a large section of society**, with the Eurobarometer indicating that **most Europeans are unwilling to trade damage or destruction to nature in protected areas for economic development**. There is also evidence of **an appetite for better information and explanation** of the existing protection mechanisms.

6.3.5. What are citizens' expectations for the role of the EU in nature protection?

The picture emerging from the Eurobarometer¹⁹⁸ indicates that **overall there is an acceptance of the need for European level policy in this field, and that the majority favour joint decision making between national government and the EU**, as is currently the case. A majority also indicated that either their national governments (70%) or the EU (56%) could do more. There was also support for increasing the coverage of protected areas.

Evidence from the public consultation is less conclusive, mainly due to the influence of campaigns which indicate a strong difference of view between those interested in nature and the environment, whose views coincide with the Eurobarometer's findings, and those mainly interested in agriculture, forestry, fisheries and hunting, some of whom consider the EU should have less of a role in nature protection (see Annex 2).

However the Eurobarometer is based on a representative sample while the public consultation was not. Results from the Eurobarometer indicate an expectation that the EU will act to conserve nature in concert with the Member States. This action includes the creation of protected areas and ensuring that development is conducted so as to minimise adverse effects on biodiversity.

6.4. Coherence

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

Whereas the Directives are different in their focus of protection **their general objectives are similar and complementary**. The **overarching objective of the two Directives is to contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora**. While the Birds Directive aims at conserving bird species the Habitats Directive not only protects other species of fauna and flora but also extends the protection system to habitat types. The Birds Directive protects all bird species naturally occurring in the European territory of the Member States (i.e. circa 470 species) while the Habitats Directive protects over 1,200 listed species and 231 habitat types of EU conservation interest. The Birds Directive aims to achieve populations of species at a level that corresponds in particular to ecological, scientific and cultural requirements. The Habitats Directive aims to achieve favourable conservation status for both species and habitat types. In achieving their general objectives **the Directives require that economic, cultural and social or recreational requirements are taken into account**, since these factors significantly represent the context in which the Directives are to be implemented. The Habitats Directive also requires account to be

¹⁹⁸ http://ec.europa.eu/public_opinion/description_en.htm

taken of regional and local characteristics. **The Directives have the same four specific objectives** and are therefore structured accordingly (see Intervention logic in Figure 1). They both require the establishment of a network of protected areas, which together constitutes the Natura 2000 network (Specific Objective A). They recognise the need for habitat or landscape conservation measures beyond Natura 2000 (Specific Objective B). They also set out to ensure the protection or sustainable use of species of EU conservation interest, whether or not they are also protected within designated sites (Specific Objective C). They also clearly recognise the need for adequate knowledge and data availability to underpin implementation (Specific Objective D).

Their activities are likewise similar. Natura 2000 site selection is based on scientific criteria in both cases, even if a more elaborate procedure for site selection and designation exists under the Habitats Directive (Activities A1 and A2), (see also section 2.1). The EU Court of Justice has confirmed in relation to both the Birds¹⁹⁹ and Habitats²⁰⁰ Directives that Member State are not authorized to take account of the economic requirements when selecting and defining the boundaries of Natura 2000 areas.

However, **socio-economic considerations are factored into the management and protection of the sites established under both Directives**. This recognises that Natura 2000 are not restricted to national parks and nature reserves but are based on a wider concept of conservation and sustainable land use, involving significant areas under private ownership. Conservation measures for the sites under Article 6(1) of the Habitats Directive or under Article 4(1) or 4(2) of the Birds Directive²⁰¹ need to have regard to socio-economic considerations. However, the aim is to achieve socio-economic activities that are sustainable and not damaging to the conservation values of the sites.

The site protection provisions in relation to the need to avoid deterioration of habitats and significant disturbance of species are the same for both Directives (Activity A4). The procedural safeguards to assess plans and projects likely to negatively affect the sites are the same (Activity A5). They allow socio-economic developments that may be damaging to the conservation objectives of the sites to take place under certain conditions: where there is a superior interest to the ecological importance; in the absence of other alternative solutions; and where there is compensation to offset the damage to the sites. An additional safeguard clause applies to a sub-set of priority species and habitats, listed the Habitats Directive, which are of particular EU conservation concern.

With regard to species protection both Directives take broadly the same overall approach in requiring Member States to establish systems of protection but allow under particular circumstances the application of derogations from these strict species protection provisions (Activity C1) set out in Article 9 of the Birds Directive and Article 16 of the Habitats Directive to address, in the absence of other satisfactory solutions, considerations such as prevention of serious damage to crops, livestock, forests, fisheries and water. Whereas there are differences between the Directives in terms of the wording that applies to species protection measures and the circumstances in which Member States can derogate from them, CJEU case law²⁰² and Commission guidance²⁰³ has

¹⁹⁹ Case C-44/95. Lappel Bank.

²⁰⁰ Case C-371/98. First Corporate Shipping.

²⁰¹ While the requirements to establish conservation measures under Article 6(1) of the Habitats Directive (Activity A3) applies only to sites designated under that Directive, there are analogous provisions under Articles 4(1) and 4(2) of the Birds Directive applying to sites designated under that Directive.

²⁰² Case C-412/85 Commission v. Germany; C-239/04 Commission v. Portugal; C-182/10 Solvay and Others.

²⁰³ http://ec.europa.eu/environment/nature/conservation/species/guidance/index_en.htm.

helped to clarify how the Directives should be interpreted, indicating that in practice the provisions require similar considerations.

Hunting of birds is one of the most significant cultural activities recognised under the Directives. Given the particular focus of the Birds Directive on ensuring that hunting of wild birds is sustainable there are particular provisions in this Directive to address this objective (Activity C2). **The Habitats Directive also allows sustainable use of certain species,** listed in its Annex V, as long as this is compatible with them being maintained at favourable conservation status.

Both Directives recognise the need to ensure that the introduction of non-native species is not prejudicial to species and habitats protected under the Directives (Activity C3).

Both Directives require Member States to have sufficient knowledge on status and trends of protected species and habitat types (Activity D1). This duty is more explicit in the Habitats Directive and provides the main basis for the six yearly reports on application of the Directive that Member States should submit to the Commission. Whereas, a three year reporting cycle is required under the Birds Directives, this has in practice been with the same reporting cycle for the Habitats Directive, with a similar primary focus on providing up to date information on status and trends of species (Output D1). **They both encourage research** to support implementation, with the Habitats Directive explicitly recognising the importance of transboundary cooperative research (Activity D2). Whereas the Habitats Directive is clearer about the need for information and education, **the importance of awareness raising to support achievement of both Directives is recognised** (Activity D3).

Therefore, whereas certain differences in approaches and in the wording of the Directives have been noted by some respondents, **it can be concluded that the Directives are coherent with and complementary to each other in relation to their general, specific and operational objectives.** Furthermore, streamlined implementation of the two Directives has in practice taken place at both EU and Member State levels (e.g. competent authorities) to promote joined up procedures in relation to issues such as authorization of projects and plans, adoption of conservation measures, monitoring and reporting.

6.4.2. To what extent are the Directives satisfactorily integrated and coherent with other EU environmental law?

Although there are differences in specific objectives and scope of application, **the Nature Directives and the Environmental Impact Assessment²⁰⁴ (EIA) and Strategic Environmental Assessment²⁰⁵ (SEA) Directives are consistent with and complementary to each other.** There are close parallels between the administrative steps involved in the assessment procedures under EIA/SEA and the appropriate assessment (AA) required under the Habitats Directive. However, AA is focused specifically on the implications of plans and projects for Natura 2000 sites, whereas EIA and SEA address wider environmental impacts of projects, plans and programmes.

²⁰⁴ Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment - OJ L 26 of 28.1.2012, p. 1.

²⁰⁵ Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment - OJ L 197 of 21.07.2001, p. 30.

Furthermore, AA conclusions require that any negative impacts are addressed within proposed developments, which means that developments which affect the integrity of Natura 2000 sites may only proceed if they have also satisfied the specific conditions set out in Article 6(4) of the Habitats Directive (Output A5), whereas the results of assessments under SEA and EIA need to be taken into account in decision making but they do not have binding effect.

As **EIA and AA frequently need to be applied to the same project this justifies an integrated approach that streamlines assessment procedures.** Such streamlining is the case in several Member States and has been systematically proposed in several pieces of Commission guidance. In order to further enhance synergies between EIA and AA, the EIA Directive as amended in 2014²⁰⁶ provides for co-ordinated and/or joint procedures for assessments under that Directive and under the Habitats Directive and the Commission has provided new guidance for such streamlining²⁰⁷. In addition, the assessment under the revised EIA Directive needs to pay particular attention to species and habitats under the Nature Directives. As regards plans and programmes, the SEA Directive also allows for co-ordinated or joint procedures for assessments under different Directives.

Issues regarding interpretation of key terms and approaches used in the different environmental assessments have been clarified over time, either through case law or guidance documents. Other problems appear to have resulted from a **lack of co-ordination between authorities implementing different Directives or lack of consistent and effective application of procedures.** Such difficulties have also been addressed within Member States through provision of guidance documents and publication of information and access to data on specific habitats and species, and through providing clarity on which information should be used in assessments.

The Environmental Liability Directive²⁰⁸ (ELD) and the Nature Directives also have complementary aims in terms of preventing (Nature Directives) and remedying (ELD) damage to biodiversity. However, evidence from a study for the Commission on implementation of the ELD in relation to biodiversity damage²⁰⁹ highlights that **differences in interpretation of 'significant damage' to biodiversity between Member States jeopardises the ability of that Directive to support the Nature Directives** by ensuring application of the polluter pays principle for biodiversity damage.

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

The Nature Directives, Water Framework Directive²¹⁰ (WFD), Nitrates Directive²¹¹ (ND), Ground Water Directive²¹² (GWD), and Marine Strategy Framework

²⁰⁶ Directive 2011/92/EU as amended by Directive 2014/52/EU of 16 April 2014.

²⁰⁷ Commission guidance document on streamlining environmental assessments conducted under Article 2(3) of the Environmental Impact Assessment Directive - http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2016.273.01.0001.01.ENG&toc=OJ:C:2016:273:TOC

²⁰⁸ Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage - OJ L 143 of 30.04.2004, p. 56.

²⁰⁹ <http://ec.europa.eu/environment/legal/liability/pdf/Milieu%20report%20-%20ELD%20Biodiversity%20Damage.pdf>

²¹⁰ Directive 2000/60/EC establishing a framework for Community action in the field of water policy - OJ 327 of 22.12.2000, p. 1.

²¹¹ Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources - OJ L 375 of 31.12.1991, p. 1.

Directive²¹³ (MSFD) all aim to achieve healthy aquatic ecosystems. There are differences in terminology used in the Directives which reflect the different focus of each of them although their objectives are complementary. For example, the Nature Directives aim to achieve 'favourable conservation status' - or the equivalent - of the listed habitats and species which they seek to protect. The WFD aims to achieve 'Good Status' of rivers, lakes, transitional waters, coastal waters (up to one mile from the shore) and groundwater. Good status includes ecological, chemical and quantitative aspects. Article 6, Annex IV and Annex VI of the WFD all contain explicit cross-references to the applicable requirements for protected areas. The MSFD aims to achieve 'Good Environmental Status' for marine waters. However, **guidance from the Commission has helped clarify links between these Directives**, including relevant concepts and terms^{214,215}. Information exchanges between the implementation processes of the three Directives at EU level have become common and a process has been established to periodically bring together the heads of EU and national administrations (Water, Marine, Nature Directors) to discuss ways to enhance synergies.

Potential conflicts in the implementation of the **Nature Directives and the WFD** have been mentioned, for example where the restoration of heavily modified water bodies to achieve good ecological status may result in lowering the value of the water body for particular protected species. The Commission has discussed **issues of common interest** between the Nature, Water and Marine Directives with Member States and stakeholders in order to **strengthen synergies and increase integration and co-ordination in their implementation**²¹⁶.

Generally respondents to the targeted consultation were positive about synergies with the MSFD, particularly in relation to marine protected areas, although much of this is based on expectation rather than experience due to the relative newness of this Directive. There is also potential to achieve synergies in relation to monitoring and reporting under the MSFD, WFD and Nature Directives (Output D1), with a view to collecting data once for multiple purposes and reducing administrative burden. The Commission has already launched such an initiative with Member States with a view to streamlining processes under the Directives.

Evidence provided during this evaluation indicated that practical experience in the implementation of natural flood risk management is limited. Nevertheless **synergies can be expected between the Floods Directive²¹⁷ (FD) and the Nature Directives** through the implementation of the Natural Water Retention Measures (NWRM) that aim to protect and manage water resources using natural means and processes by replacing grey infrastructures (e.g. dams, dykes, etc.) with green infrastructure (e.g. floodplains restoration), which would have a positive impact on protected habitats and species²¹⁸.

²¹² Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration - OJ L 372, 27.12.2006, p. 19.

²¹³ Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy - OJ L 164, 25.06.2008, p. 19.

²¹⁴ <http://ec.europa.eu/environment/nature/natura2000/management/docs/FAQ-WFD%20final.pdf>.

²¹⁵ <http://ec.europa.eu/environment/nature/natura2000/marine/docs/FAQ%20final%202012-07-27.pdf>.

²¹⁶ European Commission. 2015d. Summary Report: Workshop on coordinated implementation of nature, biodiversity, marine and water policies (2-3 December 2014, Brussels, European Commission, Brussels)

²¹⁷ Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks - OJ L 288, 6.11.2007, p. 27.

²¹⁸ Strosser, P, Delacámara, G, Harus, A, Williams, H, and Jaritt, N. 2015. A guide to support the selection, design and implementation of Natural Water Retention Measures in Europe - capturing the benefits of nature-based solutions (European Commission, Brussels).

This is already being applied in the Netherlands, through the Rhine flooding prevention system ("Room for the River")²¹⁹. This is implemented in partnership with regional and local authorities, as well as landowners and land users, and consists of many measures which increase the discharge capacity of the large rivers in the Netherlands, including Natura 2000 sites, by measures such as widening the river where necessary, creating by-pass channels, and lowering of the floodplain.

The importance of biodiversity in terms of adaptation to climate change was mentioned by many respondents. The EU Climate Adaptation Strategy²²⁰ recognises the role of ecosystem-based adaptation. **The management of Natura 2000 sites (Activities A1 – A5) can provide natural solutions for climate change mitigation and adaptation** as reflected in the Commission Guidelines on climate change and Natura 2000²²¹. Examples of policy coherence were provided during this evaluation, such as the peatland protection projects, with benefits for nature conservation, carbon sequestration (climate mitigation) and flood/drought prevention (climate adaptation).

Although only a few stakeholders commented on the **link between the Nature Directives and the National Emission Ceilings²²² (NEC) Directive most of these considered that there was a lack of ambition in relation to coherence between them**, with the aim of the NEC Directive to reduce diffuse atmospheric pollution on Natura 2000 sites considered insufficient to meet the objectives of the Nature Directives.

Although there are differences in their objectives, the Nature Directives, the WFD, the ND, GWD, the MSFD, the FD, and the EU Adaptation Strategy are generally coherent with each other and mutually reinforcing. The evaluation has nevertheless revealed some challenges in implementation that are being addressed through streamlining of processes, improved guidance and best practice.

6.4.4. 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.)?

6.4.5. How do these policies affect positively or negatively the implementation of the EU nature legislation?

Given that they are very closely interlinked, these two questions have been addressed jointly in the evaluation. The assessment covers the main relevant EU policies relating to Agriculture, Forestry, Cohesion, Energy, Fisheries, Non-energy extractive industries, Research and Transport sectors, each of which is presented separately.

The Common Agriculture Policy (CAP)

During the Fitness Check, agriculture and forestry have been the most debated issues. They have the most important influence on terrestrial biodiversity in the EU and may have positive and negative effects on biodiversity. The latest State of Nature in the EU

²¹⁹ <https://www.ruimtevoorderivier.nl/english/>

²²⁰ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - An EU Strategy On Adaptation To Climate Change (COM/2013/0216 final).

²²¹ <http://ec.europa.eu/environment/nature/climatechange/pdf/Guidance%20document.pdf>

²²² Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants - OJ L 309, 27.11.2001, p. 22.

assessment reveals that **species and habitats protected under the Nature Directives, dependent on farming systems, are amongst those showing the most unfavourable conservation status.** Furthermore, widespread species that are more dependent on habitats outside protected areas (Specific Objective B) are declining (see farmland bird index in Figure 11). Several scientific studies point to negative impacts of land abandonment and intensification of agriculture on biodiversity²²³. However, where local farming practices are compatible with the conservation of the protected habitats and species agriculture is also an important contributor to biodiversity in Natura 2000 farming areas.

The **CAP has evolved over time and the environmental dimension has been increasingly recognised in this policy sector.** CAP Pillar 1 direct payments, where most of the financial resources are allocated, can support farming systems, such as extensive grazing, that are essential for certain protected species and habitats. However, during 2007-2013, Pillar 1 eligibility rules (e.g. concerning scrub and trees), as interpreted in some Member States, excluded large areas of farmland with semi-natural habitats and/or EU protected species from receiving direct payment support, which has limited the potential positive impact of these payments in these areas and consequently caused higher risk of detrimental effects on semi-natural habitats through land abandonment or degradation/destruction. The revised eligibility criteria in the CAP 2014-2020 have the potential to extend direct payments to some previously excluded farmland, supporting protected habitats and species, but it is too early to assess if this has fully solved the problem.

Coherence with nature and other environmental legislation of CAP Pillar 1 direct payments is enhanced by cross compliance (a mechanism that makes payments subject to the respect of a set of basic rules related to the environment, public and animal health, as well as animal welfare²²⁴). Cross compliance has improved awareness among farmers of environmental concerns. An evaluation study was carried out in 2007 on the application of the cross compliance²²⁵, concluding that the approaches taken by Member States to its implementation were rather variable but some patterns emerged in terms of similarities and differences across the Member States. A new evaluation of the CAP measures including cross compliance on landscapes and biodiversity is foreseen.

Under the CAP 2014-2020, 30% of the direct payments are linked to the respect of the three greening practices which provide increased opportunities for Member States to protect habitats. These practices consist of crop diversification, the possibility to designate environmentally sensitive permanent grasslands in Natura 2000 areas, which cannot be ploughed or converted, and the establishment of Ecological Focus Areas (e.g. fallow and landscape features) that are aimed to provide biodiversity benefits.

At least 30% of European Agricultural Fund for Rural Development (EAFRD) must be dedicated to environment and climate change objectives. In practice, the environment and climate priorities together are programmed for the period 2014-2020 with more than half of the EAFRD budget. The **agri-environment-climate measure is the primary measure through which incentives are provided for farmers to continue or adopt management practices that are beneficial to biodiversity, both in Natura 2000 sites and elsewhere** (Activities A3, B1 and B2). Whereas many agri-environment schemes

²²³ See Section 7.1.3.1.1 of the Study.

²²⁴ http://ec.europa.eu/agriculture/direct-support/cross-compliance/index_en.htm

²²⁵ http://www.ieep.eu/assets/372/cc_descriptive.pdf

have contributed to improvements in the status of EU protected habitats and species, some have been criticised for insufficient design of management requirements in relation to conservation objectives for rare and declining species^{226 227}. Some studies argue for more result based payment schemes as a means of achieving a better outcome for nature²²⁸. The **Commission Services have issued guidance on how to support Natura 2000 farming systems** to achieve conservation objectives, based on Member States good practice experiences²²⁹. Local examples have demonstrated successful sustainable agricultural practices.

Several **other measures under the Rural Development Programmes can be used as incentives for farmers to continue or adopt management practices that are beneficial to biodiversity, both inside and outside Natura 2000 sites** (Activities A3, B1 and B2), notably through support to training, greater focus on advising farmers on water, pesticides use, non-productive investments, the drafting of Natura 2000 management plans (Activity A3) and the adoption of appropriate agri-environment practices. However, a small number of other Pillar 2 measures (e.g. afforestation, irrigation, etc.) have been reported as having detrimental biodiversity impacts in some cases in the period 2007-2013. The new EAFRD rules/conditions have been designed to prevent these negative effects through more proper design (including EIAs), checks and controls by Member States. The Natura 2000 measure provides Member States with the opportunity to compensate for restrictions on farming and forestry activities in Natura 2000 sites. However, this has not been widely used in the current and previous multiannual funding periods (2007-2013 and 2014-2020), due in part to the slow progress with establishment of site-specific conservation measures which are necessary to underpin this measure.

As a large share of the farmland with habitats and species protected under the Directives overlaps with areas of natural constraint²³⁰, payments under Pillar 2 for areas facing natural and other specific constraints provide an incentive for farmers to continue agricultural activities despite the encountered disadvantages in the concerned areas, with a positive spill-over effect of maintaining agriculture for biodiversity, soil and landscape conservation. As these payments are not tied to any specific land management requirements that benefit biodiversity conservation (beyond adherence to cross-

²²⁶ Blomqvist, MM, Tamis, WLM, and de Snoo, GR. 2009. 'No improvement of plant biodiversity in ditch banks after a decade of agri-environment schemes.' *Basic and Applied Ecology*, Vol. 10, Issue 4: 368-378. Kleijn, D, Baquero, RA, Clough, Y, Diaz, M, Esteban, J, Fernandez, F, Gabriel, D, Herzog, F, Holzschuh, A, Johl, R, Knop, E, Kruess, A, Marshall, EJP, Steffan-Dewenter, I, Tschamtko, T, Verhulst, J, West, TM, and Yela, JL. 2006. 'Mixed biodiversity benefits of agri-environment schemes in five European countries.' *Ecology Letters*, Vol. 9, Issue 3: 243-254. Zimmermann, K, Blazkova, P, Cizek, O, Fric, Z, Hula, V, Kepka, P, Novotny, D, Slamova, I, and Konvicka, M. 2011. 'Demography of adults of the Marsh fritillary butterfly, *Euphydryas aurinia* (Lepidoptera: Nymphalidae) in the Czech Republic: Patterns across sites and seasons.' *European Journal of Entomology*, Vol. 108, Issue 2: 243-254.

²²⁷ European Court of Auditors Special Report 4/2014 "Integration of EU water policy objectives within the CAP: a partial success"; Special Report 23/2015 "Water quality in the Danube river basin. Progress in implementing the water framework directive but still some way to go"; and Special Report 3/2016 "Combating eutrophication in the Baltic Sea: further and more effective action needed", (<http://eca.europa.eu>); On-going performance audit on the implementation and financing of the Natura 2000 network by the European Court of Auditors.

²²⁸ Allen, B, Hart, K, Radley, G, Tucker, GM, Keenleyside, C, Oppermann, R, Underwood, E, Menadue, H, Poux, X, Beaufoy, G, Herzon, I, Povellato, A, Vanni, F, Prazan, J, Hudson, T, and Yellachich, N. 2015. *Biodiversity protection through results based remuneration of ecological achievement* (Report prepared for the European Commission, DG Environment, Contract No ENV.B.2/ETU/2013/0046, Institute for European Environmental Policy, London). Blainey, L. 2013. *Less management prescription, more outcome focus - Making Environmental Stewardship More Effective (MESME) trialling project* (Natural England Research Report NERR047, Natural England, UK).

²²⁹ <http://ec.europa.eu/environment/nature/natura2000/management/docs/FARMING%20FOR%20NATURA%202000-final%20guidance.pdf>

²³⁰ Areas of natural constraint in the 2014-2020 period represent the evolution of less favoured areas for period 2007-2013.

compliance), other than avoiding abandonment, the extent of the impact of these payments on the conservation status of protected species and habitats has still to be judged.

A substantial body of evidence suggests that **without any support via the CAP, the conservation status of agricultural habitats and species would be worse** than it currently is because the CAP offers opportunities to promote sustainable agricultural practices for the conservation of biodiversity. In addition, the Farm Advisory System offers advice to farmers, including on conservation of biodiversity. Access to such advice is also legally and financially supported by the CAP. **Given the continuing decline of species and habitats associated with agriculture, greater efforts are needed to conserve and enhance biodiversity, through more effective integration with the CAP.** Ensuring the sustainable management of natural resources is specifically stated as an objective in Article 4 of Regulation 1305/2013 and the CAP reform for 2014-2020²³¹ has strengthened support measures in favour of biodiversity, but it is too early to assess its impacts, which are greatly influenced by Member State implementation choices.

Forestry

While the Treaty on the Functioning the EU has no specific provisions for an EU forest policy, the EU has a long history of contributing through its policies to implementing sustainable forest management and to Member States' decisions on forests. There is however clear EU competence for industrial raw materials, including wood²³², and hence for forest-based industries. The 2013 EU Forest Strategy²³³ highlights the economic, social and environmental importance of Europe's forest ecosystems and sets the guiding principles of sustainable forest management, resource efficiency and global forest responsibility. It also contains a 2020 objective: to ensure and demonstrate that all forests in the EU are managed according to sustainable forest management principles and that the EU's contribution to promoting sustainable forest management and reducing deforestation at global level is strengthened. Within the EU during the period 2007 to 2013, a total of € 5.4 billion was allocated to forests under rural development programmes²³⁴. Many of the projects supported included measures related to maintaining or improving bio-diversity. Nonetheless, securing adequate funding for biodiversity-favourable measures in forested areas remains a challenge.

The EU Forest Strategy sets a clear supportive framework for the objectives of the Nature Directives. The Commission monitors Member States' progress with respect to the uptake of forest management plans or equivalent instruments, and their integration of biodiversity considerations, including Natura 2000 conservation objectives. The Commission Services have issued **guidelines to assist the sustainable management and conservation of Natura 2000 forests**²³⁵.

²³¹ For more details on the CAP, see http://ec.europa.eu/agriculture/policy-perspectives/policy-briefs/05_en.pdf

²³² SWD (2013) 343: "A Blueprint for the EU Forest-based Industries".

²³³ COM(2013) 659 final - <http://eur-lex.europa.eu/procedure/EN/1041237>.

²³⁴ Based on a preliminary analysis of the available data (officially submitted by Member States but still under validation) by the end of 2015 EUR 4,4 billion EAFRD funds were spent for forestry specific measures, of which EUR 74 million for Natura 2000

²³⁵ <http://ec.europa.eu/environment/nature/natura2000/management/docs/Final%20Guide%20N2000%20%20Forests%20Part%20I-II-Annexes.pdf>

Cohesion Policy

Whereas its main objective is to reduce significant economic, social and territorial disparities between European regions through co-financing investments targeting socio-economic development, Cohesion Policy has evolved during the last three decades to provide more support for environmental policy, including biodiversity and nature-related issues, as confirmed both in literature and by stakeholders. As it is increasingly recognised that economic growth should be achieved in a sustainable manner this would suggest broad coherence with the Nature Directives. However, evidence shows that this is not always the case with both stakeholders and literature indicating that **Cohesion Policy in practice has both positive and negative impacts on the objectives and implementation of the Nature Directives**. Cohesion Policy provides large amounts of funding to co-finance investments in research, SME competitiveness, transport, low-carbon economy, climate change adaptation, risk prevention and management labour and social inclusion, education and also environment and resource efficiency. **Funding is available to directly and indirectly support the objectives of the Nature Directives** through dedicated measures for Natura 2000 management (Activities A3 and A4), investment and monitoring (Activity D1), Green infrastructure projects, research (Activity D1), capacity building and training.

At the same time, Cohesion Policy supports many types of measures, some of which may have the potential to impede nature objectives. These relate mostly to infrastructure investments, including transport, energy and even environmental and flood infrastructure.

The tailored approach of the Cohesion Policy funds integrates nature protection considerations, not only in relation to the possibility to finance measures in Natura 2000 sites, but also in relation to ensuring avoidance of harming to the sites from any investments whose primary objective is not Natura 2000 protection. **Several instruments exist to assess and possibly mitigate the potential negative impacts.** These include EU legislation on environmental assessments – including SEA, EIA and the appropriate assessment under article 6(3) of the Habitats Directive (Activity A5). The fact that the Commission reviews the quality of Member States' strategic plans and spending programmes (including SEAs of these plans), approves large investment projects (above € 50 million or 75 million in the transport sector) where there is a whole set of information requirements related to the environmental profile of the project (including Natura 2000) and provides technical assistance for preparation of large infrastructure projects (including EIA and appropriate assessment of these projects), places some additional emphasis on the quality of environmental assessment procedures for Cohesion Policy plans, programmes and projects (Output A4). Guidance documents based on good practice from around the EU also exist²³⁶.

Energy Policy

Reducing CO₂ emissions from the use of fossil fuels is an aim of EU energy policy and was stressed in the Energy Union Framework Strategy²³⁷. This will have benefits in relation to climate change and in turn for biodiversity²³⁸. The creation of a new energy system based on renewable energy sources requires the construction of production

²³⁶ <http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/cfbp%20-%20General%20Guidance.pdf>

²³⁷ "A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy", COM(2015) 80 final

²³⁸ <https://ec.europa.eu/energy/en/topics/energy-strategy>

facilities and new associated networks such as grid connections, some of which may have impacts on protected sites as well as habitats and species more widely. Responses from the targeted consultation included examples of possible conflicts with nature conservation objectives in relation to biofuels, wind power, shale gas and hydropower. Potential negative impacts from these technologies that were cited include habitat fragmentation, degradation and loss of terrestrial and marine habitats, as well as direct mortality to species from construction activities or collisions of birds and bats with wind turbines or disturbance of cetaceans from marine construction.

There are several legal instruments in place to prevent and mitigate any potential negative impacts of energy projects on the environment and nature, including, in particular, the EIA and SEA Directives and article 6(3) of the Habitats Directive (Activity A5). Sustainability criteria are provided in relation to biofuels production in the Renewable Energy²³⁹ and Fuel Quality²⁴⁰ Directives, which prohibit the use of high biodiversity value land for production²⁴¹. The Commission has proposed new sustainability criteria that apply to all bioenergy sources, including biomass for heat and power for installations above 20 MW²⁴². The Commission has also issued guidance on wind energy developments and Natura 2000²⁴³, as well as a Recommendation on minimum principles for the exploration and production of hydrocarbons (such as shale gas) using high-volume hydraulic fracturing²⁴⁴ (Output A4).

Trans-European Networks for energy (TEN-E) infrastructure projects benefit from ‘streamlined’ permitting procedures in the Member States, including for applicable environmental assessment procedures (e.g. SEA, EIA, appropriate assessment under Article 6(3) of the Habitats Directive, etc.). Projects of Common Interest (PCIs) may be considered to be of overriding public interest from an energy policy perspective with reference to the Habitats Directive Article 6(4), provided the necessary conditions have been met. The Commission has issued a Guidance document for Member States to follow when taking measures to streamline environmental assessments for energy infrastructure PCIs²⁴⁵.

Some stakeholders in the energy sector expressed a view that the Nature Directives can act as an obstacle to energy goals. However, the targeted consultation elicited many examples, notably in relation to wind power and grid development, of good practice and cooperation between the energy sector and environmental NGOs **demonstrating that EU energy policy and nature conservation goals are compatible**. The Renewable Grid Initiative (RGI) declaration, which was signed by 24 environmental

²³⁹ Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC - OJ L 140, 5.6.2009.

²⁴⁰ Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions and amending Council Directive 1999/32/EC as regards the specification of fuel used by inland waterway vessels and repealing Directive 93/12/EEC - OJ L 140, 5.6.2009, p. 88.

²⁴¹ The European Commission has adopted on 30 November 2016 the "Clean Energy for All Europeans" legislative proposals, which cover energy efficiency, renewable energy, the design of the electricity market, security of electricity supply and governance rules for the Energy Union – see <https://ec.europa.eu/energy/en/news/commission-proposes-new-rules-consumer-centred-clean-energy-transition>

²⁴² COM(2016) 767 final.

²⁴³ http://ec.europa.eu/environment/nature/natura2000/management/docs/Wind_farms.pdf

²⁴⁴ 2014/70/EU: Commission Recommendation of 22 January 2014 on minimum principles for the exploration and production of hydrocarbons (such as shale gas) using high-volume hydraulic fracturing - <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014H0070>.

²⁴⁵ <https://ec.europa.eu/energy/en/topics/infrastructure/projects-common-interest>

NGOs and the biggest Transmission System Operators (TSOs) in Europe in 2011, declares that there does not have to be conflict between grid expansion to support renewable energy and biodiversity goals, with both parties pledging to work together.

Fisheries Policy (Common Fisheries Policy - CFP)

Evidence provided during the evaluation highlighted procedural constraints under the previous CFP that acted as a barrier to Member States' competence to adopt conservation measures (Activity A3) that would restrict certain fishing practices in order to comply with the obligations under the Nature Directives. The exclusive competence of the EU in the Exclusive Economic Zone for the adoption of measures in the field of CFP limited the possibility for Member States to adopt conservation measures that would involve fisheries management, even in cases where Member States would be liable for not complying with the obligations under the Nature Directives.

These constraints regarding Member States' competence to comply with their obligations in the marine environment under the Habitats and Birds Directives and the competence to act under the CFP, have been tackled in the new CFP. The current legal framework of the EU fisheries policy states the conservation of marine resources as a strategic objective in Article 2 of the CFP Regulation 1380/2013²⁴⁶. Article 11 of the Regulation empowers Member States to adopt fisheries measures with conservation objectives that integrate the requirements of the Nature Directives. Article 6 of the 2013 Regulation requires the EU to adopt conservation measures for the conservation and sustainable exploitation of marine biological resources. **This suggests that the recently reformed CFP is broadly coherent with nature legislation, although more time is needed to confirm results.**

Establishing **fisheries conservation measures for marine Natura 2000** areas (Activity A3) remains **challenging due to a lack of scientific data and harmonised approach** across the Member States, as well as the **potential for conflicts of interest between nature protection objectives and the fisheries sector**. Available evidence highlights the need for better harmonisation of conservation measures, including the preparation of management plans, which, in areas beyond territorial waters, requires international cooperation. Under the new European Maritime and Fisheries Fund (2014-2020) funding is available to prepare management plans for fishery-related activities and Natura 2000 sites (Activity A3) and other spatially protected areas, as well as the management, restoration and monitoring of these sites (Activity D1).

There are different stakeholder views on the licensing procedures of activities affecting Natura 2000 sites, reflecting national implementation issues. For example, the private sector in several Member States argued that it is almost impossible to get a permit for aquaculture activities inside Natura 2000 sites, due to the strict interpretation of the requirements of Article 6(3) of the Habitats Directive and the application of the precautionary principle at a local level (Output A4 and A5). In contrast, other stakeholders argue that licensing of aquaculture results in damage to Natura 2000 sites. The incoherence of application of Article 6(3) was also raised for terrestrial sites. In order to facilitate implementation, the **Commission has issued guidance on aquaculture and Natura 2000** aimed at promoting sustainable aquaculture that is consistent with the conservation objectives of the sites²⁴⁷ (Output A4).

²⁴⁶ Regulation (EU) n. 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC - OJ L 354, 28.12.2013, p. 22.

²⁴⁷ <http://ec.europa.eu/environment/nature/natura2000/management/docs/Aqua-N2000%20guide.pdf>

Although financial support for marine Natura 2000 and other spatially protected areas was more limited under the European Fisheries Fund (EFF) (2007-2013) than under the EMFF (2014-2020), the EFF has helped to finance selective fishing methods or gears and the reduction of by-catches as well as the promotion of eco-management in aquaculture. The evidence indicates that **previously negative impacts of support for fisheries reported by some consultees, such as those directed at fleet renewal which increased fishing capacity, have been addressed in the new EMFF**²⁴⁸.

Non-Energy Extractive Industries (NEEI)

The 2008 EU Raw Materials Initiative²⁴⁹ aims to secure reliable and undistorted access to raw materials in support of industrial competitiveness. The initiative makes reference to improving the coherence of administrative conditions to ensure mining access across Europe, including streamlining permitting procedures. However, the extraction of minerals through mines and quarries has the potential, if inappropriately designed and operated, to cause damage to wildlife and habitats, including through indirect effects such as water and soil contamination. In response to the Raw Materials Initiative and calls from industry stakeholders, in 2011 **the Commission Services issued a Guidance document** clarifying how **extraction activities in or near Natura 2000 sites** can be reconciled with biodiversity protection²⁵⁰ (Outputs A4 and A5). The industry itself has drawn attention to circumstances in which mining or quarrying has been able to secure or enhance biodiversity during operation or as an after use²⁵¹.

Nevertheless, **several industry stakeholders referred to the overly restrictive application of the provisions of the Nature Directives by permitting authorities, which has led to a de facto ban on developments** in the Natura 2000 protected areas in some parts of the EU (Outputs A4 and A5)²⁵². While Member States may introduce stricter measures²⁵³ there is no automatic exclusion of extractive and quarrying activities in and near Natura 2000 sites provided they can meet the legal tests of the Directives. Nevertheless **stakeholders have called for better implementation of Nature legislation at national, regional and local level, including dissemination and awareness of the Commission's guidance**. This, they believe, would lead to a more balanced, proportional and sustainable approach to permitting of potential new mining and quarrying developments.

Research

Although EU research policy does not directly address the objectives of the Nature Directives, sustainable development is established as an overarching objective of the main EU research policy programme, Horizon 2020, with dedicated funding accounting

²⁴⁸ Client Earth. 2015b. Reporting on fishing capacity under the CFP and EMFF (Client Earth, Brussels/London/Warsaw).

²⁴⁹ Communication from the Commission to the European Parliament and the Council - The raw materials initiative : meeting our critical needs for growth and jobs in Europe (COM/2008/0699 final).

²⁵⁰ http://ec.europa.eu/environment/nature/natura2000/management/docs/nee_i_n2000_guidance.pdf

²⁵¹ Heidelberg Cement., one of the largest worldwide cement and aggregate producers, is working together with NGOs to connect quarries, nature and people, through restoration of various European quarrying sites which lie within Natura 2000 areas. <http://www.birdlife.org/europe-and-central-asia/project/project-map>

²⁵² The Federation of German Industry considers that raw material extraction is often completely suspended in some Natura 2000 areas (e.g. Brandenburg, Mecklenburg-Western Pomerania, Rhineland Palatinate, some parts of North Rhine-Westphalia) for the sake of simplicity and that, as a rule, Natura 2000 areas are no longer regarded as priority sites for raw material extraction.

²⁵³ The European Court of Justice (CJEU) has reiterated Member States' discretion to adopt more stringent measures, therefore introduction of statutory prohibitions on specific activities is not a breach of EU law provided it does not impact the functioning of the internal market [C-2/10 Azienda Agro-Zootecnica Franchini et al, [2011] ECR I-06561 p. 39-75.]

of 60% of the total Horizon 2020 budget. Funding opportunities exist under two Societal Challenges of the Horizon 2020 initiative/programme relating to environment and sustainability. In addition, the 2016-2017 Work Programme stresses the role of nature-based solutions for territorial resilience. Such solutions should simultaneously improve economic, social and environmental resilience of rural and natural areas through, among other things, preservation and restoration of biodiversity. **This suggests coherence of the main EU research policy programme with the objectives of the Nature Directives.** Furthermore, other EU funds such as the LIFE programme and European Innovation Partnerships can support research relevant to the Nature Directives (Output D2).

Transport

EU transport sector goals, set out in the 2011 White Paper²⁵⁴, focus on increasing mobility, removing major barriers in key areas, and creating conditions for economic growth and jobs, as well as the integration of resource-efficiency and sustainability goals. Central to this is implementation of the Trans-European Network for Transport (TEN-T), which implies the construction and upgrading of significant amounts of road, rail, waterborne, port and other transport infrastructure. As such there is **potential for conflict** between transport and nature objectives, as a result of risks to protected habitats and species. There are **provisions in place** to ensure that Member States and project promoters, in order **to mitigate or compensate for negative impacts on the environment**, carry out environmental assessment in compliance with the Habitats, EIA and SEA Directives (Activity A5).

Environmental NGOs have pointed out that the long history of conflict between transport projects and nature has led to improvements in the way in which environmental considerations are now reflected in TEN-T policy. Transport planners increasingly see the importance of identifying impacts and agreeing mitigation measures in order to prevent legal and public challenges. The integration of nature concerns into strategic and spatial planning for the transport sector, brought about in part by requirements of the Nature Directives, has been seen to have a positive impact. **Earlier conflicts in relation to port developments and dredging in Natura 2000 estuaries have been reduced**, which may have been **facilitated by guidance** from the Commission Services²⁵⁵ (Output A4). As there have also been conflicts **in relation to inland waterway transport and maritime ports and Natura 2000 the Commission Services have likewise developed guidelines** on this subject²⁵⁶ (Output A4). However, it appears that these guidelines have been only partially applied.

However, **some conflicts still exist**. Several NGOs referred to examples of transport infrastructure projects, sometimes implemented with the use of EU funds that threatened biodiversity and nature. Best practice suggests that appropriate assessments under article 6(3) Habitats Directive (Activity A5) that are carried out at the strategic planning stage rather than at project level have the potential to result in the selection of transport routes that are more favourable to habitats and species. Such conflicts can also affect waterborne transport projects of European interest that contribute to developing multimodal transport and decarbonisation. Many of Europe's most valuable natural areas are situated in the valleys of its main rivers. Implementation of the requirements of the Habitats and Birds Directives for waterborne transport projects can therefore be a

²⁵⁴ European Commission, 2011. White Paper: Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system COM(2011) 144 final, 28.3.2011.

²⁵⁵ <http://ec.europa.eu/environment/nature/natura2000/management/docs/Estuaries-EN.pdf>

²⁵⁶ http://ec.europa.eu/environment/nature/natura2000/management/docs/iwt_en.pdf

challenge to the sector even if they have an important contribution to European sustainability objectives.

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

There is **limited evidence available regarding the impact of the Directives on the functioning of the internal market**. Responses to the evidence gathering questionnaires confirmed that many stakeholders, particularly those from civil society, but also from Member State authorities, have found the introduction of a common approach through the Nature Directives vital for the functioning of the internal market, **removing the potential for a ‘race to the bottom’ in environmental protection standards, and giving businesses a level of certainty** that would otherwise not have been available. For these stakeholders, the Directives facilitated the internal market by providing a level playing field.

Some industry representatives felt that the requirements placed on certain sectors, such as mining and forestry, were more onerous than for others, such as agriculture, and that the financial support afforded to different sectors was unequal. Some respondents from industry bodies representing the extractive industry, forestry, and agriculture, as well as from Member State authorities, held the view that different implementation approaches for the same requirements across Member States have undermined the value of the Directives in providing a level playing field. **Further research would be needed to assess whether or not there are internal market issues associated with varying requirements imposed on the same sector across Member States.**

6.4.7. 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?

Availability and access to funding is considered in 6.2.2. This section looks in more detail at the use of EU funds. While the main responsibility for financing Natura 2000 lies with the Member States, Article 8 of the Habitats Directive explicitly links the delivery of necessary conservation measures for Natura 2000 to EU co-financing.

Evidence provided in the evaluation highlights the **strategic role that the EU LIFE programme²⁵⁷ plays in supporting the implementation of the Nature Directives**. LIFE has consistently had a strong nature and biodiversity component. It is the EU funding instrument that most focuses on supporting implementation of the Nature Directives, through demonstration and best practice projects involving a wide range of measures, especially for Natura 2000. LIFE Nature expenditure over the 2007-2013 was slightly above € 900 million, which, averaged out over the 7 year period, corresponded to about 2.2% of annual funding needs of Natura 2000. There is a small increase in LIFE funding for nature and biodiversity under the current 2014-2020 LIFE Regulation with about €1,155 million or 55% of the project budget under the environment sub-programme allocated to it, which is about 2.8% of the estimated annual costs for Natura

²⁵⁷ LIFE began in 1992 and to date there have been four complete phases of the programme (LIFE I: 1992-1995, LIFE II: 1996-1999, LIFE III: 2000-2006 and LIFE+: 2007-2013). The LIFE 2014-2020 Regulation establishes the Environment and Climate Action sub-programmes of the LIFE Programme for the next funding period, 2014–2020. The budget for the period is set at €3.4 billion in current prices.

2000. LIFE is seen by many stakeholders as very efficient but it is very inadequate in meeting Natura 2000 overall funding needs.

However, the policy approach, set out in a 2004 Communication from the Commission²⁵⁸, is to integrate the financing of Natura 2000 into the funding streams of different EU policy sectors. **Natura 2000 funding opportunities exist under each of the relevant key EU funds.** Agriculture funding under the second pillar of the CAP (EAFRD) has consistently been the most important source of support for Natura 2000 in the majority of countries, which is not surprising given the importance of farmed landscapes for biodiversity both within and beyond Natura 2000 sites. However, cohesion policy is also a key source of funding to support investments, especially for the new Member States. The European funds supporting fisheries and maritime policies (EFF/EMFF) have been used to a lesser extent, possibly due to its smaller scope and poorer progress in establishment of Natura 2000 for the marine environment. While there was also limited use of funds through European Social Fund, examples of successful use of this and the EMFF fund were nonetheless provided during the evaluation showing that **integration is possible when given sufficient priority**²⁵⁹. In this context it is worth emphasising that the EU has consistently provided financial incentives for investing in nature and biodiversity but ultimately decisions on the allocation of funds to this area rest primarily with the Member States. **The Commission services have prepared guidance**²⁶⁰ **on financing Natura 2000**, explaining the funding opportunities for both the current and previous multiannual financial frameworks.

As decisions on the allocation of EU funds under shared management rest primarily with the Member States, they are not obliged to take up the opportunities for financing Natura 2000 from the EU budget. In practice, this leaves Natura 2000 to compete with a range of different policy goals, such as alternative economic activities and infrastructure. This is **commonly identified as a major constraint**, and is pointed out in reports highlighting the lack of integration of biodiversity into the key funds by the European Court of auditors²⁶¹.

The most comprehensive assessment of the "integration approach" to financing Natura 2000 is summarised in a 2011 Staff Working Document²⁶². This highlighted the **difficulties in determining the exact allocation and uptake of funds for Natura 2000 under different relevant EU financial instruments** (as their coding systems generally do not provide this level of specification) but concluded that the use of different EU instruments was still very significantly below the financial needs of Natura 2000 as defined by the Member States. If all nature and biodiversity related funding under cohesion policy as well as Natura 2000 payments and 20% of agri-environment funding under rural development policy was considered as allocated to Natura 2000, together with the relevant LIFE fund allocation to nature, then this would cover only 20% of

²⁵⁸ Communication from the Commission to the Council and the European Parliament - Financing Natura 2000 {SEC(2004)770} {SEC(2004)771} /* COM/2004/0431 final - <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52004DC0431>.

²⁵⁹ see section 8.6.3.3 of the Study.

²⁶⁰ http://ec.europa.eu/environment/nature/natura2000/financing/docs/Natura2000financingHandbook_part%201.pdf and http://ec.europa.eu/environment/nature/natura2000/financing/docs/Natura2000financingHandbook_part2.pdf.

²⁶¹ http://ec.europa.eu/environment/nature/natura2000/financing/docs/Natura2000financingHandbook_part%201.pdf

²⁶² Financing NATURA 2000. Investing in Natura 2000: Delivering benefits for nature and people http://ec.europa.eu/environment/nature/natura2000/financing/docs/financing_natura2000.pdf.

Natura 2000 financing needs of estimated € 5.8 billion per year²⁶³. For the 2007-2013 EU financing period, Kettunen et al estimated EU financial allocations for Natura 2000 to range between € 550–1,150 million per year²⁶⁴. This represents only 9-19% of the estimated financing needs of € 5.8 billion per year (see also section 6.2.2). In an ongoing performance audit on the implementation and financing of the Natura 2000 network the European Court of Auditors (ECA) has criticised the fact there were no reliable and comparable consolidated funding estimates for the implementation of Natura 2000 for the 2007-2013 programming period: due to the limitations in the way actual spending is accounted for, it was often difficult to distinguish the support for Natura 2000 from the funding of other environmental actions. Furthermore ECA has pointed at the lack of information about the results achieved with EU supported actions in promoting biodiversity in Natura 2000 areas.

Evidence obtained during this evaluation has confirmed this significant shortfall in resources. A variety of factors may contribute to this problem, including difficulties at local and regional level in accessing some of these funding opportunities when competing against other national priorities. This is consistent with earlier findings²⁶⁵.

The Habitats Directive anticipates the **need for strategic planning for Natura 2000 funding through establishment of Natura 2000 Prioritised Action Frameworks (PAFs)**. With a view to the 2014-2020 multiannual financial framework the Commission asked Member States to prepare PAFs, identifying Natura 2000 funding needs and priorities, with a view to improving strategic multiannual planning, co-ordination and uptake of different EU funds. Nearly all Member States have prepared PAFs, which are also a prerequisite to apply for LIFE integrated projects under the LIFE Regulation. **Whereas the PAFs were variable in their degree of ambition and quality, there are indications that when well prepared and supported, they have made a positive contribution** to securing funding for Natura 2000 under EU funding instruments. However, the **extent to which the PAFs have strengthened integration of Natura 2000 into the main EU sectoral funds has still to be determined**. The ongoing European Court of Auditors (ECA) performance audit of Natura 2000 has found that the approved programming documents under different EU funds did not necessarily reflect all the needs for Natura 2000 identified in the PAFs. According to ECA the combination of incomplete or inaccurate information in the PAFs, with their insufficient integration with the programming documents for the 2014-2020 funding period²⁶⁶, points to the need to strengthen the PAF exercise to ensure the consistency of EU funding for Natura 2000.

²⁶³ Gantioler, S, Rayment, M, Bassi, S, Kettunen, M, McConville, AJ, Landgrebe, R, Gerdes, H, and ten Brink, P. 2010. Costs and Socio-Economic Benefits associated with the Natura 2000 Network (Final Report to the European Commission, DG Environment on Contract ENV.B.2/SER/2008/0038, Institute for European Environmental Policy / GHK / Ecologic, Brussels).

²⁶⁴ Kettunen, M, Baldock, D, Gantioler, S, Carter, O, Torkler, P, Arroyo Schnell, A, Baumüller, A, Gerritsen, E, Rayment, M, Daly, E, and Pieterse, M. 2011. Assessment of the Natura 2000 co-financing arrangements of the EU financing instrument. A project for the European Commission - final report (Institute for European Environmental Policy, Brussels, Belgium).

²⁶⁵ Natura 2000 Financing handbook, chapter 5 p. 64.

http://ec.europa.eu/environment/nature/natura2000/financing/docs/Natura2000financingHandbook_part%201.pdf

²⁶⁶ This conclusion is also corroborated by the findings included in a report prepared for the Commission in 2016 'Integration of Natura 2000 and biodiversity into EU funding (ERDF, ERDF, CF, EMFF, ESF). See p. 52: 'Integration of priorities, specific objectives and measures linked to Natura 2000 ... has been achieved to varying degrees in the national programmes analysed ... in general the planned measures do not cover all the needs identified in the PAFs for all habitats and species that require conservation or restoration actions'.

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

Evidence in relation to this question is also relevant in relation to other coherence questions and most stakeholders did not respond separately to this question. For that reason relevant issues are discussed under the other aspects of coherence, for example in relation to those sections dealing with consistency with other environmental legislation (see section 6.4.2) or wider EU policy (sections 6.4.3 and 6.4.4/5). The section on relevance also considers whether there are significant gaps in relation to the Directives' provisions and concludes there are not (section 6.3.1).

6.4.9. How do the Directives complement the other actions and targets of the biodiversity strategy to reach the EU biodiversity objectives?

The Nature Directives are key instruments for achieving the EU headline target to halt the loss of biodiversity and ecosystem services in the EU by 2020 and Target 1 of the EU Biodiversity Strategy is based on their implementation (see section 6.1.3). However, whereas achieving the general objectives of the Directives contributes to biodiversity conservation they cannot by themselves achieve the 2020 biodiversity headline target.

The Biodiversity Strategy is therefore much broader in scope than the Directives and there is **strong complementarity between actions under other targets of the Strategy and the Nature Directives**. This is most obvious in relation to Target 2 of the Strategy, which aims to maintain and restore ecosystems and their services, primarily through the establishment of green infrastructure, of which Natura 2000 is the core element, as well as through the restoration of degraded ecosystems both within and beyond Natura 2000 (Outputs A2, A3, B1 and B2). Such actions are fully coherent with the general objectives of both Nature Directives and help improve ecological coherence of the Natura 2000 network as foreseen under Article 10 of the Habitats Directive (Output B1). Target 2 of the Strategy also foresees an initiative to recognise the value of biodiversity and ecosystem services within and beyond Natura 2000 as a contribution to the conservation and sustainable use of species and habitats and their ecosystem services within and beyond the network.

Target 2 (Maintain and restore ecosystems), Target 3 (Achieve more sustainable agriculture and forestry) and Target 4 (Make fishing more sustainable and seas healthier) also identify approaches which although not specified in the Directives will improve its effectiveness such as engagement with key land and water use sectors, particularly farming, forestry and fisheries. Similarly the Strategy's Target 5 in relation to invasive non-native species is coherent with the provisions of the Directives (Activity C3). No inconsistencies have been found during this evaluation.

6.4.10. How coherent are the Directives with international and global commitments on nature and biodiversity?

The overall analysis of the evidence indicates that while a small number of differences exist in relation to the listing of species and habitats, most evident **in relation to the regional seas marine conventions, there is strong complementarity between the instruments in relation to protected areas and species protection measures**.

It is widely recognised that **the Directives have stronger legal binding effect than other related international nature Conventions in the EU**, with failures of compliance being subject to rulings of the EU Court of Justice which can ultimately lead to financial sanctions.

There is wide recognition, including by those responsible for the Convention, that the Nature Directives are consistent with, and supportive of, the global Convention on Biological Diversity. The Directives are highly significant in delivering the EU commitments on protected areas under the Convention. The Nature Directives are also the key EU legal instrument giving effect to the objectives of the Bern Convention on the Conservation of European Wildlife and Natural Habitats in the EU. Whereas the development of the Habitats Directive has been inspired by the Bern Convention it has in turn influenced development of the Convention, notably in relation to the Emerald Network of protected areas, not originally foreseen under the Convention, which is modelled on Natura 2000. The Directives are also coherent with the Bonn Convention on the Conservation of Migratory Species of Wild Animals and the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA), and central to achievement of their objectives in the EU. Although the EU is not a contracting party to the Ramsar Convention on Wetlands of International Importance the Directives are recognised to make a major contribution to the objectives of this Convention in the EU especially in relation to the protection of wetlands of international importance.

There is also complementarity between the Directives and the objectives of the four Regional Sea Conventions relevant to the EU, OSPAR, HELCOM, UNEP-MAP and Black Sea Convention²⁶⁷, particularly in relation to marine protected areas. However, the Marine Strategy Framework Directive (MSFD) is more relevant to the wider objectives of these Conventions on matters such as pollution. **Some species and habitat types covered by these Conventions do not appear in the Habitats Directive.** Listings under regional seas Conventions does not necessarily imply importance at the level of the EU, although the Commission has acknowledged that such listings would be relevant inputs to be considered in a possible future adaptations of the annexes of the Habitats Directive in relation to the marine environment²⁶⁸.

6.5. EU Added Value

6.5.1. *What has been the EU added value of the EU nature legislation?*

6.5.2. *What would be the likely situation in case of there having been no EU nature legislation?*

These two mandate questions have been considered jointly, as they are in effect opposite sides of the same coin. There are difficulties in responding comprehensively to these questions. Neither Directive was subject to a baseline study nor to an impact assessment before its introduction. Options for establishing a counterfactual to assess what would have been the position without the Directives are therefore limited. There is a need to

²⁶⁷ The Convention for the Protection of the Marine Environment in the North-East Atlantic of 1992 (OSPAR Convention), the Convention on the Protection of the Marine Environment in the Baltic Sea Area of 1992 (HELCOM Convention), Convention for the Protection of Marine Environment and the Coastal Region of the Mediterranean of 1995 (UNEP-MAP Convention), Convention for the Protection of the Black Sea of 1992 (Black Sea Convention).

²⁶⁸ European Commission. 2007c. *Guidelines for the establishment of the Natura 2000 network in the marine environment. Application of the Habitats and Birds Directives* (European Commission, Brussels) - http://ec.europa.eu/environment/nature/natura2000/marine/docs/marine_guidelines.pdf.

infer some of the answers by comparison with the situation before their introduction and with trends elsewhere in Europe or the world. Analysis of the Nature Directives' added value is underpinned by analysis of the other four evaluation criteria, information provided by stakeholders in the evidence gathering questionnaires and views expressed in the online public consultation.

The Birds Directive was adopted in 1979 under Article 235 of the Treaty recognising the need to protect this shared natural heritage of the Member States in the context of the functioning of the then common market²⁶⁹. **Some stakeholders have highlighted in the evaluation that different nature protection rules across the EU would compromise the achievement of a single market, and would involve more diverse legal and assessment regimes for business.**

Many stakeholders recognise that the **Directives established a stronger and more consistent basis for protecting nature than existed in Europe before their enactment and that this regime has helped Member States comply with international conventions on nature protection**²⁷⁰. As described in section 6.1 on effectiveness, there has been a **major increase in the area of terrestrial and marine protected areas across the EU**, as part of Natura 2000, compared to the situation before the Directives were introduced, or before Member States acceded to the Union²⁷¹. This has been a **direct response by Member States to the requirements of these Directives** (Outputs A1-A3).

Evidence shows that **the EU approach of establishing a scientifically and ecologically based, continental scale, network of sites**, that is also much broader than strict nature reserves with emphasis placed on effective site management, **is unique in global terms**²⁷² (Activity A3). Most stakeholders recognise that **Natura 2000 protection standards are generally higher than those that existed in most national systems of site protection prior to the adoption of the Directives** (Outputs A1-A5). The procedural safeguards relating to developments that would be likely to affect Natura 2000 are considered to have **raised standards of nature conservation across the EU** (Outputs A4 and A5). This EU framework for action **does not obviate from the need for locally adapted approaches** in the conservation and management of species, habitats and sites, based on local knowledge and circumstances and consistent with the environmental protection standards set out in the Directives.

Since the introduction of the Directives there have been **significant recoveries of populations of some species, particularly threatened bird species listed in Annex I** on the Birds Directive which had previously been subject to long term declines. These species have been the subject of targeted actions under the Directives, such as the selection of Natura 2000 sites (Activity A1), development of EU species action plans (Activity C1) and prioritisation for funding under the LIFE programme. This suggests that **the profile given at EU level to the most strictly protected species under these Directives was an important factor contributing to the recovery** of those species. In particular evidence was available to show that species of birds whose populations were

²⁶⁹ As there was no environmental objective in the Treaty in 1979, the legal base for its adoption of the Birds Directive was Article 235 EEC Treaty, which allowed for action by the Community if it should prove necessary to attain, in the course of the operation of the common market, one of the objectives of the Community and the Treaty has not provided the necessary powers.

²⁷⁰ Born, C-H, Cliquet, A, Schoukens, H, Misonne, D, and Van Hoorick, G (eds). 2015. The Habitats Directive in its EU Environmental Law Context - European Nature's Best Hope? (Routledge, London & New York).

²⁷¹ Further information provided in section 9.1.3.1.1 and Box 106 of the Study).

²⁷² Crofts, R. 2014. 'The European Natura 2000 protected area approach: a practitioner's perspective.' Parks, Vol. 20: 79-90.

substantially protected within the Natura 2000 sites were faring better than other species²⁷³ (Results A and C) (see also section 6.1.1). The **evidence is harder to assess in relation to widely distributed species of birds, some of which have continued to decline.**

Outside protected areas there is evidence that the implementation and control of legal standards for the protection of birds are stronger and more effective in EU Member States than in Adriatic and Balkan countries that are non-EU Members²⁷⁴ (Outputs C1 and C2).

Responses to the Fitness Check have expressed views that the **Directives have been important catalysts** in many countries **to increase public awareness of nature and its value** and to the **engagement of stakeholders in the management of protected sites and species²⁷⁵** (Output D3). Their role in **stimulating scientific research and better and more consistent data gathering and monitoring** are also widely reported (Output D2).

The existence of EU Directives has also provided **a link to European funding to support their objectives²⁷⁶**, which many respondents from NGOs and Member States identify as having been essential in developing nature protection approaches and in forming synergies with socio-economic measures for example through sustainable tourism initiatives. The existence of common legislation has provided **an incentive for this experience and knowledge to be shared across the EU** (Outputs D1 and D2).

There is sufficient evidence to conclude that **many of the innovative steps seen in nature conservation in Europe over the last twenty years or more were instigated in response to the requirements of these Directives and that both the extent and condition of protected sites as well as the conservation status of species** (Results A and C) **would have been significantly less favourable without them²⁷⁷**. The evidence highlights that the transnational character of nature and the steps required to conserve and sustainably use the ecosystem services it provides for the benefit of the economy and society at large, justify EU level action as an effective way to achieve the objectives of the Nature Directives.

6.5.3 Do the issues addressed by the Directives continue to require action at EU level?

Responses to the open public questionnaire exhibited **a very large majority of opinion in favour of continued EU action, reflecting the Nature Alert campaign, but a minority, including campaigns from some land use and land management sectors held an opposite view.** Those who opposed continued EU action emphasised issues about the need for more locally adapted approaches and 'less bureaucracy'. However it

²⁷³ Donald, PF et al 2007. 'International conservation policy delivers benefits for birds in Europe.' *Science*, Vol. 317, Issue 5839: 810-813.; Sanderson et al 2015. 'Assessing the performance of EU nature legislation in protecting target bird species in an era of climate change.' *Conservation Letters*, online early-DOI: 10.1111/conl.12196.

²⁷⁴ http://www.euronatur.org/fileadmin/migration/uploads/media/ADRIATIC_FLYWAY_2009_Conference_Proceedings.pdf

²⁷⁵ For further details see Section 9.1.3.2.5 of the Study.

²⁷⁶ For further details see Section 9.1.3.3.2, Box 123 of the Study.

²⁷⁷ For further details see section 9.1.3.2.2, Box 113 and 114 of the Study.

was not possible, due to the nature of the public consultation, to identify which provisions of the Directive were prompting this response.

Evidence from the **Eurobarometer** of public opinion shows that six out of ten respondents think that **environmental decisions should be taken jointly between national governments and the EU** and, in most Member States, a majority of respondents think that environmental decisions should not be taken at national level only, but rather jointly within the EU²⁷⁸.

The ecological, practical and economic arguments for having Directives remain essentially the same today as when the Directives were introduced. As nature does not recognise political boundaries its effective conservation requires cross border co-operation, especially for migratory species, that are dependent on suitable habitats and conditions being present simultaneously in different Member States. Many features of importance to biodiversity depend on co-ordinated and aligned activity across borders including freshwater and marine ecosystems. Several respondents to the written questionnaire emphasised that biodiversity is a common European resource and as such should be managed sustainably on a European scale, albeit allowing local variability in management methods and practice within the context of common objectives. Many of these respondents, notably among conservation NGOs, also considered that the Commission's enforcement role had been critical in raising performance and standards in the Member States (Results A and C).

The Directives provide a common set of requirements and standards for business across the EU such as the procedural safeguards set out in the Habitats Directives in relation to plans and projects that are likely to affect Natura 2000 sites (Activity A5). Responses to the targeted consultation indicate that there remains a strong view that by setting common standards and objectives the Directives ensure a 'level playing field' for developers²⁷⁹. Whereas this is evident for larger economic operators such as the ports industry and road development, it is still not demonstrated for all sectors throughout the EU. Sectoral specific guidance has been provided from the Commission Services for a range of policy sectors (e.g. wind energy, aquaculture, forestry, farming, non-energy extractive industries) to facilitate this process²⁸⁰ (Outputs A4 and A5).

A common legislative framework provides Member States with common reference points, requirements and experience on which to develop their expertise and share information and knowledge (Outputs D1-D3). Having a common approach also enables Member States to **ensure compliance with commitments** they have made under **international agreements** such as the Bern Convention and the global Convention of Biodiversity²⁸¹.

The role of the Commission in supporting the Member States has also been commented on, not just in terms of its compliance monitoring and enforcement role, but also in relation to its proactive role in helping ensure coherence with other policies, providing guidance, supporting exchanges of information and experience between Member States at the Biogeographic level and in supporting European networks of

²⁷⁸ http://ec.europa.eu/public_opinion/archives/ebs/ebs_416_en.pdf

²⁷⁹ For further details see section 9.1.3.2.3, Box 115 of the Study.

²⁸⁰ http://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm

²⁸¹ For further details see Section 9.1.3.2.4, Box 116 of the Study.

experts and stakeholders with a view to improving standards and promoting good practice.

In light of the above there appears to be a strong case for the continuation of European legislation in the field of biodiversity conservation.

7. CONCLUSIONS

Introduction

In the Fitness Check of the EU Nature Directive the Commission services have assessed the performance of the Birds and Habitats Directives against five criteria: **relevance, effectiveness, efficiency, coherence and EU added value**. This includes examining implementation and integration successes and problems, the costs of implementation and non-implementation of the legislation, the administrative burden of implementation, and the opportunities to reduce it, while ensuring the objectives of the Directives continue to be met. This retrospective exercise considers what has worked well or poorly, and compares actual performance to earlier expectations. The results of the evaluation will be used by the Commission to inform future decisions in relation to EU nature policy.

The Nature Directives were established in response to serious species declines and large scale habitat loss in Europe in the 20th century. However, since at the time nature legislation was adopted, no forward looking assessment was performed and clear baselines were not established, it was not possible to draw up a clear counterfactual for the Fitness Check exercise. The analysis, which was based on bringing together a very substantial body of evidence, focused on seeking to identify significant changes which can be logically attributed, at least in part, to the intervention of the Directives and to explain the causal link. Much of the analysis is qualitative, as limits in the detail, availability and comparability of data restrict the ability to present quantitative analysis, particularly for costs and benefits. A limited amount of comparison has been possible with the situation in analogous countries and by comparison of Member States who commenced implementation at different times.

Effectiveness (see 6.1)

The evaluation has shown that the **general objectives of the Directives have not yet been met and it is not possible to predict when they will be fully achieved since a very high proportion of species and habitat types protected under the Directive are still in an unfavourable conservation status**, some of which are continuing to decline or remain endangered.

This can be attributed to **insufficient progress in delivering the specific objectives** as well as the fact that many of the pressures and threats that have led to declines such as land use change, habitat loss and degradation and pollution continue to persist. Implementation of the Directives has also taken place at a time of accelerating rates of urbanization, changing demographic and diet patterns, technological changes, deepening market integration, and climate change, all of which place unprecedented demands on land.

However, having regard to historical losses and unsustainable use, and based on official reporting by Member States under the Nature Directives, it can be concluded that the

status and trends of bird species and species and habitats of Community interest **would be significantly worse in the absence of the Nature Directives**. The reason for listing species under the Directives was due to the fact that they were of conservation concern, with some being highly endangered. Only two taxons (one bird species and one mammalian sub-species) protected under the Directives are considered to have become extinct in the EU since their adoption, and there is clear evidence, particularly for threatened birds that **targeted actions at a sufficient scale have reversed declines and led to improved conservation status**. There is also evidence to demonstrate that **habitats and both birds and other species with an unfavourable conservation status are more likely to show positive trends where a high proportion of their area or population occurs within Natura 2000 sites**.

The **establishment of Natura 2000 has been much slower than the timeframe foreseen** under the Directives. The **scale of this task and the timeframe** to achieve it was **clearly underestimated**. However, there has been continued focus at both EU and national levels on achieving this strategic objective. With over 27,300 sites, representing more than 18% of the terrestrial environment and about 6% of the marine environment, the network is largely in place, even if some gaps remain, especially for the marine offshore environment. Despite the fact that the EU is one of the most densely populated regions on Earth, this is the **largest multinational co-ordinated network of conservation and sustainable use protected areas in the world**, contributing significantly to fulfilling EU commitments within the framework of the Convention on Biological Diversity.

The establishment of the Natura 2000 network has provided a strong level of protection for the sites to prevent habitat deterioration and has also provided the legal framework to ensure that plans and projects that could significantly affect the sites are appropriately assessed. However, as a result of delays in putting in place the legally required conservation measures for effective management and restoration of the sites at a sufficient scale, Natura 2000 has still not delivered its full conservation and socio-economic potential. Available information indicates that such measures have so far only been established for about half of the Natura 2000 sites and are in the process of being implemented. Therefore, the objective of an effectively managed and fully functional and coherent network of areas of high biodiversity value has still to be realised.

Given the focus of available resources on Natura 2000 there has been **less action for the management of habitats and landscape features beyond the network which are of major importance for fauna and flora and the overall ecological coherence of the network**. This is also compounded by the fact that, outside the Natura 2000 network, approaches to promote habitat conservation and delivery of ecosystem services are not as clearly defined in an operational way and that there is no mechanism to compensate for significant loss of habitats (e.g. in relation to high nature value farmland).

Ensuring species protection and sustainable use, especially in relation to hunting of wild birds, **has been challenging**, particularly in the early years of implementation. Whereas the Birds Directive fully recognises the legitimacy of hunting as a recreational-cultural activity, it also requires this activity to be in line with the principle of wise use. Improved legal enforcement, jurisprudence that has helped clarify legal concepts, together with better stakeholder engagement through a sustainable hunting initiative, have led to a **significantly improved situation, even if illegal activities still persist**. **Problems continue with some other protected species** that come into conflict with

humans, **most notably large carnivores**, for which a stakeholder dialogue platform has been created to find practical solutions under the Habitats Directive for co-existence between humans and these species.

Whereas **substantial progress has been made towards strengthening the knowledge base**, there is **further need to improve** the gathering and making available of relevant information (e.g. on species distribution, site conservation objectives and measures) for stakeholders to ensure effective and efficient implementation of the Directives.

Limited availability of funding has been and remains a major constraint on implementation: it has adversely affected the establishment of the Natura 2000 network, as well as the establishment and implementation of conservation measures, permitting and enforcement measures. **Other factors** that have reduced the Directives' effectiveness include the **lack of priority given to them at national/regional level, lack of awareness among and engagement of stakeholders, knowledge gaps on species distribution and their ecological requirements, limited expertise and poor enforcement by national authorities**. Furthermore, **external factors** such as the existence of payments that encourage competing agricultural, forestry and fishery systems and practices as well as the growing pressure on land and nature from urbanisation and infrastructure development **have further reduced the effectiveness of the Directives**.

Many of the above mentioned **obstacles** have – **to some extent** – been **overcome over time thanks to positive factors** such as **increased stakeholder cooperation and partnerships, engagement with business, experience sharing, training, Commission services/national guidance, case-law of the EU Court of Justice**, that have strengthened common approaches to the definition of objectives; contributed to raising the profile and quality of natural environment in the EU and responded to strong interests of public. However, some highlighted **problems**, including in **relation to the level of availability and targeting of funding, full policy integration, knowledge gaps, effective management of the Natura 2000 sites, full stakeholder engagement and human resource constraints remain** significant challenges.

The fact that **socio-economic activities are not automatically excluded** from Natura 2000, provided they respect the site conservation objectives, **has had a positive impact**, generating new **business opportunities** in particular sectors, i.e. in eco-tourism and innovation in sustainable farming or fishing practices, which has also led to new governance approaches.

Efficiency (see 6.2)

As Member States do not have a duty to report on the costs and benefits of the Directives, there is **limited quantitative information available at the EU scale** to underpin an assessment of efficiency. However, based on information supplied by Member State competent authorities, **compliance costs of designating, protecting and managing Natura 2000 sites have been estimated to be at least € 5.8 billion annually** across the EU. Although it varies between Member States, one third of these relate to one-off investments and the remainder relates to on-going management and monitoring costs. **Opportunity costs** that would add to this figure have **not been quantified** as there is limited available information. A qualitative assessment shows that opportunity costs are limited. First, as regards agriculture and forestry, which are the main land uses in the Natura 2000 network, land managers are, at least in part, compensated in many parts of the EU for restrictions due to the inclusion of their land in Natura 2000. Second, the legal

framework of the **Directives does not create barriers to investments as projects and plans in Natura 2000 are not forbidden unless they compromise the integrity of the sites concerned**. In this case, developments that would result in significant damage to the sites will normally have to take place elsewhere unless an overriding public interest can be proven. In this respect, available evidence shows that the vast majority of proposed projects and plans falling within the Article 6 permitting procedures are authorised, sometimes with modifications. However, there appears to be strict implementation approaches in certain regions of some Member States that have imposed blanket exclusion on certain economic activities from Natura 2000 sites (e.g. blanket exclusion of raw material extraction) rather than case-by-case review of projects and their compatibility with conservation objectives and site integrity). **Delays in permitting procedures that have been observed** in some cases do increase the opportunity costs but are not directly attributable to the Directives requirements, which are quite general, but can result from a combination of factors such as poorly planned assessments or complex procedures put in place at national level. There is a growing body of good practice on how to streamline procedures for effective and timely permitting and in using the flexibilities under site permitting and derogations from species protection offered by the Directives, but still limited awareness and use of the Commission guidance clarifying legal requirements and flexibilities. The damage caused by protected species (e.g. large carnivores) and resulting compensation payments can be significant at a local level but account for a small proportion of overall (national) costs.

Core benefits of the Directives significantly exceed the identified costs. The protection and improved conservation status of habitats and species also helps to safeguard and enhance the delivery of a wide range of **ecosystem services**, such as carbon storage, pollination, flood prevention or water quality maintenance and has been **estimated at € 200-300 billion per year**. Furthermore, the Directives' implementation contributes to local economies through job creation and tourism, especially in rural areas. **Natura 2000 sites attract an estimated annual revenue from tourism and recreation of € 50-85 billion**. Based on the current levels of expenditure, a **preliminary assessment indicates that an estimated 52.000 full time equivalent (FTE) jobs are directly and indirectly related to the conservation of the network and that full implementation of Natura 2000 would support an additional 122,000 FTE jobs**. This involves an entire spectrum of activities from land/water management and restoration to education, recreation and tourism.

However, the **socio-economic benefits of the multiple ecosystem services provided by Natura 2000 have not yet gained widespread recognition**, acknowledgement and acceptance in public policy and this dimension would not appear to have been factored sufficiently into the design and implementation of management measures for sites in the network. Internalization of costs and benefits has not yet been achieved thereby hampering incentives for implementation and achievement of biodiversity objectives more broadly. This is an area where there is insufficient communication and guidance. Furthermore, the distribution of benefits and costs is uneven. There is often a mismatch between those bearing the costs, such as landowners and developers and those benefitting, such as tourism and recreational bodies and society more generally which has implications for the design of compensation and incentive schemes.

Concerning **funds availability**, the **EU LIFE programme plays a strategic role** in supporting the implementation of the Nature Directives but it **represents less than 1% of the EU budget** and its contribution to nature protection is **currently less than 3% of the estimated annual needs to implement Natura 2000** in the EU. It has also been

estimated that **overall EU co-funding for Natura 2000 during the 2007-2013 period represented only 9-19% of the estimated financing needs and national co-funding was unable to cover the remaining gap.**

The evidence strongly indicates that **achievement of the objectives of the Directives requires a significant effort**, both in terms of **better use of available funding** at EU and national level (leading to improved capacity to absorb and apply the funds in a targeted and cost-effective manner, including through result based payments) and **increase total resources allocated to it**, including by the private sector and by addressing the market failures wherever possible. With a view to the 2014-2020 multiannual financial framework, Prioritized Action Frameworks (PAFs) have been prepared by most Member States aimed at better identification of their needs and priorities for funding investment and with a view to ensuring full exploitation of available EU funding to facilitate planning resource allocation at national/regional level. There are **indications that when well prepared and supported, the PAFs have positively contributed to securing funding for Natura 2000 under EU funding instruments.** However, the **Court of Auditors has underlined the need for their further improvement** to help strengthen integration of Natura 2000 into the main EU sectoral funds

The evidence is not conclusive as regards the magnitude of administrative burdens associated with implementation of the Directives, including in relation to commissioning surveys, permitting procedures, application of species protection rules and reporting at EU level. **Several stakeholders consider that unnecessary costs related to authorisation procedures stem from incomplete or insufficient knowledge and data** relating to the conservation objectives and measures of Natura 2000 sites as well as to the status of species and habitats they host. As a result of the failure of competent authorities to make available to project proponents reliable information about conservation status, objectives and requirements, **project proponents have to collect basic information themselves.** Some stakeholders have expressed concern that, due to **complicated permitting procedures**, including time delays caused by competent authorities in their handling of the authorisation process, they incur unnecessary burdens. While the Habitats Directive specifies a clear and logical framework of rules, the **detailed procedures for appropriate assessments, including timeframes, are developed by Member States** in their implementation. However, evidence suggests that **only a very small proportion of developments are affected** and that problems also arise through poor planning of and weak assessments of projects.

Concern has also been **expressed** about the **application of derogations**, including in relation to information needs focusing on individuals of a species, irrespective of population size. Specific problems cited also relate to **restrictions on land set aside for development but which has subsequently been occupied by protected species or habitat types** (so-called 'temporary' nature). These issues underline the need for setting clear conservation objectives and measures, and for better guidelines and outreach to help ensure workable protection standards for species protection provisions and streamlined procedures for plans and projects affecting sites.

This evaluation has revealed that there is a **growing body of good practice** to ensure smart implementation approaches. The most frequently cited examples refer to strong participation, consultation and stakeholder engagement; transparent and accessible strategic planning approaches to manage conservation and other land uses; provision of guidance to stakeholders affected by the Directives; coordinated collection and sharing of

information to reduce information costs; partnerships and joint initiatives between industry, NGOs and the nature authorities to meet common objectives.

Relevance (see 6.3)

The **general objectives** of the Directives **remain valid**. The Directives do not systematically list specific activities which constitute pressures on habitats and species. Instead, they **set out the objectives to be achieved and leave the responsibility for identifying and responding to specific threats to Member States**. This approach has the advantage that the Directives do not require updating to deal with new threats or pressures. The approach taken in the Directives is therefore **objective oriented and capable of addressing the key problems** facing species and habitats in the EU, including the prevention of damage resulting from plans or projects that are likely to affect Natura 2000 sites or the challenges raised by climate change mitigation or adaptation.

Annexes to both Directives have been **amended on a number occasions, most recently** due to the **accession** of new Member States, which has resulted in significant changes, i.e. three new Biogeographical Regions (Pannonian, Steppic and Black Sea) have been introduced in the Habitats Directive. Annex I of the Birds Directive in 1979 covered 74 species and sub-species and now covers 193 species and sub-species. These amendments were necessary to ensure the relevance of the two Directives in the new Member States having full regard to the protection of species and habitat types of EU conservation concern. Whereas the **current Annexes** to the Directives **do not fully cover all taxonomic groups**, available studies indicate that the **Natura 2000 network, through its 'umbrella effect', covers a high proportion of species of conservation concern beyond those listed in the Annexes**. There are currently over 1200 species and sub-species as well as 231 habitat types listed under the Habitats Directive.

The **listing of a small number of species as strictly protected under the Directives is questioned by some** stakeholders on the basis that these species have extended their range and are **now more abundant** than when the Directives were adopted (e.g. wolf), or are sufficiently abundant within a particular Member State to justify a lower level of protection (e.g. some species of geese). **Other stakeholders argue that conflicts between the protection of these species and human activities can be fully addressed within the existing legal framework**, pointing to work on the development of 'action plans' on a European scale for certain species, or groups of species such as geese, as well as initiatives such as the Large Carnivore Platform, together with reliance on available derogations under the Directives and flexibility therein.

Evidence from the evaluation has highlighted the **complexity of amending the Annexes**, requiring further development of a technical, robust and transparent assessment methodology. In addition, any amendment would need to take into account legal commitments under relevant international nature conventions and agreements such as the Bern Convention, the Convention on Migratory Species and the Agreement on the Conservation of African-Eurasian Migratory Waterbirds, to which the EU is a contracting party. Furthermore, information from European red data lists for different groups of species as well as for habitat types suggests that amendments could lead to significant net additions to the Annexes. Moreover, amending the Annexes of species and habitat types that are triggers for the selection of Natura 2000 sites **could have significant implications for the configuration of the network**. In this respect, concerns have been expressed by a range of stakeholders, including some Member States and

businesses that changes to the list of habitats and species listed in the Annexes at this stage **could introduce legal uncertainty at a crucial time when the Natura 2000 network is being finalised.**

Finally, evidence shows that nature protection is of **widespread interest and concern to EU citizens.** A large majority of EU citizens consider that biodiversity and nature are important for long-term economic development, and that biodiversity is indispensable for the production of goods such as food, fuel and medicines. This reflects the continued relevance of the Directives and their objectives.

Coherence (see 6.4)

The **overarching objective of the two Nature Directives is to contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora.** Both Directives are strongly founded on the principles of conservation and sustainable use and apply a strong science base, including in relation to the selection of the Natura 2000 sites. The Directives require Member States to take into account economic, social and cultural requirements and regional and local characteristics while implementing measures taken pursuant to them, since these factors shape the context in which they are to be implemented. There are provisions in the Directives that translate this consideration for socio-economic-cultural-recreational requirements, such as the provisions linked to the management (Article 6(1) Habitats Directive) and development affecting Natura 2000 sites (Article 6(4) of the Habitats Directive), in relation to sustainable use of species (Article 7 of Birds Directive and Article 14 of the Habitats Directive) and provisions related to derogations (Article 9 of the Birds Directive and Article 16 of the Habitats Directive). The aim is to achieve socio-economic activities that are sustainable and not damaging to the conservation values of the sites.

Whereas **there are certain differences in approach and in the wording, the Nature Directives are coherent with and complementary to each other** in relation to their general, specific and operational objectives. Within this legal framework the evaluation has shown that **streamlining of processes has taken place**, including with a view to both effectiveness and efficiency (e.g. on reporting, monitoring, etc.).

Regarding the Nature Directives and the **other environmental directives** such as the Water Framework and Marine Strategy Framework Directives, considered in the Fitness Check, their **specific objectives and scope of application differ but they are generally consistent** with and **complementary** to each other. However, **some challenges remain for implementing authorities** in relation to strengthening of synergies, streamlining processes, and improving guidance. Experience highlights the need and value for improved co-ordination, joint planning, data and best practice sharing, such as for monitoring and reporting with a view to collecting data once for multiple purposes and reducing administrative burden. The recently revised Environmental Impact Assessment Directive provides a strong basis for joined up and streamlined assessments that also involve the appropriate assessment under the Habitats Directive.

Coherence with the main sectorial policies is essential in order to avoid and minimise any adverse effects but also to optimise synergies, including in relation to investments. The latter is particularly important given that **EU co-funding of Natura 2000**, a legal requirement under Article 8 of the Habitats Directive, is to be achieved through **integration with the key EU funding instruments.** The **Directives have undoubtedly increased the availability of EU funding for nature**, such as through the LIFE

programme, CAP agri-environment measures and Cohesion/regional funds. Biodiversity tracking in order to identify the share of funds allocated to biodiversity measures is not fully available but current information indicates that this approach has had limited success. There is **no earmarking of funds for nature and Member States are not obliged to make full use of financing opportunities** under different instruments. Furthermore, **result based payment schemes are not widely applied in the Member States**. Prioritised Action Frameworks (PAFs) have been developed by Member States in view of the current multiannual financial framework for 2014-2020 to better define their Natura 2000 funding needs and priorities as a basis for action to strengthen financial integration.

Evidence suggests that without any support via the CAP for sustainable agricultural practices that enhance biodiversity, the conservation status of agricultural habitats and species would, in some cases, be worse than it currently is. However, **the overall continuing decline of species and habitats associated with agriculture has shown the need for more effective integration with the CAP** in order to reach biodiversity objectives. **Ensuring the sustainable management of natural resources is specifically stated as an objective in Article 4 of Regulation 1305/2013 and the CAP reform for 2014-2020 has strengthened support measures in favour of biodiversity**, but it is too early to assess its impacts, which are greatly influenced by Member State implementation choices.

The current legal framework of the EU fisheries policy states the conservation of marine resources as a strategic objective in Article 2 of the CFP Regulation 1380/2013 although more time is needed to confirm results. Fisheries conservation measures for marine Natura 2000 areas supported by the necessary scientific knowledge and harmonised approaches across the Member States, have not yet been sufficiently defined and put in place.

Cohesion Policy has had both positive and negative impacts on the objectives and implementation of the Nature Directives. At the implementation level, **several instruments and procedures identify and mitigate some of the possible negative impacts** on environment and nature from the programmes and projects supported by **cohesion energy and transport** policies. These include EU legislation on SEA, EIA and the appropriate assessment under the Habitats Directive. Moreover, the Commission reviews the quality of Member States' partnership agreements and spending programmes, approves large investment projects and provides technical assistance for preparation of large infrastructure projects. Nevertheless, the **scope for better integration of nature protection**, including in proactively using these funds for conservation measures has been **underlined by some stakeholders**.

Whereas **EU research policy is generally consistent** with the objectives of the Nature Directives they **have not featured prominently in different funding programmes**. Other EU funds such as LIFE and innovation partnerships can also support research and the innovation potential connected to the Nature Directives.

The introduction of a **common approach** through the Nature Directives **corresponds to the needs of a functioning internal market and has facilitated the creation of a level playing field**. Whereas this is more evident for some policy sectors such as transport (e.g. port development) different implementation approaches for the same requirements across Member States may have limited this effect.

The **Nature Directives and the EU 2020 Biodiversity Strategy constitute an integrated and fully coherent policy approach.** The Directives are embedded in Target 1 of the Strategy and make a major contribution to its overall goal although they cannot, by themselves, ensure that biodiversity loss is halted in the EU. This would need action in other key policy sectors mentioned above and in the management of the landscape and wider countryside outside Natura 2000, e.g. through restoration action as foreseen in Target 2 of the Strategy, contributing to the conservation of species and habitats and their ecosystem services beyond the network.

There is **overall coherence between the objectives of the Nature Directives and relevant international Conventions and Agreements** on biodiversity and nature protection that apply in the European Union and strong complementarity in relation to protected areas and species protection measures. Implementation of the Directives is also central to the EU and its Member States for the achievement of international biodiversity targets and Sustainable Development Goals.

EU added value (see 6.5)

As shown throughout the previous sections, **the needs and rationale for EU level action** through the Nature Directives **remain valid.** Nature is a shared heritage of the Member States and effective management of natural resources needs to take place across political boundaries as the ranges of many species, notably migratory ones, are dependent on suitable habitats and conditions being present simultaneously in several Member States. Many features of importance to biodiversity **depend on co-ordinated and aligned activity across borders** including freshwater and marine ecosystems. Therefore, the **transnational character of nature** and the steps required to derive the full benefits it delivers to society **justify EU level action as an effective way to achieve the conservation objective** of the Nature Directives.

There is **limited evidence regarding the impact of the Directives on the functioning of the internal market but** many stakeholders, particularly those from civil society, but also from Member State authorities, have found the introduction of a common approach through the Nature Directives vital for the functioning of the internal market, **removing the potential for a ‘race to the bottom’ in environmental protection standards** based on short term economic gains thereby missing the opportunity to nurture further innovative models for a sustainable future. However, further research would be needed to assess whether or not there are internal market issues associated with varying requirements imposed on the same sector across Member States.

There is broad recognition that **the Directives established a stronger and more consistent basis for protecting nature than existed in Europe before their enactment and that this regime has helped Member States comply with international conventions** on nature protection. The existence of EU Directives has also provided a **link to European funding** to support their objectives and a **stronger basis for integration with policy sectors**, particularly EU level policies. The existence of common legislation has provided an incentive for **national experience and knowledge to be shared** across the EU.

There is sufficient evidence to conclude that **many of the innovative steps** seen in nature conservation in Europe over the last twenty years or more were **instigated in response to the Directives** and that both the extent and condition of protected sites and the conservation status of species would have been significantly more limited without them.

Overall Conclusion

The evaluation has shown that the Directives remain highly relevant for the conservation and sustainable use of species and habitats of EU conservation concern, for the environment, people and the economy, and as an essential component of EU Biodiversity Policy.

There has been important progress such as in establishing the terrestrial Natura 2000 network, the putting in place of national systems for site and species protection and sustainable use and in increasing knowledge and research. There are still gaps in the Natura 2000 network, especially for the offshore marine environment but the most significant shortcomings are the failure to put in place the necessary conservation measures for the sites, and well as in recognising the value of safeguarding biodiversity and ecosystem services within and outside the Natura 2000 network. Effectiveness has been constrained by the lack of and insufficient targeting of funding, limited stakeholder awareness and cooperation, and gaps in knowledge. Notwithstanding there have been some improvements in conservation status, achieved in the context of land use changes, growing population and economies in the EU which have added pressures on nature. This demonstrates the capacity of the Directives to deliver results when targeted action is taken at a sufficient scale. However, the Directives cannot achieve their objectives in isolation but as part of a wider and complementary framework of action as set out in the context of the EU Biodiversity Strategy.

Overall, the efficiency analysis shows a very low cost to benefit ratio which points to the conclusion that investing in Natura 2000 makes good economic sense, with potential for significant job creation. However, there has been a failure to sufficiently recognise the multiple ecosystem benefits provided by Natura 2000 and to internalise them in the management of the sites. There are opportunities for enhancing efficiency by adopting good practices aimed at reducing administrative burden such as smarter use of site and permitting and species derogation procedures and increased streamlining of monitoring and reporting.

The Nature Directives are coherent with each other but there is continued need to promote implementation solutions that optimise the attainment of their conservation objectives while having full regard to the socio-economic context in which they operate, working with different stakeholder communities. There is a need for ensuring better coherence with other EU policies, including more effective integration with the CAP since agriculture and forestry have the most important influence on terrestrial biodiversity in the EU. Better use of limited financial resources is critical to achieving the Directives' objectives.

EU action has added value creating a more consistent, fair and integrated approach to nature conservation and delivery of ecosystem services across the EU, generating opportunities while at the same time addressing transboundary concerns in line with international obligations. Within the framework of broader EU Biodiversity policy the Nature Directives are fit for purpose but achievement of their objectives and realisation of their full potential will depend upon substantial improvement in their implementation both in relation to effectiveness and efficiency, working in partnership with different stakeholder communities in the Member States and across the EU to deliver practical results on the ground.

ANNEXES

Fitness Check of Nature Directives

**Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats
and of wild fauna and flora**

and

**Directive 2009/147/EC of the European Parliament and of the Council of
30 November 2009 on the conservation of wild birds**

Annex 1 - Procedural information concerning the process to prepare the evaluation or Fitness Check

Lead DG: European Commission Directorate-General Environment, DG ENV

Organisation:

The Fitness Check Mandate was published on 25 February 2014 and set out the context, scope and aim of the exercise²⁸². The mandate presented the intervention logic and questions to be addressed under the five categories effectiveness, efficiency, relevance, coherence and EU added value. Further to this, the mandate contained information on the Fitness Check manager, the coordinator, the call for tender for a study contract to support the work, the Steering Group, data sources and next procedural steps. The mandate's appendix gave an overview of existing and ongoing evaluations to be considered within the frame of the Fitness Check.

A Steering Group was set up from the existing Biodiversity Interservice Group on 17 February 2014, with the mandate to check key elements of the study contract, to support and monitor the evidence gathering and stakeholder consultation process, to review the draft and final evaluation report as well as the Commission Staff Working Document and to assist with the quality assessment of the consultant's evaluation report.

The Steering Group was composed of DG ENV, AGRI, CLIMA, ENER, GROW, MARE, MOVE, REGIO, RTD, as well as SG, SJ, OLAF and JRC representatives.

Agenda Planning – Timing:

Date	Description
02/10/2013	Announcement of Fitness Check by Commission under REFIT programme (COM(2013) 685 final)
17/02/2014	Establishment of the Steering Group
06/03/2014	1 st Steering Group Meeting: Approval of Fitness Check mandate and of key elements for study contract
17/05/2014	Launch of call for tender for study contract to support Fitness Check evaluation of Birds and Habitats Directive
8/10/2014	Award of study contract to consortium led by MILIEU Ltd
11/2014-02/2015	Desk-based literature research by consultant to prepare the consultation process
16/12/2014	2 nd Steering Group Meeting: Presentation on study contract by Milieu and discussion on consultation approach
02/2015-07/2015	Targeted stakeholder consultation by written evidence gathering questionnaire
02 -10/03/2015	Meetings with EU level stakeholders: Environmental NGOs, Sustainable Users, Infrastructure Development and Industry, Agriculture and Forestry
09/03/2015	3 rd Steering Group Meeting: Update on study contract and

²⁸² http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/Mandate%20for%20Nature%20Legislation.pdf

	discussion on the draft public consultation for the Fitness Check
04/2015-06/2015	Missions to 10 selected Member States to broaden the scope of consultations: Estonia, France, Germany, Malta, Netherlands, Poland, Slovakia, Spain, Sweden, UK
30/04/2015-26/07/2015	Online public consultation
10/07/2015	4 th Steering Group Meeting : Update on evidence gathering and public consultation and presentation of the interim report with focus on the evaluation methodology
10/07/2015	Feedback Meeting with EU level stakeholders
23/10/2015	5 th Steering Group Meeting: Update on public consultation report and preparation of high-level conference
20/11/2015	High-Level Conference to present emerging findings from study contract
09/12/2015	6 th Steering Group Meeting: Feedback on high-level conference of 20 November and Presentation of outline for final draft report for study contract
04/01/2016	Receipt and circulation of draft final report from study contract
14/01/2016	7 th Steering Group Meeting: Discussion of draft final report from the study contract and corresponding QA; outline of content for Staff Working Paper
18/02/2016	Receipt and circulation of draft final report from study contract
23/02/2016	8 th Steering Group Meeting: Discussion of first draft of Staff Working Document and exchange on final report from study contract.
08/03/2016	9 th Steering Group Meeting: Discussion of Complete Staff Working Document. Discussion of final report from study contract and corresponding QA. Record of meeting to include comments of Steering Group on both Complete draft of SWD and on QA for final study
16/03/2016	Documents sent to Regulatory Scrutiny Board (RSB)
13/04/2016	Regulatory Scrutiny Board meeting
26/04/2016	10 th meeting of Steering Group to finalize SWD
12/2016	Interservice Consultation launch for SWD
xxxx/2016	Publication of Staff Working Document and Study

Consultation of the Regulatory Scrutiny Board:

The meeting of the Regulatory Scrutiny Board took place on 13 April 2016. The opinion of the Regulatory Scrutiny Board was addressed as follows:

- The Conclusions section was substantially revised in order to more explicitly and clearly present and substantiate the key findings for each of the evaluation questions with substantiating evidence, including what had worked and not worked and progress towards achievement of the objectives, in light of continuing problems faced by many species and habitats.

- The different site selection and designation procedures of the two Directives were further explained and the rationale for the two different approaches given.
- Further information was provided on the status and trends of species and habitats
- The reasons for differences in Member State coverage of the Natura 2000 network across the EU was explained in greater detail.
- The section of effectiveness was amended in order to present more explicitly the shortcomings in implementation as well as the context in which the Directives were introduced and have operated, including in relation to the compensation mechanism under Article 6.4 of the Habitats Directive.
- On efficiency, further details were provided on the origin and derivation of estimates of costs and benefits, (including a more detailed breakdown of the costs and benefits included in Annex 5) and influence of funding shortfall on attainment of objectives. The section was generally re-worked in order to take better account of opportunity costs and trade-offs between economic activities and nature protection objectives. Approaches aimed at reducing administrative burden were further elaborated presented.
- As regards relevance, the text was amended in respect to the prerequisites for and potential consequences of amending the protected species and habitats listed in the Directives as well as further contextual information on the relevance of the existing Annexes.
- More explanations on the internal coherence of the two Directives with regard to the socio-economic context were included. The text was amended in order to clarify that the Directives have embedded flexibility mechanisms to allow for social, economic and cultural developments.
- Synergies and trade-offs with legislation on environmental impact assessment were better explained.
- Some additional elements of the supporting study, particularly relevant to responding to particular questions (eg table in section 6.1.2 setting out main factors affecting implementation of the Directives) were introduced in the text, in order to support the analysis.
- A glossary of key terms was added.
- Further information was provided in Annex 2 on the results of the public consultation, including in relation to the role of different campaigns.

External Expertise:

A contract study "Evaluation Study to support the Fitness Check of the Birds and Habitats Directives" (ENV/B.3/ETU/2014/0014, procurement procedure of 17 May 2014) forms the base of the conclusions presented in this document. The Terms of Reference presented the background and scope of the evaluation, the intervention logic and the evaluation questions, the documents and data sources already available, the methods and phases of the evaluation and the organisation of the evaluation.

The contract was signed on 08 October 2014 and covered a period of 15 months (070202/2014/689940/ETU/ENV.B.3). The contract was carried out by a consortium of experts led by Milieu Ltd, and also comprised of the Institute for European Environmental Policy (IEEP), ICF International and Ecosystems Ltd. The final report for the study contract was accepted in May 2016²⁸³.

²⁸³ The final report of the Study is available on the Commission's web site at http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/study_evaluation_support_fitness_check_nature_directives.pdf

Annex 2 - Synopsis report of stakeholder consultation in the context of the Study

The targeted stakeholder consultation was intended to augment published information on the operation of these Directives. This was particularly in terms of assessing their effectiveness and efficiency by getting the experience of those most closely engaged in implementing the Directives. This not only applied to national authorities but also to NGOs and private sector interests whose work is directly affected by them. Responses from these stakeholders provide the basis for a major part of the analysis in the Study, which is complemented by the public consultation results. The consultation strategy was developed from the outset of the project through to the period of tendering the support contract (October 2013 to October 2014) and therefore predates the Better Regulation Guidelines published in May 2015. Nevertheless it reflects the key principle of providing 'a simple consultation strategy formulating clear objectives, identifying all relevant stakeholders as well as appropriate consultation activities in function of the objective and targeted stakeholders '.

Implementing the nature Directives does not only engage the nature protection or environmental authorities in Member States but has implications for many other functions of government such as planning, economic and rural development. Because they have implications for any plan or project affecting protected sites no matter what its nature, and have wider implications for land use, they are of interest to a very wide range of private sector and civic interests in fields such as agriculture, forestry, hunting, fishing, commercial development, water management, aquaculture, energy projects, transport, mining and quarrying. And beyond these they are of intense interest to a very active community of environmental and nature NGOs that have membership throughout the EU. Because of the high level of interest in these issues within civic society, evidence by the membership levels of environmental NGOs, but also among a very wide range of land and resource users (e.g. hunters, farmers, foresters) it was also necessary to use wider consultation methods to ensure these interests had an opportunity to contribute views.

The Study applied a range of approaches to collect evidence but also allowed for unsolicited contributions of evidence from groups or interests who had not been approached directly. The main approaches were:

- A targeted stakeholder consultation using an evidence gathering questionnaire
- Missions to 10 Member States
- Meetings with EU stakeholder Groups
- A public on-line questionnaire using EU Survey
- A dedicated Fitness Check conference

Targeted Stakeholder Consultation (March-July 2015)

Questionnaires²⁸⁴ were devised around the five evaluation criteria for Fitness Checks: effectiveness, efficiency, relevance, coherence and EU added value. These questionnaires asked 32 questions designed to elucidate specific aspects relevant to the evaluation and was approved by the Steering Group.

²⁸⁴ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/Evidence%20Gathering%20Questionnaire.pdf

The questionnaires did not limit the length of response from consultees and were thus designed to allow scope for as much information and evidence to be provided as the consultees were willing to provide. Practical examples and case studies were encouraged.

Questionnaires were sent to a representative set of 4 stakeholders in all 28 Member States²⁸⁵. In each case the 4 stakeholders were the statutory nature protection authority, one other public authority from a relevant sector (depending on the Member State: agriculture, fisheries, forests, industry & trade, employment & economy, transport & infrastructure, energy, tourism), one nature conservation NGO, and one private sector representative (depending on the Member state: mining, energy, tourism, industry, chambers of commerce, ports, fisheries, agriculture, forests, hunting). At Member State level, the national competent nature authority was self-evident. The conservation NGOs are well organised at EU level and undertook to agree at Member State level which national NGO would respond on their behalf. For the other public authority and private sector interests, the Commission assisted the consultants undertaking the Study by identifying key sectors with interests in these Directives (e.g. agriculture, energy, extractive industries, hunting, tourism, forestry, fisheries, transport and water management) and assigning them across the Member State with a view to ensuring that different stakeholder communities were involved across the EU. Member States were invited to assist in identifying appropriate private sector organisations and government departments to contact. The questionnaire was also sent to 47 relevant EU level organisations representing stakeholder interests. These represented the same range of sectoral interests and the EU representatives of the major conservation NGOs, and were selected using DG Environment's contact list of those engaged in working groups on related issues and those who had made representations on relevant issues. Engagement of the EU level organisations also had a multiplier effect as many of them also liaised with the national organisations and received input from them.

The questionnaires were issued in February 2015 with a request for replies, if at all possible within 5 weeks. The use of questionnaires ensured that a standard list of questions covering the five mandate categories was asked of all consultees, which also facilitated analysis and comparison. Respondents were asked to support their answers with evidence wherever possible. Due to the amount of work involved, it took considerably longer for some consultees to respond and responses were accepted up until July 2015. In total 102 responses were received out of a possible total of 159, together with 13 responses from organisations who had not been sent the questionnaire. These responses were however included in the analysis.

The full set of replies can be accessed at:

http://ec.europa.eu/environment/nature/legislation/fitness_check/evidence_gathering/index_en.htm

²⁸⁵ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/List%20of%20MS%20Stakeholders.pdf

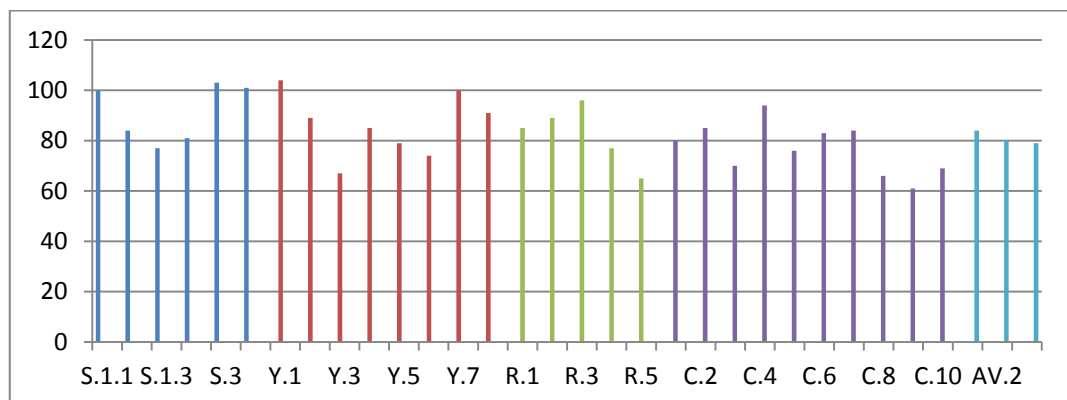
Evidence gathering questionnaires sent and received, by type of stakeholder

Type of stakeholder		Number of questionnaires sent	Responses received (% of total)	Non-responses (% of total)
Member State stakeholders	Nature protection authority	28	25 (89%)	3 (11%)
	Other public authority	28	15 (54%)	13 (46%)
	Private sector	28	12 (43%)	16 (57%)
	NGO	28	27 (96%)	1 (4%)
Total		112	79 (71%)	33 (29%)
EU level organisations	Industry	20	7 (35%)	13 (65%)
	Agriculture and forestry	13	4 (31%)	9 (69%)
	Sustainable users	7	5 (71%)	2 (29%)
	NGOs	7	7 (100%)	0 (0%)
Total		47	23 (49%)	24 (51%)
Unsolicited contributions		N/A	13	N/A
GRAND TOTAL		159	102 (64 %²⁸⁶) + 13 = 115	57 (36%)

At least one response was received from every Member State. A complete set of four responses was received from six countries (Denmark, Finland, France, Ireland, Netherlands and UK). Nature protection authorities and conservation NGOs were much more likely to respond, and to send more information within those responses, than the other two categories of targeted stakeholders. Nevertheless the responses covered the range of sectoral interests identified, although for the private sector the responses from EU level representative bodies was more comprehensive and extensive than from Member State level. The ten Member State missions and the EU stakeholder meetings helped to address any potential imbalance and enable additional efforts to engage with these groups. The responses received were evenly spread across the evaluation questions, as shown below. Most stakeholders answered most of the questions.

²⁸⁶ Percentage does not include unsolicited contributions.

Overview of the total number of responses per evaluation question (coding used in the Study).



Meetings with EU level stakeholders (March and July 2015)

Four EU focus **group** meetings were held in March 2015: Environmental NGOs (02/03/2015), User Groups (such as hunters and anglers) (03/03/2015), Infrastructure Development and Industry (06/03/2015) and Agriculture and Forestry (10/03/2015) This provided an opportunity to explain and discuss the mandate questions with a view to promoting a good response rate from the different stakeholder groups and to encourage them to promote outreach with and inputs from their national organisations. In total 31 EU level organisations participated in these meetings. Discussions covered a similar range of topics in each case based around practical experiences of the operation of these Directives and fed into their written responses to the questionnaire. A meeting was held in July 2015 to feedback on progress with the Fitness Check.

Summaries of these meetings, including a note of which organisations attended, are included in Annex 2 of the Final Study Report²⁸⁷

Missions to 10 Member States (April 2015 – June 2015)

Missions to 10 Member States were undertaken to enhance and elaborate information gained from the evidence gathering questionnaires. The Study contract team was accompanied by the Commission for each visit. Resources did not allow more than 10 visits and Member States were chosen to provide a range of experience arising from different size, geography, different administrative structures and older and newer Member States. The 10 countries were Estonia, France, Germany, Malta, Netherlands, Poland, Slovakia, Spain, Sweden, UK. In each case the mission lasted two days. Member States were given discretion as to how to organise the time but on the basis that representatives of the four categories of stakeholder targeted by the evidence gathering questionnaires should be invited. Most chose to manage this by dividing the time into four sessions, one for each stakeholder category. In advance of the missions the consultant identified issues from the responses to the evidence gathering questionnaires which would be explored in more depth at the meetings in order to better understand the responses and seek additional explanation or evidence. These visits allowed a wider range of stakeholders to engage, particularly from the private sector and from non-

²⁸⁷http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/study_evaluation_support_fitness_check_nature_directives.pdf

environmental public administrations thus helping to address some of the gaps in the questionnaire coverage.

A summary report on the missions including a list of participating organisations is included in Annex 2 of the Final Study Report

Open Public Consultation

A public on-line consultation²⁸⁸ was conducted by the Commission using the EU Survey²⁸⁹ tool. The public consultation was intended to allow a wider range of stakeholders and the general public to express their views on the key issues raised in the Fitness Check mandate. Replies were analysed according to different types of respondents (businesses, NGOs, etc.) and fields of interest (nature, agriculture, hunting, etc.) which facilitated a comparison with results from the targeted questionnaires. The 12-week-consultation opened on 30 April 2015 and was available in 23 European languages. The consultation was originally scheduled to close on 24 July. However, due to some technical problems encountered during the consultation period and in particular the unavailability of the questionnaire for a significant period of time on 11-12 July, and in order to ensure a minimum consultation period of 12 weeks, the public consultation period was extended by two days.

The questionnaire contained 2 parts: Part I was designed for the general public and required only a general knowledge of the Directives. Part II covered similar issues, but called for a greater understanding of the Directives and their implementation.

The open text box at the end of the questionnaire could be answered by all respondents.

A preliminary report giving a simple statistical presentation of the number of responses broken down by nationality, field of interest and type of respondent was published in August 2015 on the Commission's website²⁹⁰. This revealed that the consultation had received a record number of responses: 552,472. Responses had been received from every EU Member State. The largest responses came from Germany (106,357 or 19.3%) and the United Kingdom (105,033 or 19.0%). Most responses came from individuals (547,500 or 99%). 2,371 were from businesses (of which more than half came from micro-enterprises with less than ten staff), followed by NGOs (824 replies), other organisations/ associations (817 replies), governments/ public authorities (356 replies), and academic or research institutes (232 replies). 348 came from respondents who described themselves as other (but including 8 who erroneously described themselves as EU institutions).

The large majority of respondents replied that their main field of activity or interest was “nature” (93% or 511,353), followed by those active or interested in hunting (4% or 23,928). Individuals or organisations active or interested in environment, forestry or agriculture provided 3,982; 3,906 and 3,571 replies respectively. 1,531 replies came from respondents active or interested in science. Remaining categories provided less than 1000

²⁸⁸ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/questionnaire.pdf

²⁸⁹ <https://ec.europa.eu/eusurvey/home/welcome>

²⁹⁰ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/Public%20consultation%20prelim%20summary.pdf

replies each or <0.2%. This made clear that the responses were heavily dominated by replies from individuals interested in nature (93% of all responses). The primary report highlighted that 535,657 responses only answered the first 14 questions (Part 1) – the general questions. This is 97% of all responses. The balance of the types of respondent and their fields of interest changes from Part 1 to Part 2. For example the proportion of responses from individuals drops from 99% to 78%; and the proportion giving their main interest as nature drops from 93% to 19%, being now overtaken by the proportion giving their main interest as hunting at 21%, and closely followed by those interested in forestry (17%) and agriculture (15%).

Campaigns

Four campaigns provided an online template of suggested responses to the questionnaire (for Part 1 or for both Parts 1 and 2). These were Nature Alert, Spanish hunting, German land owners and Belgian farmers.

Nature Alert campaign

In total, 491,968²⁹¹ responses were collected as a result of the Nature Alert campaign. This was the largest campaign response by far, accounting for 90% of all responses to the Birds and Habitats Directives public consultation. This campaign provided suggested answers for Part 1 of the questionnaire²⁹². In essence, the Nature Alert campaign focused on the importance of nature conservation and provided strong support for the objectives and implementation of the Directives. The campaign also indicated that EU policies in other areas (particularly in agriculture, energy and transport) should do more to support the objectives of the Birds and Habitats Directives.

More than 99% of the responses were from individuals interested in nature. The responses to the Nature Alert campaign are mostly from Germany (19%), UK (19%) and Italy (14%). There are also large number of responses from Belgium (8%), France (7%) and the Netherlands (7%). It is worth noting that there are responses that match the questionnaire template provided by the campaign from all other EU countries and non-EU countries. Responses to open questions for the Nature Alert campaign varied amongst respondents, although they mainly support the Directives and call for them to be strengthened or broadened. Several responses identified as Nature Alert responses were also identified in other campaigns based on the assumption that use of the same wording on the open question indicates a campaign.

Spanish hunting campaign

The National Office for Hunting in Spain also held a campaign to encourage people to participate in the public consultation. Again, suggested responses for Part 1 of the questionnaire were provided online²⁹³. This was the second largest campaign, with 17,501 responses; all of the responses to this campaign were from individuals involved or interested in hunting from Spain. While the campaigners stated that the Directives and their objectives were very important, their implementation in practice was not producing the desired results. In particular, the costs were seen to outweigh the benefits and the Directives were not considered to account for other factors (economic/social concerns,

²⁹¹ Using basis analysis.

²⁹² <https://www.naturealert.eu/>

²⁹³ <http://sialacaza.com/>

etc.). The campaign also indicated that EU policies in other areas (particularly in cohesion, energy and transport) should do more to support the objectives of the Birds and Habitats Directives. However, the Directives themselves were seen as providing only limited added value. This campaign was not identifiable in the open questions.

German land owners

The Alliance of Land Owners and Users in Germany held a campaign and suggested answers to Parts 1 and 2 of the questionnaire²⁹⁴. In total, 5,850 stakeholders responded to this campaign. In summary, the campaigners were not particularly supportive of the Directives, their objectives and their implementation. Furthermore, the costs were seen to outweigh the benefits and the Directives were not considered to account for other factors (with an emphasis on economic concerns). While the campaign indicated that EU policies in some areas (particularly transport) should do more to support the objectives of the Directives, policies in other areas were seen as being supportive (with regard to agriculture, fisheries, cohesion, energy, environment, industry and climate change). However, the Directives themselves were seen as providing only limited added value.

Compared to the campaigns discussed above, there is slightly more variation in terms of the type of stakeholder and also the main area of activity or interest -around 80% of the respondents were individuals and 15% were businesses. Most of the respondents indicated that they are involved or interested in forestry (30%), agriculture (28%) or hunting (28%). There are also a number of responses from those involved or interested in nature (4%) and recreation (3%). As the suggested answers to the questionnaire were only available in German it is not surprising that the majority of the responses were from stakeholders in Germany (94%) and Austria (5%). There were 675 open question responses from this campaign, all of which were different apart from five, which used identical wording.

Belgian farmers

The campaign that was run by the Farmer's Association in Flanders attracted 93 responses. Suggested answers for Part 1 were provided online²⁹⁵. In essence, while the campaigners stated that the Directives were important, their objectives and implementation were not appropriate. In particular, the costs were seen to outweigh the benefits and the Directives were not considered to account for other factors (economic/social concerns, etc.). The campaign also indicated that EU policies in other areas were seen as being supportive of the objectives of the Birds and Habitats Directives. However, the Directives themselves were not seen as providing any added value. There was a roughly 50:50 split of responses from individuals and businesses.

More than 90% of respondents whose answers matched the campaign template were involved or interested in agriculture. The majority of respondents were from Belgium (99%) and a single response was received from a stakeholder in the Netherlands. There were 52 identical responses to the open question from this campaign.

²⁹⁴ <http://natura2000.forum-natur.de/>

²⁹⁵ <https://www.boerenbond.be/vooraf-ingevulde-vragen>

Using the statistical programme STATA, it was possible to identify a further three significant campaigns²⁹⁶: Swedish forestry, Italian hunting and German industry.

Swedish forestry

There were 217 identical responses for the Part 1 questions which were identified as being part of a campaign run by the forestry sector in Sweden, as all respondents indicated that their main country of residence or activity is Sweden and the majority (97%) are involved or interested in forestry. The remainder are involved or interested in agriculture. In summary, while the campaigners stated that the Directives and their objectives were important, their implementation in practice was not producing the desired results. In particular, the costs were seen to outweigh the benefits and the Directives were not considered to account for other factors (economic/social concerns, etc.). The campaign also indicated that EU policies in other areas (particularly in agriculture, energy and environment) were seen as being supportive the objectives of the Birds and Habitats Directives. Furthermore, the Directives themselves were seen as providing some added value.

The vast majority of respondents to the Swedish forestry campaign were from individuals (98%), as well as a small number of businesses (2%) and one organisation/association. There were 171 responses to the open question from this campaign which all followed the same wording.

Italian hunting

Another campaign identified by STATA was run by those involved or interested in hunting in Italy. There were 83 identical responses from stakeholders that identified themselves as an organisations/associations involved or interested in hunting from Italy. In short, the campaigners stated that the Directives and their objectives were important and their implementation in practice was appropriate. Indeed, the benefits were seen to outweigh the costs. However, the Directives were not considered to account for other factors with particular regard to regional/local characteristics. The campaign also indicated that EU policies in other areas (particularly in agriculture, energy and transport) should do more to support the objectives of the Birds and Habitats Directives. However, the Directives themselves were seen as providing some added value. There were 7 responses to the open question from this campaign, which all followed the same wording.

German industry

The final campaign identified by STATA had 60 responses and involved specific parts of the industry sector in Germany. In essence, the campaigners indicated that the Directives and their objectives were important but their implementation was only somewhat effective. Furthermore, the costs were seen to outweigh the benefits and the Directives were not considered to account for other factors (with an emphasis on economic concerns and regional/local characteristics). This campaign indicated that EU policies in most areas were seen as being supportive of the Directives. However, the Directives themselves were not seen as providing any added value. The majority of the respondents (93%) are businesses, and there are also responses from 2 organisations/associations, 1 individual and 1 NGO.

²⁹⁶ More than 50 responses.

The responses are split between construction and development (33%) and the extractive industry (67%). Considering three parameters, stakeholder, activity/interest and country, the majority (68%) are German businesses involved in the extractive industry; the remainder (32%) are German business involved in construction and development.

Finally, three further broad-based campaigns were identified from the analysis of the open question: UK implementation and funding, German/Austrian needs for a dynamic approach and ProGEO.

UK Implementation and funding

This campaign was identified through analysis of the open questions as the responses used almost identical wording. The campaign appears to have been run by a variety of NGOs within the UK (Wildlife Trusts, Birdlife, RSPB, etc.) and supports the Directives. There were 126 responses identified for this campaign. It is not possible to provide a detailed analysis of the closed questions for this campaign as there was considerable variation among the identified responses.

The responses were all in English, and although not identical, all followed a similar pattern, stating that the Nature Directives are scientifically proven to aid recovery of species and to be robust in the face of climate change. They called for more effective implementation by all EU MS (including UK) and gave reasons why uncertainty about the future of the Directives caused by any changes would be bad for nature, for people and for business. However they felt an urgent reform was needed of several EU sectoral policies including CAP.

German/Austrian need for a dynamic approach

Responses to this campaign were mainly from those interested in forestry (66 out of 84). This campaign was identified through analysis of open questions as all responses had almost identical wording. It is not possible to provide a detailed analysis of the closed questions for this campaign as there was considerable variation among the identified responses. The responses were all in German and broadly felt that the Directives are a static tool for protection and hence do not consider impacts such as climate change. There is no balance when implementing between economic, ecologic, social and cultural matters just a one-sided consideration of ecological criteria which nonetheless prevents improvement without giving property owners/managers any real say. They felt that Natura 2000 and the European Biodiversity Strategy are not related, with the biodiversity strategy going further. Adaptations and further development of the annexes should be possible. They also pointed out the lack of an independent financial instrument for Natura 2000.

ProGEO

There was a campaign organised by ProGEO (European Association for the Conservation of the Geological Heritage) which utilised Facebook²⁹⁷ and other social media to encourage people to participate in the consultation with suggested text for the final comment. These responses then became apparent in the analysis of the open question. It is not possible to provide a detailed analysis of the closed questions for this campaign as there was considerable variation among the identified responses. There were 68

²⁹⁷ For example, https://www.facebook.com/permalink.php?story_fbid=826722887445956&id=319291728189077

responses to the open question from this campaign which followed the same wording (responses were predominantly received in English with some also in Spanish). The text broadly said that the coverage of the current EU nature legislation does not match the areas under threat or that need proper management -natural heritage includes both bio- and geoheritage (geological, geomorphological and pedological). Fossils, rocks, minerals, landforms, soils and geologic structures are just as much part of our natural heritage as plants and animals; their protection can also protect biodiversity and such features are also a major scientific asset as well as an educational and cultural resource. They pointed to the links / support between geodiversity and biodiversity/ecosystem services. They suggested that implementation should be strengthened, but also aided by a wider perspective including geodiversity and whilst some of this might already be possible, the current Directives are not clear, and in part ignorant, to the abiotic aspect of nature.

Other campaigns

Through the analysis of open questions, 30 campaigns were identified. Responses were counted as a campaign if they had almost identical wording across three or more responses.

Overall replies to Part 1 of the questionnaire

All respondents to the public consultation (552,472) responded to the 14 questions of Part 1. Of these replies, 547,516 were from individuals, 2,371 from businesses, 824 from NGOs and 817 from other organisations. Governments and research institutes submitted 356 and 232 replies each.

Overall, it is evident that the results of Part 1 reflect, to a large extent, the responses proposed by the Nature Alert campaign. Nevertheless, the analysis offered in this Annex, which examines responses by different types of stakeholder (individual, business, NGO, etc.) and by different fields of interest (nature, hunting, forestry, etc.) allows an examination of how different interest groups varied in their opinions.

The vast majority of respondents to Part I stated that, in their view:

- The Birds and Habitats Directives are *important* or *very important* to nature conservation (98%)
- The strategic objectives and approach set out in the Directives are *appropriate* or *very appropriate* for protecting nature in the EU (94%)
- The Directives are *effective* or *very effective* in protecting nature (93%)
- The benefits of implementing the Directives *far exceed* the costs (93%)
- Economic, social and cultural concerns, as well as regional and local characteristics are taken into account either very well or enough when implementing the Directives (around 93-94% in each case)
- The EU environmental policy is supportive of the two nature Directives (94% agree)
- Agriculture and rural development (93%), energy (96%) and transport policies (97%) are not supportive
- Other policy²⁹⁸ areas could contribute more

²⁹⁸ Fisheries and maritime, cohesion, industry and enterprise, climate change, health, research and innovation

- The Directives provide *significant* added value over and above that which could be achieved through national or regional legislation (93%)
- The Directives add significant value to the economy (93%)
- The Directives bring additional social benefits (95%)
- There is still a need for EU legislation to protect species and habitats (98%)

The views varied, however, according to the type of respondent. For instance, while most individuals thought the benefits far exceed the costs (94% of the replies submitted by individuals), three quarters (75%) of businesses stated that in their view the costs of implementation far exceed the benefits. This proportion rises to 85% in responses from businesses in the agriculture and forestry sectors.

Businesses also had a different view from individuals as regards economic aspects: 13% of businesses considered that economic concerns had been taken into account in the Directives' implementation, as compared with 94% of individuals who thought they had. As regards the relevance of the Directives, whereas most types of respondents answered they were still needed (98% of individuals, 89% of academic or research institutes, 82% of NGOs, 78% of governments or public authorities and 76% of other organisations), the majority of respondents from business (63%) believed there is no longer a need for EU legislation in this field.

Overall replies to Part 2 of the questionnaire

Replying to the 17 questions of Part 2 was optional and required a greater understanding of the Directives. Only 3% of all respondents (16,815 replies out of a total of 552,472 replies) replied to both Part 1 and Part 2. Of these replies, 13,198 were from individuals, 1,785 from businesses, 660 from NGOs and 491 from other organisations. Governments and research institutes submitted 277 and 155 responses each. 249 replies were submitted by respondents who registered as 'other'.

A higher proportion (44%) of respondents from Germany and Austria stated that their fields of interest were agriculture and forestry, when compared with other countries (14%). This may reflect the impact of certain campaigns organised by these interest groups in the countries concerned, such as the Aktionsbündnis Forum Natur AFN campaign.

Part 2 of the questionnaire appears to give contrasting views to Part 1 as regards the effectiveness, efficiency, relevance and coherence of the Directives. This may reflect the different composition of respondents between the two parts and the impact of different campaigns.

The majority of respondents to Part 2 shared the view that:

- The administrative costs associated with the implementation of the Directives are *major* (60%);
- There is *insufficient* funding for implementing the Directives (77%)
- This lack of sufficient funding is *significantly* restricting progress (74%)
- Proper enforcement, effective national coordination, international cooperation, public awareness and guidance have *some* impact on the success of the Directives (87-90%)
- The following elements are *significantly* limiting progress: insufficient

stakeholder involvement (65%), ineffective local coordination (62%), gaps in scientific knowledge of species and habitats (61%), unclear wording of the Directives (54%), ineffective EU-level coordination (54%)

- Interactions with other EU laws and policies have caused inefficiencies to *some* extent (58%), or to *a large* extent (27%)

The replies to Part 2 expressed contrasting views according to the type of stakeholder, their field of interest and their country of origin:

- Most respondents from business (79%), individuals (59%) and government (56%) and half of other organisations or associations (50%) thought the two Directives are *somewhat* effective whereas the majority of NGOs (52%) and research institutes (53%) thought the Directives were *very* effective;
- The majority of respondents from agriculture and forestry (80%) as well as from fishing, angling and hunting (62%) thought that the Directives were *not very* important for safeguarding Europe's biodiversity whereas over half of respondents from industry (construction, extractive industry, transport) thought that they were important (54%). Respondents interested in nature and environment also generally believed that the Directives were *very important* (83%)
- While, in most countries, respondents considered the Directives to be *very* important to safeguarding Europe's biodiversity, 69% of respondents from Germany and 67% from Austria considered that the Directives were *not very important*. This was the answer recommended by the Aktionsbündnis Forum Natur AFN campaign.

Overall views expressed in the final open question

In total, 10,213 respondents (1.8% of the total of 552,472 replies received) submitted comments in the final open question. Of these, 8,103 were from individuals, 875 from businesses, 449 from NGOs, and 393 from other organisations. Governments and research institutes submitted 143 and 101 comments each. 149 responded as 'other'. A large proportion of comments (43%) came from those interested in nature and environment, followed closely by those interested or active in agriculture, forestry, fishing or hunting (together 37%).

A detailed analysis of these contributions was carried out using stratified random sampling of comments. This stratification was based on a combination of type of respondent and main field of interest, using samples of 10% of replies in each stratum. In total, 1,017 replies were analysed.

One of the most frequent issues raised by all types of respondents (individuals and organisations combined) in the comments sampled was that the Directives' objectives are poorly implemented or enforced. Comments varied from general statements about the lack of enforcement, control or monitoring to more specific comments about poor management of protected areas, lack of coordination or inadequacy of implemented measures. This type of comment featured in 23% of all responses in the sample. Another frequent comment was that the Directives are effective and have contributed to nature protection (17% of comments in the sample).

Among those interested or active in agriculture, forestry, fishing and hunting, 20% commented that socio-economic aspects were not adequately taken into account and that land owners and users, as experts in the use or management of nature or natural resources, were not sufficiently involved in the implementation of the Directives (35%). Furthermore, they often stated (20% in the sample from these interests) that the Nature Directives carry a considerable cost in terms of their implementation, which they felt placed too high a burden on them. They also emphasised that the rules were sometimes too complicated to implement and were not understandable for them (32% of this sample).

Respondents in the field of nature and environment most often commented that the problems of implementation were linked to a lack of enforcement (35% of the sample of this group). There were also a number of comments stating that the Directives have been effective (31% in the sample of comments from these interests) and about the scarcity of financial and human resources (12%). Within this group, 30% of comments submitted made stressed that the Directives had an added value over and above national legislation, and that they should be maintained.

A full report on the public consultation, prepared by the consultants, was published on the Commission website on 30 October 2015 and is available at http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/consultation/public%20consultation_FINAL.pdf

High-Level Conference – 20 November 2015

A conference was held in Brussels on 20 November 2015 for 400 delegates to discuss the emerging findings of the Fitness Check. The Programme is available on the Fitness Check web site²⁹⁹. A background document prepared by the consultants and identifying their emerging findings in accordance with the structure of the mandate was circulated in advance³⁰⁰.

In order to ensure a balance of interests and views among delegates all stakeholders who had been sent evidence gathering questionnaires were contacted and guaranteed two places at the conference. Once the guaranteed places had been allocated other applications were given a place, although allocations were still on the basis of ensuring good representation of different stakeholder groups. The list of attendees was made public³⁰¹.

Besides introductory and closing sessions involving Commissioner Vella, Director General of DG Environment, and representatives of the European Parliament, the Committee of Regions and the Luxembourg, Dutch and Slovakian Presidencies, the conference consisted of four panel sessions based around the assessment categories of the Fitness Check (Effectiveness, Efficiency, Coherence and a joint panel on Relevance and EU Added Value). The four panellists in each session were drawn from each of the four

²⁹⁹ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/agenda_20_11_2015.pdf

³⁰⁰ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/consultation/Fitness%20Check%20final%20draft%20emerging%20findings%20report.pdf

³⁰¹ http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/Participants%20list%20-%20after%20conference.pdf

stakeholder categories used for the evidence gathering questionnaires and were asked to respond to presentations on the relevant topic given by the consultants. Questions were also invited from the floor and the Commission chairs ensured a balance of comments from different stakeholder interests. The event was web-streamed and a video of the conference was available on-line for one month afterwards.

A report on the conference, prepared by the consultants, is available on the Commission website at http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/conference_synopsis.pdf

Overall messages from the consultation

The consultation activities allowed for the gathering of a broad range of information and data that complemented and underpinned findings from desk research and literature and provided additional sources to triangulate the information. This allowed for a solid and evidence-based answers to the evaluation questions.

The consultation processes provided a wide range of experience and opinion regarding the implementation of these Directives in terms of what has worked well and what has not worked so well, seen through the eyes of these stakeholders. This information is widely used in the Study to augment the information obtained from published sources. The targeted stakeholder questionnaire was the most effective from this point of view, providing a large amount of information. Most information tended to be qualitative – giving examples or reflecting on experiences of operating the Directives. It was less successful in gathering quantitative data, for example on costs leading to the conclusions that such information has not been systematically gathered according to agreed protocols by Member States and is therefore not available for analysis. The meetings with the EU level stakeholders provided an early opportunity to promote their engagement with the evaluation including through contact with their national organisations, thus enhancing the chances of a good response rate. The visits to Member States provided an opportunity to seek further explanation and elaboration of key issues raised in the questionnaire responses. These provided more depth and understanding of key issues in the questionnaire responses, the opportunity to seek any information that was missing and for the consultants to check they had correctly understood the points in the response.

The public consultation provided a different type of information, essentially in the form of opinions about aspects of these Directives but not supported by evidence. The respondents were self-selecting and therefore it is unknown how far they were representative of any wider opinion. The influence of campaigns on the responses has already been discussed. However, as the Fitness Check is based on evidence and not on the weight of opinion this is not considered to be a concern. The scale of the response to the public consultation is itself a significant factor and the consultation is significant in informing analysis in particular of those questions that relate to public understanding and support. The consultation responses are notable for the diversity of views even within sectors and there were a range of views about the merits of the legislation versus local implementation, and a wide range of experience in practical problem solving.

Annex 3 - Methods and Analytical approach used by consultants in preparing the Study

This Annex outlines the approach taken by the contractors undertaking the Study which supported the Fitness Check evaluation.

Evaluation tools

Reference Database

A Reference Database was established from the literature list that resulted from desk research. The database was verified and amended during the stakeholder consultation phase. This reference database contains reference to over 1800 documents and facilitates tracking and categorisation of literature.

Consultation Information Management Tool (CIMT)³⁰²

In order to manage the huge amount of information received during the consultation phase, an Excel-based tool was developed. This system was used to store, log, track, categorise and filter the evidence from all sources and formats (e.g. literature review, quantitative datasets, meeting notes, questionnaire responses, etc.).

The cataloguing of all responses to the individual evaluation questions allowed for responses to each question to be filtered, summarised, and linked to the full responses (where lengthy) or supplementary documents in the Reference Database. To supplement the analysis, the responses could also be filtered by key words, by sector, by Member State and other criteria.

The following extract from the CIMT outlines the approach used by the consultants for summarising the data.

Question	Country / region	Name of the stakeholder	Type of the stakeholder	Sector	Response	Reference Database cited document Code
R.2	AT	ASFINAG	MS authority or agency	transport	The Annexes to the Directives are a reflection of technical and scientific progress and should therefore be regularly updated. Updates are currently made in one direction, namely as new member states join the EU. Adjustments should be made in both directions. In 1997, for instance, the Great Cormorant (<i>Phalacrocorax carbo</i>) was taken out from the Annex I of the Birds Directive, after its population in had strongly grown in Europe (http://ec.europa.eu/environment/nature/cormorants/faq.htm). Besides, the Annexes do not present the newest scientific knowledge. For example, in the Annex II of the Habitats Directive, "Myotis blythii" is cited. According to new findings, this species can only be found in India. (Spitzenberger et al 2001).	1052
R.2	AT	WWF, Member Organisations of the Umweltdachverb and (BirdLife Austria and 38 other Austrian NGOs)	nature conservation charity	environment	Conclusion: The Annexes have been sufficiently adapted to technical and scientific progress to serve their purpose. Due to the checks and balances provided by the consideration of habitats and species, and of species of different taxonomic groups, the system as a whole is buffered against minor gaps in the Annexes. To this date at least in Austria the effects of insufficient implementation of the Directives are much more relevant than the possible effects of gaps in the Annexes. However the quality of the adaptations in the course of the enlargement of the EU depends on the proposals provided by the respective joining Member States. Future adaptations may need more guidance by the European Commission. Moreover, more regular taxonomic revisions of the Annexes of the Birds and Habitats Directives are needed to avoid confusion of stakeholders without sufficient taxonomic expertise. EVIDENCE: SEE QUESTIONNAIRE TEXT FOR FULL TEXT https://milieu-be.box.com/s/dz7vpclgstijcdf6bgg56jm8sy6x4zv4	1052, 20, 1216, 870, 1057, 1059, 1058, 1050
R.2	AT	Copa-Cogeca: LKOE	Business or industry	Agriculture, forestry, fisheries	No. The legislation should have been adapted at the moment when Member States from Central Europe joined the EU. Additional climatic regions came into the EU and some protected species are now causing problems (e.g. wolf, beaver, otters, cormorants, heron).	none
R.2	BE	Agency for Nature and Forests, Government of Flanders: Public Service of Wallonia, Directorat-Generaal of Agriculture and Natural Resources (DGARNE), Department for Nature and Forests (DNF)	MS authority or agency	environment	https://milieu-be.box.com/shared/static/w08szv4k2y45oq1kdn8yktk3sfxgmaku.docx	

³⁰² http://ec.europa.eu/environment/nature/legislation/fitness_check/index_en.htm

Analysis methods

Weighing of evidence

The evidence was processed according to the following typology in ascending order of reliability:

1. Opinion without relevant supporting evidence
2. Case examples with unknown representativeness
3. Complete survey or representative sample-based surveys, comparisons before and after interventions, no controls
4. Before After Control Impact studies - randomised control studies
5. Independent Systematic Review (meta-analysis) of at least the majority of relevant evidence.

Interpretation of the best available evidence

The following criteria were used as a guide for evaluating each item of evidence:

- Internal validity of the evidence: i.e. its precision and reliability. Less weight is given to opinions, for example, than to well-designed studies more likely to provide a precise and unbiased estimate. However, a number of similar opinions expressed by different stakeholders has been accorded greater weight. Expressed opinions have been summarised and referred to, even though they may not have influenced the overall assessment of each judgement criterion.
- Sample size and representativeness: is the evidence based on an adequate number of cases / samples (in proportion to significance)? Particular care has been taken to note where a case or example is illustrative, or where it is representative of many cases in many countries.
- Temporal relevance: is the evidence up-to-date? Does it represent the period being considered, and, in particular, have changes in circumstances occurred that might now invalidate its results (e.g. a major political or legislative change)?
- Geographic relevance: what is the relevance of the evidence to the area being considered (e.g. the EU as a whole, a Member State or an entire habitat range)?
- Independence of source: how affected is the source by the implications of the evidence? This has been particularly important for sources that could benefit in some way (e.g. financially or politically).

Annex 4 - Mandate Questions and Assessment Approach used for this Staff Working Document

The following Table presents for each mandate question key aspects against which the evidence was assessed to respond to the question. This table is closely based on the Study but has been refined to clarify the precise aspects which have been focused on in the Commission's assessment against the mandate questions.

Question	Assessment approach
<i>Effectiveness</i>	
What progress have Member States made over time towards achieving the objectives set out in the Directives and related policy documents? Is this progress in line with initial expectations? When will the main objectives be fully attained?	<p>Assessment of bird species populations and trends</p> <p>Assessment of non-bird species population and trends</p> <p>Assessment of habitats conservation status and trends</p> <p>Assessment of Natura 2000 sufficiency over time</p> <p>Comparison of the current situation with expectations</p> <p>Examination of current trends</p>
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?	<p>Level of protection offered by the Directives to non-target / common species</p> <p>Conservation status of protected habitat and species vs Biodiversity Strategy Target 1</p> <p>Contribution of the Directives to the establishment of green infrastructure and to providing ecosystem services (Target 2)</p> <p>Contribution of the Directives to ensuring a better integration between agriculture, forestry and biodiversity conservation (Target 3)</p> <p>Contribution of the Directives to ensuring the sustainable use of fish resources (Target 4)</p> <p>Contribution of the Directives to preventing the introduction of alien species (Target 5)</p>
Which main factors (e.g. implementation by MS, action by stakeholders) have contributed to or stood in the way of achieving the Directive's objectives?	<p>Assessment of the Natura 2000 establishment process e.g. in terms of available funding, political support, stakeholder involvement, knowledge, administrative capacity</p> <p>Assessment of Natura 2000 protection system process e.g. in terms of available funding, political support, stakeholder consultation, knowledge, administrative capacity, competing activities and policies</p> <p>Assessment of species protection regime establishment process e.g. in terms of political support, competing activities, illegal activities, administrative capacity</p>
Have the Directives led to any	Assessment of environmental, social and economic

other significant changes both positive and negative?	<p>impacts resulting from the implementation of the Directives</p> <p>Identification of positive impacts</p> <p>Identification of negative impacts</p> <p>Evaluation of the significance of these impacts in terms of the achievement of the overall objectives of the Directives</p>
<i>Efficiency</i>	
What are their costs and benefits (monetary and non-monetary)?	<p>Assessment of the compliance costs</p> <p>Identification and possible quantification of opportunity costs</p> <p>Identification and possible quantification of the benefits brought by the implementation of the Directives in terms of environmental protection</p> <p>Identification and possible quantification of other benefits brought by the implementation of the Directives</p> <p>Identification of type and number of stakeholders affected positively and negatively by the implementation of the Directives</p>
Are availability and access to funding a constraint or support?	<p>Identification of funding needs to achieve objectives</p> <p>Identification of potentially available funding</p> <p>Identification of potentially available funding that is taken up</p> <p>Evidence of funding availability affecting implementation and achievement of objectives</p> <p>Evidence of funding availability affecting the efficiency of implementation</p>
If there are significant cost differences between MS, what is causing them?	<p>Assessment of levels of costs (investment costs, management costs, administrative costs, opportunity costs) in different Member States</p> <p>Assessment of different unit costs (e.g. costs per hectare, cost per development proposal)</p> <p>Assessment of factors affecting cost differences (e.g. levels of implementation, number of cases, labour costs, time inputs, time delays, etc.)</p>
Can any costs be identified (especially re compliance) that are out of proportion with the benefits achieved?	<p>Comparison of identified costs vs identified benefits at EU level</p> <p>Comparison of identified costs vs identified benefits at site level or for certain actions (e.g. species protection measures)</p>

	Identification of circumstances where the Directives require action of disproportionate cost
Can good practices, particularly in terms of cost-effective implementation, be identified?	<p>Examination of different implementation choices by Member States, and comparison of costs/ levels of effort required</p> <p>Identification of examples of objectives being met at low cost</p> <p>Identification of examples of successful initiatives introduced to reduce costs</p> <p>Identification of examples of transferable practices for cost-effective implementation</p>
What are likely to be the costs of non-implementation of legislation	<p>Assessment of predicted impacts of non-implementation on habitats and species of Community interest, wider biodiversity and ecosystem services</p> <p>Assessment of predicted impacts of non-implementation on other benefits</p> <p>Nature and value of potential costs from these impacts</p>
Taking account of the objectives and benefits of the Directives, is there evidence that they have caused unnecessary administrative burden?	<p>Identification of type, nature, extent and incidence of administrative burdens</p> <p>Comparison of identified burdens with benefits achieved</p> <p>Assessment of whether burdens are necessary to meet objectives</p> <p>Identification of examples of avoidable or reducible burdens</p>
Is the knowledge base sufficient and available to allow for efficient implementation?	<p>Assessment of the knowledge requirements for effective and efficient implementation</p> <p>Assessment of current knowledge</p>
<i>Relevance</i>	
Are the key problems facing species and habitats addressed by the EU nature legislation?	<p>Identification of current problems faced by habitats and species</p> <p>Assessment of the adequacy of the protection framework established by the Directives to cover/address the key problems identified</p>
Have the Directives been adapted to technical and scientific progress?	<p>Examination of the amendments carried out to the Directives and their Annexes</p> <p>Identification of the technical and scientific progress relevant to the Directives</p> <p>Evidence of responses to new circumstances / pressures</p>
How relevant are the Directives to achieving sustainable	Assessment of the contribution of the Directives to sustainable development environmental-socio-

development?	<p>economic objectives</p> <p>Assessment of the Directives provisions allowing for socio-economic development compatible with nature conservation</p>
How relevant is EU nature legislation to EU citizens and what is their level of support for it?	<p>Assessment of the current knowledge of the Directives by EU citizens</p> <p>Assessment of the level of participation to the Fitness Check public consultation by EU citizens</p> <p>Assessment of the responses given by EU citizens to the Eurobarometer in terms of importance of protected areas and biodiversity protection rules</p>
What are citizens' expectations for the role of the EU in nature protection?	Assessment of the responses given by EU citizens to the Eurobarometer in terms of EU action vs MS action on nature protection
Coherence	
Are the objectives set up by the Directives coherent with each other?	<p>Identification of any inconsistencies between the Nature Directives' general objectives</p> <p>Identification of any inconsistencies between the Nature Directives' operational objectives in terms of establishment of protected areas, establishment of the strict protection regime for species, reporting, monitoring, etc.</p> <p>Assessment of the impacts derived from the identified inconsistencies on implementation affecting the Directives' objectives.</p>
Are the Directives satisfactorily integrated and coherent with other EU environmental law e.g. EIA, SEA?	<p>Identification of any discrepancies between the Nature Directives and the EIA and SEA in terms of their objectives</p> <p>Identification of inconsistencies between the Nature Directives and EIA and SEA Directives in terms of the assessment required under art. 6(3) of the Habitat Directive</p> <p>Identification of inconsistencies between the Nature Directives and ELD Directive in terms of preventing and remedying damage to biodiversity</p> <p>Assessment of the level of coherence in implementation of the Nature Directives, the EIA, SEA and ELD Directives in Member States.</p>
Is the scope for policy integration with other policy objectives (e.g. water, floods, marine, and climate change) fully exploited?	<p>Identification of discrepancies between the Nature Directives and the WFD, MSFD, Floods Directive and EU Adaptation Strategy in terms of their objectives</p> <p>Identification of inconsistencies between the Nature Directives and the WFD, MSFD, Floods Directive and</p>

	<p>EU Adaptation Strategy in terms of operational objectives/required action (e.g. reporting, monitoring, etc.)</p> <p>Identification of synergies between the Nature Directives and the WFD, MSFD, Floods Directive and EU Adaptation Strategy and good practices in implementation</p>
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.)?	<p>Identification of positive and negative interactions between the Nature Directives and sectoral policies affecting land and water use (CAP, Forestry, CFP, Cohesion Policy, Energy Policy, Transport Policy, etc.) in terms of their objectives</p> <p>Identification of positive and negative interactions between the Nature Directives and sectoral policies affecting land and water use in terms of required action</p>
How do these policies affect positively or negatively the implementation of the EU nature legislation?	<p>Assessment of the impacts of sectoral policies affecting land and water use on the achievement of the Nature Directives objectives</p> <p>Assessment of the implications of Member States choices in implementation of sectoral policies affecting land and water use on the objectives of the Nature Directives</p>
Do they support the EU internal market and the creation of a level playing field for economic operators?	<p>Assessment of any effects of implementation of the Nature Directives on the internal market</p> <p>Identification of impacts of implementation of the Nature Directives on economic operators</p>
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?	<p>Identification of Natura 2000 funding opportunities under different sectoral funds</p> <p>Extent of the integration of legal obligations relating to nature in EU co-financing</p> <p>Assessment of the use of the identified funding opportunities and their adequacy</p> <p>Assessment of the role of Prioritised Action Frameworks in securing funds required for Natura 2000</p>
How do the Directives complement the other actions and targets of the biodiversity strategy to reach the EU biodiversity objectives?	<p>Assessment of the complementarity of actions and targets between the Nature Directives and the biodiversity strategy to reach EU biodiversity objectives</p>
How coherent are the Directives with international and global commitments on nature and biodiversity?	<p>Identification of any inconsistencies between the Nature Directives and international and global commitments on nature and biodiversity in terms of their objectives and scope</p> <p>Assessment of the role of the Nature Directives in implementing international and global commitments on</p>

	nature and biodiversity
<i>EU Added Value</i>	
What has been the EU added value and what would be the likely situation in case of there having been no EU nature legislation?	<p>Identification of factors contributing to better nature protection that can be attributable to the Nature Directives.</p> <p>Analysis of information relating to the circumstances before and after adoption of the legislation (or before accession to the EU)</p>
Do the issues addressed by the Directives continue to require action at EU level?	<p>Identification of current needs of habitats and species and of the scale of the pressures/threats they face</p> <p>Analysis of the extent to which these factors can best / only be addressed at EU level</p>

Annex 5 - Typology of costs and benefits for Natura 2000

A) Types of costs

	Type	No.	Description
One-off costs	One-off management costs	1	Costs for the finalisation of sites, such as costs for scientific studies, administration, consultation etc
		2	Costs for management planning, i.e. for preparing management plans, establishing management bodies, consultations etc.
	Investment costs	3	Cost of land purchase
		4	One-off payments of compensation for development rights
		5	Infrastructure costs for the improvement/restoration of habitat and species
		6	Other infrastructure costs contributing to conservation, e.g. for public access, interpretation works, observatories, etc.
Recurrent costs	Costs for management planning	7	Running costs of management bodies
		8	Costs for review of management plans
		9	Costs for public communication.
	Habitat management & monitoring costs	10	Conservation management measures- maintenance and improvement of habitats' favourable conservation status
		11	Conservation management measures- maintenance and improvement of species' favourable conservation status
		12	Implementation of management schemes and agreements with owners and managers of land or water for following certain prescriptions
		13	Provision of services; compensation for rights foregone and loss of income; developing acceptability 'liaison' with neighbours

		14	Monitoring
		15	Maintenance of infrastructure for public access, interpretation work, observatories and kiosks etc.
		16	Risk management (fire prevention and control, flooding etc.)
		17	Surveillance of the sites.

B) Types 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 from one-off and recurring conservation management actions, as well as jobs provided by tourism and other ecosystem services (measured in full time equivalents (FTE)). • 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. • Gross Value Added – the additional wages, profits and rents resulting from the above.

Annex 6: - Key knowledge requirements for implementation of the Birds and Habitats Directives³⁰³

Actions required to implement objectives of the Directives	Required knowledge, data and other information
Defining Favourable Conservation Status.	Historical range and populations, and minimum requirements (to set favourable reference values), bio-physical requirements, species composition and structural attributes of habitats, habitat requirements of species and other ecological requirements (e.g. food resources).
Establishing a coherent Natura 2000 network.	Distribution of species and habitats requiring site designations, important migration sites, condition (e.g. viability) of species populations and habitats within potential sites, required coverage and representation at biogeographical levels; site size and connectivity requirements in relation to their specific habitats and species.
Developing site conservation objectives and management plans, and establishing management measures.	Location of habitats and species; their structure, ecology and functions; their past and current condition and biogeographical importance. Land ownership and uses, and its social/cultural and economic values. Pressures and threats (including pollution), and interactions with current and expected land uses. The effects of conservation management actions and other factors that affect the condition of habitats and species, the means of delivering them, their economic and social impacts, and potential funding sources.
Undertaking AAs of possible impacts from activities, and planning compensatory measures if required.	Qualifying habitats and species present within impacted Natura 2000 sites, and their location, ecological requirements, baseline condition and conservation objectives. Ecological characteristics and functions of the site and sensitive aspects that affect the sites' integrity. Potential impacts of the activities (including cumulative impacts with others) and likely residual impacts after mitigation. Compensation options, their location, potential impacts on each habitat and species and the network as a whole. Feasibility, reliability and time-scales.
Managing landscape features to improve the coherence of the Natura 2000 network.	Requirements for maintaining and enhancing connectivity to achieve Favourable Conservation Status. The role of existing features, threats posed, conservation options and the need for restoration / creation of new features.
Establishing a general protection system for all birds.	The conservation status of all birds (range and population trends), pressures and threats and options available to address them. Identification of ecological methods to prevent damage by birds.

³⁰³ Source: Table 24 of the Study

Actions required to implement objectives of the Directives	Required knowledge, data and other information
Ensure hunting / exploitation is compatible with wise use for all birds, and, for Habitats Directive Annex V species, is compatible with maintenance of Favourable Conservation Status	<p>In addition to the requirements for all birds above; mortality rates and timing from hunting / exploitation and impacts on survival and recruitment rates and overall population dynamics (taking into account density dependent effects etc.), impacts of different methods of taking on populations, potential impacts of management measures.</p> <p>Impact on habitats and other species (e.g. from disturbance).</p> <p>Social, economic and cultural impact of the hunting and exploitation, and management measures.</p>
Strict protection of species listed in Annex IV of the Habitats Directive.	<p>Each species' range (ideally fine-scale locational data), population, biology, ecology (e.g. habitat requirements), pressures and threats (particular sensitivities to activities) and overall conservation status.</p> <p>Impact mitigation and compensation options and good practices.</p>
Planning reintroductions.	<p>The species former range, biology and ecology (e.g. habitat requirements) and reasons for its loss.</p> <p>Potential pressures and threats if reintroduced.</p> <p>Potential impacts on other species and habitats, social and economic impact.</p> <p>Appropriate reintroduction practices for the species concerned.</p>
Identifying research gaps.	Review of available knowledge in relation to requirements (e.g. this table).
Securing funding.	Costs of establishing management and restoration measures in Natura 2000 sites and other areas and landscape features to the extent required to achieve their objectives; for incorporation into PAFs and funding bids (e.g. LIFE).
Monitoring the status of habitats and species.	<p>Distribution and population size of habitats and species throughout their range (i.e. NOT just within Natura 2000 sites), viability of species populations and condition of their habitat.</p> <p>Habitat condition in relation to key attributes (e.g. bio-physical requirements, species composition and structural attributes).</p> <p>Threats affecting future prospects.</p>
Reporting on the implementation of the Directives.	Conservation status of habitats and species (as above), main achievements under the Directives (e.g. new approaches, changes in public attitudes, stakeholder cooperation), progress with management plans, measures taken with respect to approvals of plans and projects, ensuring the coherence of the network and reintroductions.