

# Common Framework for Biodiversity-Proofing of the EU Budget

## General guidance

13<sup>th</sup> August 2014

For the European Commission

Contract ENV.B.2/ETU/2013/0051r

In collaboration with



**T**ransport and  
**E**nvironmental  
**P**olicy  
**R**esearch

**Disclaimer:** The arguments expressed in this report are solely those of the authors, and do not reflect the opinion of any other party.

**The report should be cited as follows:**

Medarova-Bergstrom, K, Kettunen, M, Rayment, M, Skinner, I and Tucker, G (2014) *Common Framework for Biodiversity-Proofing of the EU Budget: General guidance*. Report to the European Commission, Institute for European Environmental Policy, London.

**Corresponding author:**

Graham Tucker (GTucker@ieep.eu)

**Acknowledgements:**

We are especially grateful to all of the participants of the workshop held for this study on biodiversity proofing who provided valuable insights on biodiversity proofing, constructive feedback on the drafts of this guidance document and related information. We also thank other consultees at the European Commission, the contract Steering Committee and in particular, Strahil Christov (DG ENV), the contract Desk Officer, for their helpful guidance.

**Institute for European Environmental Policy**

London Office  
11 Belgrave Road  
IEEP Offices, Floor 3  
London, SW1V 1RB  
Tel: +44 (0) 20 7799 2244  
Fax: +44 (0) 20 7799 2600

Brussels Office  
Quai au Foin, 55  
Hooikaai 55  
B- 1000 Brussels  
Tel: +32 (0) 2738 7482  
Fax: +32 (0) 2732 4004

The **Institute for European Environmental Policy (IEEP)** is an independent not-for-profit institute. IEEP undertakes work for external sponsors in a range of policy areas as well as engaging in our own research programmes. For further information about IEEP, see our website at [www.ieep.eu](http://www.ieep.eu) or contact any staff member.

## Table of Contents

<b>Table of Contents .....</b>	<b>3</b>
<b>Acronyms .....</b>	<b>5</b>
<b>1 Introduction.....</b>	<b>7</b>
1.1 Background .....	7
1.2 Aims of this guidance .....	12
<b>2 Introduction to biodiversity proofing the EU budget .....</b>	<b>14</b>
2.1 The EU Multi-annual Financial Framework.....	14
2.2 The aim and definition of biodiversity proofing .....	17
<b>3 The proposed Common Framework for biodiversity proofing .....</b>	<b>19</b>
3.1 The rationale and requirements for the Common Framework.....	19
3.2 The Common Framework .....	21
3.3 Principles that should be taken into account in biodiversity proofing.....	26
3.4 The current stage of the policy/project cycles and opportunities for biodiversity proofing.....	27
<b>4 Guidance on proofing the policy cycle .....</b>	<b>29</b>
4.1 Introduction .....	29
4.2 Policy development .....	30
4.3 Programming .....	32
4.4 Implementation .....	34
4.5 Monitoring and reporting .....	34
4.6 Evaluation .....	35
<b>5 References.....</b>	<b>37</b>
<b>Annex 1 - Generic tools for biodiversity proofing EU funding instruments .....</b>	<b>41</b>
A1.1 Introduction to the main types of proofing tools and how they relate to the Common Framework and funds.....	41
A1.2 Impact assessment .....	41
A1.3 Coordination structures, partnerships and expert/information networks.....	42
A1.4 Biodiversity objective- and indicator-setting .....	44
A1.5 Earmarking funds for biodiversity objectives.....	47
A1.6 Design of biodiversity measures.....	48
A1.7 Ex-ante evaluation .....	50
A1.9 Strategic Environmental Assessment .....	52
A1.10 Environmental Impact Assessment and Appropriate Assessment .....	56

A1.11 Cost benefit analysis .....	59
A1.12 Biodiversity selection criteria .....	61
A1.13 Integrated territorial development strategies and investment .....	63
A1.14 Mid-term and ex-post evaluations .....	65

### **List of Tables**

Table 3-1 Summary of the applicability of key biodiversity proofing tools to each EU fund at each intervention stage .....	25
Table 4-1 Key tools for proofing the development stage of the policy cycle .....	31
Table 4-2 Key tools for proofing the programming stage of the policy cycle .....	32
Table 4-3 Key tools for proofing the monitoring and reporting stage of the policy cycle .....	35

### **List of Figures**

Figure 3-1: Key questions to be considered in biodiversity proofing .....	19
Figure 3-2: The Common Framework for Biodiversity Proofing with key tools that may be used at each intervention stage .....	24
Figure 3-3: A summary of the timetable for key steps in the EU 2014-2020 MFF .....	28

## Acronyms

See the Glossary in Box 1.1 for further definitions of some terms

BD	Biodiversity
CAP	Common Agricultural Policy
CEF	Connecting Europe Facility
CF	Cohesion Fund
CFP	Common Fisheries Policy
CMEF	Common Monitoring and Evaluation Framework
CIP	Competitiveness and Innovation Framework Programme
CPR	Common Provisions Regulation
CSF	Common Strategic Framework
EAFRD	European Agricultural Fund for Rural Development
EEA	European Environment Agency
EIA	Environmental Impact Assessment
EMFF	European Maritime and Fisheries Fund
ENEA-MA	European Network of Environmental and Managing Authorities
ERDF	European Regional Development Fund
ESF	European Social Fund
ESI	European Structural and Investment (funds)
FAS	Farm Advisory Service
GAEC	Good Agricultural and Environmental Condition
GI	Green Infrastructure
HNV	High Nature Value
INEA	Innovation and Networks Executive Agency
MFF	Multi-annual Financial Framework (with respect to the EU)
MPA	Marine Protected Area
MSFD	Marine Strategy Framework Directive
OP	Operational Programme
PAF	Prioritised Action Framework
PA	Partnership Agreement
PCI	Projects of Common Interest (under the CEF)
PoM	Programme of Measures (with respect to the Water Framework Directive)

PPPs	Public Private Partnerships
RBMP	River Basin Management Plan
RDP	Rural Development Programmes
SEA	Strategic Environmental Assessment
SME	Small and Medium-sized Enterprises
SWOT	Strengths, Weaknesses, Opportunities and Threats
TEN-E	Trans European Energy Network
TEN-T	Trans European Transport Network
TO	Thematic Objectives
TFU	Lisbon Treaty on the Functioning of the EU
WFD	Water Framework Directive

# 1 Introduction

## 1.1 Background

The protection of the environment is a long-standing and important goal of the EU. It is a prominent objective under the primary law of the EU, and the EU has consequently developed a relatively comprehensive biodiversity policy framework, at the heart of which lie the Birds Directive<sup>1</sup> and Habitats Directive<sup>2</sup>. These nature directives provide the legislation for the general protection of biodiversity (see glossary in Box 1.1. for definition) in the EU as well as special measures for species and habitats of Community interest<sup>3</sup>, in particular through the protection of sites that are of particular importance for such species and habitats – creating the ‘Natura 2000 network’<sup>4</sup>.

However, the successful implementation of the directives and the conservation of biodiversity in general is highly dependent on many other EU policies and legal instruments that, for example, regulate potentially environmentally damaging activities and even provide the bulk of funding for biodiversity conservation management, most notably under the Common Agricultural Policy (CAP). Most of Europe’s biodiversity and natural environment lies outside protected areas. For this reason, EU biodiversity policy has adopted a more integrated approach that addresses the whole EU territory and all relevant drivers, pressures and impacts from other policies, programmes, plans and projects. Protecting nature and strengthening ecological resilience in the whole of the EU is one of three key thematic priority objectives of the recently adopted 7th EAP of the EU. The 7th EAP outlines this broader understanding of the relevance of biodiversity and ecosystems as it has evolved over time, noting that: “The Union’s economic prosperity and well-being is underpinned by its natural capital, i.e. its biodiversity, including ecosystems that provide essential goods and services, from fertile soil and multi-functional forests to productive land and seas, from good quality fresh water and clean air to pollination and climate regulation and protection against natural disasters”.<sup>5</sup>

Accordingly, the EU’s biodiversity policy objectives are now broader and more ambitious than those encapsulated in the nature directives alone. The EU has adopted a Biodiversity Strategy<sup>6</sup> with a key headline target of ‘*Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss.*’<sup>7</sup> The Biodiversity

<sup>1</sup> Directive on the conservation of wild birds (2009/147/EC, which is a codified version of the original Directive 79/409/EEC)

<sup>2</sup> Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC)

<sup>3</sup> Formally, these habitats listed under Annex 1 of the Habitats Directive and species listed in Annexes 2, 4 and 5. In addition we include birds listed in Annex 1 of the Birds Directive.

<sup>4</sup> Which comprise Special Protection Areas (SPAs) designated under the Birds Directive and Special Areas of Conservation (SACs) designated under the Habitats Directive.

<sup>5</sup> Decision of the European Parliament and of the Council on a General Union Environment Action Programme to 2020 “Living well, within the limits of our planet, 2012/0337 (COD), PE-CO\_S 64/13, Brussels, 7 November 2013, <http://register.consilium.europa.eu/pdf/en/13/pe00/pe00064.en13.pdf>, p.11

<sup>6</sup> Communication on our life insurance, our natural capital: an EU biodiversity strategy to 2020, COM(2011) 244 final. Hereafter referred to as the “Biodiversity Strategy”.

<sup>7</sup> The target was endorsed by the European Council on 26 March 2010.

Strategy provides a strategic framework that links to the broader set of legislation and policies under the environmental *acquis*, including the Nature Directives but also the Water Framework Directive, the Marine Strategy Framework Directive, the SEA- and EIA-Directives, the 7<sup>th</sup> EAP and the Blueprint to Safeguard Europe's waters.

Despite these environmental policy developments the achievement of the EU's headline target will be a major challenge, because the European Environment Agency's Biodiversity Baseline report (2010a; 2010b)<sup>8</sup> indicates that many ecosystems are being degraded. These include most habitats of Community interest that are subject to conservation measures under the Habitats Directive. The main causes in the terrestrial environment are habitat change or loss<sup>9</sup> (eg as a result of urban and infrastructure expansion, management intensification and in some areas the abandonment of traditional low intensity agricultural management) followed by pollution, over-exploitation, the spread of invasive alien species and climate change. In the marine environment, over-fishing, climate change, acidification of the sea, invasive alien species and pollution/eutrophication are cited as the main pressures (2010a).

As many of these pressures are affected by financial support and capital investments, the effective integration of biodiversity concerns into sectoral funding policies is an important challenge that needs to be addressed. This concerns particularly the Common Agriculture Policy (CAP) and the Cohesion Policy, which still provide for up to 80 per cent of EU budget expenditure and therefore have the potential for major impacts on Europe's natural environment. These impacts may be beneficial or detrimental depending on the objectives of funded programmes and the effectiveness of their environmental elements.

The environmental influence of the EU budget is explicitly recognised in the EU Biodiversity Strategy, through Action 7a), which states that "In collaboration with the Member States, the Commission will develop a methodology for assessing the impact of EU funded projects, plans and programmes on biodiversity by 2014." This is part of Action 7 which is to "Ensure no net loss of biodiversity and ecosystem services" in support of Target 2, which aims to ensure "By 2020, ecosystems and their services are maintained and enhanced by establishing Green Infrastructure and restoring at least 15 % of degraded ecosystems."

Action 6b, also supports Target 2 and commits the Commission to 'develop a Green Infrastructure Strategy by 2012 to promote the deployment of Green Infrastructure in the EU in urban and rural areas, including through incentives to encourage up-front investments in Green Infrastructure projects and the maintenance of ecosystem services, for example through better targeted use of EU funding streams and Public Private Partnerships.' In response to this, the Commission recently published its Green Infrastructure Strategy<sup>10</sup>, which highlights the opportunities for many EU funds to contribute to the maintenance and enhancement of Green Infrastructure (see Box 1.2). Consequently, an important priority is to ensure that Green Infrastructure measures are adequately supported by the EU budget.

---

<sup>8</sup> The Biodiversity Baseline report sets the baseline against which the achievements of current biodiversity strategy are to be measured.

<sup>9</sup> Under this classification, habitat change includes habitat loss, fragmentation and degradation.

<sup>10</sup> European Commission (2013) Green Infrastructure (GI) – Enhancing Europe's Natural Capital, Communication from the European Commission, COM(2013)249, Brussels, 6.5.2013



A further related Biodiversity Strategy measure is Action 17c, which states that “The Commission will work with Member States and key stakeholders to provide the right market signals for biodiversity conservation, including work to reform, phase out and eliminate harmful subsidies at both EU and Member State level, and to provide positive incentives for biodiversity conservation and sustainable use.” This supports Action 17, which is to “Reduce indirect drivers of biodiversity loss”, and although this relates to Target 6 on helping to avert global biodiversity loss, it clearly also addresses subsidies that may have environmental impacts within the EU.

Following up on the requirements of the EU Biodiversity Strategy, the European Commission launched a study in 2011 that aimed “to ensure consistency between the implementation of nature and biodiversity policy and other EU policies, especially by identifying 'biodiversity proofing' [objectives and] tools and developing a framework to avoid measures taken under EU sectoral policies having negative impacts on biodiversity and nature objectives.” The study focussed on policies that have a high spatial impact, and therefore considered the following EU policies and funding instruments that existed at the time: the CAP, Cohesion Policy, Connecting Europe Facility (CEF) – Energy, and the Trans European Energy Network (TEN-E), Connecting Europe Facility (CEF) – Transport, and the Trans European Transport Network (TEN-T), Common Fisheries Policy (CFP) and the proposed Common Marine and Fisheries Policy (CFMP) and European Fisheries Fund (EFF), Research and Technical Development (RTD) framework programmes and the LIFE+ programme. The results of the study were published in a report entitled “*Background Study Towards Biodiversity Proofing of the EU Budget*” (IEEP et al, 2012), hereafter referred to as the “Biodiversity Proofing Background Study”.

This current guidance document builds on the results of the background study, which are further described in relevant sections below.

## Box 1.2. Glossary of terms

**Biodiversity:** means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. Source: CBD

**Biodiversity proofing:** a structured process of ensuring the effective application of tools to avoid or at least minimize harmful impacts of EU spending and to maximise the biodiversity benefits. It is applicable to all spending streams under the EU budget, across the whole budgetary cycle and at all levels of governance, and contributes to a significant improvement in the state of biodiversity according to the 2010 baseline and agreed biodiversity targets.

**Biodiversity offsets:** measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development after appropriate prevention and mitigation measures have been taken. The goal is to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people's use and cultural values associated with biodiversity. Source: Business and Biodiversity Offsets Programme.

**Compensation measures:** the term is used in this report in accordance with its meaning in the Habitats Directive, such that compensation measures aim to result in no overall impact on the coherence of the Natura network; which is broadly analogous to biodiversity offsets.

**Ecosystem:** A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit. Source: CBD.

**Ecosystem services:** The direct and indirect contributions of ecosystems to human wellbeing. They can be categorised in four main types: provisioning services (eg food, water, fuel); regulating services (eg flood and disease control); supporting/habitat services (eg nutrient cycling); and cultural services (eg recreation).

**Mitigation measures:** Measures which aim to reduce impacts to the point where they have no adverse effects. Examples of mitigation measures include avoidance of sensitive sites or disruptive work at sensitive times (e.g. breeding seasons) and the use of best available technologies to reduce pollutants.

**Mitigation hierarchy:** the principle that appropriate actions to address potential biodiversity impacts are taken in the following order of priority: (1) avoidance of impacts; (2) reduction of negative impacts; (3) rehabilitation/restoration measures; and (4) compensation measures for significant adverse residual impacts.

**Pressures:** Habitat loss, overexploitation of natural resources, the introduction and spread of invasive species, pollution and climate change are the five key pressures on biodiversity.

**Residual impact:** The remaining adverse impact on biodiversity after appropriate avoidance, minimisation and rehabilitation measures have been taken according to the mitigation hierarchy.

## Box 1.2. The EU Green Infrastructure Strategy

On the 6 May 2013, the European Commission adopted a Strategy encouraging the use of Green Infrastructure (GI) in Europe.<sup>1</sup> GI is a key component in the EU 2020 Biodiversity Strategy, particularly Target 2. The Strategy is the Commission's response to action 6b of the Biodiversity Strategy, which includes a commitment to develop a GI strategy, and to the Roadmap on a Resource Efficient Europe, which commits the Commission to drafting a Communication on GI.

The Commission defines GI as *“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. It incorporates green spaces (or blue if aquatic ecosystems are concerned) and other physical features in terrestrial (including coastal) and marine areas. On land, GI is present in rural and urban settings.”*

The Commission anticipates that the policy action on GI will take the form of an *“enabling framework”*, providing a combination of policy signals and technical or scientific actions, which it foresees being implemented within the context of existing legislation, policy instruments and funding mechanisms. The Communication identifies four key steps that will be required, outlined below:

**Promoting GI within the main policy areas.** The Commission recognises that if the potential of GI is to be fulfilled within the 2014-2020 budgetary period, the processes for using it must be established soon to facilitate its integration into projects through funding mechanisms such as the CAP, the Cohesion Funds, the EMFF and the Financial Instrument for the Environment (LIFE). To this end, the Commission commits to developing technical guidance by the end of 2013 to dictate how GI will be integrated into the implementation of EU policies in the 2014-2020 funding period. The Commission will also explore how GI-related innovation can be financed through other EU instruments such as the CEF and the TEN-T.

**Improving information, strengthening the knowledge base and promoting innovation.** Consistent, reliable data on the extent and condition of ecosystems and the services they provide are seen as essential to the deployment of GI. However, there has not been to date a consistent means of generating or assessing these data. The Strategy sees a role for the EU in providing financial support to strengthen the scientific community's input to address this issue. In addition to the mapping and assessment of ecosystem services (MAES) work it supports, the Commission commits to reviewing the extent and quality of the technical and spatial data available for decision-makers in relation to GI deployment and to reviewing current arrangements governing the generation, analysis and dissemination of information, particularly with respect to information-sharing facilities. It also suggests that Horizon 2020 and the ERDF are potential sources of funding for research on GI, especially with respect to the links between biodiversity, ecosystem health and ecosystem service provision.

**Improving access to finance for GI projects.** The Commission sees a role for itself in reducing the risk associated with investment in GI by other sectors, including private investors, and for the provision of technical guidance. Together with the European Investment Bank, it commits to setting up an EU financing facility by 2014, to support GI projects.

**Supporting EU-level GI projects.** The strategy recognises that many of Europe's key ecological and cultural resources are transboundary and require a joined-up, pan-European vision – in a manner not dissimilar to large-scale infrastructure initiatives devoted to energy and transport. It commits to assessing by 2015 the opportunities for developing a 'TEN-G' (mirroring similar instruments for developing the trans-European networks in energy and transport) to promote large-scale cross-border GI programs with a pan-European vision, including an assessment of the costs and economic, social and environmental benefits of such an initiative. The TEN-G could serve as an example at national, regional and local levels and raise the profile of GI in policy, planning and financing decisions.

The Commission will review progress on developing GI and publish a report by the end of 2017 with recommendations for future action.

## 1.2 Aims of this guidance

The overall goal of this guidance is to contribute to the implementation of the EU biodiversity goals, in particular the headline target (as described above) through "Target 2": Actions 6b and 7a, but also Action 17c under "Target 6" (see above). It is the result of a Commission contract the overall objective of which was 'to develop and test a Common Framework for biodiversity proofing the EU budget to ensure consistency between the implementation of biodiversity policy and other EU policies. This should be achieved by building on the 'biodiversity proofing' tools and framework suggestions identified in the previous contract.'

The end goal was to:

- Build on the 'best frame of actions' in order to create a pragmatic Common Framework to be used by national, regional and European authorities to avoid measures taken under EU sectoral policies having negative impacts biodiversity and nature objectives, and highlight measures that are designed to directly enhancing or preserving biodiversity and ecosystems.
- Test out the biodiversity-proofing Common Framework at each level of decision-making and develop targeted guidelines.'

The contracted study focused on the following EU funds that have the most influence on biodiversity in the EU: the CAP, Cohesion Policy funds, ie European Regional Development Fund (ERDF), European Special Fund (ESF) and the Cohesion Fund (CF), the Connecting Europe Facility (CEF) for energy and transport and the European Maritime and Fisheries Fund (EMFF) under the European Common Fisheries and Integrated Maritime Policies.

This document presents the agreed Common Framework for biodiversity proofing that resulted from the contracted study as well as general guidance on proofing. Additional separate documents provide further detailed specific information on biodiversity proofing each of the funds listed above.

This guidance aims to support the mainstreaming of beneficial spending for biodiversity such as through Green Infrastructure. The objectives of the EU Green Infrastructure Strategy (see Box 1.2), which is a key element of the EU biodiversity Strategy, strongly reflect the focus of the biodiversity-proofing approach on both reducing negative impacts on biodiversity and maximising benefits for the wider natural environment. Accordingly, establishing a Common Framework for biodiversity-proofing should be instrumental in helping to mainstream priorities of the Green Infrastructure Strategy into the sectoral funds listed above. It will also help to implement the wider principle of mainstreaming of environmental concerns that underpins the 2014-2020 MFF.

Other recent projects have provided guidance on the use of EU funds to support biodiversity, in particular:

- *Financing biodiversity in the context of the European Fund for Regional Development (EFRD): Practical guidance based on the lessons learned from SURF Nature project (ERDF Interreg IVC)*(Kettunen et al, 2012)
- *The guide to multi-benefit cohesion policy investments in nature and green infrastructure* (IEEP & Milieu, 2013).
- *Guidance on how to integrate Natura 2000 conservation objectives into farming practices based on Member States good practice experiences* (Olmeda et al, 2014).

Therefore this guidance mainly refers to, rather than repeats, existing relevant detailed material on biodiversity beneficial funding (such as on Green Infrastructure). In addition to the above guides, the Common Framework and fund-specific guides developed in this contract explicitly address how to mainstream Green Infrastructure priorities in the key policy areas relevant to biodiversity (including agriculture, cohesion, transport, energy and maritime).

Policy development under the 2014-2020 MFF is now complete and programming by the EU and Member States is underway and therefore cannot be greatly influenced by this guidance. Therefore to maximise its current relevance, the main focus of this guidance is on providing advice to Member States' managing authorities and stakeholders on biodiversity proofing the implementation of EU funding instruments (ie part of the project cycle). However, the report also aims to provide generic guidance to EU and Member State authorities and stakeholders on biodiversity proofing in relation to monitoring, reporting and evaluation of the current MFF, as well as considerations for policy development regarding future budgets post 2020. These issues are further discussed in section 3.1.

## 2 Introduction to biodiversity proofing the EU budget

### 2.1 The EU Multi-annual Financial Framework

The EU budget, albeit small relative to the overall size of the European economy, is an important tool to support the achievement of the EU's biodiversity objectives. This is reflected in the 2014-2020 EU Multi-annual Financial Framework (MFF)<sup>11</sup> which includes provisions that seek to mainstream the EU's climate and environment objectives in all major EU policies including cohesion, agriculture, maritime and fisheries, research and innovation, and external aid programmes. Mainstreaming is to be achieved through a range of requirements for benchmarking, monitoring and reporting (using appropriate indicators) for all relevant EU policy instruments. Furthermore, a tracking procedure for environment-related expenditure similar to that being used for climate-related expenditure is to be developed.<sup>12</sup>

The European Commission recognises that mainstreaming biodiversity within the EU via main funding instruments and through funding for external action is necessary to finance the EU Biodiversity Strategy to 2020.<sup>13</sup> This mainstreaming commitment is reflected in the agreed 2014-2020 MFF that was adopted by the Council in December following the consent of the European Parliament<sup>14</sup>. Political agreement on the approximately 70 sector-specific spending programmes has been reached and most of the legislative acts were adopted before the end of 2013 to allow their implementation in 2014<sup>15</sup>. This is now being followed by the adoption of work programmes (in the case of centrally managed instruments) and expenditure programmes (for instruments under shared management) sometime in 2014-15.

An overview of the proposed allocations under the different headings of the next EU budget is set out in Table 2.1.

<sup>11</sup> European Commission (2011) Commission Communication - A budget for Europe 2020, Part I, COM(2011)500, 29.6.2011, Brussels

<sup>12</sup> European Commission (2011) Commission Communication - A Budget for Europe 2020 - Part II: Policy fiches COM(2011) 500.

<sup>13</sup> European Commission (2011) Commission Communication - A Budget for Europe 2020 - Part II: Policy fiches COM(2011) 500.

<sup>14</sup> [http://ec.europa.eu/budget/mff/index\\_en.cfm](http://ec.europa.eu/budget/mff/index_en.cfm)

<sup>15</sup> Council of the European Union (2013) Council adopts the multiannual financial framework 2014-2020, Brussels, 2 December 2013, [http://www.consilium.europa.eu/uedocs/cms\\_Data/docs/pressdata/en/ecofin/139831.pdf](http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/ecofin/139831.pdf)

**Table 2.1: Commitment appropriations in the 2014-2020 MFF**

<b>Commitments in million Euros (2011 prices)</b>	<b>MFF 2014-2020</b>
<b>1a. Competitiveness for Growth and Jobs</b>	<b>125.614</b>
<i>Of which: Connecting Europe Facility</i>	19 300
<i>Of which: Galileo<sup>1</sup>, ITER<sup>2</sup> and Global Monitoring for Environment and Security (GMES)</i>	12.793
<b>1b. Economic, social and territorial cohesion</b>	<b>325.149</b>
<i>Of which: Regional convergence</i>	164 279,02
<i>Of which: Cohesion fund</i>	66 362,38
<i>Of which: Competitiveness</i>	49 492,34
<b>2. Sustainable growth: Natural Resources</b>	<b>373.179</b>
<i>Of which: Sub-ceiling CAP (direct payments + market expenditures)</i>	277.851
<i>Of which: Rural development</i>	84.936
<i>Of which: EMFF (incl. market measures) + Fishery Protection Areas + regional fisheries management organisations (RFMO)</i>	6 574,41
<i>Of which: Environment and climate action (LIFE+)</i>	3 057,19
<b>3. Security and citizenship</b>	<b>15.686</b>
<b>4. Global Europe</b>	<b>58.704</b>
<b>5. Administration</b>	<b>61.629</b>
<b>6. Compensations</b>	<b>27</b>
<b>Total commitment appropriations</b>	<b>959.988</b>
<b>As a percentage of GNI</b>	<b>1.00%</b>

**Source:** EC (2013) Figures and documents of the MFF, [http://ec.europa.eu/budget/mff/figures/index\\_en.cfm](http://ec.europa.eu/budget/mff/figures/index_en.cfm)

**Notes:** <sup>1</sup> Europe's initiative for a state-of-the-art global satellite navigation system. <sup>2</sup> ITER is an international collaborative project to demonstrate the potential of nuclear fusion as an energy source

The practical implementation of the MFF takes place within a framework of EU regulations and programmes, and an important change under the 2014-2020 MFF is the improvement of the coordination and strategic orientation of funds under shared management, ie the EAFRD (under the CAP), ERDF, ESF, CF (under Cohesion Policy), and EMFF, which are also called the European Structural and Investment (ESI) funds. All ESI funds are now governed through the introduction of a Common Strategic Framework<sup>16</sup> (CSF) which establishes the implementation and coordination mechanisms for the Common Provisions Regulation<sup>17</sup> (CPR). It provides the strategic direction for programming funds at the national and regional level.

One of the key functions of the CPR is to set EU-wide Thematic Objectives that are supported during the 2014-2020 funding period. Of particular relevance to biodiversity is thematic objective 6, which is “preserving and protecting the environment and promoting

<sup>16</sup> (SWD/2012/61)

<sup>17</sup> (COM/2011/615)

resource efficiency”. However, it is also noteworthy that the following climate related objective (objective 5) of “promoting climate change adaptation, risk prevention and management” is also of great relevance because Green Infrastructure / ecosystem-based measures can play a substantial role in climate adaptation (and often mitigation at the same time). It is therefore also important to note that there is a commitment to spend at least 20 per cent of the EU budget on activities relating to climate change.

Importantly Article 8 of the CPR also requires that the use of all ESI funds must be in accordance with the principle of sustainable development and it states “The Member States and the Commission shall ensure that environmental protection requirements, resource efficiency, climate change mitigation and adaptation, **biodiversity**, [emphasis added] disaster resilience, and risk prevention and management are promoted in the preparation and implementation of Partnership Agreements and programmes.” Annex I, section 5.2 of the CPR further elaborates the requirements for sustainable development (see Box 2.1).

**Box 2.1 Annex I of the Common Provisions Regulation - Horizontal Principles and Cross-cutting Policy Objectives related to sustainable development**

5.2. [1] Managing authorities shall undertake actions throughout the programme lifecycle, to avoid or reduce environmentally harmful effects of interventions and ensure results in net social, environmental and climate benefits. Actions to be undertaken may include the following:

- (a) directing investments towards the most resource-efficient and sustainable options,
- (b) avoiding investments that may have a significant negative environmental or climate impact, and supporting actions to mitigate any remaining impacts,
- (c) taking a long-term perspective when ‘life-cycle’ costs of alternative options for investment are compared,
- (d) increasing the use of green public procurement.

Fund-specific regulations set out specific provisions concerning the different funds, determining the more detailed scope of intervention under each fund. Then at the national and regional level, Partnership Agreements and Programmes set out the framework for implementation of ESI funds. Partnership Agreements, agreed bilaterally between the European Commission and each Member State, describe the approach taken by Member States in the prioritisation of the different thematic objectives under the funds. Operational Programmes, in the case of ERDF, ESF, CF and the EMFF, and Rural Development Programmes (RDPs), in the case of the EAFRD, are drawn up by Member State authorities at a national or regional level. They form the most concrete tools for planning and implementation, and contain, for example, funding priorities, specific objectives and measures and related financial appropriations.

The CEF, which is the remaining fund covered by this Common Framework, is not an ESI fund and is centrally managed by the European Commission through the newly established Innovation and Networks Executive Agency (INEA). But its spending is governed by the development of Work Programmes by the INEA.



## 2.2 The aim and definition of biodiversity proofing

The concept of biodiversity-proofing the EU budget builds on the requirement of environmental policy integration, which is established under the primary law of the EU. The Lisbon Treaty on the Functioning of the EU (TFEU) states in its Art. 11 that “environmental protection requirements must be integrated into the definition and implementation of all Union policies and activities, in particular with a view to promoting sustainable development”. EU case law has already established this so-called integration principle as a binding principle. The TFEU also provides legally binding force to the Charter of Fundamental Rights of the EU, which requires that a high level of environmental protection and improvement of the quality of the environment must be integrated into the policies of the Union (Art. 37).

The principle of environmental policy integration needs to build on the principle of policy coherence, which is about ensuring that policies are coordinated and should not contradict each other (OECD, 1996). Although full coherence between policies is unrealistic (as every policy is guided by legitimate objectives, which can be contradictory at times) policies should as a minimum avoid major conflicts of interest between them (Medarova-Bergstrom et al, 2011a; OECD, 2008). Moreover, policies are required to increase their synergies and hence reinforce their effects.

The concept of proofing policies was first developed through studies that focussed on climate issues (Medarova-Bergstrom et al, 2011b; Medarova-Bergstrom and Volkery, 2012; Withana et al, 2011). A key principle that has arisen from this is that proofing is a **process** that provides a **framework** for the use of **proofing instruments** that integrate the environmental concerns in question and other policies in a coherent way, the aim of which is to increase spending that supports the environmental goals, whilst at the same time minimising and gradually phasing out spending that is counterproductive to these objectives. Thus proofing aims to **minimise detrimental impacts** and **maximise benefits** from EU funds.

Such climate proofing concepts were considered to be applicable and adaptable to biodiversity proofing, and therefore Biodiversity Proofing was defined by the Biodiversity Proofing Background Study (IEEP et al, 2012) as ***‘a structured process of ensuring the effective application of tools to avoid or at least minimize harmful impacts of EU spending and to maximise the biodiversity benefits. It applies to all spending streams under the EU budget, across the whole budgetary cycle and at all levels of governance, and should contribute to a significant improvement in the state of biodiversity according to the 2010 baseline and agreed biodiversity targets.’***

This framework and guidance follows this definition. This guidance also gives particular emphasis to addressing mainstreaming of Green Infrastructure priorities in the key policy areas relevant to biodiversity (including agriculture, cohesion, transport, energy, and maritime). However, as noted in section 1.2, guidance exists on maximising the use of EU funds to support biodiversity, and therefore this is mainly referred to here rather than repeated.

It is also hoped that this guidance will help Member States carry out biodiversity proofing of national sectoral funds (such as for infrastructure). As national funds are much larger than EU funds, such wider application of biodiversity proofing will be necessary to achieve national as well as EU biodiversity targets.

### 3 The proposed Common Framework for biodiversity proofing

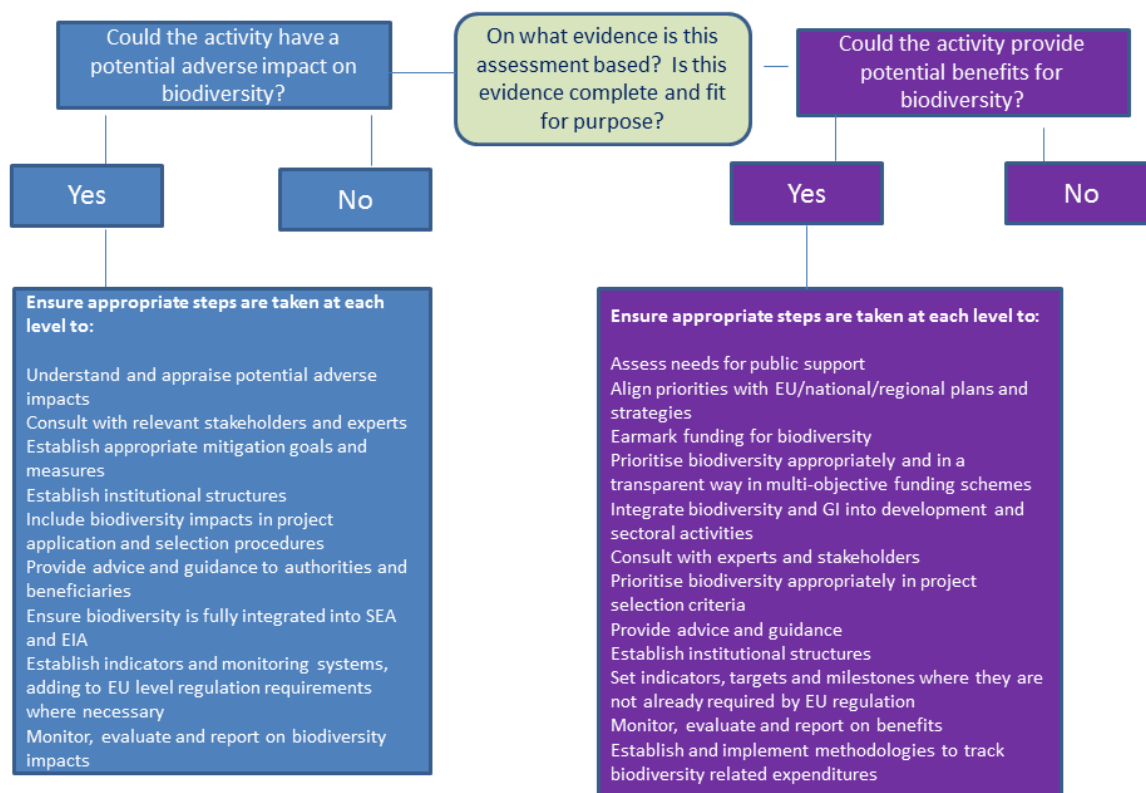
#### 3.1 The rationale and requirements for the Common Framework

Biodiversity proofing offers an opportunity to enhance the ability for all EU funds to contribute to the achievement of the EU's biodiversity target, by integrating thinking about biodiversity impacts and opportunities into decision-making processes. Biodiversity proofing should aim to ensure that, at each stage of the policy and project cycles, decision makers make sure that:

1. **Potential adverse impacts on biodiversity** are considered, identified, quantified and communicated, and that appropriate actions are taken to avoid and minimise them, and then, where necessary, to compensate for unavoidable residual impacts in order to achieve no net loss; and
2. **Opportunities for activities to benefit biodiversity** are identified and taken forward.

Figure 3-1 outlines a general approach to biodiversity proofing that illustrates the key questions that need to be examined when assessing biodiversity impacts and opportunities.

**Figure 3-1: Key questions to be considered in biodiversity proofing**



Importantly, biodiversity proofing of the various EU funds should not be carried out in isolation of each other: successful implementation requires adequate design of common policy requirements and guidance on provisions, for example, to provide orientation and a level-playing field for all Member States. Therefore it is advantageous to define a Common Framework for biodiversity proofing that will increase policy coherence and consistency, thereby avoiding problems that might arise if some funds / sectors felt that they were being subjected to different standards to others. Ideally the framework should cover all EU funds, but the requirements and opportunities for proofing centrally managed funds are different to other funds (eg funds under shared management<sup>18</sup>).

Authorities in charge of policies relevant to biodiversity-proofing should benefit from easy-to-digest information and common guidance that provides arguments for assigning authorities for biodiversity-proofing and clarity on the upcoming next steps in the policy and project cycles. The Common Framework therefore indicates the various proofing tools that can be used at each step and their respective strengths and complementarities. This should help to maintain overall coherence, but also help minimise additional administrative burdens from the proofing process.

In defining the Common Framework, it is essential to recognise that some funding instruments under the EU budget offer stronger and more direct threats and opportunities for biodiversity than others. Therefore, whilst biodiversity proofing should encourage consideration of biodiversity impacts for all EU funds and programmes, the degree to which action is required can be expected to vary significantly across the different instruments funded from the EU budget. Furthermore, it needs to be borne in mind that EU funding instruments differ in their governance and management, which significantly influences the opportunities for operationalizing biodiversity proofing. In particular Pillar 1 of the CAP<sup>19</sup> is under centralised management and is based on direct payments rather than a programming cycle, although Member States have much larger opportunities to participate in the management of Pillar 1 funds since the 2014 reform. In contrast, the funds under Cohesion Policy, EAFRD and EMFF, are under shared management and largely rely in their programming and implementing on Member State authorities. The CEF is under centralised management and hence directly managed by the Commission.

Consequently, public authorities at regional, national and EU level have different competencies and tasks when it comes to the design, programming and implementation of EU budget expenditure. Also, proofing involves a variety of different types of assessment that can be informed by various tools that need to be implemented at the appropriate level, taking account of the different management structures for different EU funds. Furthermore,

---

<sup>18</sup> Funds under shared management in the 2014-2020 programming period are governed by a Common Provisions Regulations and include the European Regional Development Fund (ERDF), the European Social Fund (ESF), Cohesion Fund (CF) the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF).

<sup>19</sup> The CAP is organised within two pillars: Pillar 1 which provides direct payments to farmers and payments within several specific schemes including greening measures, and Pillar 2 which Member States use to co-finance their Rural Development Programmes (RDPs). European Agricultural Fund for Rural Development (EAFRD) is the part of the EU budget that funds Pillar 2.

proofing needs to be adaptable to reflect the different size of investments from major infrastructural investments such as those under Cohesion Policy funds and CEF to very much smaller grants to farmers under Rural Development Programmes (RDPs) or ESF grants for environmental education. Thus proofing needs, processes and intervention points will differ amongst the EU funds, and this is taken into account in the Common Framework. On the one hand, it needs to be transparent and generic (with an agreed common terminology and typology of policy stages, governance arrangements, actors and tools) but also sufficiently flexible to take into account the specificities of the funds.

In summary, the guiding principles followed for the Common Framework are that it should be:

- **Inclusive** – capable of guiding the proofing of most EU funds, while taking account of different needs and levels of assessment and action that are appropriate to each.
- **Flexible** – capable of distinguishing between the different needs of different EU funds and instruments, including those under central and shared management.
- **Proportionate** – ensuring that the level of assessment and action required is appropriate to the levels of impact and opportunity being addressed.
- **Practical** – offering clear guidance about actions that need to be taken.
- **Coherent** with existing EU policies and strategies.

### 3.2 The Common Framework

Taking the above considerations into account, the Common Framework puts forward a range of biodiversity proofing tools for all EU funding instruments that incorporate a programming / project cycle as well as a policy cycle. Thus, it addresses proofing of all ESI funds, ie the ERDF, CF and ESF (under Cohesion Policy), EAFRD under Pillar Two of the CAP, and the EMFF under the CFP. It does not cover Pillar 1 funds, which are centrally managed by the European Commission and do not contain a programming element. However, it does cover the CEF because this is programmed, although it is centrally managed by the European Commission.

A description of each of the main biodiversity proofing tools that is mentioned below is provided in Annex 1 along with guidance on good practice application of the tools and sources of further information.

The Common Framework, illustrated in Figure 3-2 comprises two interacting cycles: the policy cycle and the implementation cycle. The ‘policy cycle’ consists of five main stages, each of which offers entry points for incorporating biodiversity considerations. The **policy development** stage takes place at a strategic level and concerns the alignment of EU strategies with the 2014-2020 EU MFF and the related fund-specific Regulations. This stage is largely complete for the 2014 to 2020 MFF and is therefore not given detailed consideration in this report. However, chapter 4 provides general guidance on proofing

across the policy cycle, which is of relevance to monitoring, review and evaluation in the context of the current MFF, as well as to the development of policy for the next programme period.

Next, is the **programming** stage where Work Programmes (for centrally managed EU instruments such as CEF) are established as well as Partnership Agreements, accompanied by spending programmes (eg Operational Programmes for the ERDF, ESF and CF, RDPs for the EAFRD and Fisheries Programmes for the EMFF) that set out key objectives, principles for implementation and the allocation of funds for the different investment priorities. This stage is fundamental for biodiversity proofing EU funding instruments both under central and shared management. The most relevant biodiversity proofing tools at this stage include biodiversity objectives and indicator setting (see Annex 1.4), earmarking of funds for biodiversity (see Annex 1.5), design of biodiversity measures (Annex 1.6), integrating biodiversity considerations in the programmes' *ex-ante* evaluation (Annex 1.7) and related Strategic Environmental Assessment (SEA) procedures (Annex 1.8). These and other proofing tools/procedures may be supported by establishing coordination structures, partnerships and expert/information networks that manage biodiversity programmes/projects but also coordinate actions across sectoral departments, work exclusively with beneficiaries, or cooperate with networks of environmental/climate experts (Annex 1.3).

**Implementation** is then through projects that are typically carried out in five cyclic stages. The stages in the 'implementation cycle' allow for biodiversity considerations to be taken into account during the preparation of calls for proposals, scheme/project development and impact assessments, selection, execution and monitoring/reporting. The full implementation cycle applies to larger investments in particular, and is likely to be significantly simplified for small grants or agri-environmental contracts with individual beneficiaries. Nevertheless, it offers essential entry points for biodiversity proofing the actual implementation of EU funding programmes on the ground.

At the initial **call for proposals**, important proofing tools, which ensure biodiversity is considered from the onset, include setting out minimum biodiversity requirements and desired objectives and incorporating them into project selection criteria and scoring systems. The aim at this stage is to discourage project proposals that may have detrimental impacts and to encourage biodiversity-positive projects (see Annex 1.11).

**Project development** occurs in response to the call for proposals, and this is likely to involve some form of cost-benefit analysis. As discussed in Annex 1.10, it is important this should be used to identify and assess all relevant costs and benefits relating to changes in biodiversity and ecosystem services. This step may also include proofing as part of integrated territorial developments, which represent novel mechanisms for planning and delivery of projects through community-led local development strategies, and integrated territorial investment for sustainable urban development, where the use of financial instruments (not pure grants but technical assistance and soft loans and risk sharing instruments) are also encouraged (Annex 1.12).

Potentially economically viable projects are then likely to be further developed and some form of Environmental Impact Assessment (EIA) carried out, obligatory under the EIA Directive for many EU funded projects (Annex 1.9). The purpose of the EIA is to identify and assess potentially adverse impacts and, importantly, to determine appropriate measures to avoid and reduce these as much as feasible, and then to identify offset requirements for any residual impacts. If there is potential for a project to have a significant impact on a Natura 2000 site, either individually or in combination with others, it must be subject to an appropriate assessment in accordance with Article 6.3 of the Habitats Directive. The appropriate assessment may be informed by, or integrated with the EIA.

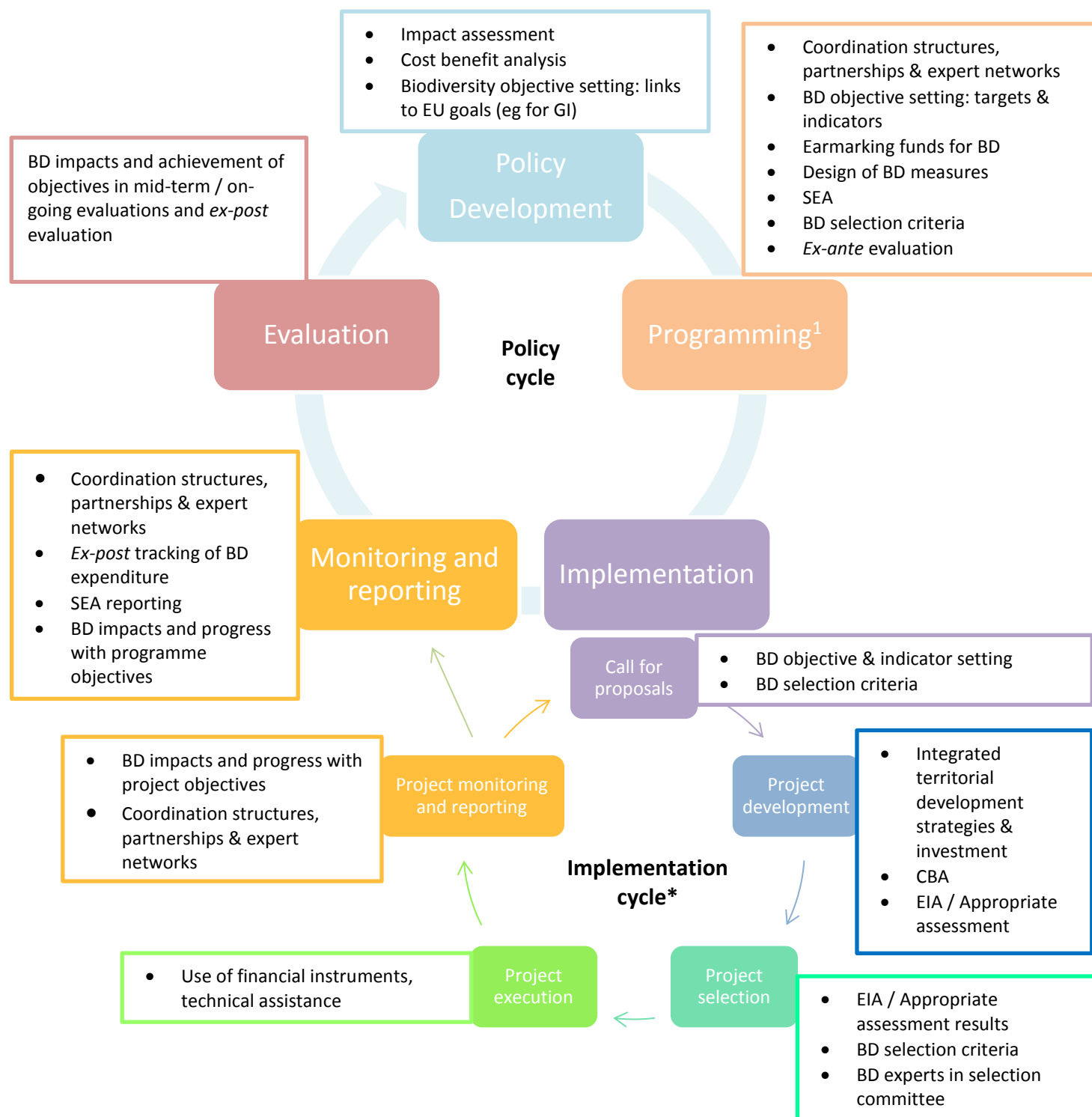
At the **project selection** stage the biodiversity criteria and scoring systems set out in the call for proposals should be used to evaluate proposed projects. In addition, the adequacy, feasibility and reliability of proposed mitigation measures, and, where necessary, offsets for residual impacts (normally set out in an EIA) should also be taken into account. Particular care should be taken at this stage to ensure that the proposed measures are in accordance with the mitigation hierarchy. Decisions on the environmental acceptability of a project should take into account the results of any EIA undertaken, but the identification of significant impacts does not necessarily mean that the project should not go ahead. In contrast, a project that has been subject to an appropriate assessment can only go ahead if it has been ‘ascertained that it will not adversely affect the integrity of the site’, unless in accordance with Article 6.4 of the Habitats Directive there is no alternative and the project must be carried out for imperative reasons of overriding public interest.

Opportunities for biodiversity proofing interventions remain during the **project execution** stage, for example through technical assistance.

Finally, the **project monitoring and reporting** stage tracks progress against identified objectives (eg biodiversity-positive spending, and biodiversity impact indicators), including those identified in the policy cycle programming stage and those identified in the call for project proposals and the project development stage. The result should then be fed back into the calls for proposals, so that future calls and objectives can be adjusted as necessary to better address biodiversity-related opportunities and impacts. The results also feed into the **policy cycle monitoring and reporting** of biodiversity-positive expenditure at the level of work / spending programmes. The final policy **evaluation** stage includes both on-going / mid-term evaluations as well as *ex-post* evaluation (Annex 1.13), the purpose of which is to assess the effectiveness and efficiency of EU funding instruments. It feeds back to the **policy development** stage ensuring that lessons learnt and good practices are incorporated into the next policy cycle.

Depending on the EU funding instrument (centrally or shared management), and the size of project grants, different actors will be involved in the different stages of the policy and project cycles (see further below). As noted above the application of proofing tools within the Common Framework will differ amongst the EU funds and therefore a summary of their relevance to the main funds affecting biodiversity is provided in Table 3-1. Additional separate documents provide further detailed specific information on biodiversity proofing each of these funds.

Figure 3-2: The Common Framework for Biodiversity Proofing with key tools that may be used at each intervention stage



1. For ESI funds, includes the development of Partnership Agreements followed by RDPs for the EARDF, Operational Programmes for the ERDF, ESF and CF, and Fishery Programmes for the EMFF. Only includes Work Programmes for the CEF.

\* The full project cycle applies to major investments in particular, and is likely to be significantly simplified for small grants.



**Table 3-1 Summary of the applicability of key biodiversity proofing tools to each EU fund at each intervention stage**

**Key:** Red shaded cells indicate legal requirements to apply the tool to the fund. Orange cells indicate that there may be a legal requirement to apply the tool to the fund depending on circumstances. Blue cells indicate where use of the tool is good practice. EC = steps to be taken by the European Commission (usually in consultation with Member States). MS = steps to be taken by Members States or regions (typically programme authorities in consultation with stakeholders). App = steps to be taken by the project applicants.

Policy / project cycle step	EAFRD	Cohesion Policy funds	CEF	EMFF
<b>POLICY CYCLE</b>				
<b>Policy development</b>				
• Impact assessment	EC	EC	EC	EC
• Cost benefit analysis	EC	EC	EC	EC
• Biodiversity objective setting: links to EU goals (eg for GI)	EC	EC		EC
<b>Programming</b>				
• Coordination structures, partnerships & expert networks	MS	MS	EC	MS
• Biodiversity objective setting: targets & indicators	MS	MS		MS
• Earmarking funds for biodiversity objectives	MS	MS		MS
• Design of biodiversity measures	MS	MS		MS
• SEA	MS	MS	EC/MS <sup>*2</sup>	MS
• <i>Ex-ante</i> evaluation	MS	MS		MS
• Biodiversity selection criteria	MS	MS		MS
<b>Implementation (see below)</b>				
<b>Monitoring and reporting</b>				
• Coordination structures, partnerships & expert networks	EC	EC	EC	EC
• Ex-post biodiversity tracking of expenditure	EC/MS	EC/MS <sup>*1</sup>		EC/MS
• SEA reporting (if an SEA was carried out)	MS	MS	MS	MS
• Biodiversity impacts and progress with objectives	EC/MS	EC/MS <sup>*1</sup>		EC/MS
<b>Evaluation</b>				
• Biodiversity impacts in mid-term & <i>ex post</i> evaluations	EC	MS <sup>*1</sup>	EC/MS	EC
<b>IMPLEMENTATION CYCLE</b>				
<b>Call for proposals</b>				
• Biodiversity objective & indicator setting	MS	MS		
• Biodiversity selection criteria	MS	MS		MS
<b>Project development</b>				
• Integrated territorial development strategies	MS	MS/App		MS/App
• Cost-benefit analysis	MS/App	MS/App	App	MS/App
• EIA / Appropriate assessment	App	App	App	App
<b>Project selection</b>				
• EIA / Appropriate assessment results considered	MS	MS	EC	MS
• Biodiversity objectives taken into account in scoring	MS	MS		MS
• Biodiversity experts in selection committee	MS	MS	EC	MS
<b>Project execution</b>				
• Use of financial instruments, technical assistance	MS	MS	MS	MS
<b>Monitoring and reporting</b>				
• Biodiversity impacts and progress with objectives	MS	MS		MS
• Coordination structures, partnerships & expert networks	MS	MS	EC/MS	MS

**Notes:** \*1 There is one obligatory “common output indicator” for biodiversity under ERDF (Surface area of habitats supported in order to attain a better conservation status). \*2. Member States have to (for transport) provide the information to the Commission to demonstrate that either an SEA is not needed for a project, or if one has been undertaken, information on the underlying procedure and the implications (e.g. ensuring that findings will be complied with).

### 3.3 Principles that should be taken into account in biodiversity proofing

The incorporation of a number of principles is of fundamental importance to the success of biodiversity proofing (and the application of proofing tools as described in in Annex 1), and is in fact a legal requirement in some instances. These key principles are therefore outlined below.

- All spending programmes under the EU budget should be compliant with the EU *acquis*<sup>20</sup>, which with respect to biodiversity must include compliance with in particular, EIA, SEA, the Birds Directive, the Habitats Directive, the Water Framework Directive (WFD) and the Marine Strategy Framework Directive (MSFD). The SEA and EIA Directives lay down essential procedural requirements for the consideration of environmental impacts in planning and programming phases. The Habitats and Birds Directives contain legal requirements to assess, avoid and reduce impacts on the conservation status of habitats and species of Community interest, and to compensate for unavoidable impacts, whilst the WFD and the MSFD also contain ecosystem-based objectives.
- In addition, it is recommended that EU funding programmes also comply with relevant EU policies and strategic goals, most notably, with respect to biodiversity, the EU Biodiversity Strategy to 2020.
- All shared management spending under the ESI funds should also be compliant with the new ex-ante conditionalities set out in the CPR, part II of Annex XI. While there is no specific ex-ante conditionality related to biodiversity, some of them are likely to have some relevance for biodiversity and could contribute to biodiversity proofing. These include, the requirement to take into account National Climate Adaptation Strategies; the adoption of river basin management plans; the existence of arrangements for the effective application of EU environmental legislation related to EIA and SEA; the existence of a statistical basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes; the existence of a system of result indicators necessary to select actions, which most effectively contribute to desired results, to monitor progress towards results and to undertake impact evaluation. In the future similar ex-ante conditionalities could also be introduced in

---

<sup>20</sup> The *acquis communautaire* is the accumulated legislation, legal acts, and court decisions which constitute the body of European Union law

relation to aligning spending programmes to national Prioritised Action Framework<sup>21</sup>s (PAFs).

- The horizontal principles of sustainable development and environmental integration have long underpinned the programming and implementation of EU funds requiring that environmental concerns and potential impacts are taken into account. This stems from article 11 of the TFEU (see above). In the 2014-2020 period, the CPR, for example, governing the management of funds under shared management, expands these principles and sets out that "Member States and the Commission shall ensure that environmental protection requirements, resource efficiency, climate mitigation and adaptation, biodiversity, disaster resilience and risk prevention and management are promoted in the preparation and implementation of Partnership Agreements and programmes."
- As regards minimising negative impacts, biodiversity proofing should follow the widely adopted mitigation hierarchy under which appropriate actions should be taken in the following order of priority: (1) avoidance of impacts; (2) reduction of negative impacts; (3) rehabilitation / restoration measures; and (4) compensation measures for significant adverse residual impacts. The focus of these guidelines is on the first two stages, because the European Commission is working on a separate initiative (ie EU Biodiversity Strategy Action 7) to develop a policy on no net loss of biodiversity. A report to the Commission provides an assessment of policy options to achieve no net loss (Tucker et al, 2014).
- Consideration of biodiversity issues, especially those relating to ecological and other technical / scientific issues (such as in SEA, EIA, project selection criteria, monitoring and evaluation) should be primarily carried out by suitably qualified and experience biodiversity experts.

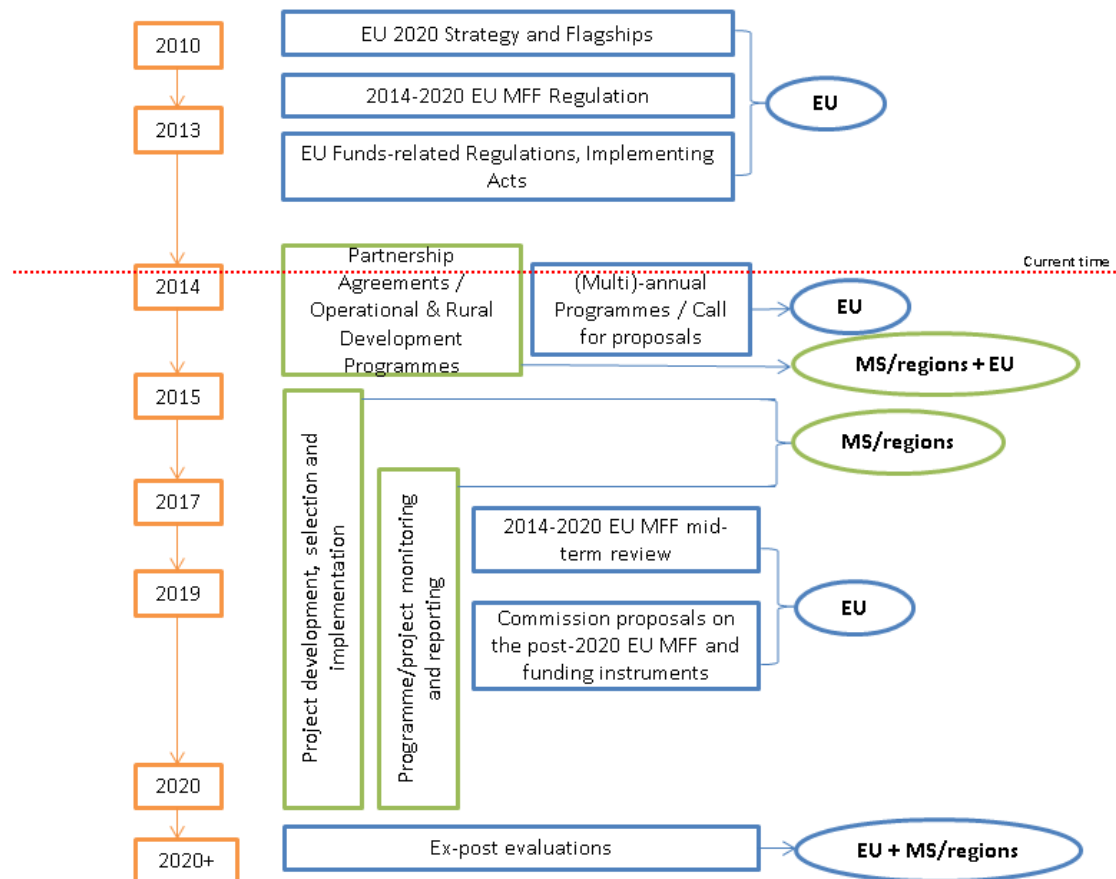
### **3.4 The current stage of the policy/project cycles and opportunities for biodiversity proofing**

As indicated in Figure 3-3 below, policy development under the 2014-2020 MFF is now complete and programming by the EU and Member States is underway. Therefore to maximise its current relevance, this guidance provided in this report concentrates on providing advice to Member States' managing authorities and stakeholders on biodiversity proofing the implementation of EU funding instruments (ie the project cycle). However, generic guidance on biodiversity proofing in relation to monitoring, reporting and evaluation of the current MFF, as well as considerations for policy development regarding future budgets post 2020, is provided in chapter 4.

---

<sup>21</sup> PAFs set out strategic conservation priorities for Natura 2000 for the territory for period 2014-2020 based on an analysis of habitat and species priorities, pressures, required actions and funding options.

**Figure 3-3: A summary of the timetable for key steps in the EU 2014-2020 MFF**



## 4 Guidance on proofing the policy cycle

### 4.1 Introduction

In order to be effective, and to ensure that potential adverse impacts of EU funding on biodiversity are minimised and opportunities for biodiversity funding are maximised, biodiversity proofing needs to be applied at different stages throughout the policy cycle, as illustrated in Figure 3-2 above.

For example, even well-designed policies that take account of potential biodiversity impacts and opportunities may not achieve their intended effects if there are failures in programming and implementation. Conversely, even well intentioned managing authorities may struggle to ensure that adverse impacts are minimised and opportunities maximised, if the policy development stage does not include a mandate for biodiversity actions or leads to conflicts between programmes or sub-optimal rules for programming and implementation.

It should also be recognised that improving policy development and implementation to maximise opportunities and minimise threats to biodiversity is a long-term process that requires learning, enhanced awareness and behavioural change over time. The process of learning and development needs to run through the policy cycle, as well as between cycles, such that future policy design and implementation can build on past experience. In this respect, monitoring, reporting and evaluation play an important role in informing future policy development and implementation.

At the time of writing this guidance, the process of policy development for the 2014 to 2020 programme period is almost complete, and the programming stage is well advanced (although the programming stage under the CEF has an annual element). Nevertheless, it is important to adopt a holistic view of the policy cycle in applying biodiversity proofing. While in the context of the current programming round the application of proofing to programme implementation may seem most relevant, it is also helpful to consider how biodiversity threats and opportunities have been affected by processes of policy development and programming in the current cycle, and how monitoring and evaluation can help us to understand impacts and opportunities in order to inform more effective biodiversity proofing of future policy cycles.

The previous chapter describes some key tools that can be used in biodiversity proofing the EU budget. This chapter highlights how these tools can be applied at different stages of the policy cycle, making reference to different funds and the role of different stakeholders in applying these tools. It provides a checklist of key questions that can be asked at each stage in order to examine the adequacy of the biodiversity proofing process.

## 4.2 Policy development

The policy development stage is crucial in determining potential impacts and opportunities for biodiversity, as it defines the scope of the policy, the types of activities that can be funded, and the rules and procedures for programming and implementation. A failure to adequately consider biodiversity impacts and opportunities at this stage could lead to unintended adverse impacts on biodiversity, and/ or limit opportunities for positive action.

Policy development should adhere to the principle of coherence, such that policies are designed to work together and that the development of each policy takes account of others, so as to maximise synergies and minimise conflicts. Each policy should take account of the EU's overall objectives for biodiversity and sustainable development, as well as the requirements of relevant EU legislation.

Sustainable development is a fundamental objective of the European Union under the Lisbon Treaty, which states that the Union shall work for the sustainable development of Europe based on, among other things, a high level of protection and improvement of the quality of the environment. Article 191 of the Treaty states that EU policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union, shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.

Specific objectives for biodiversity are set out in the EU Biodiversity Strategy to 2020, which aims to reverse biodiversity loss and speed up the EU's transition towards a resource efficient and green economy. The Strategy establishes biodiversity objectives as an integral part of the Europe 2020 Strategy, as well as responding to the EU's international commitment under the Convention on Biological Diversity to contribute to halting global biodiversity loss. The Strategy established six main targets and 20 actions designed to achieve them. The targets relate to the full implementation of the Birds and Habitats Directives, the maintenance and restoration of ecosystems and their services, increasing the contribution of agriculture and forestry to maintaining and enhancing biodiversity, sustainable fisheries, control of invasive alien species and action to avert global biodiversity loss. In addition, the Strategy emphasises that reaching the 2020 targets will require achievement of EU climate change and resource efficiency objectives, the full implementation of existing EU environment legislation (including the Water Framework Directive, Marine Strategy Framework Directive and pollution control and chemicals legislation), as well as action at national, regional and local level. The Strategy emphasises the need for co-ordinated action across sectors and at EU, national and local levels in order to enhance funding for biodiversity and Green Infrastructure, and to ensure that existing policies are effectively implemented.

For centrally managed instruments such as Pillar 1 of the CAP, and Horizon 2020, policy development at the EU level is the main determinant of how funds are allocated and implemented, while for instruments under shared management it sets the framework within which national or regional programming takes place.

The key tools that may be used to aid biodiversity proofing at this stage of the policy cycle are listed in Table 4-1 below. The table also outlines their application by stakeholders.

**Table 4-1 Key tools for proofing the development stage of the policy cycle**

Tool	Application	Stakeholders
Impact assessment	IA should take full and proper account of the best available evidence of biodiversity impacts and opportunities, and associated costs and benefits	EC, in consultation with MS, biodiversity experts
Cost benefit analysis	CBA within the impact assessment should take full account of biodiversity costs and benefits (with consideration of monetary, quantitative and qualitative descriptions of costs and benefits)	EC
Biodiversity objective and indicator setting	Biodiversity objectives should be included that contribute to EU goals by reflecting targets in the EU Biodiversity Strategy and contributing to the implementation of other aspects of the Habitats and Birds Directives, firstly by reducing negative effects to the minimum feasible and secondly enhancing positive impacts. Appropriate monitoring requirements and systems should also be outlined at this stage	EC, in consultation with MS, biodiversity experts

*Checklist of key questions:*

In summary the key questions that should be addressed at this stage of the policy cycle are:

1. Is there evidence that the policy has caused adverse impacts on biodiversity in the past? If so, what steps have been taken to understand and address these impacts?
2. Has the development of the policy considered:
  - Potential threats to biodiversity and means to address them?
  - Potential opportunities to enhance biodiversity?
3. Has the coherence of the policy been assessed with regard to the EU Biodiversity Strategy, and the EU acquis (including relevant items of legislation such as the Birds, Habitats, SEA, EIA, Water Framework and Marine Strategy Framework Directives)?
4. Has application of the horizontal principles of sustainable development and environmental integration taken proper account of biodiversity impacts?
5. Has the impact assessment of the policy given full regard to biodiversity impacts and opportunities?
6. Have biodiversity impacts been fully taken into account in the analysis of costs and benefits?

7. Has the Commission consulted with biodiversity experts and relevant stakeholders in the process of policy development, and given full regard to the views and evidence provided by them?

8. Have SMART biodiversity objectives been included within the policy that are based on the above considerations?

9. Has the policy included and earmarked sufficient funding to achieve its biodiversity objectives?

### 4.3 Programming

The programming stage plays a key role in determining how EU funding instruments impact – positively or negatively – on biodiversity, since it determines the priorities and objectives for support at national/regional (or, for centrally programmed instruments such as the CEF, EU) level, as well as the spatial and thematic allocation of funds and approaches to implementation.

Biodiversity proofing at this stage will be guided by the rules set at the policy development stage, with respect to the overall objectives of the fund, *ex ante* conditionalities, the rules for programming and procedural requirements such as those for SEA and *ex ante* evaluation. The key tools that may be used to aid biodiversity proofing at this stage of the policy cycle are listed in Table 4-2 below. However, much will also depend on the decisions taken by the programming authorities, as well as the approach to the task, the evidence considered and the adequacy of consultation and advisory processes.

**Table 4-2 Key tools for proofing the programming stage of the policy cycle**

Tool	Application	Relevant Stakeholders
Coordination structures, partnerships and expert/information networks	Internal administrative arrangements should ensure adequate expertise is available on biodiversity issues – e.g. sustainability managers, inter-institutional working groups  External stakeholder consultation groups and expert advisory committees play an important role in informing programme development, and should include biodiversity experts / interests	Programme authorities, biodiversity experts and stakeholders
Biodiversity objective- and indicator-setting	Establishing (SMART) biodiversity objectives within individual programmes will help to enhance positive impacts and reduce negative effects. Appropriate monitoring requirements and systems should also be developed at this stage.	Programme authorities in consultation with biodiversity experts and stakeholders
Earmarking biodiversity funds	Earmarking of funds will help to ensure that each programme has the required resources to deliver its intended benefits for biodiversity	Programme authorities in consultation with biodiversity experts and stakeholders
Design of biodiversity measures	Careful design of biodiversity	Programme authorities in



Tool	Application	Relevant Stakeholders
	interventions at the programme level, as well as appropriate safeguards to minimise biodiversity impacts, will help to ensure that intended effects are achieved	consultation with biodiversity experts and stakeholders
Strategic Environmental Assessment	SEA should cover biodiversity issues at the programme level and seek to ensure that potential negative impacts are understood and addressed, and that opportunities are maximised	Programme authorities, SEA practitioners, experts and stakeholders
Biodiversity selection criteria	For programmes with significant potential impacts on biodiversity, selection criteria should be specified at the programme stage to inform the selection of pro-biodiversity projects and to avoid funding of interventions with adverse impacts on biodiversity	Programme authorities in consultation with experts and stakeholders
<i>Ex ante</i> evaluation	<i>Ex ante</i> evaluation should assess whether biodiversity issues, threats and opportunities are adequately identified and addressed in the programme	EC, programme authorities, evaluators, experts stakeholders

#### *Checklist of key questions:*

In summary the key questions that should be addressed at this stage of the policy cycle are:

1. Have the programming authorities undertaken an assessment and mapping of threats to biodiversity and potential opportunities and investment needs for biodiversity, ecosystem services and Green Infrastructure?
2. Does the programme take into account EU/national/regional biodiversity-related strategies / plans already in place?
3. Have SMART specific biodiversity objectives, targets, indicators and monitoring requirements been set out within the programme?
4. Has the programme earmarked funding for biodiversity investment, where appropriate?
5. Does the programme comply with the relevant *ex-ante* conditionalities?
6. Does the programme consider/ assess the possible negative impacts of other investment priorities on biodiversity and ecosystem services? Are appropriate mitigation measures and/or possible changes in priorities specified, in order to minimise potential harmful effects?
7. Does the programme estimate the amount allocated for biodiversity related activities across the different objectives using a robust tracking methodology?
8. Is biodiversity adequately considered in the *ex-ante* evaluation and the Strategic Environmental Assessment (SEA)?

9. Does the programme take into account biodiversity needs identified in existing PAFs, RBMPs?
10. Has the programme development involved appropriate consultation with the environmental authorities, environmental networks, NGOs and other stakeholders in the region/country?
11. Have the programme authorities appointed / created specific institutional structures / roles, e.g. sustainability manager to coordinate biodiversity mainstreaming efforts and activities; advisory group to provide specialist advice and expertise on biodiversity issues?

#### **4.4 Implementation**

Implementation requires that biodiversity considerations are integrated into calls for proposals, advice and guidance provided to potential applicants, project selection criteria, and ongoing technical support for beneficiaries. Good application of biodiversity proofing principles and tools will help to ensure that well designed policies and programmes have their intended effects, both in minimising adverse impacts and maximising opportunities for biodiversity benefits. This requires the transfer of knowledge and raising awareness of biodiversity among a wide range of stakeholders involved in project selection and implementation, implementation and enforcement of the procedures specified in the policy development and programming stages, and ongoing consultation with stakeholders and experts. Existing tools – particularly EIA and Appropriate Assessment, but also CBA and project selection criteria, are important at the implementation stage.

The fund specific guidance documents provide more details of biodiversity proofing in the implementation of each of the main instruments.

#### **4.5 Monitoring and reporting**

Monitoring and reporting are important in collecting evidence of impacts on biodiversity and ecosystems – both positive and negative. They play an important role in biodiversity proofing of all policies, and at each stage of the policy cycle. First, they are dependent on the establishment of appropriate SMART targets and indicators and monitoring and reporting procedures at the policy development and programming stages, to ensure that data needs are defined and procedures for data collection and reporting are set in place. Second, monitoring and reporting play a critical role in informing evaluation, and hence future refinements in programme implementation, as well as policy development and programming in future policy cycles. They are also important in tracking biodiversity related expenditures, which as well as informing policy development are necessary for the EU's external reporting to the CBD.

The key tools that may be used to aid biodiversity proofing at this stage of the policy cycle are listed in Table 4-3 below.

**Table 4-3 Key tools for proofing the monitoring and reporting stage of the policy cycle**

Tool	Application	Relevant Stakeholders
Coordination structures, partnerships and expert/information networks	The assessment of monitoring data will benefit from inputs from internal and external experts and stakeholders on biodiversity issues	Programme authorities, biodiversity experts and stakeholders
Ex-post tracking of biodiversity expenditure	Analysis of biodiversity related expenditures, in order to monitor progress against funding targets	Programme authorities
SEA Reporting	If an SEA was carried out and identified requirements for biodiversity monitoring, these should be reported on at this stage	Programme & environmental authorities, biodiversity experts and stakeholders
Biodiversity impacts and progress with programme objectives	Objective analysis of the results of monitoring studies should be undertaken to establish if objectives were met in order to guide implementation and future development	Programme authorities, biodiversity experts and stakeholders

*Checklist of key questions:*

In summary the key questions that should be addressed at this stage of the policy cycle are:

1. Have appropriate experts been involved in the monitoring process and assessment of results?
2. Have tracking data shown whether expenditure on biodiversity has been in accordance with targets?
3. Have biodiversity indicator data shown that detrimental impacts have been minimised and beneficial opportunities taken up such that biodiversity targets have been achieved? ?
3. Are the results of the expenditure tracking and biodiversity monitoring adequately publically reported on in a transparent way?

**4.6 Evaluation**

Evaluation normally takes place at three stages of the policy cycle:

- *Ex-ante* evaluation occurs at the programming stage, and, providing biodiversity issues, threats and opportunities are adequately considered, can help to ensure that programmes are designed and implemented in a way that minimises adverse impacts and maximises positive effects;
- Mid-term evaluation (and other interim evaluations during the policy cycle) enables biodiversity impacts and benefits to be examined in the course of programme implementation, and can therefore help to guide future implementation procedures;
- *Ex-post* evaluation takes place after the completion of the programme, and informs future policy development, programming and implementation.

In order to address biodiversity objectives, evaluation is dependent on evidence of biodiversity impacts and benefits, through appropriate objective assessments of robust and timely data, indicators and reports. It depends also on sufficient weight being given to biodiversity alongside other issues in the design and delivery of the evaluation, and clear recommendations being made about how biodiversity objectives can be addressed more effectively.

*Checklist of key questions:*

In summary the key questions that should be addressed at this stage of the policy cycle are:

1. Are biodiversity related impacts and opportunities adequately addressed by the evaluations?
2. Have the findings related to biodiversity from the mid-term evaluation (and other interim / on-going evaluations) been used to inform changes in programme design and implementation, where appropriate?

## 5 References

Ausden, M (2007) *Habitat Management for Conservation: A Handbook of Techniques*. Oxford University Press, Oxford.

Barca, F and McCann, P (2011) *Outcome indicators for the Thematic priorities addressing the Europe 2020 Objective "Improving the conditions for innovation, research and development"*. Examples. High level group reflecting on future Cohesion Policy, Meeting No 8, February 2011. European Commission.

Brouwer, R, Brander, L M, Kuik, O, Papyrakis, E and Bateman, I (2013) *A synthesis of approaches to assess and value ecosystem services in the EU in the context of TEEB*. TEEB follow-up study for Europe, VU University Amsterdam Institute for Environmental Studies IVM, <http://ec.europa.eu/environment/nature/biodiversity/economics/pdf/EU%20Valuation.pdf>.

Burton, R J F and Schwarz, G (2013) Result-oriented agri-environmental schemes in Europe and their potential for promoting behavioural change. *Land Use Policy*, No 30, (1) pp628-641.

EEA (2010a) *EU 2010 Biodiversity Baseline*. EEA Technical Report No 12/2010, European Environment Agency, Copenhagen.

EEA (2010b) *Assessing Biodiversity in Europe - the 2010 Report*. EEA Technical Report No 5/2010, European Environment Agency, Copenhagen.

ENEA-REC (2009) *Improving the Climate Resilience of Cohesion Policy Funding Programmes. An overview of member states' measures and tools for climate proofing Cohesion Policy funds*. European Network of Environmental Authorities for the Cohesion Policy (ENEA), Szentendre, Hungary.

European Commission (2009) *Report from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions on the application and effectiveness of the EIA Directive (Directive 85/337/EEC, as amended by Directives 97/11/EC and 2003/35/EC)*. COM(2009)278 Final, 23.7.2009, European Commission, Brussels.

European Commission (2013a) *Guidance on Integrating Climate Change and Biodiversity into Strategic Environmental Assessment*. European Commission, Brussels.

European Commission (2013b) *The Economic benefits of the Natura 2000 network*. Synthesis report. Publications Office of the European Union, Luxembourg, [http://ec.europa.eu/environment/nature/natura2000/financing/docs/ENV-12-018\\_LR\\_Final1.pdf](http://ec.europa.eu/environment/nature/natura2000/financing/docs/ENV-12-018_LR_Final1.pdf).

Evans, A D, Armstrong-Brown, S and Grice, P V (2002) Science into policy: the role of research and development in the evolution of a 'smart' agri-environment scheme. *Aspects of Applied Biology* 67, 253-264. Warwick UK, Association of Applied Biologists.

GRDP (2006) *Handbook on SEA for Cohesion Policy 2007-2013*. Greening Regional Development Programmes Network.

Grice, P, Evans, A, Osmond, J and Brand-Hardy, R (2004) Science into policy: the role of research in the development of a recovery plan for farmland birds in England. *Ibis*, No 146, pp239-249.

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

Herremans, J-P, Houston, J, Jepsen, B, Racinska, I, Sliva, J, Rossi, I, Sopeña, A, Valaoras, G and Weeger, C (2013) *Study on the costs linked to habitat restoration within LIFE Nature projects*. Study and annexes (rivers and grasslands). EHT4 Astrale D contract, Astrale LIFE team, unpublished.

Hjerp, P, Medarova-Bergstrom, K, Skinner, I, ten Brink, P, Medhurst, J, Hausemer, P, Peterlongo, G, Kalinka, P, Kettunen, M, Cachia, H, Grubbe, M and Evers, D (2011) *Cohesion Policy and Sustainable Development. A report for DG Regio*. Final Report. Institute for European Environmental Policy, London.

IEEP and Milieu (2013) *The Guide to Multi-benefit Cohesion Policy Investments in Nature and Green Infrastructure*. A report for the European Commission, Brussels.

IEEP, GHK and TEPR (2012) *Background Study Towards Biodiversity Proofing of the EU Budget*. Report to the European Commission, Institute for European Environmental Policy, London.

Keenleyside, C, Beaufoy, G, Tucker, G M and Jones, G (2014) *High Nature Value farming throughout EU-27 and its financial support under the CAP*. Final report and annexes. Report prepared for DG Environment, Contract No ENV B.1/ETU/2012/0035, Institute for European Environmental Policy & European Forum on Nature Conservation and Pastoralism, <http://www.ieep.eu/work-areas/agriculture-and-land-management/public-goods-and-agriculture/2014/05/high-nature-value-farming-throughout-eu-27-and-its-financial-support-under-the-cap>.

Kettunen, M, McConville, A J and van Vliet, W (2012) *Handbook on financing biodiversity in the context of the European Fund for Regional Development (EFRD)*. Practical guidance based on the lessons learned from SURF Nature project (ERDF Interreg IVC). Published by SURF-Nature Project, Cardiff.

Kettunen, M, ten Brink, P and (eds.) (2013) *Social and Economic Benefits of Protected Areas: An Assessment Guide*. Routledge/Earthscan, London.

Kiehl, K, Kirmer, A, Donath, T W, Rasran, L and Hölzel, N (2010) Species introduction in restoration projects – Evaluation of different techniques for the establishment of semi-natural grasslands in Central and Northwestern Europe. *Basic and Applied Ecology*, No 11, (4) pp285-299.

Maes, J, Teller, A, Erhard, M, Murphy, P, Paracchini, M L, Barredo, J I, Grizzetti, B, Cardoso, A C, Somma, F, Petersen, J-E, Meiner, A, Gelabert, E R, Zal, N, Kristensen, P, Bastrup-Birk, A, Biala, K, Romao, C, Piroddi, C, Egoh, B, Fiorina, C, Santos, F, Naruševicius, V, Verboven, J, Pereira, H, Bengtsson, J, Kremena, G, Marta-Pedroso, C, Snäll, T, Estreguil, C, San Miguel, J, Braat, L, Grêt-Regamey, A, Perez-Soba, M, Degeorges, P, Beaufaron, G, Lillebo, A, Malak, D A, Liqueste, C, Condé, S, Moen, J, Östergård, H, Czúcz, B, Drakou, E G, Zulian, G and Laval, C (2014) *Mapping and Assessment of Ecosystems and their Services: Indicators for ecosystem assessment under Action 5 of the EU Biodiversity Strategy to 2020*. EC Technical Report 2014 - 080, Publications Office of the European Union, Luxembourg.

Medarova-Bergstrom, K and Volkery, A (2012) *Walking the talk - practical options for making the 2014-2020 EU MFF deliver on climate change*. Final Report for the Dutch Ministry of Infrastructure and the Environment, Institute for European Environmental Policy, Brussels.

Medarova-Bergstrom, K, Volkery, A, Schiellerup, P, Withana, S and Baldock, D (2011a) *Strategies and Instruments for Climate Proofing the EU Budget*. Institute for European Environmental Policy, London.

Medarova-Bergstrom, K, Baldock, D, Gantioler, S, Hart, K, Kettunen, M and Volkery, A (2011b) *Mainstreaming the environment and climate change in the post-2013 EU budget. Directions in European Environmental Policy*, No 4,

OECD (1996) *Building Policy Coherence*. Organisation for Economic Cooperation and Development, Paris.

OECD (2008) *Policy Coherence for Development: Lessons Learnt*. Organisation for Economic Cooperation and Development, Paris.

Olmeda, C, Keenleyside, C, Tucker, G M and Underwood, E (2014) *Farming for Natura 2000. Guidance on how to integrate Natura 2000 conservation objectives into farming practices based on Member States good practice experiences*. European Commission, Brussels (in press).

Perrow, M R and Davy, A J (2002) *Handbook of Ecological Restoration*. Cambridge University Press, Cambridge.

Russi, D, ten Brink, P, Farmer, A, Badura, T, Coates, D, Förster, J, Kumar, R and Davison, N (2013) *The Economics of Ecosystems and Biodiversity for Water and Wetlands*. Ramsar Secretariat, <http://www.teebweb.org/wetlands/>.

Schwarz, G and Morkvenas, Z (2013) *Review of outcome based agri-environmental payments and guidelines for the practical implementation of a pilot scheme in Lithuania*. Baltic Compass, Johann Heinrich von Thünen-Institut & BEF Lithuania, [http://www.balticcompass.org/PDF/Reports/Review-outcome-based-AE\\_final-version-20131029.pdf](http://www.balticcompass.org/PDF/Reports/Review-outcome-based-AE_final-version-20131029.pdf).

Schwarz, G, Moxey, A, McCracken, D, Huband, S and Cummins, R (2008) *An analysis of the potential effectiveness of a Payment-by-Results approach to the delivery of environmental*

*public goods and services supplied by Agri-Environment Schemes*. Report to the Land Use Policy Group Project No. 23192, Macaulay Institute, Pareto Consulting and Scottish Agricultural College, UK.

Suding, K N (2011) Toward an era of restoration in ecology: successes, failures, and opportunities ahead. *Annual Review of Ecology, Evolution, and Systematics*, No 42, (1) pp465-487.

TEEB (2010) *The Economics of Ecosystems and Biodiversity: Ecological and Economic Foundations*. Earthscan, London and Washington, DC.

ten Brink, P (ed) (2011) *The Economics of Ecosystems and Biodiversity in National and International Policy Making*. Earthscan, London and Washington.

Tucker, G M, Allen, B, Conway, M, Dickie, I, Hart, K, Rayment, M and Schulp, C J E (2014) *Policy Options for an EU No Net Loss Initiative*. Report to the European Commission (with Annexes), Institute for European Environmental Policy, London/Brussels.

Tucker, G M, Underwood, E, Farmer, A, Scalera, R, Dickie, I A, McConville, A J and van Vliet, W (2013) *Estimation of the financing needs to implement Target 2 of the EU Biodiversity Strategy*. Report to the European Commission. Institute for European Environmental Policy.

UK NEA (2011) *The UK National Ecosystem Assessment: Synthesis of the Key Findings*. UNEP-WCMC, Cambridge.

Withana, S, Ferrer, J N, Medarova-Bergstrom, K, Volkery, A and Gantioler, S (2011) *Mobilising Private Investment for Climate Action in the EU: The role of new financial instruments*. Institute for European Environmental Policy, London/Brussels.



## Annex 1 - Generic tools for biodiversity proofing EU funding instruments

### A1.1 Introduction to the main types of proofing tools and how they relate to the Common Framework and funds

The Biodiversity Proofing Background study (IEEP et al, 2012) concluded that biodiversity proofing should be based on holistic and integrated processes, with interventions at all appropriate stages of the policy and programme cycles. In particular:

- Substantive instruments (eg the setting of fund objectives and performance indicators, and fund earmarking) are very important in the first parts of the policy cycle (ie setting up the general frameworks of the fund regulations and programming guidelines).
- Procedural instruments (eg SEA/EIA, project selection criteria, *ex-ante*, on-going and *ex-post* evaluations) are important for programming and implementation phases but also monitoring/reporting and evaluation phases.
- Institutional instruments (eg dedicated administrative units tasked with biodiversity proofing and communication mechanisms, working groups and monitoring committees) are needed to support implementation and evaluation phases.

As these instruments tend to overlap and their application is not consistent across the funds, these are not described further by type. Instead the focus below is on some of the most important general biodiversity proofing tools (ie procedures) and their potential for increased incorporation in biodiversity proofing across all the main funds. It is not within the scope of this guidance to provide a detailed account of the background and rationale for these tools, but to highlight their relevance and use in biodiversity proofing. The sections therefore focus on providing practical guidance together with sources of further information. Their application to specific EU funding instruments is discussed where relevant in the fund guidance chapter, together with additional fund-specific tools.

Application of the proofing tools should always take into account the biodiversity proofing principles outlined in section 3.3.

### A1.2 Impact assessment

Before launching any policy initiative (including *inter alia* legislative proposals and funding programmes), the European Commission conducts an impact assessment. It is a process that prepares evidence for decision-makers on the advantages and disadvantages of possible policy options by assessing their potential economic, social and environmental impacts.<sup>22</sup> Relevant 'biodiversity, flora, fauna and landscapes' considerations are evaluated through a set of questions in a checklist format in order to identify direct and indirect environmental

---

<sup>22</sup> EC (2009) Impact assessment guidelines. SEC(2009)92

impacts of the policy options and determining their causality. This way it is ensured that biodiversity concerns/impacts are taken into account in the comparison of the options and ultimately in the selection of the preferred policy option. Impact assessments of legislative acts governing the use of EU funding instruments and programmes are therefore an important procedural tool to ensure proper biodiversity proofing is taking place at the policy development stage of the policy cycle and that biodiversity concerns are an integral part of the funding instruments' policy design.

### ***Good practice guidance***

Recently, thematic guidelines have been developed by several Directorates General on the possible ways of improving/expanding the scope and procedure of EU's impact assessment. For example, a toolkit for 'competitiveness proofing' and operational guidance for assessing territorial impacts of the Commission's initiatives have been published.<sup>23</sup> Similar guidance or recommendations could be developed to strengthen the 'biodiversity proofing' of Commission proposals for EU funding instruments and programmes at an EU level thereby ensuring that biodiversity objectives and concerns, in line with the EU Biodiversity Strategy, are sufficiently reflected in the instruments/programmes' overall design and that adequate legal provisions are set out in the respective fund-specific regulations.

In the current Commission's guidance on impact assessment, 'biodiversity, flora, fauna and landscapes' considerations are among 12 other environmental impacts that need to be assessed in the impact analysis. In cases of Commission proposals where biodiversity impacts are identified as significant, biodiversity considerations should be well integrated in all stages of the impact assessment procedure and particularly in the definition of objectives, the development of policy options and the establishment of monitoring and evaluation systems. Environmental / biodiversity stakeholders should be consulted and engaged throughout this process in order to provide additional and valuable information and expertise on the issue. Similarly, environmental / biodiversity officials should be represented in the impact assessment board tasked with supervising the quality of impact assessments. Also, the category 'biodiversity, flora, fauna and landscapes' and the associated questions included in the checklist for impacts could be updated to include considerations related to ecosystem services and Green Infrastructure. In view of enhancing biodiversity and Green Infrastructure beneficial spending, the impact assessment could also assess the potential benefits from biodiversity-related investment.

## **A1.3 Coordination structures, partnerships and expert/information networks**

### ***Description and role in biodiversity proofing***

Biodiversity-proofing EU funding programmes has an important institutional dimension in that it involves different levels of governance (EU, national, regional) but also engages the most relevant policy actors across governmental institutions, economic and social partners, non-governmental organisations and the scientific community. Article 5 of the CPR governing the funds under shared management, for example, stipulates that Member States shall organise partnerships with the competent authorities, which can involve public and

---

<sup>23</sup> EC. Impact assessment, [http://ec.europa.eu/smart-regulation/impact/key\\_docs/key\\_docs\\_en.htm](http://ec.europa.eu/smart-regulation/impact/key_docs/key_docs_en.htm) [accessed 16 March 2014]

urban authorities, economic and social partners and representatives of civil society, in order to prepare together their Partnership Agreements and the respective programmes.

Institutional tools and mechanisms for biodiversity proofing of EU programmes and projects are therefore important instruments for ensuring inter-institutional cooperation, communication, the provision of expert advice, the exchange of information and good practices, and awareness raising. These could include coordination and implementation structures (eg sustainability managers, cross programme advisory groups, inter-institutional working groups and monitoring committees) as well as expert networks, information exchange platforms and capacity building activities (Medarova-Bergstrom et al, 2011a). They can manage biodiversity programmes/projects but also coordinate actions across sectoral departments, work exclusively with beneficiaries, or cooperate with networks of environmental/climate experts.

### ***Good practice guidance***

Designing effective institutional structures and investing in developing their capacity to enhance the promotion and absorption of biodiversity-beneficial projects will be crucial to aid the uptake of biodiversity funding but also ensure broader integration of biodiversity objectives across other programmes, measures and instruments. There is a need to create in-house administrative capacity to address biodiversity at all tiers of governance and sectoral processes. This is linked to building expertise and managing knowledge on biodiversity in national and regional institutions which traditionally do not have such expertise, e.g. finance ministers, sectoral administrations, managing authorities but also external stakeholders such as urban / rural authorities and socio-economic partners. This could be done for instance through developing specific internal expertise on these issues, by appointing biodiversity/environmental experts in these structures, conducting in-house training and skills share seminars, encourage pilot projects and the promotion of good practices. Funding for establishing such structures and fostering their administrative capacity can be sourced under technical assistance (ERDF) and the European Social Fund (ESF).

At an EU level, the European Network of Environmental and Managing Authorities (ENEA-MA) is an excellent example of a coordination mechanism for bringing together the relevant actors involved in the management of EU funds in order to share experiences and good practices on environmental integration in EU funds.<sup>24</sup> The ENEA-MA has a working group dedicated to biodiversity issues which has developed position- and guiding papers on enhancing dedicated biodiversity investment and identifying/mitigating potential negative impacts on biodiversity of EU funded activities. Such networks have only been established in a few countries at a national level (eg in Spain, Italy and Poland) but there is scope for establishing similar expert networks and platforms for exchange of information at national and regional levels in other countries too.

---

<sup>24</sup> ENEA-MA in Cohesion Policy, [http://ec.europa.eu/environment/integration/cohesion\\_policy\\_en.htm](http://ec.europa.eu/environment/integration/cohesion_policy_en.htm)

### ***Sources of further guidance information***

- ENEA - Working Group on 2014-2020 Cohesion Policy and Biodiversity (2013) *Integrating of biodiversity and Natura 2000 in the Partnership Agreements and Operational Programmes 2014-2020*. Position Paper, March 2013.
- ENEA-REC (2009) *Improving the Climate Resilience of Cohesion Policy Funding Programmes: An overview of member states' measures and tools for climate proofing Cohesion Policy funds*. ENEA Working Group on Climate Change and Cohesion Policy. November 2009.

## **A1.4 Biodiversity objective- and indicator-setting**

### ***Description and role in biodiversity proofing***

Setting out environmental objectives in national and regional spending programmes is critical in order to communicate high level political commitment and to establish a sense of direction in terms of policy choices and possible trade-offs. Objective-setting for biodiversity, in line with the EU and national biodiversity strategies as well as the fund-specific objectives, should on the one hand underpin dedicated pro-biodiversity investment where appropriate and on the other – ensure that other non-biodiversity objectives and priorities, where potential trade-offs can emerge, are coherent with biodiversity concerns. For example, under the shared management funds, biodiversity objectives in national and regional spending programmes in relation to Thematic Objective 6 'Preserving and protecting the environment and promoting resource efficiency' will guarantee that among other environmental priorities, biodiversity considerations are sufficiently addressed and funded. On the other hand, setting out biodiversity-related objectives in relation to thematic objective 7, concerned with the development of transport and energy infrastructures, will ensure that that possible trade-offs between infrastructure development and biodiversity objectives are identified, analysed, communicated and possible alternative development scenarios and/or mitigation measures are put forward at the later stages of the policy and project cycles.

The 2014-2020 EU MFF is said to reinforce better performance and result-orientation of EU funding instruments and programmes. This requires that coherent frameworks of objectives, accompanied with targets, milestones and indicators for biodiversity should be established already during the programming stage of the policy cycle. For example, for funds under shared management, the so called performance frameworks are required to be established where objectives, targets, milestones and indicators are integrated in a coherent and interlinked system allowing for the measurement of progress in implementation and the achievement of expected outcomes and results. Integrating biodiversity-related objectives and the corresponding targets, milestones and indicators in the national and regional spending programmes is therefore another way to enhance biodiversity-proofing of funds. Such performance frameworks have to be set up as early as possible in the programming stage while the actual monitoring and reporting of results against the set milestones and indicators will take place at the later stages of policy and project monitoring and reporting.

***Good practice guidance***

One of the most straight-forward ways of ensuring that a spending programme's vision incorporates biodiversity-related concerns is through the clear formulation of biodiversity objectives. Their role is twofold: on the one hand, they provide a strategic orientation for identifying specific priorities and measures for biodiversity-beneficial investment while on the other hand, they ensure that biodiversity concerns are taken into account across all other priorities and measures. Biodiversity objectives for programmes should respond to required EU, national and regional actions and investment in biodiversity conservation, ecosystem services and Green Infrastructure. These should include EU Biodiversity Strategy targets, Natura 2000 priorities identified in PAFs and national biodiversity strategies and action plans (which should be reflected in the analysis section of programmes and flagged up in ex-ante evaluations / SEAs). Biodiversity objective setting is also important in the implementation cycle in relation to the call for proposals. At this stage objectives should reflect higher level programme objectives (which should EU and national priority objectives) but also take into account local considerations.

Once the objectives are set out, the next step is to translate them into specific priorities / measures (see 0) which define in more concrete terms what the programme will do and what kinds of projects it will support. Arguably, support should be channelled to clear win-win integrated solutions where multiple benefits for biodiversity, economic and social domains can be realised in the most cost-effective way. In addition, programmes should specify the target region or territory, the target group of beneficiaries, as well as possible guiding principles for project selection criteria in relation to these biodiversity objectives.

In order to measure progress to biodiversity-related objectives, a robust and coherent framework including SMART targets<sup>25</sup>, milestones and carefully selected indicators (see Box 4.1) should be developed already within each spending programme. These will provide important guidance for the development and implementation of projects but also should be used in various reporting (e.g. annual implementation reports, progress reports, etc.) and evaluation processes (e.g. mid-term and ex-post evaluation). In the case of direct spending on biodiversity, it is critical to have indicators that effectively illustrate progress and success. It is a greater challenge to develop indicators that assess indirect or multi-benefit objectives. However, where important biodiversity and ecosystem services goals have been successfully inserted into other funding priorities, they should be backed up with relevant indicators (IEEP and Milieu 2013).

The SEA usually puts forward environmental, including biodiversity-related, indicators which could be included in the performance framework of the programme. Indicators should include common input indicators (as proposed in the fund-specific regulations for ESI fund, for example) but also include additional programme-specific indicators that concern not only outputs, but also outcomes and programme/project results. It should be noted though that sometimes attributing biodiversity impacts / effects to a specific programme/project might be difficult as there are other external factors that influence the overall biodiversity

---

<sup>25</sup> I.e. Specific, Measurable, Achievable, Relevant and Time-specific (one version of the SMART a mnemonic acronym).

situation (GRDP, 2006). Yet, this could be avoided through the formulation of a series of milestones and concrete indicators which should be measurable and quantifiable to the extent possible. Where necessary, funds from technical assistance could be used to develop necessary biodiversity indicator- and data collection systems in support of the programming and implementation process.

#### **Box A4.1 Indicators of proactive investment in biodiversity**

Selected indicators should form a coherent set that measure different aspects of the biodiversity investments - financial aspects, outputs and results - to help evaluate project success.

**Financial indicators** show how much of programme or project resource – has been allocated and spent on biodiversity. Such indicators could include absolute amount of funds and/or percentage of the overall budget.

**Output indicators** quantify the actions taken to achieve the desired results using the allocated resources. Such indicators could include for example:

- number of completed projects aimed at protection of Natura 2000 sites and other protected areas
- number of Green Infrastructure initiatives financed
- number of hectares covered by conservation measures
- number of species covered by protection or reintroduction programme
- number of prepared management plans for protected areas
- number of biodiversity related training activities or information campaigns organised

**Result indicators** show progress towards the ultimate biodiversity objectives. Such indicators could include for example:

- hectares of habitat or number of species with improved conservation status
- hectares of restored habitats / areas for Green Infrastructure that delivers benefits to biodiversity and ecosystem services
- percentage of population with better understanding and appreciation of biodiversity and ecosystem services

In general, result oriented indicators are considered to be the most appropriate tools for measuring the progress in reaching set biodiversity objectives. This is because they can capture change in the quality of environment rather than just quantity of measures. They are also the most compelling in terms of proving evidence for value for money. Result indicators are also the most problematic to develop. Firstly, developing appropriate result indicators requires good knowledge of the baseline situation. Secondly, biodiversity conservation is very complex, prone to many pressures and often characterised by long response times. In many cases measurable positive impacts on biodiversity may not be seen until several years after a project has been completed. However, even though investment in biodiversity conservation might not bring measurable results / outputs within the time frame of the project this should not be considered as a reason for not investing in biodiversity. Result orientation should be seen as a long-term process within the EU investment framework.

Sources: Financing Natura 2000 in 2014-2020: Guidance Handbook [http://ec.europa.eu/environment/nature/natura2000/financing/docs/Natura2000financingHandbook\\_part2.pdf](http://ec.europa.eu/environment/nature/natura2000/financing/docs/Natura2000financingHandbook_part2.pdf) and Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment <http://ec.europa.eu/environment/eia/pdf/EIA%20Guidance.pdf>

### ***Sources of further guidance information***

- IEEP and Milieu (2013) *The Guide to Multi-Benefit Cohesion Policy Investments in Nature and Green Infrastructure*. DG Environment, European Commission, Brussels.
- Kettunen, M and McConville, A (2012) *Handbook on financing biodiversity in the context of the European Fund for Regional Development (ERDF): Practical guidance based on the lessons learned from SURF Nature project (ERDF Interreg IV)*, Cardiff.
- Kettunen, M, Torkler, P and Rayment, M (2014) *Financing Natura 2000 in 2014-2020: Guidance Handbook*. DG Environment, European Commission, Brussels.  
[http://ec.europa.eu/environment/nature/natura2000/financing/docs/Natura2000financingHandbook\\_part2.pdf](http://ec.europa.eu/environment/nature/natura2000/financing/docs/Natura2000financingHandbook_part2.pdf)

## **A1.5 Earmarking funds for biodiversity objectives**

### ***Description and role in biodiversity proofing***

Setting biodiversity objectives should be complemented by a mechanism that guarantees that a sufficient amount of financing is secured for meeting these objectives (Medarova-Bergstrom et al, 2011a). *Earmarking* is one such mechanism that is generally used to deploy public finance to specific objectives and priorities, including those related to biodiversity. The earmarking of EU funds to biodiversity objectives and measures can also bring more transparency to the tracking and reporting on EU expenditure and impacts on biodiversity. Tracking and reporting biodiversity-related expenditure will be done under the 2014-2020 EU budget for the relevant EU funding instruments, which arguably will increase the availability and quality of information about the scale and scope of biodiversity spending at an EU level.

### ***Good practice guidance***

The earmarking of funding for specific objectives could be done at a strategic level of the policy cycle by setting out a quantitative commitment for dedicated spending. For example, in October 2013 the Council and the Parliament agreed that 20% of the 2014-2020 EU MFF will be spent on activities promoting climate change mitigation and adaptation. This provided an important strategic orientation for the design of the relevant EU funding instruments, which are supposed to contribute to this commitment. No such commitment on biodiversity was made but this could be considered in the mid-term review of the 2014-2020 MFF or in the post-2020 period.

The ERDF Regulation sets out provisions for thematic concentration, that aims to target future funding on fewer but more strategic thematic objectives. In support of the overarching MFF commitment for climate change spending, the ERDF Regulation sets out that at least 20% in more developed regions, 15% in transition regions and 12% in less developed regions of the national ERDF allocations will be earmarked for activities contributing to thematic objective ‘Supporting the shift towards a low-carbon economy in all sectors’. These provisions provide a very clear, straightforward and measurable framework for operationalising these quantitative floors for spending in the development of spending programmes at national and regional level. Similar provisions for earmarking funds for biodiversity beneficial spending could be very helpful in the future in order to guarantee that a certain minimum will be dedicated to biodiversity objectives.

In the absence of such provisions at a strategic level within the regulatory framework, national, regional and rural authorities could still include a quantitative earmarking of funding in their programmes in relation to specific biodiversity-related objectives. This is very much linked to the process of objective- and indicator setting discussed above and ensures that the necessary financial resources are allocated for the achievement of such objectives. The earmarking at programme level could also respond to specific investment needs identified in the analytical part of the programmes thereby ensuring the overall consistency of the programmes in terms of needs, objectives and expected results.

### ***Sources of further guidance information***

- Hjerp, P, Medarova-Bergstrom, K, Skinner, I, Mazza, L and ten Brink, P (2011) *Cohesion Policy and Sustainable Development-Policy Instruments*, Supporting Paper 5. A report for the European Commission, Brussels.

## **A1.6 Design of biodiversity measures**

### ***Description and role in biodiversity proofing***

Some funds may be used for practical measures that aim to conserve, enhance or restore biodiversity, as well as related Green Infrastructure and associated ecosystem services. A large proportion of RDP funds are used for such purposes, but ERDF funds may also be used especially for Green Infrastructure related projects that provide multiple benefits beyond biodiversity (IEEP and Milieu, 2013; Kettunen et al, 2012). Biodiversity measures may also be implemented by projects, such as infrastructure developments, in order to offset residual impacts and thereby achieve no net loss of biodiversity.

In practice the management and restoration of habitats, and development of species recovery programmes, can be difficult and uncertain (Kiehl et al, 2010; Suding, 2011). This is because habitat and species requirements vary according to complex interacting factors, for example climate, altitude, latitude, soils, hydrology, spatial factors such as habitat patch size and connectivity, predators, competitors, parasites, pathogens, predators, natural history and management (Ausden, 2007; Perrow and Davy, 2002). Habitat restoration and species recovery measures are also often expensive and biodiversity funding is in short-supply (Herremans et al, 2013; Tucker et al, 2013). Therefore considerable care needs to be taken in selecting and designing biodiversity measures.

### ***Good practice guidance***

Resources for biodiversity management and restoration measures are not sufficient to address all requirements, and therefore it is firstly very important to ensure that funding is focussed on those habitats and species of highest conservation importance. For EU funding it is appropriate for a high priority to be given to addressing the needs of habitats and species of Community interest, especially those that are given a formal priority status in the Habitats Directive. However, the conservation status of species varies amongst Member States and therefore priorities may need to be adjusted accordingly. Consideration should also be given to whether measures are able to address the needs of multiple species, as this will increase their cost-effectiveness.



Secondly, the need for targeting measures to particular areas should be considered. This may be required to ensure that measures for species and habitats or high conservation importance are addressed. Thus for habitats and species of Community interest a high priority should be given to targeting measures to Natura sites. Certain Natura sites might also be targeted, for example on the basis of the proportion of the targeted habitats or species populations that occur within them. However, it is important to bear in mind that a significant proportion of many habitats and species of Community interest occur outside Natura sites, especially those associated with agricultural habitats. Therefore a second level priority after targeting Natura sites should be target areas with significant amounts of such habitats and species elsewhere, such as in areas that have been identified as being High Nature Value (HNV) farmland (Keenleyside et al, 2014).

Targeting of measures to priority habitat types, species and locations can also greatly increase their cost-effectiveness, as for example shown in a study of the estimated cost of reversing declines in farmland birds in the UK (Hart et al, 2011). The case study showed that focussing a package of agri-environment measures on locations where concentrations of the target declining birds are known to occur (from bird atlas data) would ensure that the measures are not placed where they would have no potential benefit. Therefore the need for its wide application is avoided and payments are reduced greatly. Although such targeting requires good up-to-date data on the distribution of the targeted species and habitats the cost of obtaining such data are often small compared to the costs of applying the measure, so the approach can result in considerable savings.

In addition to ensuring that measures target the most important habitats, species and locations, it is also vital that they are carefully designed and based on sound ecological evidence (Evans et al, 2002; Grice et al, 2004). Information on the ecological requirements of many habitats and species is growing, as result of scientific studies and experience from the application of agri-environment schemes and other conservation actions, some of which are now captured in evidence databases and reviews (see below). Therefore, before designing any measures existing evidence should be identified and taken into account. However it may often be necessary to carry out additional scientific field trials, for example to fill data gaps and to adapt measures to new situations.

For measures that are to be applied through RDP schemes it will often be appropriate to prescribe the exact management actions that must be taken (such as regarding stocking rates and periods) to receive payments. This is particularly the case where the results of the management actions are considered to be predictable and consistent but not easy to monitor. However, in some situations it may be more appropriate to develop results-based payment schemes that enable prescribe biodiversity objectives for farmers (eg the presence of certain plants) but allows them to decide what management actions, perhaps within prescribed limits, are required to achieve the objective. This more flexible approach can be more motivating for farmers (as it respects their knowledge) and allows them to adjust management according to local circumstances or varying weather from year to year (Burton and Schwarz, 2013; Schwarz et al, 2008; Schwarz and Morkvenas, 2013).

Finally, the effectiveness and efficiency of biodiversity measures should always be monitored in relation to appropriate targets and indicators (see also Annex 1.4). Such monitoring can facilitate adaptive management through refinements to the measures or their application, which should be disseminated through expert networks and databases (eg conservationevidence.com see below). This is especially important for new types of intervention, but some monitoring should also be carried out for all measures no matter how well established they are because circumstances can change.

### **Sources of further guidance information**

- Ausden, M (2007) *Habitat Management for Conservation: A Handbook of Techniques*. Oxford University Press, Oxford.
- Centre for Evidence-based Conservation <http://www.cebc.bangor.ac.uk/>
- Conservationevidence.com <http://www.conservationalevidence.com/>
- European Centre for River Restoration <http://www.ecrr.org/index.html>
- Olmeda, C, Keenleyside, C, Tucker, G M and Underwood, E (2014) *Farming for Natura 2000. Guidance on how to integrate Natura 2000 conservation objectives into farming practices based on Member States good practice experiences*. European Commission, Brussels (in press). To be published on the DG Environment website [http://ec.europa.eu/environment/nature/index\\_en.htm](http://ec.europa.eu/environment/nature/index_en.htm)
- Society for Ecological Restoration – Europe <http://chapter.ser.org/europe/>

## **A1.7 Ex-ante evaluation**

### **Description and role in biodiversity proofing**

*Ex-ante* evaluations are evaluations of national/regional spending programmes under the shared management funds that Member States are required to carry out in order to improve the quality of the programmes' design in terms of *inter alia* their contribution to the Europe 2020 Strategy, the consistency and coherence of programme objectives with the allocation of funds as well as the adequacy of proposed measures (article 55 of the CPR). In some cases, an SEA can be part of the *ex-ante* evaluation procedure (article 55(4)).

These evaluations are found to be useful in aligning EU funding programmes with EU regulatory requirements and strategic policy documents such as the Biodiversity Strategy. For instance, under the current Cohesion Policy, *ex-ante* evaluations developed in parallel with the Operational Programmes made it possible to learn and reflect within the programming process (Hjerp et al, 2011). Accordingly, *ex-ante* evaluations can be seen as important tools to facilitate and extend biodiversity-proofing in the 2014-2020 MFF, providing an opportunity to re-appraise the treatment of biodiversity in EU funding programmes, and to identify areas for which there is a risk of significant adverse impacts on biodiversity (and other environmental issues).

### **Good practice guidance**

Understanding the value of nature, biodiversity and ecosystem services and its contributions towards broader socio-economic objectives, in the context of developing national / regional spending programmes, can be challenging. Therefore, there are two procedural instruments that can provide support to national / regional and local authorities and partners.

Operational Programmes are subject to an *ex-ante* evaluation and a Strategic Environmental Assessment (SEA) – see Annex 1.8. The *ex-ante* evaluation examines consistency of the programme strategy with national / regional strategic frameworks and funding priorities while the SEA assesses the expected environmental impacts and interactions of the draft programme. It is therefore a chance for a re-evaluation of the treatment of nature in funding priorities and horizontal principles. In some cases the two assessments can be carried out jointly. Whether this occurs or not, evaluators for both documents should cooperate as closely as possible to avoid inconsistencies between two documents (IEEP & Milieu, 2013).

A summary of the SEA is usually incorporated in the *ex-ante* evaluation, the main results of which are presented as part of the programme. In order to have a genuine impact on the process and the content of the programme, *ex-ante* evaluations (including SEA) should ideally be carried out from the very early stages of the development of the respective programme. The SEA consultation phase provides an opportunity for environmental / biodiversity stakeholders to provide input into the *ex-ante* evaluation and the programme content respectively. While procedural instruments such as *ex-ante* evaluation and SEA (especially the consultation phase) can sometimes be perceived as time consuming and administratively heavy, they should instead be seen as a valuable opportunity to improve the programming process. Reportedly, higher costs are often associated with delayed *ex-ante* evaluations/SEA, when their completion requires additional time which may prolong the overall planning process (GRDP, 2006). The *ex-ante* evaluation, including the SEA should identify critical synergies and trade-offs between the different programme objectives thereby ensuring that adequate and timely amendments to the programme will maximise biodiversity benefits as new sources of green growth and jobs and minimise potential negative impacts/risks (see more on SEA in section 4.6).

### ***Sources of further guidance information***

- EC (2013) Guidance on Integrating Climate Change and Biodiversity in Strategic Environmental Assessment. DG Environnement.
- Hjerp, P, Medarova-Bergstrom, K, Skinner, I, Mazza, L and ten Brink, P (2011) Cohesion Policy and Sustainable Development-Policy Instruments, Supporting Paper 5. A report for the European Commission, Brussels.
- IEEP and Milieu (2013) The Guide to Multi-Benefit Cohesion Policy Investments in Nature and Green Infrastructure. A Report for the European Commission. Brussels.
- Kettunen, M and McConville, A (2012) Handbook on financing biodiversity in the context of the European Fund for Regional Development (ERDF): Practical guidance based on the lessons learned from SURF Nature project (ERDF Interreg IV), Cardiff.
- Kettunen, M, Torkler, P and Rayment, M (2014) *Financing Natura 2000 in 2014-2020: Guidance Handbook*. DG Environment, European Commission, Brussels.  
[http://ec.europa.eu/environment/nature/natura2000/financing/docs/Natura2000financingHandbook\\_part2.pdf](http://ec.europa.eu/environment/nature/natura2000/financing/docs/Natura2000financingHandbook_part2.pdf)

## **A1.9 Strategic Environmental Assessment**

### ***Description and role in biodiversity proofing***

Strategic Environmental Assessment (SEA) is a particularly important high-level tool that informs spatial planning and is a legal requirement under the SEA Directive (2001/42/EC) for a wide range of public plans and programmes relating to activities such as land use, transport, energy, waste and agriculture. The SEA Directive aims to ensure that public plans and programmes likely to have significant effects on the environment are made subject to an environmental assessment, prior to their approval or authorisation. SEA identifies issues and options at an early planning stage, and therefore complements Environmental Impact Assessment (EIA), which assesses projects at a later stage (see below).

The Directive defines ‘plans and programmes’ as those which are subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and which are required by legislative, regulatory or administrative provisions. This includes those co-financed by the EU. An environmental assessment shall be carried out for all plans and programmes, which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in Annexes I and II of the EIA Directive, or which, in view of the likely effect on sites, have been determined to require an assessment pursuant to Article 6 or 7 of the Habitats Directive.

SEA is a formal requirement in the ex ante evaluation of ESIF funds. Article 55 of the Common Provisions Regulation (EU/1303/2013) states that ex ante evaluations shall incorporate, where appropriate, the requirements for SEA set out in Directive 2001/42/EC, taking into account climate change mitigation needs.

The SEA process involves a number of steps and the most relevant ones for the inclusion of biodiversity consist of screening, scoping (including the development of the Environmental Report), consultation and monitoring. The SEA Directive (like EIA) does not *per se* require the avoidance or reduction of impacts that are identified in the process, but if correctly applied, SEA should help to:

- build biodiversity objectives into land-use, urban or sectoral policies, plans and programmes, at different levels (international to local);
- identify and manage apparently minor impacts, which when accumulated may pose severe threats to biodiversity;
- identify biodiversity-friendly alternatives and mitigation strategies that would be compatible with sustained delivery of ecosystem services;
- ensure that effective monitoring programmes are in place to provide information about biodiversity;
- allow biodiversity specialists and decision-makers and/or planners to engage; and
- integrate biodiversity into a range of activities affecting the way environmental resources are dealt with, such as agriculture, minerals and forestry, from the level of central government downwards.

### ***Good practice guidance***

The European Commission (2013a) issued guidance on integrating biodiversity into Strategic Environmental Assessment. Many of the general principles and recommendations set out in the guidance are relevant to the integration of biodiversity considerations into systems of spatial planning across the EU.

Those undertaking an SEA are advised to consider:

- How will the plan or programme influence biodiversity, and how it will be influenced by biodiversity issues, actions and opportunities?
- How could biodiversity considerations pose a challenge to the assessment process?
- How will this affect information needs — what type of information, what sources and what stakeholders will hold information and specific knowledge in these areas?
- What are the key aspects to cover in the detailed assessment and how important will those issues be in decision making?

In order to address biodiversity issues effectively, the guidance states that SEAs should:

- Consider potential biodiversity impacts of plans and programmes throughout their development, starting from the earliest stage. Biodiversity needs to be considered at the screening and scoping stages and built into the mind-set of all the key parties, including competent authorities and policymakers, planners, SEA practitioners and other stakeholders. The SEA can be used as a creative process to support learning amongst all these parties.
- Use ecosystem services to provide a framework for assessing biodiversity impacts and opportunities, as well as interactions with other environmental issues.
- Look for opportunities for enhancement where available.
- Tailor consideration of biodiversity to the specific context of the plan or programme, rather than using a standardised “checklist of issues”.
- Ensure coherence with existing biodiversity objectives and targets, and consider which of these need to be integrated into the plan or programme.
- Identify and bring together all the stakeholders and environmental authorities to help to identify and address the key biodiversity issues.
- Employ a practical, common sense approach, which is flexible to the needs and interests of stakeholders and gives sufficient time to properly assess complex information.
- Consider the biodiversity context and relevant issues at all levels – local, regional, national and where relevant European and global.
- Assess alternatives that make a difference in terms of their effects on biodiversity and ecosystem services, and seek to foresee and avoid adverse impacts at the options appraisal stage (e.g. impacts on Natura 2000 sites) to avoid problems at the EIA/ project level.
- First seek to avoid biodiversity effects and then mitigate, seeking to achieve ‘no-net-loss’ of biodiversity.

Critical challenges and considerations for addressing biodiversity in SEA are to:

- Consider long-term trends in biodiversity with and without the proposed plan or programme, in order to assess the plan or policy against the future baseline.

- Consider what existing biodiversity objectives and targets need to be integrated into the plan or programme.
- Consider the long-term and cumulative effects on biodiversity, having regard to thresholds and limits, areas that may be particularly adversely affected and the key distributional effects. Use vulnerability assessments to help assess changes to the baseline environment and identify the most resilient alternative(s).
- Address uncertainty, using tools such as scenarios where systems are complex and data imperfect, and including appropriate management and monitoring of risks.
- Develop more resilient alternatives and solutions based on 'win-win' or 'no regret'/'low regret' approaches to plan and programme development.
- Base recommendations on the precautionary principle and acknowledge assumptions and limitations of current knowledge.

SEA will normally be guided by effective spatial planning at the regional and local level, which has an important role to play in conserving biodiversity and ecosystems, and in ensuring that they are not adversely affected by land use and development decisions. Spatial planning is a public process for analysing and allocating the spatial and temporal distribution of human activities across a landscape or region. Ideally it should aim to use an ecosystem approach to develop a multi-sector strategy that balances and achieves environmental, economic and social objectives.

In coastal areas, integrated coastal management (ICZM) aims for the coordinated application of the different policies affecting the coastal zone and related to activities such as nature protection, aquaculture, fisheries, agriculture, industry, off shore wind energy, shipping, tourism, development of infrastructure and mitigation and adaptation to climate change. Maritime spatial planning similarly involves planning human activities at sea in order to ensure sustainable and efficient use of marine space and resources. In March 2013, the Commission proposed a new directive to create a common framework for maritime spatial planning and integrated coastal management. While each EU country will be free to plan its own maritime activities, local, regional and national planning in shared seas would be made more compatible through a set of minimum common requirements.

### ***Sources of further guidance and information***

- Commission's Guidance on Implementation of Directive 2001/42 on the Assessment of the Effects of Certain Plans and Programmes on the Environment. [http://ec.europa.eu/environment/eia/pdf/030923\\_sea\\_guidance.pdf](http://ec.europa.eu/environment/eia/pdf/030923_sea_guidance.pdf)
- European Commission, DG ENV. 2009: Study Concerning the Report on the Application and Effectiveness of the SEA Directive (2001/42/EC). <http://ec.europa.eu/environment/eia/pdf/study0309.pdf>.
- European Commission, DG ENV 2012: Commission Staff Working Document: Elements for a Common Strategic Framework 2014 to 2020 the European Regional Development Fund the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund. European Commission. [http://ec.europa.eu/regional\\_policy/sources/docoffic/working/strategic\\_framework/csf\\_part1\\_en.pdf](http://ec.europa.eu/regional_policy/sources/docoffic/working/strategic_framework/csf_part1_en.pdf).

- Greening Regional Development Programmes Network. 2006: 'Handbook on SEA for Cohesion Policy 2007-2013'. [http://ec.europa.eu/regional\\_policy/sources/docoffic/working/doc/sea\\_handbook\\_final\\_foreword.pdf](http://ec.europa.eu/regional_policy/sources/docoffic/working/doc/sea_handbook_final_foreword.pdf).
- Sadler B, Dusik J, Fischer T, Partidario M, and Verheem R (2010) *Handbook of Strategic Environmental Assessment*. Ed. Ralf Aschemann. Routledge.
- Scottish Executive Welsh Assembly Government Department of the Environment, Northern Ireland (2005) *A Practical Guide to the Strategic Environmental Assessment Directive - Planning, Building and the Environment*. Department for Communities and Local Government, Office of the Deputy Prime Minister. <http://www.communities.gov.uk/publications/planningandbuilding/practicalguidesea>.
- European Commission (2005) *The SEA Manual - A Sourcebook on Strategic Environmental Assessment of Transport Infrastructure Plans and Programmes*. [http://ec.europa.eu/environment/eia/sea-studies-and-reports/beacon\\_manuel\\_en.pdf](http://ec.europa.eu/environment/eia/sea-studies-and-reports/beacon_manuel_en.pdf)
- European Commission (2013) *Guidance on Integrating Climate Change and Biodiversity into Strategic Environmental Assessment*. <http://ec.europa.eu/environment/eia/pdf/SEA%20Guidance.pdf>
- Conference material: International experience and perspectives in SEA, 26-30 September 2005, Prague, Czech Republic. A special thematic meeting of the International Association for Impact Assessment. [http://www.iaia.org/Non\\_Members/Conference/SEA%20Prague/sea\\_prague\\_main\\_page.htm](http://www.iaia.org/Non_Members/Conference/SEA%20Prague/sea_prague_main_page.htm)
- RSPB, the Chartered Institute of Ecology and Environmental Management and the Royal Town Planning Institute (2013) *Planning naturally. Spatial planning with nature in mind: in the UK and beyond* [http://www.cieem.net/data/files/Resource\\_Library/News/Planning\\_Naturally.pdf](http://www.cieem.net/data/files/Resource_Library/News/Planning_Naturally.pdf)
- EC (2012) Guidelines for the Ex-ante Evaluation of 2014-2020 RDPs. Includes guidance on SEA of RDPs. [http://ec.europa.eu/agriculture/evaluation/guidelines/2014-2020-ex-ante-draft-08-2012\\_en.pdf](http://ec.europa.eu/agriculture/evaluation/guidelines/2014-2020-ex-ante-draft-08-2012_en.pdf)
- Council of Europe Conference of Ministers Responsible for Spatial/Regional Planning (CEMAT) [http://www.coe.int/t/dgap/localdemocracy/cemat/default\\_en.asp](http://www.coe.int/t/dgap/localdemocracy/cemat/default_en.asp)
- CEMAT (2000) Guiding Principles for Sustainable Spatial Development of the European Continent. <http://www.coe.int/t/dgap/localdemocracy/cemat/VersionPrincipes/Anglais.pdf>
- EC (2013) Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for maritime spatial planning and integrated coastal management. [http://ec.europa.eu/environment/iczm/pdf/Proposal\\_en.pdf](http://ec.europa.eu/environment/iczm/pdf/Proposal_en.pdf)

## **A1.10 Environmental Impact Assessment and Appropriate Assessment**

### ***Description and role in biodiversity proofing***

Environmental Impact Assessment (EIA) is another important tool that contributes to spatial planning, and complements SEA (and similar higher level assessments) by focusing in more detail on specific projects. It is a legal requirement under the EIA Directive<sup>26</sup> on the assessment of the effects of certain public and private projects on the environment, which requires a systematic assessment of the likely environmental impacts of a wide range of projects, and applies to some extent to all the funds covered by this study. In accordance with the revised Directive, this assessment must include consideration of impacts on biodiversity, with particular attention to species and habitats protected under the Birds and Habitats Directives. Furthermore, the revised Directive notes that assessments should contribute to the EU's headline biodiversity target. In this respect measures taken to avoid, prevent, reduce and, if possible, offset significant adverse effects on the environment, in particular species and habitats protected by the Habitats and Birds Directives should contribute to avoiding any net loss of biodiversity.

The EIA process provides an opportunity to identify suitable measures that may avoid or reduce potential detrimental impacts, and if necessary offset residual impacts, in accordance with the mitigation hierarchy. EIAs may help avoid and reduce impacts by considering alternatives to the proposed development (now mandatory under the revised EIA) and mitigation measures, such as changes in the project design. If these measures are not sufficient to reduce residual impacts to acceptable levels the EIA may result in the rejection by competent authorities of the proposed projects. However, it is important to note that, as with SEA, the Directive is a procedural instrument, and does not *per se* result in an obligation for a competent authority to reject a project, even if it is likely to lead to significant environmental damage. Nevertheless, if correctly applied, this is the practical result to some extent.

EIAs can interact with other EU or national legislative instruments and may for example trigger or inform an Appropriate Assessment under Article 6.3 of the Habitats Directive that does lead to a mandatory requirement to avoid, reduce or compensate for significant impacts. The 2014 amendments to the EIA Directive now include provisions for joint procedures for impact assessments in order to increase their effectiveness and efficiency. Under this the competent authority is required to coordinate the various individual assessments required under EU legislation (including SEA and Appropriate Assessments) which may be required by one or more authorities and to issue one integrated EIA.

### ***Good practice guidance***

Importantly, to be most effective, an EIA should be considered to be an interactive process (rather than just the production of a report) that aims to avoid impacts, then minimise those that cannot be avoided and finally to identify measures that would offset residual impacts. This process can be complex as biodiversity is complex and the EIA process involves a number of steps, including screening, scoping, assessment, and decision making, which should be carried out with stakeholder involvement throughout. It is not therefore within

---

<sup>26</sup> As most recently revised by Directive 2014/52/EU



the scope of this document to provide detailed guidance on this subject, but a number of information sources are available as listed below. In summary, to be effective, consideration of biodiversity in EIAs should:

- Aim to achieve no net loss of biodiversity by following the mitigation hierarchy, ie. Identifying appropriate steps to firstly avoid impacts (such as though consideration of alternative locations) then to minimise impacts (eg by changing the design of the project or its timing or construction methods) and finally to offset residual impacts. But is very important to ensure that measures are appropriate, such as in terms of their proportionality, reliability and cost-effectiveness, so that the combined measures lead to the best reliable outcome for biodiversity.
- Follow the ecosystem approach as set out by the CBD.
- Ensure the assessment of impacts and the estimation of the effectiveness of mitigation and compensation measures in accordance with the precautionary principle, and clearly indicate assumptions, assessment constraints and levels of certainty in impact and mitigation predictions.
- Use the best available evidence (taking into account other related assessments, eg relevant SEAs) and ensure assessments are fully documented and as transparent as possible.
- Be carried out by suitably qualified people, with relevant biodiversity and EIA experience and expertise, and should include consultation with local biodiversity experts, conservation organisations and other stakeholders.
- Identify and assess the entire zone of influence of the project over its lifetime and not just its physical footprint, thus for example taking into account off-site impacts from pollution and disturbance from noise and light.
- Identify habitats and species that occur within the zone of influence (if necessary through adequate field surveys using appropriate methods) that are of particular conservation importance, which should include those that are protected by the Birds and Habitats Directives (the focus of Appropriate Assessments) and national legislation, but also others that are threatened and/or declining and/or occur in internationally or nationally significant numbers.
- Assess impacts on all habitats and species of particular conservation importance throughout the zone of influence of the project, but give particular attention to identifying and assessing impacts on important sites for habitats and species of particular conservation importance, including Natura sites (the focus of Appropriate Assessments), other protected areas, and other areas that have been identified as being of high biodiversity importance (such as Important Birds Areas and Important Plant Areas) and areas that might be important for ecological connectivity or other ecological functions.

- Assess all type of impacts, including loss and degradation of habitats (eg from hydrological change, vegetation change, fragmentation and pollution), direct impacts on species (ie mortality), and indirect impacts (eg from changes in habitat, predators or competitors), as well as secondary impacts (eg increased disturbance to areas as a result of new transport links). See impact tables in the fund-specific guidance section.
- Consider cumulative impacts of other projects and programmes, and aim to avoid and reduce these as a whole.
- Identify and describe (eg within an accompanying environmental management plan) potential mitigation measures that would reduce unavoidable impacts.
- Quantify impacts (in terms of their extent, magnitude, duration, timing, frequency, reversibility and certainty), with and without identified mitigation measures, and assess their significance for each habitat and species of particular conservation importance, in relation to baselines that take into account other drivers and pressures on biodiversity.
- Identify and describe compensation measures (such as habitat restoration) that would offset residual impacts (ie after mitigation) and thereby achieve no net loss of biodiversity; quantifying their impacts through appropriate metrics which should take into account the reliability of the offset measures.
- Include adequate monitoring (now mandatory under the 2014 amendments) and transparent public reporting on biodiversity impacts, and the effectiveness of mitigation measures and compensation measures, and ensure feedback from the results are used to facilitate adaptive management and trigger contingency measures if biodiversity objectives are not achieved (eg in terms of achieving no net loss of biodiversity).

### **Sources of further guidance information**

- Chartered Institute of Ecology and Environmental Management (2006) *Guidelines for Ecological Impact Assessment in the United Kingdom*. [http://www.cieem.net/data/files/Resource\\_Library/Technical\\_Guidance\\_Series/EcIA\\_Guidelines/TGSEcIA-EcIA\\_Guidelines-Terrestrial\\_Freshwater\\_Coastal.pdf](http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/EcIA_Guidelines/TGSEcIA-EcIA_Guidelines-Terrestrial_Freshwater_Coastal.pdf)
- Chartered Institute of Ecology and Environmental Management (2010) *Guidelines for Ecological Impact Assessment in Britain and Ireland. Marine and Coastal*. [http://www.cieem.net/data/files/Resource\\_Library/Technical\\_Guidance\\_Series/EcIA\\_Guidelines/Final\\_EcIA\\_Marine\\_01\\_Dec\\_2010.pdf](http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/EcIA_Guidelines/Final_EcIA_Marine_01_Dec_2010.pdf)
- DTA publications. The Habitats Regulations Assessment Handbook, on line <http://www.dtapublications.co.uk/>
- European Commission (2001) *Guidance document on the Assessment of Plans and Projects significantly affecting Natura 2000 sites*. [http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura\\_2000\\_assess\\_en.pdf](http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf)

- European Commission (2013) *Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment*.  
<http://ec.europa.eu/environment/eia/pdf/EIA%20Guidance.pdf>
- International Association on Impact Assessment (IAIA) wiki page  
<http://www.iaia.org/iaia/wiki/biodiv.ashx>
- International Association on Impact Assessment (2005) *Biodiversity in Impact Assessment*.  
<http://www.iaia.org/publicdocuments/special-publications/SP3.pdf?AspxAutoDetectCookieSupport=1>
- Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants (2006) *Appropriate Assessment of Plans*.  
<http://www.levett-therivel.co.uk/AA.pdf>
- Slootweg, R, Kolhoff, A, Verheem, R and Höft, R (2006) *Biodiversity in EIA and SEA*. Commission for Environmental Assessment, The Netherlands.  
<http://www.cbd.int/doc/publications/imp-bio-eia-and-sea.pdf>
- Treweek, J R (1999) *Ecological Impact Assessment*. Blackwell Scientific Publications, Oxford.

### **A1.11 Cost benefit analysis**

#### ***Description and role in biodiversity proofing***

Cost-benefit analysis (CBA) is an important tool that is often used in the appraisal of proposed public sector policies, programmes and projects. Because it requires all relevant economic, social and environmental costs and benefits to be taken into account, it potentially offers opportunities to contribute to biodiversity proofing.

In theory, a good CBA should identify, assess and as far as possible value all significant benefits or costs relating to changes in biodiversity or ecosystem services. However, in practice, impacts on biodiversity and ecosystem services are rarely considered in most CBAs, either because they are regarded as peripheral to the economic assessment of the project, or because of difficulties in quantification and valuation. Analysis of ecosystem services provides a clear and structured framework for assessing and valuing the impacts of projects and programmes on biodiversity and ecosystems. Through studies such as those under The Economics of Ecosystems and Biodiversity initiative (Russi et al, 2013; TEEB, 2010; ten Brink, 2011), EU Biodiversity Strategy Action 5 on the Mapping and Assessment of Ecosystem services (Maes et al, 2014), national ecosystem assessments (eg UK NEA, 2011) and valuation tools (eg Kettunen et al, 2013), our knowledge of ecosystems and their services and economic value is improving, and this offers increasing opportunities to incorporate effects on biodiversity and ecosystems into CBA.

Guidance on the assessment and valuation of impacts on biodiversity and ecosystem services in project appraisal therefore offers potential to strengthen the role of CBA as a proofing tool. This could potentially further the integration of biodiversity effects into impact assessments and appraisals at the EU, national, regional and local levels.

Some caution is needed, however, in this approach, because of limitations in our ability to value changes in biodiversity and ecosystem services, and because CBA cannot capture the

intrinsic values of biodiversity. Decisions affecting biodiversity and ecosystems should therefore not be guided by CBA alone but should also take account of scientifically determined conservation objectives. Because of these considerations, incorporating biodiversity and ecosystem service values into CBA should complement – rather than replace – other tools for biodiversity proofing.

### ***Good practice guidance***

The first step in incorporating biodiversity into CBA involves identifying all impacts on biodiversity, both positive and negative, and assessing their significance. Even where these impacts may be difficult to value, it is important that all relevant impacts are identified, assessed in qualitative terms, and quantified as far as possible. This helps to ensure that they are not ignored.

Most assessments of biodiversity costs and benefits employ an ecosystem services framework (Brouwer et al, 2013; European Commission, 2013b). This enables the range of benefits that biodiversity provides for society and the economy to be categorised and assessed. Biodiversity and ecosystems give rise to a range of provisioning services (e.g. provision of food and freshwater), regulating services (e.g. regulation of water quality and flows) and cultural services (e.g. recreation, tourism and aesthetic values), as well as the supporting services that underpin these. Programmes and projects that impact on biodiversity are likely to affect the delivery of these services. CBA should therefore seek to identify the services affected and to quantify these effects as far as possible. This is often challenging, because of gaps in scientific evidence, and because of the location-specific nature of many services (especially regulating services such as water purification and flood management).

If the effects on ecosystem services can be quantified, the next step is to value them in monetary terms. The method of valuation depends on the nature of the service and its economic characteristics. Some ecosystem services are traded and can be valued using market prices (e.g. food and timber) or cost-based assessments (e.g. costs of flood damage, avoided costs of flood management expenditures). Others do not have direct markets and require alternative valuation methods, which may include revealed preferences (e.g. use of the travel cost method to assess recreational benefits, hedonic pricing to value residential amenity benefits) and stated preference techniques (to establish public willingness to pay for biodiversity benefits). Because original valuation studies are resource- and time-intensive, benefits transfer approaches (involving the transfer of benefits estimates from previous studies) are often used in benefits assessments. This greatly facilitates benefits assessments, providing that there are similarities in the context, extent and type of benefits between the two assessments.

If relevant costs and benefits can be valued in monetary terms, this enables biodiversity impacts to be incorporated into the CBA alongside other costs and benefits. Comparison of costs and benefits needs to take account of gaps and uncertainties. These are usually significant, such that CBA should be regarded as a decision support tool rather than being used to dictate the preferred policy option.

Finally, it needs to be recognised that CBA is not able to capture all of the benefits of biodiversity, particularly its intrinsic value. While CBA provides a useful tool to aid decision making, decision-making processes should also take account of other scientific considerations (such as the precautionary principle, sustainability arguments, critical natural capital and the need to protect special sites and species) and not rely solely on quantitative estimates of costs and benefits.

### ***Sources of further guidance information***

- Brouwer R, Brander L, Kuik O, Papyrakis E and Bateman I (2013) *A Synthesis of Approaches to Assess and Value Ecosystem Services in the EU in the Context of TEEB*. <http://ec.europa.eu/environment/nature/biodiversity/economics/pdf/EU%20Valuation.pdf>
- Ecologic, GHK and IEEP (2011) *Taking into Account Opportunity Costs when Assessing Costs of Biodiversity and Ecosystem Action*. <http://ec.europa.eu/environment/enveco/biodiversity/pdf/OpportunityCostsOfBiodiversityAndEcosystemAction.pdf>
- European Commission (2013) *The Economic Benefits of the Natura 2000 Network - Synthesis Report*. [http://ec.europa.eu/environment/nature/natura2000/financing/docs/ENV-12-018\\_LR\\_Final1.pdf](http://ec.europa.eu/environment/nature/natura2000/financing/docs/ENV-12-018_LR_Final1.pdf)
- OECD (2002) *Handbook of Biodiversity Valuation – A Guide for Policy Makers*. <http://earthmind.net/rivers/docs/oecd-handbook-biodiversity-valuation.pdf>

## **A1.12 Biodiversity selection criteria**

### ***Description and role in biodiversity proofing***

Selection criteria are used to choose and compare projects in order to ensure that the most appropriate ones are funded (ie those that are most relevant to the objectives of the fund). Hence, these can cover a range of issues, including EU added value, but can also relate to environmental issues. Where a fund has a clear environmental dimension and/or can have a potentially negative environmental impact, environmental selection criteria will be particularly important to ensure that the projects chosen for funding deliver better environmental performance of relevance to the fund. Consequently, selection criteria can be used to ensure that the projects that are funded do not undermine wider EU objectives, such as those relating to the environment and specifically biodiversity.

When project proposals are evaluated as part of the project selection process, the credibility of the impact mitigation measures, including those relating to biodiversity, will need to be assessed, including arrangements for their monitoring. This underlines another important reason for the inclusion of environmental selection criteria: their inclusion is fundamentally important from the perspective of the monitoring and evaluation of both the project, but also of the performance of the programme/fund overall. If the appropriate environmental benefits/impacts are not monitored, it will be very difficult to identify whether projects (and the wider programme) are delivering the environmental improvements that are being sought and are not undermining wider EU objectives, including those relating to

biodiversity. A project might even be rejected, if it has not sufficiently considered, and addressed, any potential adverse impacts on biodiversity.

### ***Good practice guidance***

Biodiversity-related project selection criteria have an important effect on the development and selection of projects. However, in order to be consistent with a programme's objectives and horizontal principles, it is necessary that some sort of guiding principles / criteria for projects selection is indicated already in the programming documentation.

Thematic calls for proposals that target biodiversity in particular can help to target certain groups of beneficiaries and raise awareness of the issue. To contribute to biodiversity proofing, biodiversity-related minimum requirements and/or selection criteria should also be included in the respective calls for funding where there is a risk of damage to biodiversity, reflecting the need to avoid, or at least mitigate or compensate for any adverse impacts. This applies to calls whether they are at the EU level (eg in the Executive Agency that manages the CEF), or at the national or regional levels under Cohesion Policy. It is also important to ensure that any biodiversity-related selection criteria that are set in project calls are sufficiently ambitious, and are given an appropriate weight in the evaluation, to ensure that the most appropriate projects are funded.

Adherence to EIA and Appropriate Assessment requirements and other environmental laws and strategies are clear minimum requirements for the development of projects. In addition, project eligibility and selection criteria can be introduced to ensure that projects bring additional biodiversity benefits while any potential harmful effects on nature are avoided/minimised. For example, project selection criteria for the development of energy and transport projects could require that no net negative impacts will be incurred by the natural environment and biodiversity going beyond basic legal requirements, such as the avoidance of any developments in Natura 2000 sites or off-setting of negative impacts to the extent possible. Another possible criterion could be to require the presentation of a range of alternative development options, especially for projects where biodiversity or habitats may be adversely affected thereby ensuring that the most harmful projects are either redesigned or possibly disregarded in the selection process (IEEP and Milieu 2013).

Providing proactively additional advice and guidance to project developers at this stage (e.g. through additional information about biodiversity benefits and impacts in application packs, information contact points, promotion seminars, open days, etc.) would be essential in order to ensure an early understanding about biodiversity-related objectives and impacts, improve the efficiency and effectiveness of the project evaluation/selection process, foster learning among the main beneficiaries, and ultimately improve the project design and outcomes. Checklists for self-appraisal could aid project promoters in the project preparation phase in order to improve the overall quality of their projects before applying for EU co-financing.

Application forms could also include questions / tips which allow project promoters to take biodiversity aspects into account in the design of their project proposal. Relevant questions may relate to the extent to which the project complies with relevant biodiversity legislation/strategies/plans; the potential biodiversity impacts (positive and negative) of the

project; the biodiversity targets to be achieved by the project, biodiversity-related monitoring arrangement and indicators, and information about incentives to encourage projects to consider biodiversity related issues (ENEA-REC, 2009). As regards the project appraisal procedure, it has been recommended that establishing innovative institutional mechanisms (eg environmental panels and inclusion of biodiversity experts in selection committees) could aid the selection process by way of providing environmental / biodiversity related expertise.

### ***Sources of further guidance information***

- ENEA-REC (2009) *Improving the Climate Resilience of Cohesion Policy Funding Programmes. An overview of member states' measures and tools for climate proofing Cohesion Policy funds*. European Network of Environmental Authorities for the Cohesion Policy (ENEA), Szentendre, Hungary.
- GRDP (2006) *Greening projects for growth and jobs: guidance on integrating the environment within regional development programmes and their projects. Guidance on integrating the environment within regional development programmes and their projects*. Greening Regional Development Programme.

## **A1.13 Integrated territorial development strategies and investment**

### ***Description and role in biodiversity proofing***

The new 2014-2020 period envisages new ways of planning and delivering funds under shared management. New mechanisms include so called community-led local strategies that will be focused on specific sub-regions and carried out through integrated and multi-sectoral local development strategies responding to local needs and potentials, including innovative features in the local context among which are networking and cooperation. Integrating biodiversity concerns into these strategies will ensure that both biodiversity beneficial investments are fostered and also that potential negative impacts are avoided and minimised. This is particularly relevant for the EAFRD, building on the experience of the LEADER, but could also be implemented by the ERDF, ESF and the EMFF.

Another new approach is integrated territorial investment. Where an urban or territorial development strategy requires an integrated approach because it involves investments under more than one priority axis of one or more operational programmes, it can be carried out as an integrated territorial investment within an operational programme or programmes. This allows for pooling of resources from all funds under shared management and ensuring optimal achievement of integrated multi-benefit measures. These could involve biodiversity-related activities in relation to other priority investment such as research and innovation, tourism development, water management, climate adaptation, etc. Integrated territorial investment is also the main tool to deliver sustainable urban development under the ERDF through strategies that set out integrated actions to tackle the economic, environmental, climate, demographic and social challenges affecting urban areas. Considering biodiversity-related measures for enhancing and preserving biodiversity can ensure that strategies and actions for integrated development of different territorial areas are biodiversity proofed.

### ***Good practice guidance***

These new planning and delivery tools introduced for instruments under shared management offer definite opportunities in terms of biodiversity proofing. As biodiversity investments form the basis for a wide range of socio-economic benefits, they can be a critical asset for territorial development if protected and managed effectively. As a key condition to succeed in developing the territory in a sustainable manner, policy-makers have to take into account biodiversity, ecosystem services and Green Infrastructure in the integrated territorial strategies, especially through the coordination of the various programmes. It is recommended that cities combine actions supported by the urban-specific sectoral investment priorities (promote low-carbon strategies for urban areas, improve the urban environment and/or promote sustainable urban mobility) and embed them in the integrated urban development strategy of the city to implement the principle of integrated urban development<sup>27</sup>.

A minimum of 5 per cent of the ERDF resources allocated to each Member State could be invested in integrated actions for sustainable urban development implemented through the Integrated Territorial Investment (ITI) tool, with the management and implementation delegated to cities (see ERDF Regulation). €330 million from the ESI funds under the growth and jobs objective are being earmarked to foster new and innovative solutions in sustainable urban development, many of which can have a biodiversity dimension and/or promote innovative ecosystem-based solutions and Green Infrastructures. These can include urban pilot projects, demonstration projects and related studies of European interest in line with the thematic objectives and investment priorities. Benefits delivered by Green Infrastructure are particularly important in urban areas as they play a vital role in ensuring climate resilience and delivering broader regional development spill over effects including on business and job creation. ITI is also an opportunity to consider investment opportunities related to Natura 2000 and therefore should be closely aligned to the priorities set out in national PAFs (IEEP and Milieu 2013).

Under the European Territorial Cooperation (ETC) objective, the exchange, learning and networking for cities will continue to provide them with opportunities for cross-border, transnational and interregional cooperation. Around 3.5 per cent of the total funding for EU Cohesion Policy is to be allocated to support ETC. As biodiversity, their ecosystems and Green Infrastructure are not confined by administrative borders, this funding is essential for direct support to EU biodiversity goals. The territorial aspect of ETC has been further reinforced through a focus on macro-regional and sea-basin strategies (eg the Baltic Sea and Danube regions). This refocus on Member States and regions which are critically inter-linked through shared natural resources provides a solid basis for further cooperation and investment in the natural environment, including innovative approaches to integrating ecosystems services and Green Infrastructure into development solutions in these areas (IEEP and Milieu 2013). Furthermore, Member States are encouraged to make extensive use of financial instruments in supporting urban developments. The scope of financial instruments in the 2014-2020 period is extended and covers all thematic objectives and

---

<sup>27</sup> European Commission factsheet

[http://ec.europa.eu/regional\\_policy/sources/docgener/informat/2014/urban\\_en.pdf](http://ec.europa.eu/regional_policy/sources/docgener/informat/2014/urban_en.pdf)



investment priorities, including Thematic Objective 6 and priorities related to biodiversity and Green Infrastructure, and all kinds of beneficiaries, projects and activities.

#### **A1.14 Mid-term and ex-post evaluations**

##### ***Description and role in biodiversity proofing***

Given current attempts to improve the result-orientation of the MFF, mid-term and *ex-post* evaluations have an important role to play in assessing the actual implementation of measures within EU funding programmes. In the case of funds under shared management for example, Member States are required to prepare an evaluation plan and ensure sufficient evaluation capacity (article 56 of the CPR). Mid-term (or sometimes called on-going evaluations) and ex-post evaluations are considered to be important procedural tools in measuring the outcomes and results of specific EU funding programmes. These evaluations can play an important role in a biodiversity proofing exercise by assessing the results and impact (both positive and negative) of financed interventions on biodiversity to the extent possible. Such evaluations provide an important entry point for biodiversity proofing, and provide an opportunity for the Commission, and for Member States in the case of instruments under shared management, to verify that funding allocations are on track and that biodiversity concerns are sufficiently taken on board in funding decisions.

*Ex-post* evaluations are usually carried out after the completion of the funding programme by the European Commission and in some cases by Member States. They cannot influence the current programming period as they occur at later stages of the policy cycle. However, they can provide valuable lessons and insights related to actual outcomes and results of programmes to underpin the policy development stage of future funding periods (Hjerp et al, 2011). In contrast, mid-term or on-going evaluations can be a useful tool in that they provide timely input to the programming and implementation of the current programming period

##### ***Good practice guidance***

Member States and regions should ensure that biodiversity objectives and concerns are paid due attention in their evaluation plans. This means that biodiversity, ecosystems and Green Infrastructure considerations are embedded in the Terms of Reference of on-going evaluations, which should consider potentially beneficial but also negative impacts of programmes at national and regional level. Additionally, thematic biodiversity-specific evaluation could also be undertaken if this is deemed relevant and necessary. Links should be established to the selected thematic objectives, investment priorities and performance frameworks related to biodiversity set out in the respective programme with the aim being to measure and evaluate outcomes and results (contrary to annual implementation reports which focus rather on outputs). Similarly, links should also be established to biodiversity-related indicators set out in the SEA report.

A series of guidance documents on monitoring and evaluation have been developed by the Commission to assist Member States and regions in the 2014-2020, including separate guidance on indicators on and evaluation of progress towards climate and energy objectives (Barca and McCann, 2011). A similar guidance document could also be prepared for

biodiversity, ecosystems and Green Infrastructure indicators and evaluation. This can incentivise Member States and equip them with a toolbox of concepts, methods and indicators to assess specific programme/project outcomes and results in terms of biodiversity-related trends, impacts and benefits.

The European Commission can also carry out thematic and strategic evaluations at any time of the policy cycle with the aim to improve the understanding of concrete issues and drivers hence strengthening the knowledge base for policy-making and spur learning (Hjerp et al., 2012). These could include for example evaluations of the contribution EU funding programmes to the achievement of the objectives of the EU Biodiversity Strategy, evaluations of trends and impacts on biodiversity from EU spending and/or progress and good practices in stimulating biodiversity beneficial spending under EU budget.

***Sources of further guidance information***

- Barca, F and McCann, P (2011) *Outcome indicators for the Thematic priorities addressing the Europe 2020 Objective "Improving the conditions for innovation, research and development". Examples*. High level group reflecting on future Cohesion Policy, Meeting No 8, February 2011. European Commission.