

Tracking Biodiversity Expenditure in the EU Budget

*PART II – Fund specific guidance
documents*

FINAL REPORT

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In collaboration with



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Background and Introduction

This document outlines a workable approach for tracking the biodiversity related expenditure under the different EU funding instruments. It presents the main research and analytical work on the use of the main tool selected by the Commission for the tracking exercise, the 100, 40 and 0 per cent Rio markers. In doing so it complements Part I of the Guidance Document, which provides general advice and a typology for applying the markers to the EU budget.

The report is structured as EU fund-specific chapters or fiches each covering the following aspects:

- A general introduction to the specific funding instrument under the 2014-2020 programming period;
- A stock taking of recent progress in agreeing the terms of an applicable biodiversity related tracking methodology within the responsible Commission DGs or in discussion with DG ENV;
- An identification of potential ways of improving and refining the accuracy of the tracking methodology over time and raising key questions regarding the implementation of the proposed methodology in practice; and
- A classification of expenditure under the specific funding instrument according to the 100, 40 and 0 per cent markers.

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1. The Cohesion Policy: the European Regional Development Fund (ERDF), the Cohesion Fund (CF) and the European Social Fund (ESF)

Prepared by IEEP

1.1 Introduction to the 2014-2020 EU Cohesion Policy

In order to understand how the EU Cohesion Policy and its funding instruments – the European Regional Development Fund (ERDF), the Cohesion Fund (CF) and the European Social Fund (ESF) – work in practice and how the tracking of biodiversity-related expenditure can be undertaken, this section provides a brief description of the main policy objectives of Cohesion Policy and their relevance for biodiversity, the management mode, the programming process as well as the information exchange system between Member States and the Commission.

1.1.1 Biodiversity-related objectives in Cohesion Policy

The 2014-2020 EU Cohesion Policy has two general objectives as set out in the Common Provisions Regulation (CPR)¹:

- Investment for growth and jobs (supported by the ERDF, CF and ESF); and
- European territorial cooperation (supported only by the ERDF).

The general objectives of the policy are therefore not directly related to biodiversity but to broader socio-economic objectives i.e. economic, social and territorial cohesion by redressing the main regional imbalances through support for the development and structural adjustment of regional economies, including the conversion of declining industrial regions and regions lagging behind.² Environmental sustainability, including diverse and well-functioning nature, however, underpins long-term socio-economic development. Therefore, sustainable use, protection and restoration of biodiversity is also eligible for funding in the context of the sustainable development of the EU regions (see below).

The CPR, governing the 2014-2020 Cohesion Policy, introduces for the first time eleven specific thematic objectives (TO) for the funds. Out of these eleven thematic objectives, one is directly related to biodiversity:

- **TO6:** Protecting the environment and promoting resource efficiency (supported by the ERDF and CF).

¹ Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013 laying down common provisions on 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 and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Council Regulation (EC) No 1083/2006

² Regulation (EU) No 1301/2013 of the European Parliament and of the Council of 17 December 2013 on the European Regional Development Fund and on specific provisions concerning the Investment for growth and jobs goal and repealing Regulation (EC) No 1080/2006

Additionally, possible biodiversity-related measures (investment priorities) which can bring indirect benefits for biodiversity, ecosystems and their services can be promoted under other TO, most relevant of which are:

- **TO4:** Supporting the shift towards a low-carbon economy in all sectors (supported by ERDF, CF and ESF); and
- **TO5:** Promoting climate change adaptation, risk prevention and management (supported by ERDF and CF).

It could also be expected that some biodiversity beneficial activities could also be realised under other TO even though this is not explicitly specified in the relevant investment priorities, for example in the area of research, technological development and innovation (TO1), business and SME development (TO3), employment and labour mobility (TO8), social inclusion and combating poverty (TO9) and education, skills and lifelong learning by developing education (TO10). See Table 1.1 for an overview of the key investment priorities under TO4, 5 and 6.³

Table 1.1: Most relevant thematic objectives and measures related to biodiversity

Thematic objective	Investment priority (measures)	Fund
6: Protecting the environment and promoting resource efficiency	Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure	ERDF and CF
	Conserving, protecting, promoting and developing natural and cultural heritage	ERDF
	Investing in the water sector to meet the requirements of the Union's environmental <i>acquis</i> and to address needs, identified by the Member States, for investment that goes beyond those requirements (ERDF and CF)	ERDF and CF
	Taking action to improve the urban environment, to revitalise cities, regenerate and decontaminate brownfield sites (including conversion areas), reduce air pollution and promote noise-reduction measures	ERDF and CF
	Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors	ERDF
4: Supporting the shift towards a low-carbon economy in all sectors	Promoting low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaptation measures	ERDF and CF
5: Promoting climate change adaptation, risk prevention and management	Supporting investment for adaptation to climate change, including ecosystem-based approaches	ERDF and CF
	Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems	ERDF and CF

Specific investment priorities related to biodiversity are not mentioned for the European Social Fund but the ESF Regulation stipulates that it should contribute to supporting the shift towards a low-carbon, climate-resilient, resource-efficient and environmentally sustainable economy, through the improvement of education and training systems necessary for the adaptation of skills and

³ See Kettunen, M., Torkler, P. and Rayment, M. (2014) *Financing Natura 2000 in 2014-2020: Guidance Handbook*, a publication commissioned by the European Commission DG Environment.

qualifications, the up-skilling of the labour force, and the creation of new jobs in sectors related to the environment and energy.⁴ Hence, it could be assumed that some biodiversity beneficial activities could be promoted by the ESF.

1.1.2 Management and programming of Cohesion Policy

The ERDF, CF and ESF are implemented under shared management which means that the regulatory framework for the funds is set out at EU level but national and regional authorities are entrusted with their implementation. In the case of financial instruments, the management mode is indirect management, i.e. where the management of some tasks is entrusted to international organisations (e.g. the European Investment Bank or other).

In practice, shared management works in the following way: in accordance with the CPR, the ERDF, CF and ESF Regulations as well as the respective Delegated and Implementing Acts, managing authorities at national and regional levels are in charge of the programming process (i.e. developing Partnership Agreements (PAs) and Operational Programmes (OPs) which set out objectives, investment priorities and funding allocations, submit financial information about planned expenditure (adopted in OPs) and allocated expenditure (selected projects) to the European Commission using an established electronic information system and prepare implementation and progress reports in relation to output and result indicators. This means that realising opportunities for biodiversity beneficial investment under the different TO depends very much on Member States.

All official exchanges of information between the Member State and the Commission are carried out using an electronic data exchange system SFC 2014 established by the Commission. It is important to note that the information provided upstream to the European Commission is aggregated and is only at the level of a programme (or in some cases at the level of priority axes).⁵ Member States provide financial data to the Commission using the 'categorisation system' which includes a dimension called 'intervention field'. The intervention field data is reported to the Commission ex-ante for OPs (ex-ante planned expenditure per priority axis) and later in the annual implementation reports (ex-post on a) allocated expenditure to selected projects by the managing authorities and b) expenditure reported to managing authorities). The system builds on the previous 2007-2013 system but introduces some changes, e.g. in relation to the number and nature of the codes. Revisions are also introduced to enable the reporting of activities in relation to the TO, which is introduced as a new dimension of categorisation (i.e. ex-post financial data can be filtered against their contribution to the different TO).

In the case of ESE, particularly, a new dimension of categorisation – ESF Secondary Theme – is added. One of the themes aims to capture data on ESF expenditure contributing to 'Supporting the shift to a low, carbon, resource efficient economy'.

The expected allocation of funding resources to financial instruments, as set out in the OPs, is also captured and reported through the 'form of finance' codes. This means that the electronic data exchange system allows filtering financial data per 'form of finance'. The forms of finance include:

- 01) Non-repayable grant;
- 02) Repayable grant;
- 03) Support through financial instrument: venture capital and equity capital or equivalent;

⁴ Regulation (EU) No 1304/2013 of the European Parliament and of the Council of 17 December 2013 on the European Social Fund and repealing Council Regulation (EC) No 1081/2006

⁵ Fiche 7: Implementing Act on the Exchanges of Information between the Member State and the Commission (SFC2014), Version 2 – 4/6/2013

- 04) Support through financial instruments: loan or equivalent;
- 05) Support through financial instruments: guarantee or equivalent;
- 06) Support through financial instruments: interest rate subsidy, guarantee fee subsidy, technical support or equivalent; and
- 07) Prize.

This enables the ex-post tracking of EU contribution to biodiversity activities based on categories of expenditure to be reported for the different forms of finance, including financial instruments differentiating between equity and debt instruments.

An Implementing Act adopted in early 2014 (now reflected in the SFC 2014 electronic exchange system) defines the 100, 40 and 0 per cent markers for climate change tracking.⁶ This means that when Member States input financial allocations per intervention field code, the system automatically applies the markers. This way, the information is made available to the European Commission. Biodiversity tracking has not been formally provided for in the same way as climate tracking, however it is envisioned to track the planned investments, project selection amounts and spending on activities that are biodiversity beneficial by using the data from the categorisation system.

1.1.3 Reporting in Cohesion Policy

The tracking of biodiversity-related expenditure is closely related to the reporting, indicator and evaluation systems in the EU Cohesion Policy. From May 2016, Member States will submit to the Commission annual reports on the implementation of programmes in the previous financial year. Reports will include *inter alia* information on the implementation of the programme and its priorities by reference to the financial data (expenditure), common and programme-specific indicators (for completed projects) and already quantified target values.

In addition, by 31 August 2017 and by 31 August 2019, Member States will submit to the Commission progress reports on implementation of the PAs for the period until the end of the preceding year (2016 and 2018 respectively). Reports will among other things present the progress towards the achievement of the Union Strategy for smart, sustainable and inclusive growth vis-à-vis the thematic objectives in particular with respect to the milestones set out for each programme in the performance framework. In 2017 and 2019, the Commission shall prepare a strategic report summarising the progress made by Member States. The progress and strategic reports are therefore of a more strategic nature, reporting beyond financial output indicators and focusing on outcomes and results. Together with the annual implementation reports, the progress and strategic reports present opportunities to improve the tracking of biodiversity-related expenditure ex-post by linking financial data on expenditure to specific results.

Box 1.1: Biodiversity-related indicators in Cohesion Policy

The ERDF and CF Regulations set out a list of 'common output indicators' which shall be used in the OPs. In relation to biodiversity, the output indicator set out is 'Surface area of habitats supported in order to attain a better conservation status'. However, this indicator is insufficient to reflect the range of outputs which could

⁶ Commission Implementing Regulation (EU) No 215/2014 of 7 March 2014 laying down rules for implementing Regulation (EU) No 1303/2013 of the European Parliament and of the Council laying down common provisions on 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 and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund with regard to methodologies for climate change support, the determination of milestones and targets in the performance framework and the nomenclature of categories of intervention for the European Structural and Investment Funds

be achieved through expenditure related to biodiversity, Natura 2000 and/or green infrastructure. Therefore, Member States are also encouraged to put forward additional 'programme-specific output and result' indicators in the respective PAs and OPs in line with the selected thematic and specific objectives, including those for biodiversity. Setting out a robust indicator system for biodiversity-related objectives in PAs, OPs and calls for project proposals is therefore essential to ensure that an adequate ex-post tracking of biodiversity-related expenditure is possible and linking financial data to outputs and results is effectively enabled.⁷

Internal or external evaluations should also be carried out throughout the programme cycle of the funds with a view to improving the quality and design of the programmes. Based on an evaluation plan, adopted by Member States, ongoing and ex-post evaluations assessing the effectiveness, efficiency and impact of programmes shall be carried out during and at the end of the programming period by the Member States and the Commission. This could also be an opportunity for tracking and strategic reporting on biodiversity-related expenditure and its associated outcomes especially where the programmes define specific objectives linked to biodiversity.

1.2 Stock-taking of the currently emerging/agreed approach by the Commission on biodiversity tracking

The 2014-2020 PAs and OPs have been or will be approved and adopted by the end of 2014 or mid 2015 respectively. This means that information about planned aggregate expenditure related to biodiversity would still be partial in the context of the 2016 Programme Statements on the annual EU budget. The full use of aggregated information will only be possible for the 2017 Programme Statements.

In order to track biodiversity-related expenditure and provide estimates in the context of the 2014 and 2015 annual EU budget, therefore, the Commission based its calculations on projections taking into account historic data from the 2007-2013 programming period and expressed as a percentage of the budget made available under intervention field codes under priority themes 'Environmental protection and risk prevention' and 'Tourism' as set out in Annex II of Commission Regulation (EC) No 1828/2006⁸ after applying the 100, 40 and 0 per cent markers (see Table 1.2).

For the 2014 annual EU budget, the joint contribution of the ERDF and CF to biodiversity-related expenditure was estimated to amount to €1 694 million.⁹ For 2015, Commission estimates indicate a higher figure of €2 145 million biodiversity-related expenditure (€1 090 million from the ERDF and €1 055 million from the CF).¹⁰ A revised figure for the 2014 annual EU budget is also provided (€2 009 million), which is also higher than the figure provided the previous year, which implies that some adjustments to the approach have been undertaken.

⁷ See IEEP, ICF and TERP (forthcoming) *Common framework for biodiversity-proofing the EU budget: guidance for Cohesion Policy*. Report for the European Commission, DG Environment.

⁸ COMMISSION REGULATION (EC) No 1828/2006 of 8 December 2006 setting out rules for the implementation of Council Regulation (EC) No 1083/2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and of Regulation (EC) No 1080/2006 of the European Parliament and of the Council on the European Regional Development Fund

⁹ EC (2013) Statement of estimates of the European Commission for the financial year 2014 (Preparation of the 2014 Draft Budget), SEC(2013) 370, June 2013

¹⁰ EC (2014) Statement of estimates of the European Commission for the financial year 2015 (Preparation of the 2015 Draft Budget) Document I, Political Presentation, SEC(2014)357, 11.6.2014, Brussels.

Table 1.2: Draft Commission estimates for biodiversity (BD)-related expenditure (ERDF+CF) (Cumulative 2007-2013)

<i>Priority theme/code</i>	Adopted OPs - €	Allocated to selected projects AIR 2011 - €	BD marker	BD-related expenditure (adopted) - €	BD-related expenditure (selected) - €
<i>Environmental protection and risk prevention</i>					
Management of household and industrial waste	6,103,078,168	3,490,087,455	40%	2,441,231,267	1,396,034,982
Water treatment (waste water)	14,329,025,083	14,742,494,219	40%	5,731,610,033	5,896,997,688
Integrated pollution prevention and control	735,553,321	238,163,859	40%	294,221,328	95,265,544
Mitigation and adaption to climate change	371,130,021	362,771,262	40%	148,452,008	145,108,505
Rehabilitation of industrial sites and contaminated land	2,738,104,235	1,342,291,915	40%	1,095,241,694	536,916,766
Promotion of biodiversity and nature protection (including Natura 2000)	2,844,372,861	1,623,435,071	100%	2,844,372,861	1,623,435,071
Risk prevention	5,759,748,013	4,018,641,970	40%	2,303,899,205	1,607,456,788
Other measures to preserve the environment and prevent risks	1,713,773,462	1,298,796,160	40%	685,509,385	519,518,464
<i>Tourism</i>					
Promotion of natural assets	1,004,385,887	645,380,369	100%	1,004,385,887	645,380,369
Protection and development of natural heritage	1,272,582,608	592,858,246	40%	509,033,043	237,143,298
TOTAL Cohesion funding	346,724,045,761	247,007,533,732		17,057,956,712	12,703,257,475
% of Total Cohesion				4.9%	5.1%

Source: European Commission

Given that no actual data on planned expenditure for the 2014-2020 programmes has been available, the approach based on projections using historical data on spending is justified but some remarks need to be made. The use of the 100 per cent marker for codes such as 'Promotion of biodiversity and nature protection (including Natura 2000)' and the 'Promotion of natural assets' is fairly straightforward. Similarly, the use of the 40 per cent marker for some codes such as 'Waste water treatment' and 'Protection and development of natural heritage' seems justified. However, justification of the use of the 40 per cent marker for the rest of the codes is less obvious. While many of the activities reported under these codes are likely to have some biodiversity benefits that should be captured in the tracking exercise, there are clearly other activities which will be of less or even no relevance. For example, investment in waste infrastructure (e.g. waste plants and recycling facilities) is unlikely to deliver any direct benefits for biodiversity conservation). Because the codes are fairly broad and include activities which may or may not have tangible biodiversity benefits, this approach could easily lead to the overestimation of the relevance of expenditure for biodiversity objectives.

It should also be noted that this figure is likely to change (possibly substantially) once the 2014-2020 PAs and OPs are approved and information about the actual planned expenditure is available. In addition, the Commission has adopted a revised version of the intervention field codes, introducing new codes which better capture the different activities and reflect their relation to the new thematic

objectives.¹¹ This means that there is scope in the future for revising and improving the biodiversity tracking methodology in light of the new categories of expenditure but also as regards the use of the 100, 40 and 0 per cent markers.

1.3 Study team's proposal for an improved tracking approach

1.3.1 Most appropriate level of tracking

We propose that the tracking methodology is applied at the level of intervention field codes, which is consistent with the approach used by the Commission. While for the 2014 and 2015 annual EU budget, old intervention field codes for the 2007-2013 programming period were used, we propose that the biodiversity tracking methodology in the following years uses the newly adopted intervention codes as set out in Commission Implementing Regulation (EU) No 215/2014. This approach has a number of advantages, including:

- It integrates the use of the 100, 40 and 0 per cent markers in the existing reporting system using established nomenclature of 'intervention codes';
- The system is well known and already in use by managing authorities and the Commission;
- It is in electronic format which enables a certain level of automation, advanced analysis of the measures financed and the aggregation of 'ex-post' data on implementation against the 8 dimensions (one of which is thematic objectives);
- New and more detailed intervention codes have been introduced in some cases to better reflect the scope and nature of measures;
- It captures expenditure delivered through both grants and financial instruments;
- The use of the 100, 40 and 0 per cent markers will not create additional administrative costs/burden for Member States; and
- The system allows the targeting of more detailed impact evaluations on the realised biodiversity benefits of the supported activities on the programmes that have made investments in relevant codes.

At the same time, however, it should be noted that there is a certain level of subjectivity as Member States decide how to use the intervention codes for reporting expenditure on different measures. Some codes are fairly broad and could be used to report expenditure that may or may not have significant relevance/benefits for biodiversity. For example, the intervention code 'Protection, restoration and sustainable use of Natura 2000' is fairly straightforward and it is very likely that all measures reported under it will have direct benefits for biodiversity, whereas 'Rehabilitation of industrial sites and contaminated land' could entail measures that either may or may not have associated biodiversity benefits. In the latter case, the automatic application of a 40 per cent marker to the entire intervention code could therefore result in the overestimation of biodiversity-related expenditure. Since the system is electronic and the markers are applied automatically, there is no mechanism for the Commission to verify this information at an ex-ante stage.

Also, biodiversity tracking under the ESF could be particularly challenging as no intervention codes relate directly to biodiversity and follow up verification through implementation reports/evaluations ex-post might be needed during the later stages of implementation.

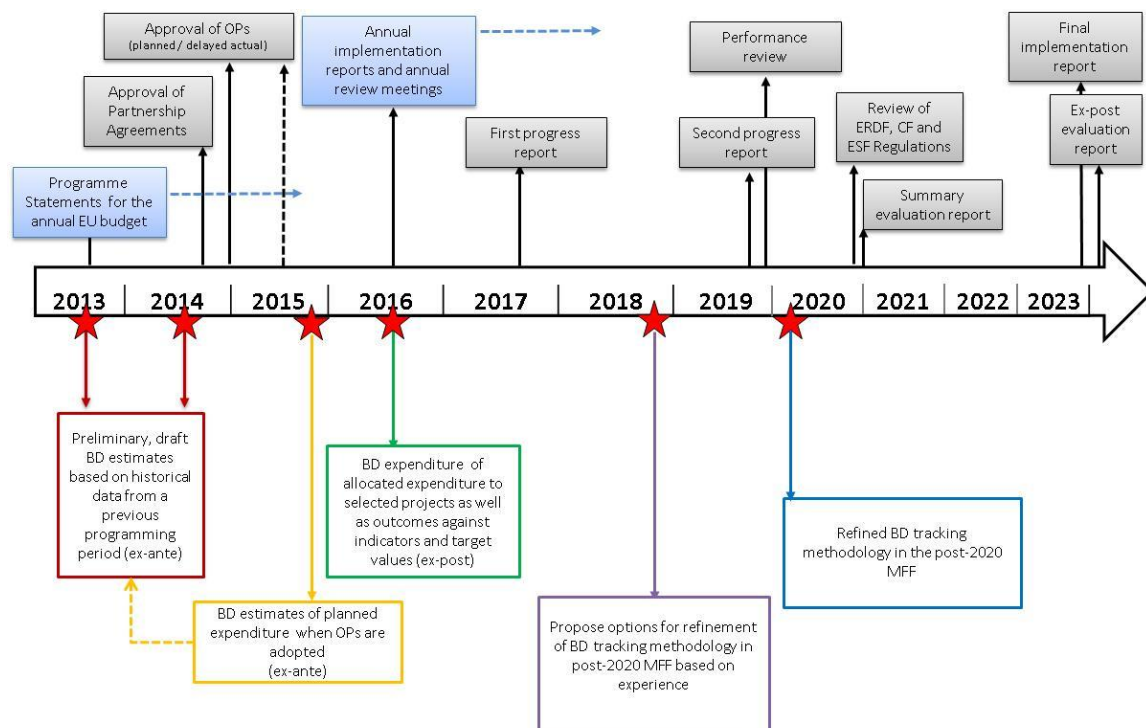
¹¹ Commission Implementing Regulation (EU) No 215/2014 of 7 March 2014 laying down rules for implementing Regulation (EU) No 1303/2013 of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund with regard to methodologies for climate change support, the determination of milestones and targets in the performance framework and the nomenclature of categories of intervention for the European Structural and Investment Funds

The system of intervention codes allows capturing expenditure committed/spent through financial instruments. One of the dimensions for further categorisation and filtering of expenditure is 'form of finance' (see section 1.1). We propose that only the EU contribution to financial instruments or guarantee contracts plus any sums re-invested for the same purpose through revolving funds should be included in the tracking. However, the expected/achieved 'leverage effect' (mobilised additional public or private capital) should not be included in the tracking exercise. Ex-ante estimates of planned biodiversity-related expenditure through financial instruments should be available through TO6 (Protecting the environment and promoting resource efficiency) when OPs are adopted as well as ex-post through the information submitted in the relevant Annex on financial instruments attached to the annual implementation reports (allocated and spent expenditure to concrete projects).

1.3.2 Staged tracking approach

We propose a staged approach (see Figure 1.1) for the tracking of biodiversity-related expenditure throughout the programme cycle. It demonstrates the evolution of the tracking from the early stages of programming when the financial data available is indicative in nature and identifies key milestones and entry points for verifying and refining the approach in the later stages when more information is available not only on financial data but also on outcomes and results.

Figure 1.1: Staged approach to biodiversity tracking in Cohesion Policy



1

Source: own compilation

- **Stage 1: Early programming (ex-ante)**

At the stage of early programming, the regulatory framework may still be under negotiation and the PAs and OPs are not yet adopted. This means that the available information about planned investment is very limited. At this stage, it is only possible to provide very rough preliminary estimates on biodiversity-related expenditure applying the 100, 40 and 0 per cent markers to projections based on historical data from the previous programming period. The margin of inaccuracy is likely to be high due to factors including: future planned expenditure does not necessary follow historical patterns due to changes in the regulatory basis, political commitment, availability of public and private funding resources, and/or socio-economic situation of a Member State; and the intervention codes for 2014-2020 are different from those used in the 2007-2013 period meaning that the aggregated estimates are likely to differ depending on which codes are used.

Options for the EU annual budget – 2014 and 2015

The approach using projections based on historical patterns of spending in the 2007-2013 period is used for the 2014 and 2015 annual EU budget Programme Statements. Markers are applied to the relevant 2007-2013 categories of expenditure codes under two priority themes 'Environmental protection and risk prevention' and 'Tourism' (as per Table 1.2 above) and then aggregated per specific objective/output in order to put forward projected estimates for 2014 and 2015 in relation to the relevant TO notably TO5 'Promoting climate change adaptation, risk prevention and management' and TO6 'Preserving and protecting the environment and promoting resource efficiency'. As discussed above, there are limitations to this approach. Thus, the provided estimates should be treated with caution and should explicitly be presented as very rough preliminary estimates which are likely to be subject to substantial changes once the OPs are adopted.

Each year's Programme Statement also includes information about estimates for the previous years (e.g. the Commission estimates for the 2015 annual EU budget also include information about biodiversity expenditure per specific objective/output for the preceding 2014 annual budget¹², which is slightly different from the figures presented in the Commission's estimates for the 2014 annual EU budget¹³). This means that adjustments for the preceding years are possible based on an improved tracking methodology or better availability of data on expenditure.

Options for the European Social Fund

Estimates for the ESF are difficult to produce as no systematic information is available on the use of ESF for biodiversity-relevant skills or jobs in the previous programming period. The omission of the ESF estimates at this stage however is not likely to have a substantive impact on the estimated overall biodiversity-related Cohesion expenditure.

Options for financial instruments

Estimates of biodiversity-related expenditure through financial instruments is also difficult to provide given that the scope of using financial instruments in the 2007-2013 period was also limited.

- **Stage 2: Advanced programming (ex-ante)**

At this stage, PAs and OPs are already adopted and information about funding allocations is transmitted from the managing authorities to the Commission through the electronic information sharing system. At this stage, it is possible to provide estimates of planned biodiversity-related expenditure applying the 100, 40 and 0 per cent markers based on adopted OPs using the relevant 2014-2020 intervention field codes (see proposed application of the markers in section 1.4. The accuracy of tracking is much higher at this stage because it no longer relies on projections based on historical patterns of spending but on planned expenditure as set out in adopted OPs. Of course, a certain level of subjectivity in the system still remains as Member States decide how to use the intervention codes, and the overestimation and underestimation of biodiversity related expenditure are therefore both possible. At this stage, the Commission does not have a formal mechanism to verify the information transmitted in a bottom up manner from managing authorities although inquiries for the use of the categories of intervention could be made during the negotiations on the draft OPs.

Options for the EU annual budget – 2016

¹² EC (2014)) Statement of estimates of the European Commission for the financial year 2015 (Preparation of the 2015 Draft Budget) Document I, Political Presentation, SEC(2014)357, 11.6.2014, Brussels

¹³ EC (2013) Statement of estimates of the European Commission for the financial year 2014 (Preparation of the 2014 Draft Budget), SEC(2013) 370, June 2013

Once OPs are adopted and information is provided to the European Commission, more reliable data on planned biodiversity expenditure is available. This allows for more accurate tracking to take place in the context of the 2016 and subsequent annual EU budgets. The figures should be aggregated per specific objective (and possibly be related to common or programme specific output indicators) to be presented in the respective Programme Statements.

However, better links should be established between the intervention codes and their contribution to specific objectives and associated indicators. For example, the ERDF and CF Regulations set out a common indicator related to biodiversity to be used in OPs, notably 'Surface of habitats supported to attain a better conservation status'. This indicator is mentioned in the 2015 Programme Statements but no target output value or figure on expenditure is provided (OPs are still to be adopted). Determining the amount of biodiversity-related expenditure which contributes to the achievement of this indicator can indeed be challenging ex-ante as in practice expenditure under different specific objectives could contribute to it (e.g. interventions under both TO5 and TO6). In the 2015 Programme Statement, however, the indicator is associated strictly with specific objective/TO6. One option is to calculate the planned biodiversity expenditure aggregating data for the intervention codes associated with TO6 only and reflect this against the relevant indicator. However, this might not be entirely correct and options to verify this ex-post should be considered.

Options for the European Social Fund

Producing estimates for biodiversity-related expenditure under the ESF remains challenging at this stage. Financial data aggregated against the secondary theme dimension 'Supporting the shift to a low-carbon, resource efficient economy' can be obtained. However, the majority of this expenditure is likely to be related to climate change, resource efficiency and eco-innovation. These are not explicitly related to biodiversity objectives, therefore applying a 40 per cent marker to expenditure reported under this entire dimension is likely to produce a gross overestimation. However, some expenditure could potentially have some direct or indirect benefits for biodiversity which should be captured in the tracking process. One option is to apply a co-efficient, meaning that a 40 per cent marker should be applied only to a share (e.g. 5 or 10 per cent) of the planned expenditure under the secondary theme 'Supporting the shift to a low-carbon, resource efficient economy'.

Options for financial instruments

If Member States have decided to use financial instruments for biodiversity-related measures, the tracking will be done using the intervention codes and then filtering the data per 'form of finance'. However, financial instruments are demand- and market-driven, and it is unlikely to determine ex-ante the type of measures that will be supported (e.g. some biodiversity-related SMEs could be offered risk capital without this necessarily being set out in OPs). Therefore, providing some preliminary estimates might be possible at this point (e.g. based on cases where more detailed information on the use of financial instruments is actually provided in the OPs or in the supporting ex-ante assessments for the need of financial instruments) but more reliable data will be available to track financial instruments at later stages of implementation (ex-post).

- **Stage 3: Implementation (ex-post)**

The review of reporting requirements and their timetable (section 1.1.3) shows that as of 2016 there are various opportunities to incorporate biodiversity-tracking in the existing reporting and evaluation systems. These will allow the tracking not only of planned expenditure (see stage 2) but also of allocated expenditure and interim payments made to concrete projects. It is important to note that there is no requirement that the reports shall provide dedicated information on the support used for biodiversity objectives (in the same way as this is explicitly required for climate change objectives in Article 50(4) of the CPR), however reporting against intervention field codes will

be performed, including for biodiversity-related spending where this is planned in the respective OPs.

At this stage, managing authorities will have updated information about allocated spending which will allow them to adjust the use of intervention codes depending on the concrete types of projects being financed on the ground. While this could entail some higher administrative cost for Member States, this stage could provide an opportunity to refine the use of the intervention codes (and thereby the use of the associated markers) and improve the accuracy of the tracking. Alternatively, this could be done as a one-off assessment over several years of project implementation for a representative sample/groups of projects. Estimates on biodiversity-related expenditure could be verified for preceding years and updated in terms of actual allocated spending (see illustrations of concrete projects and how they could be classified using different markers in section 1.5 of this guidance).

Implementation reports will not only contain information about expenditure (financial output indicators) but also information about implementation against programme output and result indicators. As mentioned above, the ERDF and CF Regulations set out an indicator related to biodiversity, notably 'Surface of habitats supported to attain a better conservation status' to be used as a common output indicator in OPs. If Member States are planning specific objectives and actions related to biodiversity, they are required as a minimum to use the indicator set out in the Regulations. In addition, Member States could also include additional 'programme specific' indicators, which could aim to measure additional project outputs and outcomes related to biodiversity. When this is the case, annual implementation reports should ensure that a link between expenditure and outputs and results for biodiversity is identified and explicitly recognised. A similar approach should be pursued in progress reports, where expenditure on biodiversity specific objectives should be linked to the achievement of milestones and targets within the performance framework.

While this could appear to be a burdensome exercise, it is in fact rather important especially in cases when the 40 per cent marker is used and indirect biodiversity benefits were assumed ex-ante. Verifying expenditure against achieved outputs and results could help refine the tracking of biodiversity-related expenditure which will no longer be based on 'stated objectives' or 'expected benefits' but on actual achieved results. Linking expenditure to concrete results and the use of the relevant indicators however could be challenging especially for Member State which have not put forward ambitious indicators in their OPs and in general have weaker traditions in policy evaluation.

Therefore, it is critical that during the negotiations of the OPs, the Commission services check carefully the proposed output and results indicators related to biodiversity specific objectives, including the related milestones and targets, and propose additional ones where needed, to ensure that a proper and more integrated tracking, monitoring and evaluation could take place at later stages of implementation. Additional information about biodiversity-related expenditure and its contribution to relevant objectives and indicators could also be requested during annual review meetings between the Commission and managing authorities. In cases where appropriate indicator and monitoring systems are largely missing, funding under ERDF for technical assistance could be used to develop proper indicators and monitoring systems related to biodiversity-related expenditure thereby ensuring improved biodiversity tracking on the ground.

In addition, external evaluations by Member States and the Commission could be used to verify some of the financial data on biodiversity-related expenditure, especially in terms of assessing progress towards biodiversity-related objectives and indicators. These evaluations are usually performed by external independent consultants who could conduct in depth case studies of

expenditure under specific objectives or even single/groups of projects and thereby verify the link between expenditure and actual results for biodiversity on the ground.

Options for the EU annual budget – 2017 and beyond

In principle, the approach will follow the one applied for the preparations of the 2016 annual EU budget but the figures could take account of specific allocations to projects compared to planned expenditure in the adopted OPs. The former are likely to be lower than the latter, especially if there are some delays in the implementation phase. However, they will provide a more accurate account of what is being financed on the ground.

Options for the European Social Fund

At this stage, the identification of biodiversity-related specific projects under the ESF is possible. However, this would not necessarily be captured in the annual implementation reports which will aggregate expenditure allocated to projects per intervention field code. However, information about biodiversity-specific projects could be provided within progress reports in relation to TO6 (if relevant), can be requested during annual review meetings between the Commission and managing authorities, or identified in external thematic evaluations.

Options for financial instruments

The managing authorities are also required to send to the Commission a specific report covering the operations delivered through financial instruments as an annex to the annual implementation report. The envisioned reporting on financial instruments includes new elements as set out in Article 46 of the CPR, in line with the Financial Regulation.

This is the stage where data about biodiversity-related expenditure through financial instruments could be provided, as the data presented in the annex to the implementation reports will take account of allocated expenditure to selected projects. The tracking methodology should draw on the information provided in the reports regarding:

- Priority or measures from which support from the funds is provided;
- Total amount of programme contribution by priority or measure to the financial instrument;
- Total amount of support paid to the final recipients or to committed in guarantee contracts by the financial instrument for investment in the final recipients; and
- Contribution to the achievement of the indicators of the priority or measure concerned.

While information about the leverage effect is important for assessing the effectiveness and targeting of financial instruments, it should not be taken into account in the tracking methodology. The leverage effect takes account not only of the EU contribution to the financial instrument but also of the additional public and private financing mobilised for the project. The tracking methodology should focus on the EU budget contribution. This also means that if any gains, returns or revenues from the project implementation are reinvested in the same financial instrument for the same or similar biodiversity-related projects, these should also be captured by the tracking exercise.

1.4 Classifying expenditure according to the 100, 40 and 0 per cent markers

This section presents the study team's proposal for the use of the 100, 40 and 0 per cent markers at the stage of advanced programming when information on biodiversity-related expenditure is available based on the adopted PAs and OPs. The markers are applied at the level of 'intervention field codes' as proposed in section 1.3.2. As the list of intervention codes is fairly long, we present the proposals for the use of the 100 and 40 per cent markers in cases of relevance for biodiversity. The use of the 0 per cent marker is only presented for codes which could in some way be linked to biodiversity but we provide justification why the 0 per cent marker is to be used.

Table 1.2: Biodiversity markers for Cohesion policy measures

INTERVENTION FIELD ¹⁴	Marker	Justification
<u>Environmental infrastructure</u>		
017 Household waste management (including minimisation, sorting, recycling measures)	0%	No stated objective, expected results or possible significant benefits for biodiversity. Certain indirect and long-term benefits for biodiversity and ecosystems could be assumed. However, applying a 40 per cent marker would lead to significant overestimation of expenditure because these are usually rather large investments while the assumed benefits for biodiversity are likely to be insignificant in comparison. A conservative approach is therefore applied.
018 Household waste management (including mechanical biological treatment, thermal treatment, incineration and landfill measures)	0%	No stated objective, expected results or possible significant benefits for biodiversity. Certain indirect and long-term benefits for biodiversity and ecosystems could be assumed. However, applying a 40 per cent marker would lead to significant overestimation of expenditure because these are usually rather large investments while the assumed benefits for biodiversity are likely to be insignificant in comparison. A conservative approach is therefore applied.
019 Commercial, industrial or hazardous waste management	0%	No stated objective, expected results or possible significant benefits for biodiversity. Certain indirect and long-term benefits for biodiversity and ecosystems could be assumed. However, applying a 40 per cent marker would lead to significant overestimation of expenditure because these are usually rather large

¹⁴ The categories of intervention are based on the Commission Implementing Regulation (EU) No 215/2014 of 7 March 2014 laying down rules for implementing Regulation (EU) No 1303/2013 of the European Parliament and of the Council laying down common provisions on 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 and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund with regard to methodologies for climate change support, the determination of milestones and targets in the performance framework and the nomenclature of categories of intervention for the European Structural and Investment Funds

		investments while the assumed benefits for biodiversity are likely to be insignificant in comparison. A conservative approach is therefore applied.
020 Provision of water for human consumption (extraction, treatment, storage and distribution infrastructure)	0%	No stated objective, expected results or possible benefits for biodiversity. Certain indirect and long-term benefits for biodiversity and ecosystems could be assumed. However, applying a 40 per cent marker would lead to significant overestimation. A conservative approach is therefore applied.
021 Water management and drinking water conservation (including river basin management, water supply, specific climate change adaptation measures, district and consumer metering, charging systems, leak reduction)	0%	The way this code is formulated is very broad and includes expenditure types which could be of some relevance for biodiversity. For example, river basin management projects could be classified as 40 per cent. If climate change adaptation measures are eco-system based, they could also be allocated a 100 per cent marker but whether they are eco-system based is not explicitly stipulated. However, other activities such as water supply, charging systems, consumer metering etc. are unlikely to have significant biodiversity benefits as their primary objective is improving the efficiency of the system. A conservative approach to the entire code is therefore applied. Alternatively, the application of a co-efficient could be considered.
022 Waste water treatment	40%	This code is likely to have tangible biodiversity benefits and therefore a 40 per cent marker is applied. However, it should be noted that these are considerably large infrastructure projects, some components of which (e.g. collection systems) might not necessarily be relevant for biodiversity. Still, a 40 per cent marker is justified as it is recognised that the entire project contributes to improving the status of EU waters and river basin quality, thus having relevance for biodiversity.
023 Environmental measures aimed at reducing and/or avoiding greenhouse gas emissions (including treatment and storage of methane gas and composting)	0%	No stated objective, expected results or possible benefits for biodiversity.
<u>Environment</u>		
083 Air quality measures	0%	No stated objective, expected results or possible benefits for biodiversity.
084 Integrated pollution prevention and control (IPPC)	0%	The use of the 0 per cent marker is justified in the case of pollution control measures designed to enhance human health, sanitation and general environmental quality, without having a specific biodiversity objective, expected results and/or possible benefits. Some potential and long-term benefits for biodiversity could be assumed but they are likely to be insignificant compared to the volume of investment under this code. Therefore, a conservative approach is applied in order to avoid overestimation.
085 Protection and enhancement of biodiversity, nature protection and green infrastructure	100%	Stated biodiversity objectives and assumed positive effects/benefits for biodiversity. Note: for this intervention field, there can be links and synergies between biodiversity- and climate-related

		<p>expenditure. For the purposes of biodiversity tracking it is important to recognise and account for the measures which have biodiversity as a primary or significant objective, even if they are already counted for climate. However, due to these links and synergies biodiversity- and climate-related financing figures should not be aggregated as in some cases this would mean counting the same contributions twice, leading to overestimation of the total biodiversity and climate change related expenditure. Since the tracking of climate- and biodiversity-related expenditures are two separate reporting processes, the results of which are presented separately in the annual EU budget documentation, there is a limited risk for such double-counting to occur in practice.</p>
086 Protection, restoration and sustainable use of Natura 2000 sites	100%	<p>Stated biodiversity objectives and assumed positive effects/benefits for biodiversity.</p> <p>Note: see 085 above</p>
087 Adaptation to climate change measures and prevention and management of climate related risks e.g. erosion, fires, flooding, storms and drought, including awareness raising, civil protection and disaster management systems and infrastructure	40%	<p>The investment priorities set out in the ERDF and CF Regulations include supporting investment for adaptation to climate change, including ecosystem-based approaches. We propose to apply a 40 per cent marker assuming that some of the expenditure under this code would promote eco-system based approaches to adaptation where biodiversity preservation and enhancement is one of the main objectives and/or expected effects. However, it should be noted that it is possible that infrastructure-based solutions to climate adaptation (such as defence walls, dykes and civil protection) are also reported and are not likely to have positive effects for biodiversity.</p> <p>Note: see 085 above</p>
088 Risk prevention and management of non-climate related natural risks (i.e. earthquakes) and risks linked to human activities (e.g. technological accidents), including awareness raising, civil protection and disaster management systems and infrastructures	0%	<p>No stated objective, expected results or possible benefits for biodiversity. The main stated objective/expected effect of projects reported under this code is the reduction of risks (e.g. earthquakes and technological accidents).</p>
089 Rehabilitation of industrial sites and contaminated land	0%	<p>The use of the 0 per cent marker is justified in the case of rehabilitation measures designed to enhance human health, sanitation and general environmental quality, without having a specific biodiversity objective, expected results and/or possible benefits. Rehabilitation projects often entail urban developments which have no relevance for biodiversity, such as building apartment blocks or shopping malls. Some potential and long-term benefits for biodiversity could be assumed (e.g. for projects related to improving soil quality) but they are likely to be insignificant compared to the volume of investment under this code. Therefore, a conservative approach is applied in order to avoid overestimation.</p>

090 Cycle tracks and footpaths	0%	No stated objective, expected results or possible benefits for biodiversity.
091 Development and promotion of the tourism potential of natural areas	40%	It is assumed that 'natural areas' include the preservation of natural capital and the promotion of eco-tourism. While there are no stated objectives or expected results for biodiversity, and the primary objective is tourism development, certain benefits for these natural areas could be expected, therefore a 40 per cent marker is applied. However, tourism in natural areas, if not eco-friendly, could also be harmful to biodiversity. An ex-post check should be considered.

1.5 Illustration of expenditure types

The aim of this section is to illustrate different expenditure types under the relevant intervention fields of Cohesion Policy and its relevance to biodiversity. The expenditure types build on project examples under the 2007-2013 Cohesion Policy as included in the database maintained by Directorate General for Regional Policy (DG REGIO)¹⁵, the SURF Nature Project Database¹⁶ and case studies from the Financing Natura 2000 in 2014-2020: Guidance Handbook¹⁷. The illustrative examples include the following:

- Typical expenditure to be marked as 100 per cent biodiversity related expenditure;
- Typical expenditure to be marked as 40 per cent biodiversity related expenditure;
- Using 100 per cent and 40 per cent marker for tracking synergies between biodiversity and climate adaptation;
- Typical expenditure to be marked as 0 per cent biodiversity related expenditure; and
- Examples of ESF expenditure to be marked 40 per cent biodiversity related expenditure.

The illustration of expenditure types could be helpful for the ex-post tracking stage in relation to reporting in annual implementation reports. Examples of project types are structured per intervention field code, which could help adjust and ultimately improve the use of the markers for the relevant intervention field codes.

Typical expenditure to be marked and reported as 100 per cent biodiversity-related

Code 85: Protection and enhancement of biodiversity, nature protection and green infrastructure

Joint management and ecological development of cross-frontier nature areas (BE, FR)¹⁸

In the Hainaut Cross-Border Nature Park (PNTH) which straddles the border between Wallonia in Belgium and the Nord-Pas de Calais region of France a cross-border management system has been set up to protect the area and promote its socio-economic development.

Restoring green corridors to preserve biodiversity in Rhone-Alpes regions (FR)¹⁹

The Rhône-Alpes is leading a strategy to preserve and restore a series of 'green corridors' on its territory to reduce the erosion of biodiversity. Five areas are receiving support under a system of innovative funding contracts concluded with local stakeholders.

INNOMAR - Innovative methods for sustainable management of marine biological resources (GR)²⁰

A partnership involving marine research organisations, local authorities and fishermen in Crete has piloted innovative methods for the sustainable management of marine biological resources. The objectives of the project were to produce quality fishing products in a sustainable way and to increase the competitiveness of the fishing industry in Crete.

Protecting nature for everyone to enjoy (FR)²¹

The project takes place on the Caribbean island of St Martin with the aim to ensure greater awareness of the natural environment and that more care is taken of the sites, there is greater awareness of the fauna and flora, and that eco-tourism is developed on St Martin.

¹⁵ http://ec.europa.eu/regional_policy/projects/stories/index_en.cfm

¹⁶ <http://surfnature.ctfc.cat/index.php>

¹⁷ McConville, A., Underwood, E., Green, S. and Kettunen, M. (2014) *Financing Natura 2000 in 2014-2020: Guidance Handbook, Part II – case studies*, a publication commissioned by the European Commission DG Environment

¹⁸ http://ec.europa.eu/regional_policy/projects/practices/details.cfm?pay=BE&the=75&sto=2473®ion=ALL&lan=7&obj=ALL&per=ALL&defl=EN

¹⁹ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=FR&the=72&sto=2404&lan=7®ion=ALL&obj=ALL&per=2&defl=FI

²⁰ http://ec.europa.eu/regional_policy/projects/practices/details.cfm?pay=GR&the=75&sto=1434®ion=ALL&lan=7&obj=ALL&per=ALL&defl=EN

²¹ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=FR&the=72&sto=1839&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

Preservation of coastal gem (FR)²²

The project, concerning the Lido de Sète, a 12-km sandy barrier beach on France's Mediterranean coast, will ensure that the wealth of ecological features in the area is preserved and at the same time the erosion process is halted, dunes are reinforced and facilities for tourism are developed.

Innovative Alps-Carpathians corridor re-establishes a major migration route for wild animals (SK, AU)²³

The main goal is to improve the ecological and wildlife corridor between the Alps and the Carpathians, which is more and more degraded by infrastructure development.

Creation of deep pools in a local biocentre (RO)²⁴

The main goal is the regeneration of a wetland habitat by the creation of pools for amphibians and wetland plant species, once-and-for-all management. Rebuilding a new significant territorial element as a part of Territorial System of Ecological Stability (TSES).

Roads for Nature – roadside avenues as ecological corridors for the hermit beetle (PL)²⁵

The main aim of the project is to ensure the functioning and survival of hermit beetle (*Osmoderma eremita*) population through reproduction and protection of roadside avenues connecting the isolated positions and subpopulations of hermit beetle.

Support of restitution and protection of Baltic mammals (PL)²⁶

Active protection of endangered species of Baltic mammals, including informing fishermen and tourists about methods of protection of porpoises and grey seals' habitat.

Wildlife improvements in the mountain Peñas de Béjar (ES)²⁷

The main objective is the improvement of the wildlife that lives in the Monte Peñas de Béjar through the increase of the trophic resources and the availability of water supply. Both actions promote and encourage biodiversity in this forest ecosystem of Murcia.

Development of a model Web based virtual observatory of Acherontas, Kalamas and Torre Guaceto ecosystems (GR, IT)²⁸

The program focuses on the improvement of the management, protection and sustainable development of the Greek and Italian coastal ecosystems in the border area through the observation of the ecosystems' quality and the increase of public awareness about environmental issues.

Educational program of the regional natural heritage through the Environmental Classrooms Network (ES)²⁹

The main objective of the educational program of the Environmental Classrooms Network is to introduce the natural and cultural values of the environment and the relationship between them to generate positive behaviours and attitudes aimed at environmental conservation and development of sensitivity, creativity and ability to access the environment around us.

Code 86: Protection, restoration and sustainable use of Natura 2000 sites

Future of the Atlantic Marine Environment: Seabird tracking project³⁰

The Future of the Atlantic Marine Environment (FAME) is a strategic transnational co-operation project with the purpose to advise on the designation of Marine Protected Areas (MPAs) as well as develop best practice management recommendations of these areas.

²² http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=FR&the=72&sto=2039&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

²³ SURF Nature project database - http://surfnature.ctfc.cat/det_project.php?id=39

²⁴ SURF Nature project database - http://surfnature.ctfc.cat/det_project.php?id=68

²⁵ SURF Nature project database - http://surfnature.ctfc.cat/det_project.php?id=106

²⁶ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=1

²⁷ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=48

²⁸ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=103

²⁹ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=46

³⁰ McConville, A., Underwood, E., Green, S. and Kettunen, M. (2014) *Financing Natura 2000 in 2014-2020: Guidance Handbook, Part II – case studies*, a publication commissioned by the European Commission DG Environment

The Lower Saxony and Bremen joint integrated management plan for the Tideweser: Stakeholder involved management of the Weser Estuary (DE)³¹

To date the Free Hanseatic City of Bremen has undertaken work including the specification of the management sites along the river Lesum by the new Landscape Development Plan, adopting a compensatory measure for adjacent dike reinforcement, and launching a pilot study “restoration of a dike foreland in the Werderland”.

Artificial structures for the breeding of the lesser kestrel and the construction of pounds (ES)³²

The main objective of this project is the implementation of measures for the conservation and improvement of wildlife, specifically the *Falco naumanni*, one of the most endangered species in the Region of Murcia, classified as “Endangered Species” and living in cereal steppes among the SPAs “Estepas de Yecla” (Yecla TM) and “Saladares de Guadalentín” (TM Alhama de Murcia).

COLECOMAN (COLlaborative ECOsystem MANagement) (GR, ES, MT, IT)³³

The main objective of the Parks Network is to create a new form of dialogue on the common topics of environment management, by establishing a network comprising protected natural areas of the Mediterranean with a view to contributing to the identification of mutual strategies to be implemented within the framework of a long-term collaboration.

DANUBEPARKS Danube River Network of Protected Areas (DE, AU, SK, HU, CR, SE, BG, RO)³⁴

The main goal is transnational cooperation for the nature protection of main habitats: floodplains, islands and rivers.

For Nature and Local Communities - bases for a Natura 2000 integrated management in the region Hârtibaciu - Târnava Mare –Olt (RO)³⁵

The project aims to achieve the necessary framework for the proper management of land and activities of SPA and SCI in order to conserve species and habitats of community and national interest, and to ensure the minimum conditions necessary for funding by the European funds as compensation payments and for the implementation of plans and projects for the sustainable development of local communities.

Implementation of Natura 2000 sites in Olomoucky county (CZ)³⁶

The main goal is to prepare management plans for several Natura 2000 sites, notably habitats and species of EU interest, especially: mountain and floodplain forests, amphibians, butterflies, management plans, action plans, budget of management measures.

Measures for improving the management of Natura 2000 sites (RO)³⁷

The project aims to protect species and habitats of community interest within the Iron Gates Natural Park area.

Actions for the biological monitoring and information on endangered marine species (ES)³⁸

Execution of technical work consisting of a regional census of seabirds and the monitoring of the information on threatened marine species in the Region of Murcia.

Typical expenditure to be marked and reported as 40 per cent biodiversity-related

Code 22: Waste water treatment

³¹ McConville, A., Underwood, E., Green, S. and Kettunen, M. (2014) *Financing Natura 2000 in 2014-2020: Guidance Handbook, Part II – case studies*, a publication commissioned by the European Commission DG Environment

³² SURF Nature Project Database - <http://surfnature.ctfc.cat/cerca.php>

³³ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=83

³⁴ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=40

³⁵ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=107

³⁶ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=37

³⁷ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=51

³⁸ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=75

Reconstruction of water and wastewater networks in Narva city (ES)³⁹

The project consists of investments in drinking water treatment and distribution, as well as wastewater collection. Some 65 000 inhabitants living in the project area will directly benefit from the improved water services by receiving higher quality drinking water. Safe drinking water will contribute to the reduction of health risks for the population. Leakages will be reduced from the current level of 57 per cent to 20 per cent. Significant environmental/biodiversity benefits are expected from the elimination of groundwater and subsoil contamination but these are not the primary objective.

Extension of the wastewater treatment plant in Burgos (ES)⁴⁰

The aim of the project is to produce effluents of a sufficiently high quality that they can be discharged with minimal impact on their final receiving environment, the Arlanzón river. Once the extension is complete, the wastewater treatment plant will have the capacity to treat 150 000 cubic metres of water a day, providing a huge benefit to the estimated 180 000 inhabitants of Burgos and the surrounding villages. Significant environmental/biodiversity benefits are expected but these are not the primary objective.

Greater handling capacity for wastewater and sewerage (HU)⁴¹

As part of efforts to protect the environment and the health of residents, this project will extend the sewage network in Érd, Diósd and Tárnok as well as the wastewater treatment plant in Érd. Significant environmental/biodiversity benefits are expected but these are not the primary objective.

Managing water for the good of citizens and nature (PL)⁴²

The project includes building and modernising facilities for managing water and waste water treatment, including storm water sewerage. It is expected that the project will deliver major benefits for the health of citizens and tourists as well as improvements to the quality of surface waters and reductions in the level of pollutants discharged into the environment, in turn improving how the local ecosystem functions and ensuring that biological diversity is not lost.

Code 91: Development and promotion of the tourism potential of natural areas**Improvement of public use infrastructure at the Calblanque Regional Park (ES)⁴³**

The main objective of the project is to replace damaged infrastructure and elements for the smooth operational running of the services offered by the Regional Natural Park. The works consist of the replacement of certain elements for public use such as: information booths, informative signposts, wood cover for garbage containers, tables and benches, stone walls of masonry and parking cover. Significant environmental/biodiversity benefits are expected but these are secondary.

PARKS&BENEFITS (DE and partners)⁴⁴

The project aims to: develop, test and transfer solutions to generate socio-economic effects within protected areas benefiting regional development; develop integrated and harmonised spatial planning, linking protected areas to their regions; establish public private partnerships between protected areas, SMEs and regional authorities; increase the quality of eco-tourism offers via a quality standard; promote Charter Parks via the European-wide EUROPARC brand; provide verified arguments in policy making and secure political commitment for nature protection. Significant environmental/biodiversity benefits are expected but these are secondary.

Balancing Economic Development and Environmental Planning for Tourism – EDEN (GR, SE, RO, HU)⁴⁵

The overall aim of the project has been to develop an innovative methodology for the resolution of land use conflict based on evaluation and consensus planning in areas where the development of tourism harms or may harm the environment. The promotion of eco-tourism and recreation activities was clearly one of the project's aims. Significant environmental/biodiversity benefits are expected but these are secondary.

³⁹ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=EE&the=72&sto=1612&lan=7®ion=ALL&obj=ALL&per=2&defL=EN

⁴⁰ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=ES&the=72&sto=2335&lan=7®ion=ALL&obj=ALL&per=2&defL=EN

⁴¹ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=HU&the=72&sto=2322&lan=7®ion=ALL&obj=ALL&per=2&defL=EN

⁴² http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=PL&the=72&sto=2297&lan=7®ion=ALL&obj=ALL&per=2&defL=EN

⁴³ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=45

⁴⁴ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=110

⁴⁵ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=82

Bioregion - the region of natural diversity (SI)⁴⁶

The overall objectives are to establish an eco-tourism management system, improve the visibility of the area as a bioregion, conserve biodiversity and the quality of the natural environment, and develop a system of values. Significant environmental/biodiversity benefits are expected but these are secondary.

Ripristino Funzionale Cammino di Francesco (IT)⁴⁷

The overall objective is the integrated promotion of the natural, artistic and cultural heritage in the area of the Natural Reserve of "Lakes Lungo and Ripasottile" (Natura 2000 site). Significant environmental/biodiversity benefits are expected but these are not the main objective.

Tracking synergies between biodiversity and climate adaptation

Code 87: Adaptation to climate change measures and prevention of climate related risks (including erosion, fire)

GRaBS project – Green and Blue Space Adaptation for Urban Areas and Eco-towns (INTERREG)⁴⁸

The project aims to raise awareness and increase the expertise of key bodies responsible for spatial planning on how green and blue infrastructure can help urban development adapt to projected climate scenarios as well as to improve stakeholder and community understanding and involvement in planning. Since the focus is on green infrastructure, this type of project should be marked using the 100 per cent marker.

FLAPP project - Flood Awareness & Prevention Policy in border areas (BE, CZ, DE, ES, GR, ES, LT, HU, NL, AU, PT, RO, SK, UK, Serbia)⁴⁹

The main goal of project partners was to maximise flood prevention, forecast floods, disseminate information and limit damage. Significant environmental/biodiversity benefits could be expected but these are likely to be secondary, thus the 40 per cent marker should be applied.

SIC adapt! - Strategic Initiative Cluster – Adaptation to the Impacts of Climate Change (BE, FR, DE, IR, LX, NL, UK)⁵⁰

The project is a grouping of networks or clusters that brings together eight projects funded by the INTERREG IV B North-West Europe Programme, to jointly tackle adaptation to the impacts of climate change in different spatial settings such as urban areas, floodplains and coastal zones across North-West Europe. The cluster, which is led by the German Water Board, Lippeverband, was launched in October 2010 with the aim of increasing the resilience of built, water, natural and social environments to climate change. Significant environmental/biodiversity benefits could be expected but these are likely to be secondary, thus the 40 per cent marker should be applied.

MEDDMAN (FR, GR, IT, ES)⁵¹

The project promotes an integrated approach to threats related to water shortages and develops strategies and tools for better management of water resources and soils in the Mediterranean region. Significant environmental/biodiversity benefits could be expected but these are likely to be secondary, thus the 40 per cent marker should be applied.

Fire prevention and creation of environmental awareness centres (ES)⁵²

The project includes actions on forest cleaning, biomass treatment, rehabilitation of rural roads, the protection of rural biodiversity, and construction of a dedicated awareness raising centre. Significant environmental/biodiversity benefits could be expected but these are likely to be secondary, thus the 40 per cent marker should be applied.

Flood protection in Valencia (ES)⁵³

The flood protection works planned under this project include the construction of a dam, extensions to the present course of the Gallinera river basin and a collection of measures for better drainage, canalisation and water flow diversions. There is no stated objective, expected results or possible benefits for biodiversity, thus a 0 per cent marker should be used.

⁴⁶ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=52

⁴⁷ SURF Nature Project Database - http://surfnature.ctfc.cat/det_project.php?id=49

⁴⁸ GRABS web site - <http://www.grabs-eu.org/about.php>

⁴⁹ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=BE&the=72&sto=1683&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

⁵⁰ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=BE&the=72&sto=2403&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

⁵¹ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=ES&the=72&sto=1682&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

⁵² http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=ES&the=72&sto=1816&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

Typical expenditure to be marked and reported as 0 per cent biodiversity-related

The changing waters of southern Spain (ES)⁵⁴

The project envisions a new pumping station, water treatment station and irrigation reservoir, combined with 165 km of new water pipes guaranteeing better water supply for residents and irrigators from a desalination plant. There is no stated objective, expected results or possible benefits for biodiversity.

Seawater desalination plant in the western Costa del Sol (ES)⁵⁵

The central feature of this project is the construction of a seawater desalination plant in the western Costa del Sol. Apart from creating jobs, the project will relieve pressure on local aquifers and result in an initial yield capacity of 20 million m³ per year. There is no stated objective, expected results or possible benefits for biodiversity.

New pumping and turbine station improves irrigation and water security (ES)⁵⁶

Renewable hydroelectric energy, less riverbed erosion and more water for irrigation and human consumption in the Guadalquivir basin, particularly during traditionally hot summer months, feature among the benefits of this major project in Andalucía. There is no stated objective, expected results or possible benefits for biodiversity.

Keeping Madrid clean and green (ES)⁵⁷

A large-scale strategy to use recycled water for park irrigation and street cleaning services. There is no stated objective, expected results or possible benefits for biodiversity.

'From mines to mining parks' – education, culture and tourism in Almadén Mining Park (ES)⁵⁸

The Almadén Mining Park is an educational, cultural and tourist site that was built to preserve the vast mining and industrial heritage of the world's largest mercury mines closed in 2003. It was created to reverse the environmental damage of 2,000 years of extraction activities, and to promote historical and scientific knowledge about the local mining industry amongst the public. There is no stated objective, expected results or possible benefits for biodiversity.

'World-class recycling centre' – a new unit for recycling of plastics and tyres (FR)⁵⁹

The project created waste collection and processing facilities for the Guadeloupe archipelago. These meet the latest European waste disposal standards. Besides protecting the local population's health, these facilities contribute to preserving the fragile natural environment – which is a key attraction for tourists to Guadeloupe. There is no stated objective, expected results or possible benefits for biodiversity.

New integrated waste management and selective collection system (HU)⁶⁰

The project includes a landfill, mechanical-biological pre-treatment facility, material recycling facility to process selectively collected recyclables and composting plants for green waste aimed to reduce pollution and health risks, protect the environment and create more jobs. There is no stated objective, expected results or possible benefits for biodiversity.

Waste incineration plant to recover energy from household and industrial trash in Kraków (PL)

The construction of a waste incineration plant in Kraków will help the city to dispose of waste to high environmental standards and will also create a new source of electricity and heat. There is no stated objective, expected results or possible benefits for biodiversity.

Integrated social urban project (HU)⁶¹

The focus of this project is on public infrastructure renovation, a crime prevention programme, provision of training and advisory services for employment. There is no stated objective, expected results or possible benefits for biodiversity.

⁵³ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=ES&the=72&sto=2051&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

⁵⁴ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=ES&the=72&sto=2128&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

⁵⁵ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=ES&the=72&sto=2131&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

⁵⁶ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=ES&the=72&sto=2302&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

⁵⁷ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=ES&the=72&sto=2318&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

⁵⁸ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=ES&the=72&sto=1874&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

⁵⁹ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=FR&the=72&sto=2027&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

⁶⁰ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=HU&the=72&sto=1930&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

⁶¹ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=HU&the=72&sto=2171&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

Desulphurisation plant (PL)⁶²

The construction of a new desulphurisation plant at a power station near Warsaw will dramatically reduce the amount of sulphur dioxide entering the atmosphere. The work will mean cleaner air for local people and help Poland to meet its environmental obligations. There is no stated objective, expected results or possible benefits for biodiversity.

Factory cuts pollution with new nitric acid production unit (PL)⁶³

The investment should lead to a direct reduction in harmful gases emitted by the plant. Nitrogen oxide (NOx) emissions, which contribute to lung disease and cause acid rain, will be cut by 1 285 tonnes per year. Carbon dioxide (CO₂) emissions will be reduced by 4 810 tonnes per year, while emissions of particulate matter (dust of nitrite, nitrate and sodium carbonate), which contribute to cardiovascular and respiratory diseases, will be cut by 4 tonnes per year. There is no stated objective, expected results or possible benefits for biodiversity.

Examples of ESF projects to be marked 40 per cent biodiversity related expenditure

Training: developing skills directly related to biodiversity conservation among workers, scientists, students, teachers and unemployed people.

Creating biodiversity-relevant jobs, such as customer management occupations in natural areas to improve the management of tourism.

⁶² http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=PL&the=72&sto=2430&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

⁶³ http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=PL&the=72&sto=2410&lan=7®ion=ALL&obj=ALL&per=2&defl=EN

2 The European Maritime and Fisheries Fund (EMFF)

Prepared by IEEP

2.1 Introduction to the 2014-2020 European Maritime and Fisheries Fund

The EMFF is the EU's fund for maritime and fisheries policies for 2014 to 2020. It aims to promote and foster environmentally-sustainable, resource-efficient, innovative, competitive and knowledge-based fisheries and aquaculture, and increase employment and territorial cohesion through the promotion of economic growth, social inclusion and job creation. It includes specific objectives of high relevance to biodiversity on protecting and restoring aquatic biodiversity and ecosystems, reducing the impact of fisheries on the marine environment, ensuring a balance between fishing capacity and fishing opportunities, and promoting aquaculture with a high level of environmental protection. To meet these biodiversity-relevant objectives the fund includes a significant number of measures that are relevant to biodiversity and ecosystems, such as investments in gear, methods and management approaches to improve the sustainability of fish stocks, or similar measures to support environmentally sustainable practices in aquaculture.

The majority of measures within the EMFF are financed and programmed under shared management, where the Council and the European Parliament set out the regulatory framework for the funds, but Member State national and regional managing authorities are responsible for the programming, implementation, monitoring, reporting and evaluation of the programmes and projects, in dialogue with the European Commission and relevant partners. Operational Programmes are the main programming and implementation document in which Member States select the measures from the EMFF Regulation that they wish to implement. As from 2016, Member States also have to report annually to the Commission on the implementation of the programme during the previous year. Their reporting must include financial commitments and expenditure by measure and reporting against common indicators, submitted to the Commission via an electronic tool.

2.2 Stock-taking of the currently emerging/agreed approach by the Commission on biodiversity tracking

For the annual budgets of 2014 and 2015, rough estimates of biodiversity related expenditure have been calculated based on levels of expenditure and commitments under the European Fisheries Fund (EFF, the EMFF's predecessor 2007-2013). Biodiversity-related expenditure was estimated at €199 million, using the amounts committed by Member States up to the end of May 2013 to biodiversity relevant measures under the EFF, extrapolated using the EMFF total appropriation under shared and direct management.⁶⁴ It is not clear however from the Programme Statement how exactly it was determined whether expenditure was biodiversity related or not and how the different markers were used.

These figures are necessarily rough as they were determined against the background of the pending adoption of Member States' Operational Programmes and hence a void of information relating to

⁶⁴ European Commission (2014) Draft General Budget of the European Commission for the financial year 2015. Working Document Part I Programme Statements of operational expenditure, COM(2014) 300.

Member States' intentions with respect to the EMFF. The 2014-2020 Operational Programmes for implementation of the EMFF will be adopted in 2015. Information about planned expenditure related to biodiversity will only be available as from May 2016, when Member States will present the first implementation report for the EMFF covering implementation during 2014 and 2015. This information will be used in the context of the Programme Statements on the annual EU budget from 2017 onwards.

Some of the measures funded under the EFF correspond reasonably well to those included in the EMFF. For example, the measure for community-led local development in the EMFF is the equivalent of Axis 4 of the EFF on the sustainable development of fisheries areas. Similarly, Article 38 of the EFF on measures intended to protect and develop aquatic flora and fauna is a less developed version of the EMFF Article 40 on the protection and restoration of marine biodiversity and ecosystems.

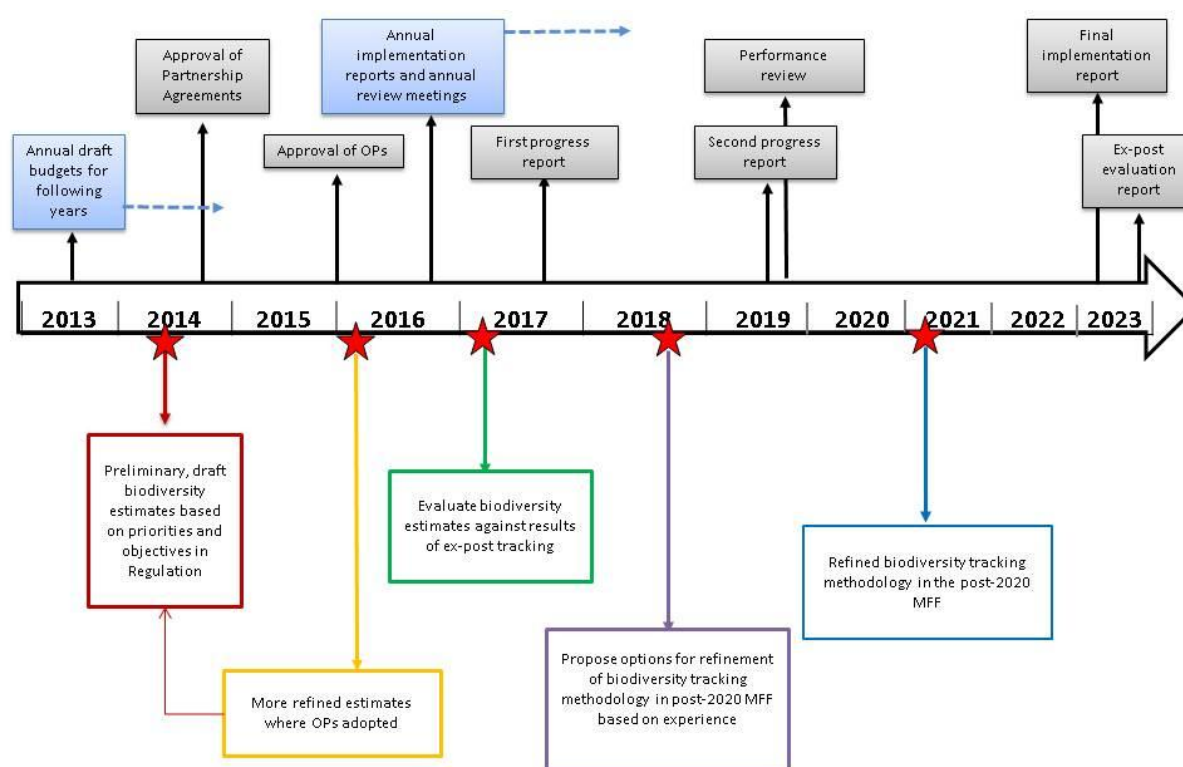
However, the EMFF introduced new measures of biodiversity significance, such as Article 36 supporting systems of allocation of fishing opportunities, and has removed or amended others. In addition, Member State spending commitments may vary significantly compared to the EFF, in the context of such factors as some fleets having been rebalanced with available natural resources (i.e. reduction of over-capacity) and therefore no longer needing fleet adjustment support; the majority of the industry seeking to implement the landing obligation and therefore benefiting more from support in this regard; and the fact that the previous funding periods' progress with community-led development projects means that there is more guidance, best practice and experience to draw from. These are just a few examples of factors which may lead to a shift in spending patterns for the 2014-2020 funding period. Consequently there is a double layer of uncertainty which adds a caveat to these estimates of biodiversity expenditure, although given the lack of data at the time of producing them this could not be helped.

2.3 Study team's proposal for an improved tracking approach

As from 2016, in the Annual implementation report Member States will include information on financial commitments and expenditure by measure. Also every year Managing Authorities will provide the Commission with cumulative data on operations selected for funding until the end of the previous calendar year (EMFF Regulation (EU) No 508/2014, Article 97). We propose an approach to tracking biodiversity related expenditure by applying coefficients to the EMFF measures (see table under 2.4) in order to calculate the amount of support from the fund to biodiversity objectives. This is consistent with the tracking that is being conducted for climate-related expenditure, which itself was designed to follow the existing reporting system (which operates at the measure-level). Other reasons for applying the tracking at the level of measures are that it would entail lower administrative costs and burden than any application at the project level, given that most of the projects funded under the EMFF are relatively small in financial terms. The downsides to this approach are that measures are frequently unspecific and may be interpreted in different ways, meaning that the impact on biodiversity will often depend on the specifics and technical details of the project, or interpretation of the measure.

We have also developed a stylised staged approach (Figure 2.1) for the tracking of biodiversity-related expenditure throughout the EMFF programme cycle. It demonstrates the evolution of the tracking from the early stages of programming when financial data is not really available and identifies key milestones and entry points for verifying and refining the approach in the later stages when more information is available not only on financial data but also on outcomes and results.

Figure 2.1: Staged approach to biodiversity tracking in the EMFF



Source: Own compilation

It is important to be aware of links and synergies between biodiversity- and climate-related expenditure. Biodiversity- and climate-related financing figures should *not* be aggregated as in some cases this would mean counting the same contributions twice, leading to overestimation of the total biodiversity and climate change related expenditure. Since the tracking of climate- and biodiversity-related expenditures are two separate reporting processes, the results of which are presented separately in the annual EU budget documentation, there is a limited risk for such double-counting to occur in practice.

In the context of EMFF, one measure explicitly related to climate change mitigation and adaptation within the EMFF (obtaining a 100 per cent classification) (Article 41 on energy efficiency and climate change) is not considered biodiversity-related in our classification (marked as “0 per cent”), meaning that for this measure there is no danger of overlap and double-counting. However, for measures with a 40 per cent classification for both climate- and biodiversity-related expenditure, and especially for measures where there are classifications of 40 per cent climate/100 per cent biodiversity or vice versa, there would be a risk of double-counting if figures were aggregated (for example, Article 53 on the conversion to eco-management and organic aquaculture (40/40 per cent), Articles 38 and 39 (40/100 per cent) or Article 33 (100/40 per cent)).

2.3.1 Recommendations on how biodiversity- tracking could be refined over time

The precise nature of a project will have an important bearing on the impacts that it has on biodiversity but that information will often not be available to the Commission, nor in many cases to Member State Managing Authorities. This is a fundamental limitation on the feasibility of tracking biodiversity-related expenditure with any degree of precision. The monitoring system, by contrast, requires Member States to provide information at the level of individual operations. For biodiversity

impacts, however, the result indicators against which Member States must report are also limited, consisting simply of ‘change in unwanted catches’, ‘percentage (from total aquaculture production) of organic aquaculture production and recirculation system’, ‘per cent of total aquaculture production certified under voluntary sustainability schemes’, and ‘change in the coverage of marine protected areas’. These indicators are not particularly informative with regard to the effects of the majority of biodiversity-relevant operations on the conservation and restoration of biodiversity and ecosystem services. Therefore a comprehensive assessment of the impacts of EMFF expenditure on biodiversity will not be possible given the nature of the projects supported (i.e. mainly small and numerous) and the current reporting system.

In light of these challenges, the most pragmatic and cost-effective approach to verifying the tracking classifications would be to conduct a one-off monitoring exercise, covering a sample of projects, to provide the data needed to audit the projects and their biodiversity impact. The approach taken by the European Court of Auditors to determine the effectiveness of capacity reduction measures under the EFF⁶⁵ serves as an example of this type of assessment.

2.4 Classifying expenditure according to the 100, 40 and 0 per cent markers

The following table provides a classification and a justification for the choice of markers for the EMFF measures. It resembles the table in Annex III in the Commission Implementing Regulation (EU) No 215/2014 laying down general provisions with regards to methodologies for climate change support which includes markers for calculating amounts of support for climate change objectives. A similar format of table will also be used for the purpose of biodiversity tracking, but with the addition of explanations/justifications for the classifications chosen.

Allocating Rio markers to the measures under the EMFF is not always straightforward. In practice it can be challenging to distinguish between activities that have the conservation and restoration of biodiversity and maintenance of ecosystem services as their explicit primary objective (i.e. 100 per cent) and activities where the conservation and restoration of biodiversity and the maintenance of related ecosystem services are stated as one of the principal reasons for undertaking the activity (40 per cent) (for more detailed information about the development of the criteria and typology for applying the Rio markers, and the sensitivities with respect to sustainable fisheries, see Part I of this draft guidance on a definition and criteria for biodiversity related expenditure in the EU budget).

For example, Article 34 on the permanent cessation of fishing activities aims to remove active vessels from fishing fleets in order to rebalance them with available resources, thereby reducing one of the biggest threats to biodiversity from fishing: overcapacity. Indeed, ensuring a balance between available fishing opportunities and fishing capacity is a fundamental component of sustainable fisheries management, and achieving sustainability in the exploitation of fish stocks is at the heart of Target 4 of the EU Biodiversity Strategy to 2020. Based on this rationale support to permanent cessation should be marked at 100 per cent. However, reducing overcapacity also has the economic effect of increasing profitability of the remaining fleet, which implies that the sustainability of fishing is just one of two principal reasons for undertaking the measure (suggesting that a 40 per cent coefficient should be applied, as below). Additionally, implementation of the measure in previous funding periods was problematic, as the selection criteria for fishing vessel decommissioning schemes were not always well targeted, which resulted in the scrapping of vessels which had little

⁶⁵ See European Court of Auditors (2011) Have EU measures contributed to adapting the capacity of fishing fleets to the available resources? Special Report No 12. Luxembourg.

impact on fish stocks. Furthermore, funds could be used to reinvest in other vessels thereby increasing their ability to catch fish, particularly as there was no clear definition requiring fishing rights to be withdrawn along with the vessels. For these reasons the measure is considered an environmentally harmful subsidy by many. The risks of using this measure should be made clear to managing authorities and the safeguards stipulated in the Regulation should of course be adhered to and implemented. In the case of this article, and more generally, our classifications have leant towards the conservative side, but the case can be made for applying a higher coefficient, given that the objective(s) of the article are not expressed explicitly enough for the purpose of tracking.

Table 2.1: Biodiversity markers for the EMFF measures

Title of measure	Marker (100, 40 or 0%)	Justification
SHARED MANAGEMENT		
CHAPTER I: SUSTAINABLE DEVELOPMENT OF FISHERIES		
Article 26: Innovation	0%	The aim of this measure is to stimulate innovation in fisheries, which could potentially include actions of biodiversity relevance (e.g. innovations towards gear that reduces bycatch), but it is not a stated objective.
Article 27: Advisory services	40%	One of the objectives of this measure is to promote sustainable fisheries, with a focus on eliminating the negative impact of fishing on ecosystems, but this is not the main objective, there are other non-biodiversity related ones.
Article 28: Partnerships between scientists and fishermen	40%	The main objective of this measure is to foster the transfer of knowledge between the two groups, biodiversity may be an aspect of this but not necessarily.
Article 29: Promotion of human capital, job creation & social dialogue	40%	This includes training and the acquisition of new skills, linked to the sustainable management of marine ecosystems but also to other objectives (e.g. hygiene, health & safety).
Article 30: Diversification and new forms of income	40%	The main objective of this measure is to diversify the incomes of fishermen, which could include environmental services of benefit to biodiversity, but could include other activities that may not have any positive impact on biodiversity. It aims to encourage fishermen to move out of the sector if it is not profitable or sustainable.
Article 31: Start-up support for young fishermen	0%	This measure aims to bring young people into the sector and has no relevance to biodiversity.
Article 32: Health & safety	0%	This measure aims to improve hygiene, health, safety and working conditions for fishermen and is therefore not relevant to biodiversity.
Article 33: Temporary cessation of fishing activities	40%	This measure includes biological recovery and conservation among its objectives for supporting the temporary cessation of fishing activities.
Article 34: Permanent cessation of fishing activities	40%	This measure aims to remove active vessels from fishing fleets in order to rebalance them with available resources, thereby reducing the biggest threat to biodiversity: overcapacity. However it also has an economic effect of increasing profitability. Depending on the perspective and the specifics of the case either of these could be considered the 'main' objective. See p. 32 above regarding the risk of double-counting.
Article 35: Mutual funds for adverse climatic events and environmental incidents	0%	Provides fishermen with compensation – not relevant to biodiversity.

Article 36: Support for the systems of allocation of fishing opportunities	40%	The objective of this measure is to adapt fishing activities to the available fishing opportunities, and is therefore highly relevant to the sustainable exploitation of fish stocks, and hence to biodiversity. However, it is also the case that systems of allocating fishing opportunities could be developed from socio-economic objectives, such as seeking to reduce increase economic efficiency, or improve the fairness of the distribution of fishing opportunities to aid new fishermen to enter the sector, therefore a 40 per cent marker is used.
Article 37: Conservation measures and regional cooperation	100%	The main objective is conservation. See p. 32 above regarding the risk of double-counting.
Article 38: Limitation of the impact of fishing on the marine environment	100%	The main objective is to reduce the impact of fishing on the marine environment. See p. 32 above regarding the risk of double-counting.
Article 39: Innovation linked to the conservation of marine biological resources	100%	The main objective is to reduce the impact of fishing on the marine environment, by eliminating discards and bycatch.
Article 40: Protection and restoration of marine biodiversity and ecosystems	100%	Main objective is to protect biodiversity and ecosystems.
Article 41: Energy efficiency and mitigation of climate change	0%	Main objective is climate related, biodiversity is not given as an objective at all.
Article 42: Added value, product quality and use of unwanted catches	40%	The main objective of this measure is to improve the added value of fish caught. However, some support is conditional on the use of selective gears, in order to minimise unwanted catches, and it therefore merits a 40 per cent classification.
Article 43: Fishing ports, landing sites, auction halls and shelters	0%	Includes environmental protection as one of several objectives, and could consist of investments for marine litter collection, for example. However it does not explicitly state biodiversity as an objective, and environmental protection could refer to other environmental objectives such as climate change mitigation.
Article 44: Inland fishing and inland aquatic fauna and flora		
Article 44.1(a): promotion of human capital, job creation and social dialogue (inland fisheries)	40%	Equivalent of Article 29, which includes training and the acquisition of new skills linked to the sustainable management of marine ecosystems but also to other objectives (e.g. hygiene, health & safety).
Article 44.1(b): Investments on board or in individual equipment	0%	Equivalent of Article 32 (related to health and safety, not biodiversity).
Article 44.1(c): Investments in equipment and operations linked to conservation of resources	100%	Equivalent of Articles 38 and 39, the main objectives of which are to reduce the impact of fishing on the marine environment, by eliminating discards and bycatch.
Article 44.1(d): Energy efficiency	0%	Equivalent of Article 41. Main objective is climate related, biodiversity is not given as an

		objective at all.
Article 44.1(e): Improvement of the value or quality of the fish caught	40%	Equivalent of Article 42. The main objective of this measure is to improve the added value of fish caught. Some support is conditional on the use of selective gears, in order to minimise unwanted catches, but biodiversity or fish stock sustainability are not stated objectives.
Article 44.1 (f) Investments in fishing ports, shelters and landing sites	0%	Equivalent of Article 43. Includes environmental protection as one of several objectives. However it does not explicitly state biodiversity as an objective, and environmental protection could refer to other environmental objectives such as climate change mitigation.
Article 44.2: Business start-ups for young inland fishermen	0%	No biodiversity objective (see marine equivalent Article 31)
Article 44.3: The development and facilitation of innovation	40%	See Articles 26, 27, 28 as this is the equivalent of these measures for inland waters.
Article 44.4: Diversification of inland fishing activities to complementary activities	40%	The main objective of this measure is to diversify the incomes of fishermen, which could include environmental services of benefit to biodiversity, but could include other activities that may not have any impact on biodiversity.
Article 44.6: Inland fishing and inland aquatic fauna and flora	100%	Main objective is to protect and develop aquatic fauna and flora.
CHAPTER II: SUSTAINABLE DEVELOPMENT OF AQUACULTURE		
Article 47: Innovation	0%	Innovation may have several objectives, including reducing the impact on the environment and reducing dependence on fish meal and oil, but also objectives related to animal welfare, developing new products and processes. A 0 per cent classification is a conservative choice given the large variation in different forms of innovation.
Article 48: Productive investments in aquaculture		
Article 48.1(a): Productive investments in aquaculture	0%	No stated biodiversity objective.
Article 48.1(b): the diversification of aquaculture production and species cultured	0%	No stated biodiversity objective.
Article 48.1(c): the modernisation of aquaculture units, including the improvement in working and safety conditions of aquaculture workers	0%	No stated biodiversity objective.
Article 48.1(d): improvements and modernisation related to animal health and welfare	0%	No stated biodiversity objective.
Article 48.1(e): investments reducing the negative impact or enhancing the positive	0%	This measure contains a very broad environmental objective, with no specific biodiversity related objective. It could refer to other environmental aims such as climate change, or

effects on the environment and increasing resource efficiency		water quality, and therefore a conservative 0 per cent marker is used.
Article 48.1(f): Enhancing the quality of aquaculture products	0%	No stated biodiversity objective.
Article 48.1(g): the restoration of existing aquaculture ponds	40%	No explicit biodiversity related objective, but this could be considered habitat restoration in the case of extensive aquaculture operations.
Article 48.1(h): income diversification for aquaculture enterprises	0%	No stated biodiversity objective.
Article 48.1(i): reducing the impact of aquaculture on water quality and usage	0%	The objective of this measure is to reduce water use, but also to improve water quality through various actions. This may indirectly have a positive impact on biodiversity however that is not guaranteed not is it the stated objective.
Article 48.1(j): the promotion of closed aquaculture systems	0%	The objective of this measure is to minimise water use, and it therefore is not strictly a biodiversity and ecosystem services objective.
Article 48.1(k): energy efficiency	0%	The objective of this measure is climate related rather than biodiversity related.
Article 49: Management, relief and advisory services for aquaculture farms	0%	The objectives of this measure are to improve the overall performance and competitiveness of aquaculture farms, and to reduce the negative environmental impact of their operations. The environmental objective and sub measures are not specific enough to say whether this is biodiversity specific, rather than other environmental concerns such as water quality or energy efficiency.
Article 50: Promotion of human capital and networking	0%	This is designed to promote human capital and networking in aquaculture, no stated biodiversity objective.
Article 51: Increasing the potential of aquaculture sites	40%	This measure aims to contribute to the development of aquaculture sites and infrastructures, and to reduce the negative environmental impact of the operations.
Article 52: Encouraging new aquaculture farmers practising sustainable aquaculture	0%	This measure aims to foster entrepreneurship in aquaculture, nothing stated to do with biodiversity.
Article 53: Conversion to eco-management and audit schemes and organic aquaculture	40%	Aims to promote the development of organic or energy-efficient aquaculture (EMAS scheme, organic certification). Although fostering biodiversity and protecting sensitive habitats is an element of organic aquaculture, there are many other significant principles that underpin it. In addition, energy efficiency is also another objective of this measure, therefore a 40 per cent classification should be used to reflect the fact that it is only partly relevant to biodiversity.
Article 54: Aquaculture providing environmental services	100%	This measure has a stated environmental objective, which is mainly biodiversity related (management requirements in Natura areas, ex-situ conservation and restoration programmes, etc.).

Article 55: Public health measures	0%	Objectives are public health related, not biodiversity related.
Article 56: Animal health and welfare measures	0%	Objectives are animal health related, not biodiversity related.
Article 57: Aquaculture stock insurance	0%	This measure aims to safeguard the income of aquaculture producers and is not biodiversity related.
CHAPTER III: SUSTAINABLE DEVELOPMENT OF FISHERIES AND AQUACULTURE AREAS		
Article 62.1(a): preparatory support	0%	No stated biodiversity objective.
Article 62.1(b) / Article 63: implementation of community-led local development strategies	40%	This has a number of objectives, including enhancing and capitalising on the environmental assets of the fisheries and aquaculture areas.
Article 62.1(c) / Article 64: Cooperation activities	0%	No stated biodiversity objective.
Article 62.1(d): running costs and animation	0%	No stated biodiversity objective.
CHAPTER IV: MARKETING AND PROCESSING RELATED MEASURES		
Article 66: Production and marketing plans	0%	No stated biodiversity objective.
Article 67: Storage aid	0%	No stated biodiversity objective.
Article 68: Marketing measures	40%	This measure includes marketing measures that aim to promote more sustainable fishery and aquaculture products, including eco-labelling, which would have an indirect positive impact on biodiversity.
Article 69: Processing of fishery and aquaculture products	0%	This measure includes investments in processing that contribute to energy saving or reducing the impact on the environment, including waste treatment. Biodiversity is less likely to be an environmental impact on concern in this context.
CHAPTER V: COMPENSATION FOR ADDITIONAL COSTS IN OUTERMOST REGIONS FOR FISHERY AND AQUACULTURE PRODUCTS		
Article 70: Compensation regime	0%	No stated biodiversity objective.
CHAPTER VI: ACCOMPANYING MEASURES FOR THE CFP UNDER SHARED MANAGEMENT		
Article 76: Control and enforcement	40%	This measure supports control and enforcement which will help to ensure improved compliance with CFP rules, and therefore the sustainable exploitation of fish stocks.
Article 77: Data collection	40%	This measure includes various actions, including improving or increasing data collection in order to improve the management of fish stocks.
CHAPTER VII: TECHNICAL ASSISTANCE AT THE INITIATIVE OF MEMBER STATES		
Article 78: Technical assistance at the initiative of Member States	0%	No stated biodiversity objective.
CHAPTER VIII: THE IMP MEASURES FINANCED UNDER SHARED MANAGEMENT		
Article 80.1(a): the Common information sharing environment (CISE) for surveillance	40%	This will include sharing information on the marine environment and marine biodiversity as well as other information.
Article 80.1(b): promotion of the protection of	100%	The main objective of this measure is biodiversity conservation.

the marine environment, in particular its biodiversity and marine protected areas such as Natura 2000 sites		
Article 80.1(c): improve the knowledge on the state of the marine environment	100%	This will directly contribute to improve management of marine biological resources.

2.5 Illustration of expenditure types

The following tables provide examples illustrating types of biodiversity related expenditure under the EMFF, covering three Rio markers (0 – 40 – 100 per cent). Some measures are highly prescriptive about the activities permitted with the financial support. For example, Article 34 on the permanent cessation of fishing activities is explicit: a vessel must be scrapped or retrofitted to a use other than commercial fishing. But the majority of measures are more flexible and can entail a broader variety of activities. For example, Article 37 on conservation measures and regional cooperation does not specify any particulars with respect to the conservation measures, equally the Articles on innovation (39, 26, 44.3, 47) leave the precise activity up to the discretion of the beneficiary, precisely in order to encourage innovation and novel ideas.

These tables seek to provide some clarification on the sorts of projects that could be funded under the measures and demonstrate the use of 100, 40 and 0 markers at a project level.

Typical expenditure to be coded and reported as 100 per cent	
Article 37: Conservation measures and regional cooperation	
	<ul style="list-style-type: none"> Design of conservation measures with the involvement of regional interests, e.g. through Advisory Councils, which could for example include the management measures to be applied in a protected area.
Article 38: Limitation of the impact of fishing on the marine environment; Article 44.1(c): Investments in equipment and operations linked to conservation of resources	
	<ul style="list-style-type: none"> Purchase of equipment such as more selective fishing gear in order to reduce unwanted catches.
Article 39: Innovation linked to the conservation of marine biological resources; Article 44.1(c): Investments in equipment and operations linked to conservation of resources	
	<ul style="list-style-type: none"> Research projects conducted by scientific organisations in cooperation with fishers, to pilot new modifications to fishing gear to test its selectivity and effectiveness.
Article 40: Protection and restoration of marine biodiversity and ecosystems	
	<ul style="list-style-type: none"> Studies mapping fishing activities in Natura 2000 sites, and developing management plans; Projects to fish for litter.
Article 44.6: Inland fishing and inland aquatic fauna and flora	
	<ul style="list-style-type: none"> Rehabilitation of inland waterways, removing obstacles to migration of diadromous species.
Article 54: Aquaculture providing environmental services	
	<ul style="list-style-type: none"> Ex-situ reproduction of threatened fish species in view to reintroduce them to restored waterways; Support for aquaculture methods that are less intensive, using fewer inputs.
Article 80.1(b): Promotion of the protection of the marine environment, in particular its biodiversity and marine protected areas such as Natura 2000 sites	
	<ul style="list-style-type: none"> Development of marine protected areas.
Article 80.1(c): improve the knowledge on the state of the marine environment	
	<ul style="list-style-type: none"> Surveys to identify presence or absence of priority species or habitats or state of marine environment.
Typical expenditure to be coded and reported as 40 per cent	
Article 27: Advisory services	
	<ul style="list-style-type: none"> The provision of professional advice on environmental sustainability and how to limit the negative impact on ecosystems.
Article 28: Partnerships between scientists and fishermen	
	<ul style="list-style-type: none"> The participation of fishermen in scientific data collection.
Article 29: Promotion of human capital, job creation & social dialogue; Article 44.1(a): promotion of human capital, job creation and social dialogue (inland fisheries)	

<ul style="list-style-type: none"> Initiatives to enable networking and exchange of experiences and best practices between stakeholders.
Article 30: Diversification and new forms of income;
Article 44.4: Diversification of inland fishing activities to complementary activities
<ul style="list-style-type: none"> Business operations such as a restaurant or angling tourism.
Article 33: Temporary cessation of fishing activities
Article 34: Permanent cessation of fishing activities
<ul style="list-style-type: none"> Decommissioning of active fishing vessels.
Article 36: Support for the systems of allocation of fishing opportunities
<ul style="list-style-type: none"> Design and development of a system of allocating fishing opportunities applying criteria that prioritise low-impact fishing vessels over those with a greater ecological impact.
Article 42: Added value, product quality and use of unwanted catches;
Article 44.1(e): Improvement of the value or quality of the fish caught
<ul style="list-style-type: none"> Investments that add value to fishery products, in particular by allowing fishermen to carry out the processing, marketing and direct sale of their own catches.
Article 48.1(g): Restoration of existing aquaculture ponds
<ul style="list-style-type: none"> Removal of silt deposits.
Article 51: Increasing the potential of aquaculture sites
<ul style="list-style-type: none"> Mapping areas most suitable for aquaculture development; Improving infrastructure required to increase potential of aquaculture operations.
Article 53: Conversion to eco-management and audit schemes and organic aquaculture
<ul style="list-style-type: none"> Support to cover the costs of converting to organic aquaculture, or for participating in the EMAS scheme.
Article 62.1(b) / Article 63: implementation of community-led local development strategies
<ul style="list-style-type: none"> CLLD strategies may include projects to develop eco-tourism in fisheries areas.
Article 68: Marketing measures
<ul style="list-style-type: none"> Projects to develop and test new markets, such as for unwanted catches for example.
Article 76: Control and enforcement
<ul style="list-style-type: none"> Development or purchase of equipment to ensure traceability of fishery products, or to enable the gathering of data related to fisheries.
Article 77: Data collection
<ul style="list-style-type: none"> Projects such as at-sea monitoring of commercial and recreational fisheries, including monitoring of by-catch of marine organisms such as marine mammals and birds.
Article 80.1(a): the Common information sharing environment (CISE) for surveillance
<ul style="list-style-type: none"> Support to help work towards sharing data between national authorities responsible for surveillance

Typical expenditure to be coded and reported as 0 per cent

Article 26: Innovation;
Article 44.3: The development and facilitation of innovation (inland fishing)
<ul style="list-style-type: none"> Projects to develop new fisheries products.
Article 31: Start-up support for young fishermen;
Article 44.2: Business start-ups for young inland fishermen
<ul style="list-style-type: none"> Support for the purchase of a second-hand fishing vessel.
Article 32: Health & safety;
Article 44.1(b): Investments on board or in individual equipment
<ul style="list-style-type: none"> Investments on board to improve hygiene of fish handling and on-board processing.
Article 35: Mutual funds for adverse climatic events and environmental incidents
<ul style="list-style-type: none"> Payments to mutual funds which pay financial compensation to fishermen for economic losses caused by adverse climatic events or by environmental incidents.
Article 41: Energy efficiency and mitigation of climate change;
Article 44.1(d): Energy efficiency
<ul style="list-style-type: none"> Investments in new engines with improved energy efficiency.

Article 43: Fishing ports, landing sites, auction halls and shelters;
Article 44.1 (f) Fishing ports, landing sites, auction halls and shelters in inland waters
<ul style="list-style-type: none"> • Investments in facilities for waste and marine litter collection in ports; • Investments in the modernisation of shelters.
Article 47: Innovation in aquaculture
<ul style="list-style-type: none"> • Projects to reduce dependence on fish meal and oil
Article 48.1(a): Productive investments in aquaculture;
Article 48.1(b): the diversification of aquaculture production and species cultured;
Article 48.1(c): the modernisation of aquaculture units, including the improvement in working and safety conditions of aquaculture workers;
Article 48.1(d): improvements and modernisation related to animal health and welfare;
Article 48.1(e): investments reducing the negative impact or enhancing the positive effects on the environment and increasing resource efficiency
Article 48.1(f): Enhancing the quality of aquaculture products;
Article 48.1(i): reducing the impact of aquaculture on water quality and usage
Article 48.1(j): the promotion of closed aquaculture systems
Article 48.1(k): energy efficiency
<ul style="list-style-type: none"> • Development of multi-trophic aquaculture systems that reduce impacts on water usage and quality. • Support for closed recirculation systems to minimise water use. • Investments in infrastructure to reduce the negative impacts of aquaculture, e.g. construction of a settling basin for the removal of particulate organic matter. • Investments to increase productivity; support for purchase of new equipment (improve energy efficiency, health and safety).
Article 48.1(h): income diversification for aquaculture enterprises
<ul style="list-style-type: none"> • Training and investment in alternative business arrangements.
Article 49: Management, relief and advisory services for aquaculture farms
<ul style="list-style-type: none"> • Support for environmental impact assessment of potential farms.
Article 50: Promotion of human capital and networking
<ul style="list-style-type: none"> • Training in new skills and new practices.
Article 52: Encouraging new aquaculture farmers practising sustainable aquaculture
<ul style="list-style-type: none"> • Start-up support for aquaculture entrepreneurs.
Article 55: Public health measures
<ul style="list-style-type: none"> • Compensation to mollusc farmers for the temporary suspension of harvesting of farmed molluscs (for reason of public health, i.e. contamination).
Article 56: Animal health and welfare measures
<ul style="list-style-type: none"> • Veterinary or pharmaceutical studies into diseases in aquaculture;
Compensation for the costs of control and eradication of diseases in aquaculture.
Article 57: Aquaculture stock insurance
<ul style="list-style-type: none"> • Contributions for aquaculture stock insurance covering economic losses from natural disasters, diseases, adverse climatic events, etc.
Article 62.1(a): preparatory support
<ul style="list-style-type: none"> • Preparation of community-led local development strategies.
Article 62.1(c) / Article 64: Cooperation activities
<ul style="list-style-type: none"> • Cooperation projects between territories and Member States.
Article 62.1(d): running costs and animation
<ul style="list-style-type: none"> • Support to fisheries action groups covering the running costs of community-led local development strategies.
Article 66: Production and marketing plans
<ul style="list-style-type: none"> • The preparation and implementation of production and marketing plans.
Article 67: Storage aid
<ul style="list-style-type: none"> • Compensation to store fishery products.
Article 69: Processing of fishery and aquaculture products

<ul style="list-style-type: none"> • Support for investments into developing new and improved products.
Article 70: Compensation regime
<ul style="list-style-type: none"> • Compensation for additional costs incurred in the outermost regions (in the fishing, farming, <i>processing</i> and marketing of certain fishery and aquaculture products).
Article 78: Technical assistance at the initiative of Member States
<ul style="list-style-type: none"> • Support for establishing national networks to exchange best practices and cooperation between fisheries local action groups.

2.6 Conclusions

The study team's proposed tracking approach is consistent with the tracking that is being conducted for climate-related expenditure and it follows the existing reporting system (which operates at the measure-level). This is the most appropriate level as it is the most detailed level possible, given that the projects funded by the EMFF are small and numerous and are not monitored routinely in detail.

Allocating Rio markers to the measures under the EMFF is not always straightforward, mainly because the Regulation was not written with the tracking methodology in mind, and the objectives of the measures are not always clear. It may be open to interpretation whether an activity which increases the sustainability of fishing activities should be classified as 100 per cent biodiversity-related, given the multiple benefits of a social and economic nature that can be derived from bigger fish stocks. For this reason we opted to take a conservative approach to our classifications, and provide detailed justifications to support the choice of coefficients.

The proposed system does not include any '*ex-post*' tracking (at the level of actual payments) and does not establish a link to result indicators. The system is based on financial data which is aggregated ex-ante. There is limited scope for improving the system in this respect, as the common result indicators relevant to biodiversity are few and would not capture the full effects of the measures on biodiversity, thereby underestimating the contribution of the EMFF to biodiversity conservation and restoration.

3 The Common Agricultural Policy: the European Agriculture Guarantee Fund (EAGF) and the European Agricultural Fund for Rural Development (EAFRD)

Prepared by IEEP

3.1 Introduction to the 2014-2020 Common Agricultural Policy

The Common Agricultural Policy (CAP) consists of three elements: income support for farmers, including a requirement to comply with sustainable agricultural practices (direct payments), accounting for 70 per cent of the CAP budget; market-support measures (accounting for around 10 per cent of the CAP budget); and rural development measures (accounting for around 20 per cent of the CAP budget).

Direct payments and market measures are funded from the European Agricultural Guarantee Fund (EAGF) and rural development measures are funded via the European Agricultural Fund for Rural Development (EAFRD).

In this guidance we consider biodiversity tracking of EU expenditure in relation to direct payments under the EAGF (Pillar 1 of the CAP) and rural development measures under the EAFRD (Pillar 2 of the CAP).

Three overarching priorities have been identified for the CAP for 2014-2020:

1. Viable food production
2. Sustainable management of natural resources and climate action; and
3. Balanced territorial development’.

The second priority is most directly relevant for biodiversity, although actions put in place to address the other two objectives could play an indirect role in contributing to maintaining or enhancing biodiversity.

Direct payments (EAGF): The objective of **direct payments**, funded under the EAGF, is to ‘help ensure that farming can be maintained throughout the EU by providing a steady income for farmers. In this way, they support the long-term viability of farms and cushion them against price fluctuations’⁶⁶. From 2015, thirty per cent of direct payments are allocated specifically to three ‘greening measures’ to enhance environmental performance through supporting agricultural practices beneficial for the climate and the environment, applicable throughout the Union’⁶⁷. These practices should take the form of simple, generalised, non-contractual and annual actions that go beyond cross compliance and are linked to agriculture. Direct payments are made to farmers subject to the condition that they comply with a range of agreed standards relating to the environment, climate change, animal health, plant health and animal welfare (through Good Agricultural and

⁶⁶ The common agricultural policy (CAP) and agriculture in Europe – Frequently asked questions, European Commission - [MEMO/13/631 28/06/2013](#)

⁶⁷ Recital 37 of Regulation (EU) No 1307/2013 of the European Parliament and of the Council of 17 December 2013 establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy and repealing Council Regulation (EC) No 637/2008 and Council Regulation (EC) No 73/2009

Environment Conditions (GAEC) standards) as well as Statutory Management Requirements (SMRs) linked to EU legislation, through a system of cross compliance.

The only element of direct payments to have biodiversity as a primary objective is the Ecological Focus Area (EFA) measure which is one of the recently agreed 'greening' measures to be implemented from January 2015 (Article 43). This stipulates that arable farms, unless covered by a series of exemption criteria, have to establish EFAs over five per cent of their arable area 'in particular, to safeguard and improve biodiversity on farms'. The Regulation states that they 'should therefore consist of areas directly affecting biodiversity such as land lying fallow, landscape features, terraces, buffer strips, afforested areas and agro-forestry areas or indirectly affecting biodiversity through a reduced use of inputs on the farm, such as catch crops and winter green cover'⁶⁸ (Recital 44).

Other specific elements of the revised new system of direct payments could lead to biodiversity benefits being secured amongst other objectives:

- The **maintenance of permanent grassland greening measure** is intended to contribute to the environmental protection of permanent grassland (by limiting the proportion that can be ploughed) but with a specific focus on carbon sequestration (Recital 42). In addition to the general provisions, there is a ban on ploughing and conversion on the most environmentally sensitive areas in Natura 2000 areas, in keeping with the Habitats Directive. Member States also have the option to delineate further environmentally sensitive areas not covered by the Habitats Directive, where ploughing should not be permitted. Only four Member States have chosen to do so.
- The **crop diversification greening measure** has the potential to bring modest benefits for biodiversity in situations where it encourages a greater rotation of arable crops, including the introduction of fallow or legumes into the rotation. However its main focus is to improve soil quality (Recital 41).
- The **voluntary coupled payments** and the **payments to farmers in Areas of Natural Constraint**, both of which are optional for Member States to apply, may also have indirect biodiversity relevance, depending on how they are implemented. This is due to the fact that these measures can be used to provide payments to maintain certain types of farming which help ensure the maintenance of semi-natural habitats, such as extensive livestock grazing systems on permanent grassland with little or no input of fertilisers and agrochemicals. Voluntary coupled payments can be used by Member States to maintain farming systems of specific kinds or in specific regions 'facing particular situations where specific types of farming or specific agricultural sectors are particularly important for economic, environmental or social reasons'⁶⁹. Additional payments can also be made to farmers in **Areas of Natural Constraint**, designated according to the criteria set out in the EAFRD⁷⁰ and these payments may lead to indirect biodiversity benefits, particularly where payments help to maintain extensive livestock grazing systems.

Cross compliance: cross compliance comprises a set of conditions for receipt of both direct payments in Pillar 1 and agricultural area payments under Pillar 2, but is not an expenditure type. Rather it contributes to the 'development of a sustainable agriculture through a better awareness of beneficiaries of the need to respect basic standards [and] to make the CAP more compatible with the expectation of the society through a better consistency of that policy with the environment,

⁶⁸ Recital 44 of Regulation (EU) No 1307/2013

⁶⁹ Recital 49 of Regulation (EU) 1307/2013

⁷⁰ Article 32 of Regulation (EU) 1305/2013

public health, animal health, plant health and animal welfare policies⁷¹. The SMRs require adherence to certain provisions of EU Directives relevant to agricultural land management. These requirements apply to farmers and other land managers whether or not they are in receipt of CAP support. GAEC standards follow general principles laid down in EU legislation but are specified at the national or regional level by Member States' own authorities. There tend to be significant differences between the specific rules applied in different countries. At the time of writing, Member States have yet to finalise the details of how they will apply the recently revised EU rules for GAEC standards in their country from 2015 onwards. For the 2007-13 period, some of the GAEC standards or elements of individual standards were a re-iteration of pre-existing legislative requirements and, in some Member States, the way in which the GAEC standards were implemented consisted primarily of requiring adherence to national legislation.

In relation to biodiversity, relevant SMRs include a number of farm level requirements under the Birds and Habitats Directives⁷² (SMRs 2 and 3). Requirements to adhere to the Nitrates Directive (SMR1) are also relevant for maintaining the quality of other ecosystem services although this is not their main purpose. The GAEC standard most relevant to biodiversity and ecosystem services is GAEC 7 requiring the retention of certain landscape features. This includes a provision to ban the cutting of hedges and trees during the bird breeding and rearing season and possible measures for avoiding invasive species and pests to protect valuable refuges for biodiversity. Others which have some relevance to biodiversity, but which are primarily focused on other ecosystem services are those relating to protecting soil and carbon stock (GAEC 4, 5 and 6) and water management (GAEC 1 on establishing buffer strips along water courses).

Rural Development Policy (EAFRD): The overall aim of **rural development policy**, funded via the EAFRD, is to promote sustainable rural development in a way that complements the other EU shared management funds as a means of contributing to 'the development of a more territorially and environmentally balanced, climate-friendly and resilient, competitive and innovative Union agricultural sector. It shall also contribute to the development of rural territories'⁷³

The **EAFRD** sets out six Union priorities for rural development, broken down into 18 'focus areas' or sub-priorities. These relate to the relevant thematic objectives set out in the Common Provisions Regulation (CPR), which stipulates the rules governing all shared management funds⁷⁴. Priority 4 is the only one of the six objectives that specifies biodiversity explicitly, although broader terms, potentially encompassing biodiversity, such as 'the environment' and 'sustainable management' and other ecosystem services are referred to in priorities 1, 2 and 5. For 2014-2020 the EAFRD also has a cross-cutting objective which states that 'all of the priorities shall contribute to the cross-cutting

⁷¹ Recital 54 of Regulation (EC) 1306/2013 of the European Parliament and of the Council of 17 December 2013 on the financing, management and monitoring of the common agricultural policy and repealing Council Regulations (EEC) No 352/78, (EC) No 165/94, (EC) No 2799/98, (EC) No 814/2000, (EC) No 1290/2005 and (EC) No 485/2008

⁷² SMR2 requires adherence to measures as stipulated by Member States to ensure a sufficient diversity and area of habitats for specific species of birds both inside and outside protected zones, including the maintaining and enhancing as well as the avoidance of pollution or deterioration of habitats. SMR3 requires compliance with requirements within SACs and to avoid deterioration of habitats.

⁷³ Article 3 of Regulation (EU) No 1305/2013 of the European Parliament and of the Council of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and repealing Council Regulation (EC) No 1698/2005

⁷⁴ Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013 laying down common provisions on 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 and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Council Regulation (EC) No 1083/2006

objectives of innovation, environment and climate change mitigation and adaptation'. In the 2014-2020 programming period, for the first time Managing Authorities are permitted to develop thematic sub-programmes within their RDPs, if there are specific needs that cannot be addressed through use of the measures individually or in combination. Biodiversity has been added to the illustrative list of sub-programmes in Article 7.

Those priorities and focus areas with potential relevance for biodiversity (7 of the 18) are listed below:

Table 3.3: EAFRD priorities and related focus areas with potential relevance for biodiversity

Priority	Focus Area
Cross cutting objective: all of the priorities shall contribute to the cross-cutting objectives of innovation, environment and climate change mitigation and adaptation	
Priority 1: Fostering knowledge transfer and innovation in agriculture, forestry and rural areas with a focus on:	(a) fostering innovation, cooperation and the development of the knowledge base in rural areas; (b) strengthening the links between food production and forestry and research and innovation, including for the purpose of improved environmental management and performance; (c) fostering lifelong learning and vocational training in the agricultural and forestry sectors;
Priority 2: enhancing farm viability and competitiveness of all types of agriculture in all regions and promoting innovative farm technologies and the sustainable management of forests	
Priority 4: Restoring, preserving and enhancing ecosystems related to agriculture and forestry:	(a) restoring and preserving and enhancing biodiversity, including in Natura 2000 areas, areas facing natural or other specific constraints and high nature value farming, and the state of European landscapes (b) improving water management, including fertiliser and pesticide management; (c) preventing soil erosion and improving soil management
Priority 5: promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors, with a focus on the following areas:	(e) fostering carbon conservation and sequestration in agriculture and forestry

NB provisions with the most direct relevance to biodiversity are shown above in bold.

The EAFRD Regulation includes a range of measures, the majority of which could be used by Member States for a variety of purposes, including promoting the maintenance and enhancement of biodiversity and ecosystem services. The focus of the measures deployed on the ground by national and regional authorities will depend on the way in which they choose to apply them to local priorities and needs in their Rural Development Programmes (RDPs). The measures as formulated in EU rural development legislation are not linked to specific priorities *per se*. Rather Member States are free to choose (within the rules of the measure) what the specific focus of the measure should be and therefore the priorities and focus areas to which it contributes.

Those EAFRD measures which can in principle be used to deliver biodiversity outcomes are set out in Annex 1.

Given the uncertainties about what pattern of measures will be implemented by Member States from 2015 and their relevance to biodiversity objectives as well as the challenges of forecasting the impact of Pillar 1 direct payments on land management and biodiversity, several different approaches to the tracking of expenditure could be considered. The Commission's agreed approach at the time of drafting is set out in Section 1.2 and a number of alternative approaches are set out in Section 1.3.

3.2 Outline of the Commission's currently agreed approach on biodiversity tracking

Direct payments (Pillar 1): The European Commission's Draft General Budget for 2015⁷⁵, sets out the proportion of direct payments that are considered to be contributing to financing biodiversity for both the 2014 and 2015 financial years. These figures are set out in Table 3.4. The new system of direct payments, as agreed under the 2013 CAP reform, is to be applied only from January 2015. Member States were required to inform the Commission of their implementation decisions on the types of EFA selected and use of weighting factors by 1 August 2014, on detailed information relating to EFA implementation by 1 October 2014 and on the application of the requirements relating to environmentally sensitive permanent grassland by 15 December. At the time of developing the Draft Budget for 2015 (early 2014), it was unclear how the 2013 reforms would be implemented and there was little information available on which to make a robust estimate of the proportion of the revised direct payments that were anticipated to contribute to delivering biodiversity outcomes. For the 2015 Draft Budget therefore, the Commission took a simplified approach and applied the same approach as was applied for estimating expenditure related to climate objectives within EU funding mechanisms for 2015, namely to apply the Rio marker of 40 per cent to a 20 per cent share of the total appropriations for direct aids. This was to take account of the assumed benefits to biodiversity of cross-compliance – both the standards of Good Agricultural and Environment Condition and those Statutory Management Requirements with biodiversity as an objective, to which farmers must adhere to receive their direct payments. This is equivalent to eight per cent of the total EU budget for direct payments.

Under this approach the focus is on the anticipated increase in compliance with EU and national legislation that cross compliance is intended to bring about with certain consequential benefits for biodiversity. The objectives of cross compliance are stated in the 2014 and 2015 Draft General Budget and are set out in Table 3.4. No details of the methodology behind the Rio marker calculations are provided.

Table 3.4: Contribution of direct payments to biodiversity financing

Relevant objective/output of the CAP	Amount in 2014 (EUR million)	Amount in DB 2015 (EUR million)
Contribute to the development of sustainable agriculture and to making the Common Agricultural Policy more compatible with the expectations of the society through cross compliance. Contribute preventing soil erosion, maintaining soil organic matter and soil structure, ensuring a minimum level of maintenance and avoiding the deterioration of habitats, and protecting and managing water. Contribute avoiding a massive conversion into arable land ¹	3,315.8	3,310.3

⁷⁵ European Commission (2014) Draft General Budget of the European Commission for the financial year 2015, Working Document Part I: Programme Statements of operational expenditure, COM(2014)300, June 2014, Brussels.

¹As the CAP reform (direct aids) is not applied yet in financial years 2014 and 2015, the amount is established the same way as for the climate action contribution.

Source: Directorate-General for Budget (DG BUDG) European Commission⁷⁶

Pillar 2: EAFRD: For the EAFRD, detailed information about planned expenditure for the 2015-2020 period will be available within individual Rural Development Programmes (118 in the EU-28) once these are agreed and become operational. Most of these are due to be adopted during 2015, with a few adopted in late 2014. This source of information will not therefore be available to be used to inform the Programme Statements on the annual EU budget until 2016.

The European Commission's Draft General Budget for 2015⁷⁷, presents the proportion of the EAFRD that is considered to be contributing to financing biodiversity for both the 2014 and 2015 financial years. These figures are set out in Table 3.5. Due to the fact that the RDPs for the current programming period will not be approved until 2015, the Commission has taken a pragmatic approach for the 2015 Draft Budget. This is to apply the Rio markers to the average proportion of expenditure that was applied to those EAFRD measures operating in the previous 2007-13 programming period that had the greatest biodiversity impact. The footnote to the EAFRD table in the 2015 Draft General Budget explains the rationale for the calculation. This is as follows: 'Most of measures with positive biodiversity impact are part of Axis 2. Those measures represent about 45 per cent of total programmed amounts in the programming period 2007-2013. For 2014 and 2015, the calculation of 40 per cent of the annual commitments constitutes a good approach to estimate the size of the rural development contribution to biodiversity and is in line with Commission's climate markers approach'. This means that the same figure is presented for the proportion of the EAFRD financing climate related objectives as that for financing biodiversity.

The 2015 Draft Budget document goes on to highlight that a more precise tracking of the contribution to financing biodiversity will be performed when the 2014-2020 RDPs become available. This is intended to follow the approach taken for the climate markers and will apply the Rio markers not to measures, but rather to the total spending commitments programmed in RDPs by Focus Area, apart from Priority 4 where budgets are only reported at the level of priority and not broken down by focus area.

Table 3.5: Estimated contribution of EAFRD to biodiversity financing

Relevant objective/output	Amount in 2014 (EUR million)	Amount in DB 2015 (EUR million)
1. Restoring, preserving and enhancing ecosystems dependent on agriculture and forestry	5,594.9	5,527.7
2. Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors		

Source: DG BUDG European Commission⁷⁸

⁷⁶ ibid

⁷⁷ ibid

⁷⁸ ibid

3.3 Alternative proposals for an improved tracking approach

A number of alternative approaches developed by the study team offer another perspective on the problem of tracking biodiversity related expenditure in this sector.

3.3.1 *The most appropriate level of tracking*

Direct payments (EAGF): For direct payments in Pillar 1 of the CAP, the tracking markers could be applied in two ways:

1. Taking account only of measures which involve making specific payments under measures with explicit and identifiable objectives related to biodiversity, in line with the tracking methodology adopted in this study (this would exclude cross compliance);
2. Taking account both of measures involving such payments and in addition, payments without explicit biodiversity objectives but with conditions attached to them, where it can be demonstrated that these conditions deliver biodiversity benefits systematically greater than would be the case if they were not to exist (this would include cross compliance) – it should be noted that this is not in line with the methodology for applying markers adopted for this study.

For direct payments, the main measure with an explicit objective related to biodiversity (amongst other objectives) is the payment for agricultural practices beneficial for the climate and the environment (see Table 3.6). This measure is subdivided into specific sub-measures⁷⁹, which in turn have separate objectives. While it would be potentially helpful to apply the markers at the level of sub-measure, in practice it is not possible to assess the financial allocations at this level, because the greening payments are made to all hectares of the farm that are eligible for direct payments where greening obligations (as a whole) have not been violated.

Under the second approach, it is open to question as to whether or not adherence with biodiversity related cross compliance requirements implies that a marker should be applied to those direct payment measures without explicit biodiversity objectives, including the Basic Payment (or Single Area Payment). This is due to the fact that the methodology for applying the markers requires biodiversity to be an objective of the payment. Cross compliance consists of a series of requirements or conditions placed on recipients of direct payments, some of which are relevant for biodiversity. The Statutory Management Requirements require adherence with existing legislation. The standards of Good Agricultural and Environmental Condition comprise the minimum standards of management with which land managers should comply in order to receive their basic payment and may extend beyond existing national legislation depending on the decisions of Member States. The SMRs do not introduce significant biodiversity obligations exceeding those which apply to farmers who receive no direct payments. However, a number of the GAEC standards will deliver some additional biodiversity benefits, although it is difficult to assess the extent of these impacts *ex ante*. There may, therefore, be a case for applying markers to the Basic Payment/Single Area Payment (or other payments to which cross compliance applies) to take account of these impacts, despite the fact that it would not be consistent with the tracking methodology adopted for EU expenditure as a whole under this study.

EAFRD: For the EAFRD it is proposed that a marker is applied to each of the focus areas, apart from for Priority 4, where this is not feasible because expenditure is not disaggregated to focus area.

⁷⁹ For example crop diversification, permanent grassland and ecological focus areas are sub-measures of the measure 'Payment for agricultural practices beneficial for the climate and the environment'

Ideally this information would then be disaggregated by measure so that it would be possible to see the proportion of funding by measure that is considered to have biodiversity objectives as well as by focus area. This should not lead to any significant additional administrative burden as this is the level at which the financial allocations are reported to the Commission and the financial information is aggregated automatically by measure and by focus area in section 11.2 of the RDP. This means that it should be straightforward to apply the markers to the information provided by Member States in an automated way.

One of the issues with this approach, however, is that for focus areas where biodiversity is not the sole objective, applying the 40 per cent marker to all expenditure allocated under that focus area is likely to overestimate significantly the degree to which it will be spent on biodiversity related activities in practice. This is because, for most of these focus areas, the range of activities that could be funded is very diverse. A more detailed *ex post* assessment will be of value in these circumstances to review the application of the markers against the actual biodiversity impact of measures that have in practice been implemented (see below).

3.3.2 Staged tracking approach and ex post assessments

Direct payments (EAGF): Applying a staged approach to tracking expenditure on direct payments is desirable as the *ex ante* tracking of expenditure on direct payments categorised as biodiversity related is necessarily very broad brush. Consequently it is likely to overestimate significantly the actual biodiversity benefit of some measures and potentially underestimate the biodiversity impact of others. Therefore, once the measures have been in place for a number of years, it will be worth assessing *ex post* the impact that they have had on biodiversity in order to be able to refine the approach to applying the tracking markers.

From 2016 onwards, more detailed information will start to become available on how Member States have decided to implement the various options and flexibilities available to them under the EAGF. It will therefore be possible to assess more accurately, which measures are having a positive impact on biodiversity. To do this, data on the actual expenditure allocated to specific measures at Member State level will need to be calculated and an assessment made of the actual biodiversity impact of the measures against their more detailed objectives and requirements. This will require some analysis within the Commission. Information on implementation and biodiversity impacts will need to be collected through the monitoring and evaluation framework for the greening measures and cross compliance.

Another example of where *ex post* evaluation could add value and strengthen the tracking process is where a measure does not have an explicit biodiversity objective and has been given a 0 per cent marker in the *ex ante* tracking process, but where implementation, at least in some regions, may have been focussed on achieving biodiversity outcomes. The payments in Areas of Natural Constraint under Pillar 1 could be such a case. Despite this being an income support measure, it is possible that, in some regions, these payments are targeted towards particular areas where maintaining biodiversity is one of the objectives. Payments for coupled support that maintain extensive livestock grazing systems on High Nature Value farmland could be another example. The extent to which these measures have biodiversity objectives in particular regions will only become apparent once more detailed information on implementation in Member States becomes available. If this shows that there are areas of land in receipt of this payment where biodiversity is clearly one of the objectives, then it would be appropriate to apply the 40% marker to the expenditure associated with that proportion of the farmland receiving the payment.

To ensure that it is possible to refine the biodiversity tracking approach over time, sufficiently specific information will need to be made available to the Commission on the implementation of the different measures in all Member States. Of the measures discussed here, only the Pillar 1 greening measures and cross compliance will be subject to formal evaluation as part of the new CAP monitoring and evaluation framework. More detailed evaluation than that anticipated under this framework may be required to provide the level of detail needed on which to base decisions relating to biodiversity tracking. There are no further relevant reporting requirements for Member States for other aspects of direct payments after the notification of their intentions to the Commission in August 2014 and nor are there formal monitoring and evaluation requirements. Consequently if *ex post* tracking is to be possible, additional information from Member States will be required, or relevant evaluations will need to be carried out to provide the information required. It is important, therefore, that the necessary information is collected from the Member States and evaluation studies are commissioned if suitable data is to be available on which to base future refinements of the biodiversity tracking methodology.

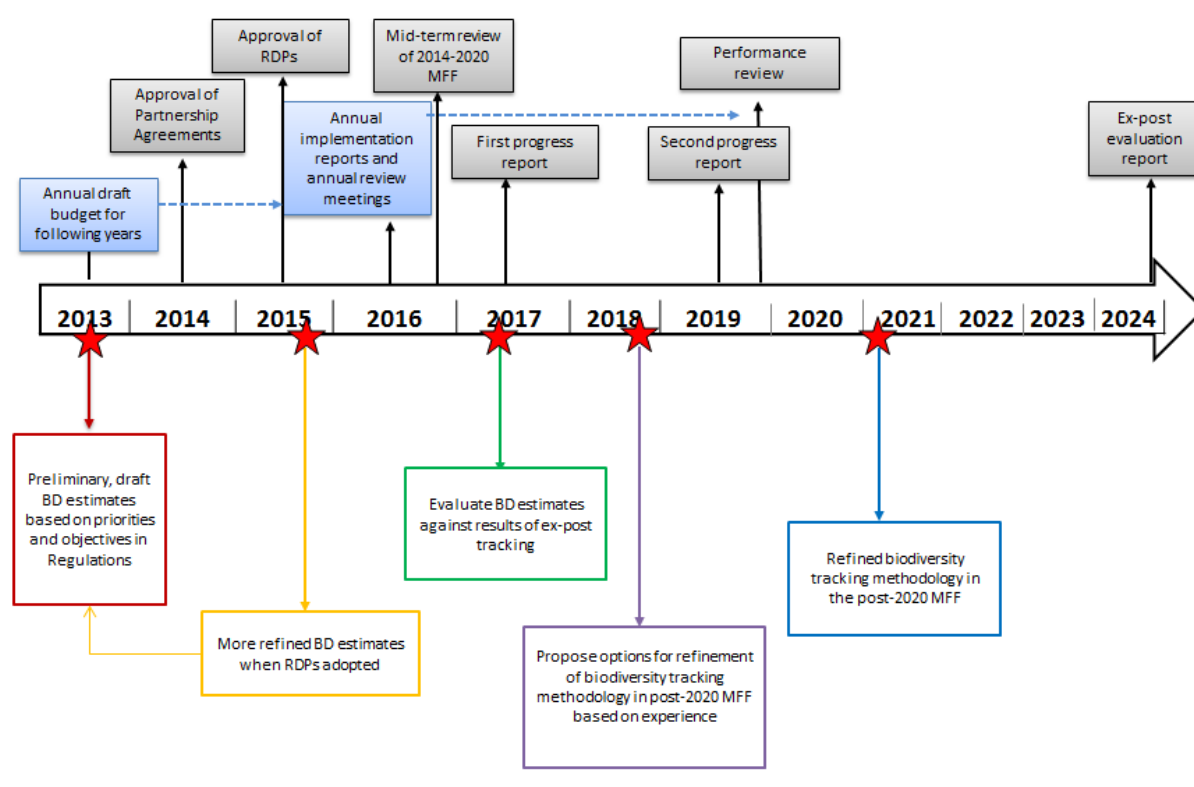
EAFRD: We propose a staged approach (see Figure 3.3) for the tracking of biodiversity-related expenditure throughout the programme cycle. Over time it is anticipated that the estimates of the proportion of the EAFRD budget that are biodiversity related will become more accurate as the RDPs are implemented, expenditure is incurred and more information becomes available. Particularly relevant will be the measurement of progress against the indicators in the Monitoring and Evaluation Framework and as identified in Annual Implementation Reports as well as the more detailed progress reports to be prepared in 2017 and 2019. Together these will allow an *ex post* assessment of expenditure.

Ex post it should be possible to review the application of markers to expenditure not only according to focus area but also by measure and in relation to actual rather than programmed expenditure. In addition, although the standard indicators for Rural Development Programmes will only provide data at the measure or RDP level, information about the type of actions that have been implemented under the different measures should be available at this stage within Member States. This will make it possible to start to assess the impact of measures on biodiversity. This can then be used to determine whether or not the markers need amending or refining.

To do this will require some analysis of RDP implementation for all Member States. Some information will become available through relevant reporting from Member State authorities against their output, result and impact indicators and other information provided within the Annual Implementation Reports. However independent external assessments of the biodiversity impacts of different measures may also be required in order to judge the effectiveness of expenditure in achieving biodiversity outcomes.

Figure 3.3 shows the timing of the different reporting deadlines for Managing Authorities in relation to EAFRD and the opportunities these offer for refining the tracking methodologies and estimates.

Figure 3.3: Staged approach to biodiversity tracking for EAFRD



3.4 Classifying expenditure according to the 100, 40 and 0 per cent markers

Direct payments (EAGF): For the budget for 2016 onwards, it is proposed that the biodiversity markers are applied at the level of the eight or so distinct measures between which Pillar 1 expenditure on direct payments can be divided. The greening measures are treated as one single measure for the reasons explained in section 1.3.1. This approach is elaborated in Table 3.6.

Our assessment suggests that, if the tracking methodology adhered to strictly, only the ‘payments for agricultural practices, beneficial for the climate and the environment’ (i.e. the greening measures) should be allocated a marker greater than 0 per cent (following Approach 1 in section above). This is due to the fact that it is the only measure that explicitly refers to biodiversity and ecosystem services in its objectives.

However, if it is decided that the biodiversity impacts of cross compliance should be acknowledged, i.e. following the second option, then a marker greater than 0 per cent could be applied also to the Basic Payment/Single Area Payment (and other direct payments without an explicit biodiversity objective but to which cross-compliance applies), even though this would not be consistent with the tracking methodology. The issues surrounding the application of markers to each of these measures are discussed below.

Greening measures: Given the difficulty of determining the proportion of the budget allocated to the three ‘greening’ sub-measures⁸⁰ separately, it is proposed that a single marker (40 per cent) should be applied to the bundle of greening measures as a whole. The 40 per cent marker is applied due to the fact that biodiversity is not the ‘primary objective’ of the greening measures. Other environmental objectives, such as climate, water and soil management are also explicit objectives. Therefore these greening measures, as a group, do not meet the criteria for using the 100 per cent marker.

Cross-compliance and other direct payments: There are different views about the extent to which a marker should be applied to a certain proportion of expenditure for the Basic Payment/Single Area Payment or other direct payments to take account of the biodiversity impacts of cross compliance requirements.

The general methodology used to apply markers in order to be able to track biodiversity expenditure makes it clear that the assessment of which marker to apply to particular types of expenditure is clearly linked to the objectives of that expenditure (see Part 1 of the Biodiversity Tracking Guidance).

Biodiversity does not feature as one of the objectives of the Basic Payment/Single Area Payment. The objective of these payments is to provide income support for farmers. Nor is it an objective of the other direct payments (such as payments to young farmers, areas of natural constraint, voluntary coupled support etc). Nonetheless, in order to receive such payments, a range of cross compliance requirements must be adhered to and certain of these requirements (a minority) have biodiversity objectives. It follows from the indirect nature of the relationship between the payment and biodiversity objectives that, if the methodology is adhered to strictly, in theory no account should be taken of cross compliance requirements when assessing the markers to be applied to these payments (**Approach 1**).

On the other hand, the application of cross compliance requirements almost certainly does lead to some biodiversity impacts that would not have been delivered if cross compliance did not exist since farmers have an incentive to take steps to protect their payments. Given that these standards are attached to the Basic Payment/Single Area Payment (and other direct payments), it has been argued that account should be taken of these when applying the markers to the expenditure associated with those payments.

The general objectives of cross compliance are to encourage adherence with basic standards by those in receipt of direct payments⁸¹. However, many of the standards with which farmers must comply are already part of EU (for example the SMRs) or national legislation (a number of GAEC standards in several Member States). In these cases compliance with the standards is required by all farmers, irrespective of whether or not they are in receipt of direct payments. Consequently the only formal biodiversity objectives arising from cross compliance that are additional to those applying to all farmers (irrespective of CAP payments) are those in certain Member State GAEC rules, for which we do not have a comprehensive inventory.

⁸⁰ Due to the fact that greening payments are made to all hectares of the farm that are eligible for direct payments where greening obligations (as a whole) have not been violated rather than payments being allocated accordingly to individual sub-measure.

⁸¹ The objectives of cross compliance are set out in recital 50 of the Horizontal Regulation (1306/2013). This states that ‘The cross compliance system ... aims at contributing to the development of a sustainable agriculture through a better awareness of beneficiaries of the need to respect those basic standards. It aims also at contributing to make the CAP more compatible with the expectation of the society through a better consistency of that policy with the environment, public health, animal health, plant health and animal welfare policies’.

However, there is anecdotal evidence to suggest that cross-compliance does encourage a greater adherence to EU and national legislation than might be the case otherwise. This includes compliance with legislation that protects biodiversity, such as adherence to requirements relevant at the farm level put in place by Member States under the Birds and Habitats Directives. In addition, as noted above, certain GAEC standards, depending on how they are implemented by Member States, may deliver benefits to biodiversity that go beyond those required by law. These include in particular the retention of landscape features (GAEC 7), but also to a lesser degree (and very dependent on the type of management that is put in place) the standards to provide minimum soil cover (GAEC 4), to limit soil erosion (GAEC 5) and to maintain soil organic matter (GAEC 6) (see Table 3.7).

Therefore, if it is decided that the potential biodiversity impacts of cross compliance should be reflected, then some allowance for these could be made by applying the markers to the Basic Payment/Single Area Payment (as well as other direct payments) (**Approach 2**). The question then arises about which marker is appropriate and whether it should be applied to the whole envelope of funding allocated to these payments or just a proportion of it. This is not straightforward for the reasons outlined below and therefore it is difficult to make a recommendation on the proportion of payments to which to apply a marker.

A number of approaches to applying the biodiversity markers to the Basic Payment/Single Area Payment (and potentially other direct payments) to take account of cross compliance are set out below and in Table 3.6 and Table 3.7.

One approach would be to gauge this in relation to the biodiversity effects of cross compliance. The challenge is to take account of these in a way that can be translated into the quantified scoring or classification of expenditure as required in applying the Rio markers. It is helpful to follow through the logic of the policy intervention in this area and consider the implications for the tracking methodology.

The first element of cross compliance, the SMRs, potentially could impact on biodiversity in two different ways. First, the existence of the SMRs within the cross compliance process could lead to a greater level of inspections on farmland in relation to compliance with EU nature conservation policy than otherwise would occur in the course of compliance checking on farms in Member States. It is difficult to locate sources of clear and published evidence of how far this could be the case. In principle there may be data on the specific issues which have been the focus of farm inspections and data on reasons for failure to comply and/or penalties imposed on producers in relation to the biodiversity related SMRs. However there would be costs involved in assembling such evidence and it would only illuminate one aspect of the position.

At a second level, the SMRs may encourage farmers, irrespective of whether they are subject to a specific inspection, to improve their level of compliance with the relevant elements of the Birds and Habitats Directives in order to avoid a cross compliance penalty, on top of any other penalties for breaching environmental legislation. In this sense, the SMRs within cross compliance act as a form of deterrent for non-compliance. Again, it is difficult to measure the magnitude of this effect and there does not appear to be readily available literature on a European scale to provide a good empirical basis for judgement.

In addition it must be noted that only two of the SMRs being applied to direct payments are directly concerned with biodiversity out of a total of thirteen. Consequently only a proportion of any overall impact of cross compliance via SMRs reasonably could be associated with biodiversity.

The second element of cross compliance applying to direct payments consists of the GAEC requirements, of which there are currently seven. One of these seven, GAEC 7, is concerned with maintaining a minimum level of landscape features on farmland. The nature of these features is such that many of them comprise biotopes of biodiversity interest as well as landscape value. In addition, there are three GAECs dealing with the maintenance of the soil and carbon stock (GAECs 4, 5 and 6). These are not focused on biodiversity *per se* but will potentially benefit a number of soil organisms and biodiversity more generally as well as contributing to the supply of ecosystem services if they are complied with. Consequently there is a distinct biodiversity element within the GAEC system, although it is difficult to apportion precisely.

Certain issues arise in considering the extent to which these GAEC standards could have a beneficial effect on biodiversity on the ground. One issue is that the level at which GAEC standards are set is permitted to vary by Member State according to 'the specific characteristics of the areas concerned, including soil and climatic condition, existing farming systems, land use, crop rotation, farming practices, and farm structures'⁸². The extent to which they introduce additional benefits to biodiversity relative to business as usual varies. In some cases, the standards are defined in such a way that they replicate existing requirements applying to farmers in the Member State or region concerned whereas in others the conditions are more demanding and seek higher standards than those which apply to farmers who do not receive such payments. However, at this stage there is no inventory available of the standards being applied by Member States for the 2014-2020 period and therefore there is insufficient evidence to determine the extent of their biodiversity objectives beyond existing legislation or of their impact.

A second issue is to establish the proportion of farmland that is covered by the GAEC provisions, since many areas are clearly excluded. The area of farmland where the relevant GAEC standards apply will vary between Member State and regions according to the GAEC standard in question and the characteristics of farming systems and agricultural land use in the Member State. For example:

- Some GAEC standards apply only to arable land e.g. GAECs 4, 5, 6.
- In other situations, the provision requiring the retention of hedges on farmland can add value to biodiversity and ecosystem services on those farms where there are hedges, but would have no benefit in areas where they are absent.

Quantifying the area where there are biodiversity benefits arising from the GAEC standard and then estimating the scale of direct payments being made to the relevant farms would establish a logical baseline on which to apply the Rio markers. However, this is difficult given the limited data available.

In summary, the complex relationship between cross compliance conditions on direct payments and biodiversity outcomes creates major challenges for assigning potential biodiversity benefits to a specified percentage of expenditure on this element of the CAP. The relationship is clearly not close enough to assign the 40 per cent marker to the whole basic payment; so one solution is to apply the 40 per cent marker only to a limited proportion of the basic payment. The Commission services adopted this approach for climate tracking CAP expenditure in the 2015 budget for example, applying the 40 per cent marker to 20 per cent of expenditure on direct payments. The agreement within the Commission for the 2015 budget was to follow the same logic and adopt the same markers for biodiversity. Table 3.7 shows the biodiversity and climate related elements of SMRs and GAEC conditions alongside each other to ease comparison of the two different environmental

⁸² Article 94 of Regulation 1306/2013

objectives. Further analysis of the scale at which the different elements of cross compliance are applied and their impact would allow this approach to be refined considerably.

Given the special challenges arising in attributing a marker to the Pillar 1 basic payment/ single area payment (and other direct payments with no explicit biodiversity objective to which cross-compliance applies) and the variety of approaches that are possible, no recommendation on the proportion of payments to which the marker should be applied is made here.

Table 3.6: Summary of biodiversity markers applied to CAP direct payment measures (*ex ante*)

Measure	Possible and proposed biodiversity marker	Justification
Basic Payment and Single Area Payment Scheme (compulsory)	<p>Approach 1: 0%</p> <p>Approach 2¹: apply the 40% marker to a limited proportion of the basic payment.</p>	<p>Option 1: In keeping with the methodology for applying the biodiversity markers used for this study, the 0 per cent marker is applied to the BPS/SAPS because carrying out biodiversity and ecosystem service related activities do not form part of the rationale for the basic payments.</p> <p>Option 2: If the potential biodiversity benefits of cross compliance are to be reflected, (i.e. the fact that SMRs are considered to encourage greater adherence to EU and national legislation than might be the case otherwise and that some GAEC standards lead to biodiversity benefits) a marker could be applied to the BPS/SAPS as a special case, acknowledging that this is not in line with the methodology used to apply markers adopted in this study. However, there is insufficient evidence available currently to assess the scale of biodiversity benefits linked to cross-compliance and questions arise about the proportion of the BPS/SAPS to which the markers should be applied. As a result any proportion to which the marker would be attributed is difficult to determine at this stage.</p>
Payment for agricultural practices beneficial for the climate and the environment (compulsory)	40%	<p>The 40 per cent marker is proposed as biodiversity is only one amongst a number of objectives for the payments, not the principal or only objective. Objectives include biodiversity, improving soil quality and carbon sequestration, as set out below:</p> <p>Crop Diversification: Objective: to achieve ‘enhanced environmental benefit...in particular the improvement of soil quality’ (Recital 41 of Regulation (EC) 1307/2013).</p> <p>Potential Impact: Introducing a minimum level of diversity into cropping patterns has the potential to bring modest benefits for biodiversity, particularly if it encourages greater rotation of crops, including the introduction of fallow or legumes into the rotation. Benefits for biodiversity will largely be in relation to common and widespread species, due to improvements in soil biodiversity and overall invertebrate populations, whereas the most seriously declining species are unlikely to benefit significantly. Impacts will be context specific. However, 48 per cent of UAA and 13 per cent of arable land is likely to be exempt from this measure (Pe’er et al, 2014⁸³).</p>

⁸³ Pe’er G, Dicks LV, Visconti P, Arlettez R, Báldi A, Benton TG, Collins S, Dieterisch M, Gregory RD, Hartig F, Henle K, Hobsoon PR, Kleijn D, Neumann RK, Robijns T, Schmidt J, Schwartz A, Sutherland WJ, Turbé a, Wulf F, Scott AV (2014) EU Agricultural reform fails on biodiversity: Extra steps are needed to protect farmed and grassland ecosystems, Science, Vol 344, Issue 6188, 6 June 2014

		<p>Permanent Grassland Objective: to ensure environmental benefits, in particular carbon sequestration (Recital 42) Potential Impacts: For the general requirement of maintaining the ratio of land under permanent grassland at 95 per cent or above, there is no mechanism for protecting those grasslands of greatest benefit for biodiversity. Nonetheless biodiversity benefits will be provided where areas of semi-natural grassland are maintained. There are also other ecosystem service benefits, for example maintaining soil carbon of maintaining areas permanently under grass. The ban on ploughing environmentally sensitive areas within Natura 2000 areas will provide biodiversity benefits. In addition, Member States can designate further environmentally sensitive permanent grassland areas outside Natura 2000 areas and a number of the criteria for designation set out in the delegated acts are biodiversity focussed.</p> <p>Ecological Focus Areas Objectives: ‘Ecological focus areas should be established, in particular, in order to safeguard and improve biodiversity on farms’ (Recital 44). Many of the measures will also have benefits for other ecosystem services too. Potential Impacts: On the land to which the EFA obligations apply, some beneficial biodiversity impacts are anticipated alongside other environmental and climate impacts. The nature of the impact, however, will be dependent on the nature of the type of features or management implemented at farm level to meet the 5 per cent EFA target. However, over 48 per cent of the farmed land is not subject to EFA requirements as a result of the area threshold and this area will increase when the other exemptions are taken into account (Pe’er et al, 2014).</p>
<p>Payment for areas with natural constraints (optional)</p>	0%	<p>Objectives: No explicit biodiversity objectives, rather objective is ‘to promote the sustainable development of agriculture in areas of natural constraints’ (Recital 46)</p> <p>Impacts: Although the measure could have several impacts in principle which would be beneficial for biodiversity (e.g. maintains extensive agricultural systems above counterfactual level, thereby protecting biodiversity and High Nature Value farming systems in some areas) the intervention logic is not biodiversity related. Applying a biodiversity marker on the basis of the potential maintenance of permanent grassland would be double counting with the PP greening measure.</p> <p>Once more detailed information on implementation in Member States becomes available later in the programming period, this could be used to apply the 40 per cent marker to the proportion of land which is in receipt of this payment where biodiversity is clearly one of the objectives of the expenditure.</p>
<p>Payment for young farmers</p>	0%	No biodiversity objective

(compulsory)		
Voluntary coupled support (optional)	0%	<p>This measure is only to be applied to sectors or regions of a MS where specific types of farming or specific agricultural sectors undergo certain difficulties and are particularly important for economic and/or social and/or environmental reasons.</p> <p>It is difficult to apply a biodiversity marker <i>ex ante</i> because 'environment' is only one of a number of objectives of the measure and it is unclear <i>ex ante</i> whether or not this would be the rationale for the use of the measure by Member States.</p> <p><i>Ex post</i> it may be appropriate to apply the 40 per cent marker to payments associated with certain types of farming in certain countries if the rationale for the support includes biodiversity.</p>
Crop Specific Payment for Cotton (applies only in pre-approved areas for cotton production)	0%	No biodiversity objective
Small farmers Scheme (optional)	0%	No biodiversity objective and exempt from all cross compliance and greening requirements
National restructuring programme for the cotton sector (optional)	0%	No biodiversity objective

¹ NB: It could be argued that approach 2 should also be applied to all other direct payments that have no explicit biodiversity objective but to which cross-compliance requirements apply, namely payment for areas with natural constraints, payment for young farmers, voluntary coupled support, crop specific payment for cotton and national restructuring programme for the cotton sector. .

Table 3.7: Potential scale of biodiversity and climate impacts associated with environmental cross compliance requirements

Key: + small potential benefit; v variable benefit; ++ significant potential benefit

	Cross compliance requirement	Main Issue ¹	Biodiversity relevance	Likely scale of benefit	Climate relevance	Likely scale of benefit
SMR 1	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p1) – Arts 4 and 5 ⁸⁴	Water	Compliance with existing rules and not focussed directly on biodiversity	None beyond compliance with law	Compliance with existing rules – should help reduce N use and therefore may contribute to reducing GHG emissions.	None beyond compliance with law
GAEC 1	Establishment of buffer strips along water courses NB: GAEC buffer strips must respect, both within and outside vulnerable zones designated under Article 3(2) of the Nitrates Directive, at least the requirements relating to the conditions for land application of fertiliser near water courses, referred to in point A.4 of Annex II to the Nitrates Directive to be applied in accordance with the action programmes of MSs established under Article 5(4) of said Directive.	Water	No direct focus on biodiversity but may contribute to less run-off into water courses, thereby improving state of aquatic flora and fauna. Can provide habitat for small mammals and overwintering sites for beneficial insects. Limited biodiversity value can be increased by management (SAFFIE 2007 ⁸⁵). Tall grass buffer strips adjacent to watercourses have higher structural diversity, but are less botanically diverse (Critchley et al. 2013 ⁸⁶).	+ (but in most areas compliance with law)	Small benefit from increased soil carbon. Small benefit from no use of fertilisers on buffers will lead to small reduction in GHG emissions from nitrous oxide.	+

⁸⁴ Article 4 states that Member States should set up codes of good agricultural practice and a programme of training and advice for land managers with a view to provide a general level of protection against pollution for all waters. Article 5 states that Member States must establish, implement and monitor action programmes in respect of designated vulnerable zones.

⁸⁵ SAFFIE (2007) *Enhancing Arable Biodiversity - Six practical solutions for farmers*. Summary of HGCA Project Report No. 416.

⁸⁶ Critchley, C. N. R., Mole, A. C., Towers, J., Collins, A. L. (2013). Assessing the potential value of riparian buffer strips for biodiversity. *Aspects of Applied Biology* 118: 101 – 108.

			Within NVZs these buffers are required under the N Directive. Outside NVZs they are additional requirements.			
GAEC 2	Where use of water for irrigation is subject to authorisation, compliance with authorisation procedures	Water	Not relevant and compliance with existing rules	None	Compliance with existing rules and not focussed on delivering climate benefits.	None
GAEC 3	Protection of groundwater against pollution	Water	Compliance with existing rules and no direct biodiversity focus	None	Compliance with existing rules and no direct climate focus	None
GAEC 4	Minimum soil cover	Soil and carbon stock	Benefits will depend on type of cover put in place. Winter catch crops can be better for farmland birds than bare soil but less good than stubble (Golawski et al. 2013 ⁸⁷). Alternative crops can benefit insect and weed biodiversity and provide seed for wintering birds..	V	Potential benefit from reduced N ₂ O emissions in winter (BIO Intelligence service 2010)	+
GAEC 5	Minimum land management reflecting site specific conditions to limit soil erosion	Soil and carbon stock	Depending on what management is put in place, there may be some benefits for biodiversity, for example if land is left fallow, stubble is left overwinter etc.	V	Depending on what management is put in place, this should help maintain carbon stocks	+
GAEC 6	Maintenance of soil organic matter level through appropriate practices, including ban on burning arable stubble, except for plant health reasons	Soil and climate stock	Depending on what management is carried out, there may be some benefits for biodiversity, for example if land is left fallow, stubble is left overwinter etc.	V	Depending on what management is carried out this should help maintain carbon stocks	+
SMR 2	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of		Measures as stipulated by Member States to ensure a sufficient diversity and area of habitats for specific	++ (but benefits accrue from		None

⁸⁷ Golawski, A., Kasprzykowski, Z., Jobda, M., Duer, I. (2013). The importance of winter catch crops compared with other farmland habitats to birds wintering in Poland. *Polish Journal of Ecology* 61 (357 – 364).

	wild birds (OJ L 20, 26.1.2010 p7) Arts 3(1); 3(2)(b); 4(1); 4(2) and 4(4) ⁸⁸		species of birds both inside and outside protected zones, including the maintaining and enhancing as well as the avoidance of pollution or deterioration of habitats	compliance with law)		
SMR 3	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wold flora and fauna (OJ L 206, 22.7.1992, p7) – Arts 6(1) and 6 (2) ⁸⁹		Compliance with requirements within SACs and to avoid deterioration of habitats.	++ (but benefits accrue from compliance with law)		none
GAEC 7	Retention of landscape features, including where appropriate, hedges, ponds, ditches, trees in line, in group or isolated, field margins and terraces, and including a ban on cutting hedges and trees during the bird breeding and rearing season and as an option, measures for avoiding	Landscape, minimum level of maintenance	Many species are associated with hedgerows. They provide food resources and nesting habitat for birds; pollen and nectar sources and overwintering habitat for invertebrates and feeding areas for bats. The value of hedges depends on	++	Carbon sequestration in woody growth of hedges and trees	+

⁸⁸ Article 3(1). In the light of the requirements referred to in Article 2, Member States shall take the requisite measures to preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Article 1. Article 3(2)(b) - The preservation, maintenance and re-establishment of biotopes and habitats shall include primarily the following measures: (b) upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones; Article 4(1) - The species mentioned in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. In this connection, account shall be taken of: (a) species in danger of extinction; (b) species vulnerable to specific changes in their habitat; (c) species considered rare because of small populations or restricted local distribution; (d) other species requiring particular attention for reasons of the specific nature of their habitat. Trends and variations in population levels shall be taken into account as a background for evaluations. Member States shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species in the geographical sea and land area where this Directive applies. Article 4(2) - Member States shall take similar measures for regularly occurring migratory species not listed in Annex I, bearing in mind their need for protection in the geographical sea and land area where this Directive applies, as regards their breeding, moulting and wintering areas and staging posts along their migration routes. To this end, Member States shall pay particular attention to the protection of wetlands and particularly to wetlands of international importance. Article 4(4) - In respect of the protection areas referred to in paragraphs 1 and 2, Member States shall take appropriate steps to avoid pollution or deterioration of habitats or any disturbances affecting the birds, in so far as these would be significant having regard to the objectives of this Article. Outside these protection areas, Member States shall also strive to avoid pollution or deterioration of habitats.

⁸⁹ Article 6(1) - For special areas of conservation, Member States shall establish the necessary conservation measures involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans, and appropriate statutory, administrative or contractual measures which correspond to the ecological requirements of the natural habitat types in Annex I and the species in Annex II present on the sites. Article 6(2) - Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive.

	invasive plant species		<p>their age and management (Barr et al. 2000⁹⁰).</p> <p>Ponds can be rich wildlife habitats if not polluted.</p> <p>Ditches can also provide rich wildlife habitat, but their value is very variable and depends on several factors including their management (Dicks et al. 2013⁹¹).</p>			
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⁹⁰ Barr, C.J., Britt, C. P., Sparks, T.H., Churchward, J.M. (2000). *A review of research on the effects of hedgerow management and adjacent land on biodiversity*. Contract report to Defra

⁹¹ Dicks, L. V., I. Hodge, N. Randall, J. P. W. Scharlemann, G. M. Siriwardena, H. G. Smith, R. K. Smith, and W. J. Sutherland. (2013) A transparent process for 'evidence-informed' policy making. *Conservation Letters*

EAFRD: For the EAFRD, it is proposed that for the 2016 budget onwards, the biodiversity markers are allocated at the level of the focus area as set out in Table 3.8. For Priority 4 (restoring, preserving and enhancing ecosystems related to agriculture and forestry), however, Member States have allocated funding at the priority level rather than at the level of focus area and therefore a marker has to be applied at the level of priority instead.

For Priority 4, although an overall marker is proposed, the marker chosen reflects the differing objectives for each focus area. As only one of the three focus areas has biodiversity as a primary objective (namely focus area 4a ‘restoring and preserving and enhancing biodiversity, including in Natura 2000 areas, areas facing natural or other specific constraints and high nature value farming, and the state of European landscapes’), the overall marker proposed is 40%.

Two focus areas under Priority 5 ‘promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors’ have been allocated a 40 per cent marker. These are focus area 5d: ‘reducing greenhouse gas and ammonia emissions from agriculture’; and focus area 5e: ‘fostering carbon conservation and sequestration in agriculture and forestry’. According to the methodology for applying the markers used in this study, theoretically the 0 per cent marker should apply because neither of these focus areas has an explicit biodiversity objective. However, it is proposed that the 40 per cent marker is allocated because the type of activities supported under this focus area are highly likely in practice to deliver some biodiversity benefits alongside the stated objectives. Reduced ammonia deposition is beneficial for a range of species and habitats, for example. The scale of biodiversity impacts for these focus areas needs to be assessed ex post and the markers could then be revised as appropriate.

The markers proposed would apply to all measures that have expenditure allocated against them under the focus area in question. It would be useful for reporting purposes to be able to see this breakdown by measure as well as by focus area.

As information becomes available on the actual biodiversity impact of the measures implemented under each of the focus areas, the application of the biodiversity markers can be refined and updated as appropriate.

Table 3.8: Biodiversity markers by EAFRD focus area

RD Priority	Focus Area	Biodiversity marker	Justification
(1) fostering knowledge transfer and innovation in agriculture, forestry, and rural areas with a focus on the following areas:	(a) fostering innovation, cooperation and the development of the knowledge base in rural areas;	n/a	MSS do not programme expenditure on this priority – all covered under other priorities as cross cutting
	(b) strengthening the links between agriculture, food production and forestry and research and innovation including for the purpose of improved environmental management and performance;		
	(c) fostering lifelong learning and vocational training in the		

	agricultural and forestry sectors.		
(2) enhancing farm viability, competitiveness of all types of agriculture in all regions and promoting innovative farm technologies and the sustainable management of forests, with a focus on the following areas:	(a) improving the economic performance of all farms and facilitating farm restructuring and modernisation, notably with a view to increase market participation and orientation as well as agricultural diversification;	0%	No explicit biodiversity objective
	(b) facilitating entry of adequately skilled farmers into the agricultural sector and in particular generational renewal.	0%	No explicit biodiversity objective
(3) promoting food chain organisation, animal welfare and risk management in agriculture, with a focus on the following areas:	(a) improving competitiveness of primary producers by better integrating them into the agri-food chain through quality schemes, adding value to agricultural products, promotion in local markets and short supply circuits, producer groups and inter-branch organisations;	0%	No explicit biodiversity objective NB: <i>ex post</i> some actions relating to quality schemes may have some biodiversity criteria associated with them
	(b) supporting farm risk prevention and management:	0%	No explicit biodiversity objective NB: is not possible to determine <i>ex ante</i> the extent to which activities under related measures will involve planning to prevent damage to biodiversity. This will need to be established <i>ex post</i>
(4) restoring, preserving and enhancing ecosystems related to agriculture and forestry, with a focus on the following areas:	(a) restoring and preserving and enhancing biodiversity, including in Natura 2000 areas, areas facing natural or other specific constraints and high nature value farming, and the state of European landscapes;	40% The 40% marker is applied to take account of the different objectives of the three focus areas only one of which has biodiversity as a primary objective.	The 100 per cent marker is allocated to focus area 4a as it is focussed directly and solely on biodiversity. All activities programmed under this focus area should deliver biodiversity outcomes.
	(b) improving water management, including fertiliser and pesticide management;		According to the study's methodology the 0 per cent marker should apply because there is no explicit biodiversity objective. However, the 40 per

			cent marker is allocated because, the type of activities supported under this focus area are highly likely to deliver biodiversity benefits alongside the stated objectives.
	(c) preventing soil erosion and improving soil management.		According to the study's methodology the 0 per cent marker should apply because there is no explicit biodiversity objective. However, the 40 per cent marker is allocated because, the type of activities supported under this focus area are highly likely to deliver biodiversity benefits alongside the stated objectives.
(5) promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors, with a focus on the following areas:	(a) increasing efficiency in water use by agriculture;	0%	No explicit biodiversity objective. Increased water efficiency will not necessarily have biodiversity benefits. Any biodiversity impacts would need to be established <i>ex post</i>
	(b) increasing efficiency in energy use in agriculture and food processing;	0%	No explicit biodiversity objective
	(c) facilitating the supply and use of renewable sources of energy, of byproducts, wastes, residues and other non-food raw material for purposes of the bio-economy;	0%	No explicit biodiversity objective
	(d) reducing greenhouse gas and ammonia emissions from agriculture;	40%	According to the study's methodology the 0 per cent marker should apply because there is no explicit biodiversity objective. However, the 40 per cent marker is allocated because, the type of activities supported under this focus area are highly likely to deliver biodiversity benefits alongside the stated objectives.
	(e) fostering carbon conservation and sequestration in agriculture and forestry;	40%	According to the study's methodology the 0 per cent marker should apply because there is no explicit biodiversity objective. However, the 40 per

			cent marker is allocated because, the type of activities supported under this focus area are highly likely to deliver biodiversity benefits alongside the stated objectives.
(6) promoting social inclusion poverty reduction and economic development in rural areas, with a focus on the following areas:	(a) facilitating diversification, creation and development of small enterprises and job creation;	0%	No explicit biodiversity objective
	(b) fostering local development in rural areas;	0%	No explicit biodiversity objective
	(c) enhancing accessibility to, use and quality of information and communication technologies (ICT) in rural areas.	0%	No explicit biodiversity objective

3.5 Illustration of expenditure types

The tables below set out the types of actions that might be anticipated under measures that have been programmed under particular focus areas. Both hypothetical examples, as well as examples of actual expenditure that has been funded via the EAFRD in 2007-13 are included. In many cases, multiple objectives will be identified for a measure. Where ecosystem services and not biodiversity are an objective, these types of expenditure have been coded with 40 per cent *ex ante*. However, *ex post* analysis may well demonstrate significant biodiversity benefits, in which case the expenditure could be re-coded to be 100 per cent.

Typical expenditure to be coded and reported as 100 per cent (programmed under focus area 4a)
Hypothetical and actual (based on experience from 2007-13:
Project 1: Agri-environment-climate measure under EAFRD to maintain or restore semi-natural grassland habitats
Project 2: Advice to farmers under EAFRD to manage arable field margins in ways that promote pollinator species
Project 3: Agri-environment-climate measure under EAFRD to introduce management to increase populations of farmland birds
Project 4: Basic services and village renewal in rural areas measure under EAFRD to create an area management plan for Natura 2000 sites
Project 5: Use of the non-productive investment part of the investment in physical assets measure to plant hedges, fruit trees, create or restore ponds or prepare land for habitat restoration.
Project 6: Use of the forest-environment measure to conserve or extend forest areas with native forest species and diversity of valuable flora and fauna

Typical expenditure to be coded and reported as 40 per cent (programmed under focus area 4b, 4c or 5e)
Project 1: use of the non-productive investment element of the investment in physical assets measure to plant fodder strips to improve wildlife habitat, biodiversity and soil quality and encourage game birds
Project 2: Introduction of organic farming to improve soil management.

Typical expenditure to be coded and reported as 0 per cent

Hypothetical examples

Project 1: Support for food quality under EAFRD where this involves assistance for improved livestock management, on farm storage and processing, better hygiene, staff training, etc. No obvious linkage with biodiversity objectives. (With different objectives a project under this measure could be coded 40 per cent or even 100 per cent)

Project 2: Measures of various kinds under EAFRD with the objective of farm development and in most cases, improved farm income. Often this will aim to increase marketable outputs and improve overall efficiency and competitiveness without particular regard to biodiversity objectives.

Project 3: Coupled payments for livestock systems under Pillar 1 of the CAP that are designed to maintain the economic viability of the system rather than its biodiversity value.

Annex A3.1: EAFRD measures that could be used to achieve biodiversity outcomes

Article	Title of Article	Relevant elements ⁹²
Article 14	Knowledge transfer and information actions	Vocational training and skills acquisition actions, demonstration activities and information actions. 'The knowledge and information acquired should enable farmers, forest holders, persons engaged in the food sector and rural SMEs to, in particular, enhance their competitiveness and resource efficiency and improve their environmental performance while at the same time contributing to the sustainability of the rural economy' (Recital 12)
Article 15	Advisory services, farm management and farm relief services	Support for the setting up and use of these services and to promote the training of advisors. 'Farm advisory services help farmers, young farmers, forest holders, other land managers and SMEs in rural areas to improve the sustainable management and overall performance of their holding or business... Specific advice may also be provided on ... biodiversity ...' (Recital 13)
Article 16	Quality schemes for agricultural products and foodstuffs	Participation by farmers and groups of farmers in quality/value added product or certification schemes. Such schemes can relate to 'specific farming or production methods, or a quality of the final product that goes significantly beyond commercial commodity standards as regards ... environmental protection' (Article 16(1)(b)(i))
Article 17	Investments in physical assets	Amongst the purposes of the support are: (1)(a) improve the overall performance and sustainability of the agricultural holding; and (1)(d) Non-productive investments linked to the achievement of agri- environment - climate objectives, including biodiversity conservation status of species and habitat as well as enhancing the public amenity value of a Natura 2000 area or other high nature value systems to be defined in the programme.
Article 18	Restoring agricultural production potential damaged by natural disasters and catastrophic events	Investments in preventive actions aimed at reducing the consequences of probable natural disasters (1)(a). No direct mention of biodiversity or ecosystem services.
Article 19	Farm and business development	(1) (a) Business start-up aid (1) (b) Investments in creation and development of non-agricultural activities (1) (c) Small farm amalgamation. No direct mention of biodiversity or ecosystem services
Article 20	Basic services and village renewal in rural areas	(1)(a) Drawing up and updating development plans including protection and management plans relating to Natura 2000 sites and other areas of high nature value.

⁹² In case when not the whole article is relevant for biodiversity and ecosystem services, appropriate paragraphs have been provided.

		<p>(1)(d) Investments in basic rural services and infrastructure.</p> <p>(1)(e) Investments in recreational infrastructure, tourist information and small scale tourism infrastructure.</p> <p>(1)(f) Studies and investments associated with maintenance, restoration and upgrading of the cultural and natural heritage, rural landscapes and high nature value sites.</p> <p>(1)(g) Investments targeting the relocation of activities and conversion of buildings or other facilities located within or close to rural settlements, with a view to improving the quality of life or increasing the environmental performance of the settlement.</p>
Article 22	Afforestation and creation of woodland	No explicit biodiversity or ecosystem service objectives. But must use species adapted to environmental and climatic conditions and minimum environmental requirements apply as set out in the delegated acts
Article 23	Establishment of agroforestry systems	No explicit biodiversity or ecosystem service objectives
Article 24	Prevention and restoration of damage to forests from forest fires and natural disasters and catastrophic events.	No explicit biodiversity or ecosystem service objectives. But support must be in line with sustainable forest management.
Article 25	Investments improving the resilience and environmental value of forest ecosystems	(2) 'Investments shall be aimed at the achievement of commitments for environmental aims, for the provision of ecosystem services' amongst other priorities.
Article 27	Setting up producer groups and organisations	Investments to facilitate the setting up of producer groups and organisations in the agriculture and forestry sectors for the purpose of market requirements, establishing common rules on production information, development of business and marketing skills and the organisation and facilitation of the innovation processes etc. No explicit biodiversity or ecosystem service objectives
Article 28	Agri-environment-climate payments	Support granted annually per hectare to farmers or groups of farmers for agricultural practices that make a positive contribution to the environment and climate, including the sustainable use and development of genetic resources.
Article 29	Organic farming	Support granted annually per hectare to farmers or groups of farmers who undertake, on a voluntary basis, to convert to or maintain organic farming practices and methods.
Article 30	Natura 2000 and Water Framework Directive payments	Support granted annually per hectare of agricultural area or per hectare of forest in order to compensate beneficiaries for additional costs and income foregone resulting from requirements beyond cross compliance in Natura 2000 areas and in other delimited nature protection areas with environmental restrictions applicable to farming or forests which contribute to Article 10 of the Habitats Directive as well as programmes of measures in River Basin Management Plans.
Article 31	Payments to areas facing natural or other specific constraints	Support granted to farmers in mountain areas and other areas facing natural or other specific constraints to compensate farmers for the additional costs and income foregone related to the constraints. Payments should contribute to maintaining the countryside as well as to maintaining and promoting sustainable farming systems (Recital 25)
Article 34	Forest-environmental and climate services and forest conservation	Support to public and private forest-holders for forest-environment and climate commitments. These should aim 'to enhance biodiversity, preserve high-value forest ecosystems, improve their climate change mitigation and adaptation potential, and reinforce the protective value of forests with respect to soil erosion, maintenance of water resources and natural hazards. In that context, specific attention should be paid to the conservation and promotion of forest genetic resources' (Recital 28).
Article 35	Co-operation	Can cover, <i>inter alia</i> joint approaches to environmental projects, on-going environmental practices and preservation of agricultural landscapes as well as cooperation in the context of European Innovation Partnership (EIP). Support for joint approaches to environmental projects and practices should help to produce greater and more consistent environmental benefits than those which can be delivered by individual operators acting without reference to others (for

		example, through practices applied on larger, unbroken areas of land) (Recital 29)
Articles 42-44	LEADER	Support for local action groups and LEADER start-up kits. Can cover all EAFRD objectives, including biodiversity and ecosystem services.

Source: based on Allen et al, 2012; Kettunen et al. 2013

4 The LIFE Programme

Prepared by IEEP

4.1 Introduction to the 2014-2020 LIFE Programme

4.1.1 General objectives relevant for biodiversity

The LIFE Programme has the following general objectives stipulated in the adopted LIFE Regulation⁹³ (Article 3), of which **all are relevant for biodiversity**:

- To contribute to the shift towards a resource-efficient, low-carbon and climate resilient economy, the protection and improvement of the quality of the environment and to halting and reversing biodiversity loss, including support for the Natura 2000 network and tackling the degradation of ecosystems;
- To improve the development, implementation and enforcement of Union environmental and climate policy and legislation, and to act as a catalyst for and promote integration and mainstreaming of environmental and climate objectives into other Union policies and public and private sector practice, including by increasing their capacity;
- To support better environmental and climate governance at all levels, including better involvement of civil society, NGOs and local actors; and
- To support the implementation of the 7th Environment Action Programme (7th EAP).

The LIFE Programme is the only dedicated EU funding instrument for the environment and climate change.

4.1.2 Specific objectives relevant for biodiversity

The **sub-programme for Environment**, which is 75 per cent of the total LIFE budget envelope, consists of three priority areas. The **specific objectives** identified for these priority areas **are all relevant (directly or indirectly) for biodiversity**. The **Environment and Resource Efficiency priority area** focuses on resource-efficiency related policy and legislation, including water, waste, air and the link between environment and health. It aims to support innovative technologies, integrated approaches and the improvement of the knowledge base in these areas (Article 10). The **Nature and Biodiversity priority area**, which attracts at least 55 per cent of the allocations of this sub-

⁹³ Regulation (EU) No 1293/2013 of the European Parliament and of the Council of 11 December 2013 on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007, Official Journal of the European Union, L 347 185-208, 20.12.2013. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1293&from=EN>

programme, focuses on Union policy and legislation in the area of biodiversity, supports the Natura 2000 network and aims to improve the knowledge base in these areas (Article 11). Finally, the **Environmental Governance and Information priority area** promotes awareness raising on environmental matters and supports communication and dissemination of information, effective enforcement and better governance (Article 12).

Annex III of the Regulation also sets out a non-exhaustive list of **thematic priorities** for the priority areas under the **sub-programme for Environment**, of which some are biodiversity related. In addition, the first Multiannual Work Programme (MAWP) includes a non-exhaustive list of **project topics** under the sub-programme for Environment, of which some can be considered relevant for biodiversity.

The **sub-programme for Climate Action**, which is 25 per cent of the total LIFE budget envelope, also consists of three priority areas. The **specific objectives** identified for these priority areas are mostly **indirectly relevant for biodiversity**. The **Climate Change and Mitigation priority area's** specific objectives focus on EU policy and legislation on mitigation, improvement of knowledge base in this area, promotion of integrated approaches and development and demonstration of innovative mitigation technologies (Article 14). The specific objectives of the **Climate Change and Adaptation priority area** are along the same lines as for the Climate Change and Mitigation priority areas. Ecosystem-based approaches are emphasised among the specific objectives (Article 15). Finally, the **Climate Governance and Information priority area** promotes awareness raising on climate matters and supports communication and dissemination of information, effective enforcement and better governance (Article 16).

4.1.3 Measures and expenditure types relevant for biodiversity (direct and indirect)

Measures that could be supported by LIFE are set out in the recitals of the Regulation. Those that are directly or indirectly relevant for biodiversity are set out as follows:

The priority area **Environment and Resource Efficiency** will support the effective implementation of Union environmental policy by the public and private sectors, in particular in the environmental sectors covered by the Roadmap to a Resource Efficient Europe, by facilitating the development and sharing of new solutions and best practices (Recital (13)). The priority area **Nature and Biodiversity** will focus on the implementation and management of the Natura 2000 network, in particular in relation to the prioritised action framework prepared on the basis of Article 8 of the Habitats Directive, on the development and dissemination of best practices in relation to biodiversity and the Birds and Habitats Directives, as well as on the wider biodiversity challenges identified by the Union Biodiversity Strategy to 2020 (Recital (14)), in as far as they are not covered by other Union funding instruments (principle of complementarity, Recital 11 and Article 8 of the LIFE Regulation). The Regulation also notes that particular attention should be given to Integrated Projects which provide coordinated funding for the Natura 2000 network, and in particular the related Prioritised Action Frameworks..

The LIFE Programme also represents a framework for supporting environmental and climate synergistic actions, thus measures under the **Climate Change Mitigation** and **Climate Change Adaptation** priority areas can also indirectly contribute to biodiversity conservation. In particular, forests play a significant role for environment and climate change as regards, for instance, biodiversity, water, soil, and climate change mitigation and adaptation. Forests and soils help to regulate the climate by taking up carbon dioxide (CO₂) from the atmosphere and storing immense amounts of carbon, thus synergies associated with forests and soils, including their monitoring, should be supported. Other areas for increased synergies include for instance water scarcity and

droughts, as well as the management of flood risks (Recital (16)). Synergies between actions under the sub-programme for Environment, in particular to protect biodiversity, and climate change mitigation and adaptation will be fostered (Recital (17)).

The priority area **Governance and Information** will in both sub-programmes support the development of platforms and sharing of best practices for better compliance and enforcement and measures to generate support from the public and stakeholders for EU policy efforts in the areas of environment and climate. In particular, they will support improvements in the dissemination of the knowledge-base, best practices and implementation of Union legislation, raise awareness and public participation, access to information and to justice on environmental matters (Recital (21)).

4.1.4 Mode of management

The **overall budget** of the LIFE programme for 2014-2020 is **€3,456.6 million**, of which €2,592.5 million is allocated to the sub-programme for Environment and €864.2 million to the sub-programme for Climate Action (Article 4). Further allocations between the different priority areas, which correspond to distinct items of the budget, are established in the financial programming related to the Multiannual Financial Framework for the years 2014-2020⁹⁴.

The LIFE Programme is, for the most part, **directly managed** at EU level by the European Commission. The management of traditional pilot, demonstration, best practice and information and awareness projects as well as integrated projects (under the sub-programme for Climate Action) and capacity building projects and operating grants for NGOs, has been delegated to the Executive Agency for Small and Medium Sized Enterprises (EASME). The management of integrated projects and preparatory projects under the sub-programme for Environment continues to be managed by DG ENV. The financial instruments under LIFE, among them the Natural Capital Financing Facility (NCFF), are the only part of the LIFE Programme implemented under indirect management by the European Investment Bank (EIB).

Multiannual Work Programmes (MAWP) are drawn up by the Commission in consultation with the Member States. The first MAWP is valid for four years (2014-2017) while the duration of the second MAWP is three years (2018-2020). The Commission will review the MAWP at the latest by the mid-term review of LIFE (no later than 30 June 2017). Each MAWP covers the allocation of funds between different types of funding within each sub-programme project topics implementing the thematic priorities set out in Annex III of the Regulation (only under the sub-programme for Environment), methodology for selection and award criteria for grants, indicative timetables for calls for proposals, outcomes, indicators and targets for each priority area and type of projects (Article 24).

Funding under the LIFE Programme can take the form of: action grants; operating grants for NGOs and other non-profit entities; public procurement contracts; or contributions to financial instruments (Article 17). Action grants and financial instruments, funded by the corresponding 81 per cent of the total LIFE budget⁹⁵, for instance the NCFF, have to support projects (Article 17 paragraph 4). Action grants finance "traditional projects"; integrated projects; preparatory projects; capacity building or other projects (Article 18).

⁹⁴ See SEC(2013)370 – June 2013.

⁹⁵ At least 81 per cent of the LIFE Programme budget should be allocated to projects supported by action grants or financial instruments (Article 17). A maximum of 30 per cent of budgetary allocations to action grants will be to IPs (Article 17).

For the duration of the first MAWP, indicative national allocations will be applied for projects other than integrated Projects under the sub-programme for Environment, but not during the second MAWP. Indicative national allocations will not be applied to the sub-programme for Climate Action (Article 19).

Integrated Projects (IPs), which are introduced for the first time in the 2014-2020 LIFE Programme, will operate on a large territorial scale and will be oriented towards the implementation of environmental and climate plans or strategies required by environmental or climate legislation primarily in the areas of nature, water, waste, air and climate change mitigation and adaptation. The projects are to promote coordination with and mobilisation of at least one other relevant Union, national or private funding source (Article 2). IPs in the sub-programme for Environment will primarily focus on the implementation of the Union Biodiversity Strategy to 2020, with a particular attention to the effective management of the Natura 2000 sites, through the implementation of prioritised action frameworks prepared on the basis of Article 8 of the Habitats Directive, the Water Framework Directive, and waste and air quality legislation (Recital (24)). IPs in the sub-programme for Climate Action will focus on the implementation of climate change mitigation and adaptation strategies and plans. In order to ensure geographical balance at least three IPs are allocated indicatively to each Member State, ensuring at least two IP under the sub-programme for Environment (one for Nature and one for one of the other three areas, in order to comply with the rule that 55 per cent of the funding under the sub-programme for Environment is dedicated to Nature and Biodiversity) and one under the sub-programme for Climate Action (Article 19).

The first **calls for proposals** were launched on 18 June 2014 for traditional projects, preparatory projects, integrated projects, technical assistance projects and capacity building projects, with submission deadlines in September or October 2014 (different specific dates for each type of project).

4.1.5 Reporting

The Commission will regularly monitor and report on the implementation of the LIFE Programme and its sub-programmes, including the amount of biodiversity-related expenditure and the synergies between LIFE and other Union programmes.

No later than 30 June 2017, the Commission will submit a mid-term evaluation report of the LIFE Programme, which will include information *inter alia* on the amount of biodiversity-related expenditure and the extent to which synergies between the objectives have been achieved. The report will include a quantitative and qualitative analysis of the contribution of the programme to the conservation status of habitats and species listed under the Birds and Habitats Directives. In addition, the report will include comments on the extent to which the thematic priorities set out in Annex III need to be modified (Article 27).

An external and independent ex-post evaluation report will be submitted no later than 31 December 2023, covering the implementation and results of the LIFE Programme and its sub-programmes, including among other things the amount of biodiversity-related expenditure. The report will also examine the extent to which integration of environment and climate objectives in other Union policies has been achieved and, to the extent possible, the economic benefit achieved through the LIFE Programme as well as the impact and added value for the communities involved (Article 27).

4.2 Stock-taking of the currently emerging/agreed tracking approach by the Commission

The Recital 40 of the LIFE Regulation of 11 December 2013⁹⁶ sets out the main elements in developing the Commission's approach to tracking climate and biodiversity-related expenditure supported under LIFE.

At programme level, estimates of biodiversity-related expenditure will be calculated on the basis of the MAWP which could enable identification of the indicative level of expenditure related to biodiversity across the LIFE Programme each year. This means that markers are applied to priority areas under the two sub-programmes.

At project level, tracking of biodiversity-related expenditure will be done by including an option to indicate whether the project could be considered biodiversity-related in the project application forms, i.e. via a 'tick-box exercise'. Application guides accompanying the first call for proposals include **guidelines** on biodiversity- and climate-related expenditure tracking under the different priority areas. For all projects under the **Nature and Biodiversity** priority area a 100 per cent marker will be applied by default. Furthermore, those projects which purely focus on nature and biodiversity (projects flagged as "GIE-NAT") under the **Environmental Governance and Information** priority area will also receive a 100 per cent marker by default. On the other hand, it is foreseen that none of the projects under the other priority areas can receive a 100 per cent marker.⁹⁷ Guidance on the **Environment and Resource Efficiency** and **Environmental Governance and Information** priority areas specifically indicate that if a project applicant considers their project significantly biodiversity-related they should tick the box and also fill out a comment box. However, no details are provided on the additional information requirements. A significantly biodiversity-relevant project is defined as *"a project where the main actions concern initiatives and measures that can contribute to the objectives of the EU Biodiversity Strategy to 2020"*.⁹⁸ Where project applicants indicate, via the electronic application system, that their project is significantly relevant for biodiversity a 40 per cent marker will be applied, whereas projects considered as not being relevant for biodiversity will receive a 0 per cent marker. Guidance on the sub-programme for **Climate Action** indicates that all projects under the sub-programme will be considered as 100 per cent relevant for climate expenditure and that necessary information on biodiversity-related expenditure tracking will be required only at the stage of the revision phase, i.e. before the signature of the grant agreement. Furthermore, it is emphasised that if a project is considered to provide additional environmental benefits a description of benefits and synergies should be provided together with appropriate indicators. Even though a tick-box exercise similar to the one under the sub-programme for Environment is not mentioned⁹⁹, the study team's understanding is that a similar process will be applied in practice.¹⁰⁰

It is also important to note that under the sub-programme for Environment a list of **project topics** is established in the first MAWP. Project applicants who link their projects to these project topics will

⁹⁶ Regulation (EU) No 1293/2013 of the European Parliament and of the Council of 11 December 2013 on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007, Official Journal of the European Union, L 347 185-208, 20.12.2013. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1293&from=EN>

⁹⁷ Personal communication with DG Environment (DG ENV)

⁹⁸ European Commission (2014) Guidelines for applicants 2014, LIFE Environment and Resource Efficiency, page 55, <http://ec.europa.eu/environment/life/funding/life2014/index.htm>

⁹⁹ European Commission (2014) Guidelines for applicants 2014, LIFE Climate Action, <http://ec.europa.eu/environment/life/funding/life2014/index.htm>

¹⁰⁰ Personal communication with DG Environment (DG ENV)

receive a bonus under the scoring system of the application procedure. This means that the project topics will not be used for any other purposes, for instance no indicative allocation will be given to them.

4.2.1 Biodiversity expenditure tracking in the Programme Statements

In the **2014 Draft EU Budget** biodiversity tracking figures for the different funding instruments, including the LIFE Programme, were indicated in Annex V of the Statement of Estimates.¹⁰¹ This table indicated that in 2014 €128.1 million is considered to be biodiversity-relevant under LIFE. Nevertheless, the methodology behind the calculation was not presented.

The **2015 Programme Statement of LIFE**¹⁰² shows that from 2015 a separate table on the contribution to financing biodiversity will be provided in the Programme Statements for each funding instrument, the same as for climate expenditure tracking. The contribution of the LIFE Programme to biodiversity financing in 2015 is €155.5 million, which includes a €3.6 million contribution under the Environment and Resource Efficiency priority area (3 per cent of this budget line), €147.8 million under the Nature and Biodiversity priority area (100 per cent of this budget line) and €4.1 million under the Environmental Governance and Information priority area (8 per cent of this budget line). No biodiversity-related financing is indicated under the sub-programme for Climate Action, although it is specifically emphasised that as important synergies are foreseen between the sub-programme for Climate Action and biodiversity objectives figures are expected to be provided from 2016 when a project level tracking approach will be agreed.

Calculations under the **sub-programme for Environment** were based on past project examples and a co-efficient was applied for the Environment and Resource Efficiency and the Environmental Governance and Information priority areas, i.e. it was assumed that only a share of projects will be biodiversity relevant and marked as 40 per cent under these priority areas.¹⁰³ This approach is different from that applied under the tracking of climate expenditure where the Rio markers are applied to the priority areas instead of using co-efficient and statistical data of past project examples. This is due to the fact that the sub-programme for Climate Action is new and past estimates could not be relied upon in order to provide relevant estimates.

It is also important to note that the total budget line of the **Environmental Governance and Information priority area** also covers technical assistance (external monitoring, staff cost etc.) and thus the contribution of this priority area to biodiversity is forecasted to be less than substantial overall.¹⁰⁴

As precise data was not available on projects under the sub-programme for **Climate Action**, the contribution to biodiversity through this sub-programme was not specified in the 2015 Programme Statement. Nevertheless, it is important that from 2016, when project level information will be available for the sub-programme for Climate Action as well, biodiversity-related financing under this sub-programme is recognised and well captured under the biodiversity tracking process. This means that in some cases biodiversity- and climate-related financing figures in the annual EU budget documentation might take account of the same contributions twice. The figures are however not

¹⁰¹ European Commission (2013) Statements of estimates of the European Commission for the financial year 2014, Annex V – Climate Tracking and biodiversity, http://ec.europa.eu/budget/library/biblio/documents/2014/DB2014_WD_0_en.pdf

¹⁰² European Commission (2014) Draft General Budget of the European Commission for the financial year 2015, Programme statements of operational expenditure, COM(2014) 300, June 2014, page 220

¹⁰³ Personal communication with DG ENV

¹⁰⁴ Personal communication with DG ENV

added together to provide a total climate- and biodiversity-related expenditure in the EU budget, as the tracking of climate- and biodiversity-related expenditure are two separate reporting processes, the results of which are presented separately in the annual EU budget documentation¹⁰⁵.

A comprehensive approach to tracking biodiversity expenditure in the 2014 and 2015 annual budgets appears challenging as information on funding allocations based on adopted projects is not available for the preparation of the Programme Statements. Subsequently, the estimates for 2014 and 2015 should be treated with caution. For instance, since precise data was not available on projects under the sub-programme for Climate Action and thus no figures were indicated in the 2015 Programme Statements the indicated overall contribution of LIFE to the financing of biodiversity is probably an underestimated figure. **As of 2016** when projects are likely to be adopted, the tracking of biodiversity expenditure at the level of projects will help to inform and improve the preparation of the Programme Statements. Recommendations on how the biodiversity-related expenditure tracking of LIFE could be refined from 2016 are further detailed in section 4.3.4.

4.3 Study team's proposal for an improved tracking approach

4.3.1 Most appropriate level of tracking

We propose that the tracking of biodiversity-related expenditure under the LIFE Programme should take place solely **at the level of projects**. This approach is different from the one proposed by the Commission as it does not include tracking at the level of programmes, i.e. at the level of the MAWP. As MAWP specify allocations between priority areas which are defined in the Regulation, tracking by the Commission was proposed to be based on these priority areas at this stage. Nevertheless, this approach would only provide some very rough estimates and is considered to be useful only at very initial stages of the programming period when project level information is not available, i.e. only for 2014 and 2015. From 2016, when project level information is expected to be available and thus tracking can take place at a more accurate level we suggest that programme level tracking is no longer used.

The proposed tracking methodology is at the level of **individual projects**. This provides the most precise information about biodiversity-related expenditure and as project level information will be available, this approach can be applied as of 2016. The marking presented at this level builds on project examples from the previous LIFE programming period.

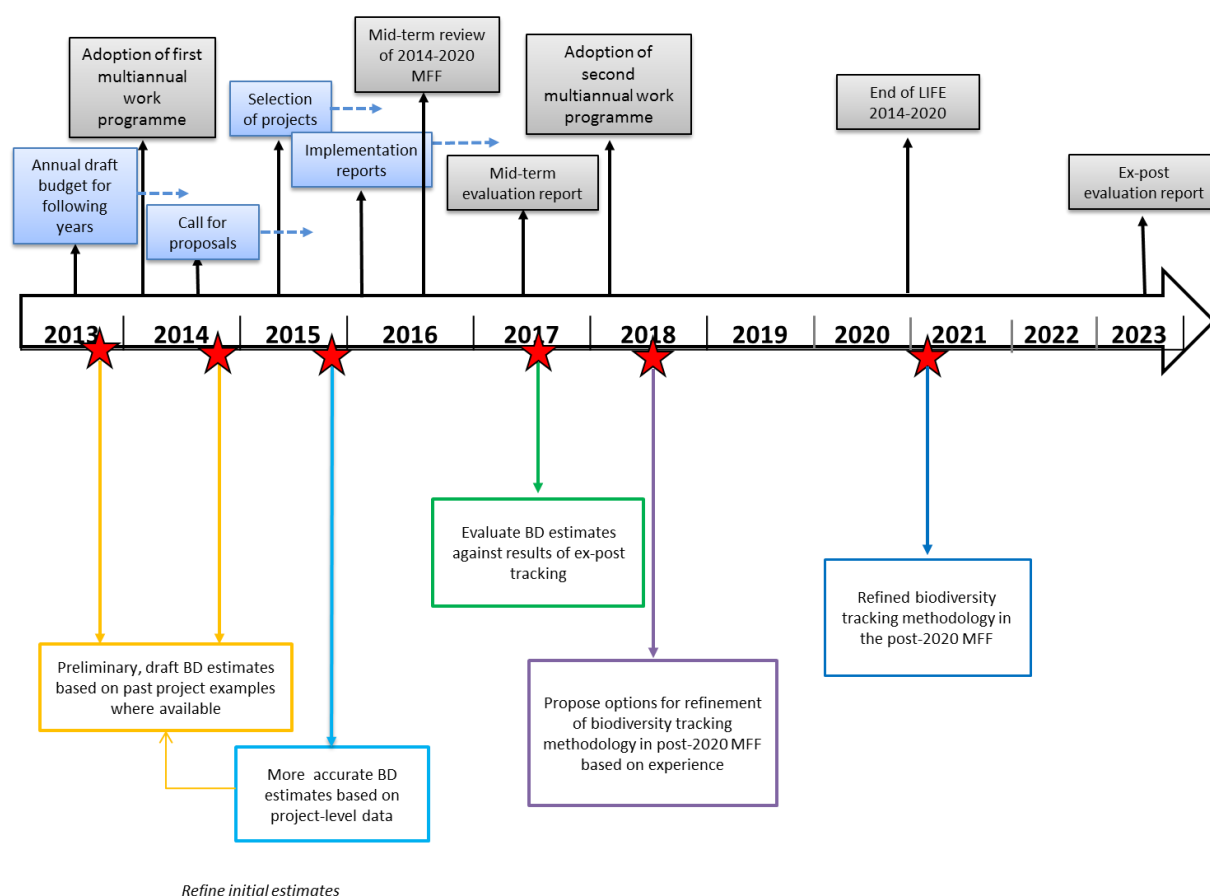
4.3.2 Biodiversity expenditure tracking in the annual EU budget

The LIFE Regulation specifically establishes a requirement that the amount of climate- and biodiversity-related expenditure should be regularly monitored and implemented, i.e. a 'technical' tracking process is taking place in Directorate General for Environment (DG ENV) and Directorate General for Climate Action (DG CLIMA). Nevertheless, the final biodiversity-related financing figures under the different funding instruments are officially published only in the annual EU budget documentation by Directorate General for Budget (DG BUDG) and figures are indicated for the specific objectives of the different funds. It is therefore essential that the biodiversity tracking presented in the Programme Estimates and the figures calculated in DG ENV and DG CLIMA are consistent.

¹⁰⁵ European Commission (2014) Statement of estimates of the Commission for 2015: Preparation of the 2015 Draft Budget – Document I – Political Presentation: Annex V – Climate tracking and biodiversity. SEC(2014)357 final, 11.6.2014, Brussels.

In the latest Programme Statement (Draft Budget 2015) biodiversity-related financing figures under the sub-programme for Environment were based on past project examples while for the sub-programme for Climate Action no contribution was indicated due to the lack of project level information in the past programming period (see section 4.2.1). We propose that as of 2016, when project level information will be available through the project application process, the figures presented in the annual EU budget documentation should be fully based on the project level 'technical' tracking for both sub-programmes. Information at the project level should be aggregated and be presented in the annual Programme Statements at the level of specific objectives, i.e. in the case of LIFE at the level of the priority areas. This approach would provide the most accurate data and the two methodologies would be fully consistent.

Figure 4.1: Summary of timeline of LIFE 2014-2020 indicating key milestones and entry points of the proposed approach of the biodiversity expenditure tracking methodology¹⁰⁶



Source: Own compilation

4.3.3 Biodiversity expenditure tracking of financial instruments

The LIFE Regulation allows for the use of financial instruments to support projects with revenue generating capacity in the areas of environment or climate and further details of financial instruments under LIFE are included in the first MAWP.

Two instruments are foreseen, which have the following general objectives:

- The **Natural Capital Financing Facility (NCFF)** will provide innovative financing approaches for projects promoting the preservation of natural capital in the priority areas Nature and Biodiversity and Climate Change Adaptation; and
- The **Private Financing for Energy Efficiency Instrument (PF4EE)** will test a new approach to address the limited access to adequate and affordable commercial financing for energy efficiency investments under the sub-programme for Climate Action.

The proposed facilities would provide a range of financial instruments including debt and equity instruments (e.g. senior and junior loans, guarantees or equity participation) as well as risk sharing mechanisms. The implementation of both instruments will be entrusted to the European Investment

¹⁰⁶ Information indicated in the figure is based on the LIFE Regulation and the first MAWP.

Bank by means of indirect management. For the NCFF an initial pilot phase is foreseen from 2014 to 2017, which would be followed by an operational phase. During the initial pilot phase the NCFF is expected to execute 9-12 operations, while under the PF4EE 6-10 financing agreements are envisaged to be signed over the first four years, which could be extended to 14-20 financing agreements in seven years.

During the tracking of financial instruments only the EU contribution to these instruments should be included. While the expected/achieved 'leverage effect' (mobilised additional public or private capital) could still be accounted and used in reporting it should not be covered in the tracking exercise. Nevertheless, tracking of financial instruments at the current stage of the programming period and at ex-ante level is very challenging. The study team's proposed approach is to apply a **staged marking system** and base the first stage of the tracking exercise on the most recent information available, i.e. at the level of the MAWP. The first stage for the **NCFF** would be at the **level of project categories** identified in the MAWP, while for the **PF4EE** this would be at the **level of 'core objectives'**. A second level of tracking could be applied at the **level of operations** at later stages when information will be available. Nevertheless, as investments will be demand driven and will be made through financial intermediaries the study team suggests that accurate tracking of financial instruments under LIFE can only take place ex-post.

4.3.4 Recommendations on how biodiversity tracking could be refined over time

- **Project level tracking in practice**

As mentioned above the tracking of biodiversity-related expenditure at project level will be done by including an option in the electronic project application system to indicate whether the project could be considered biodiversity-related, i.e. via a '**tick-box exercise**'. From the recently published project application guides it is clear that this is the case for the **Environment and Resource Efficiency** and **Environmental Governance and Information** priority areas. The guidance document on the sub-programme for **Climate Action** does not mention this tick-box exercise, but indicates that necessary information on biodiversity-related expenditure tracking will be required only at the stage of the revision phase, i.e. before the signature of the grant agreement. The study team's understanding is that even though the 'tick-box' exercise is not mentioned under the sub-programme for Climate, such an approach will be used in practice.¹⁰⁷ It is important that a consistent tracking approach is applied under both sub-programmes, i.e. a similar tick-box exercise is carried out under the sub-programme for Climate Action as well.

The marking exercise, which is based on past project examples and is presented in section 4.4, revealed that a number of projects under the **Climate Change Adaptation priority area** have twofold objectives which are equally significant. Some of the projects under the Climate Change Adaptation priority area primarily aim to increase species' or ecosystems' resilience to climate change through conservation measures (see project examples highlighted in yellow). This means that both biodiversity and climate change adaptation are equally important objectives and thus a 100 per cent marker should be applied under both biodiversity and climate expenditure tracking. However, under the current electronic project application system this is not possible as project applicants should decide whether they submit their project application under the Biodiversity and Nature priority area (in which case the project would receive 100 per cent under the biodiversity tracking exercise but only 40 per cent under climate tracking), or under the Climate Change Adaptation priority area (in which case a 100 per cent marker will be given under the climate tracking process but only 40 per

¹⁰⁷ Personal communication with DG ENV

cent under the biodiversity tracking exercise). Even though the number of such projects is currently quite low¹⁰⁸ this might change in the future and thus there could be a need to change the structure of the electronic project application system to make sure such important synergies are taken into consideration and captured in both tracking exercises.

- ***Proposals for an ex-post tracking system***

Although the study team's proposed tracking methodology is applied **ex-ante** at all levels and therefore has limitations in terms of its accuracy, there is scope for improvement if the tracking of biodiversity expenditure is also undertaken on an **ex-post** basis, i.e. at the level of actual payments. Even though the development of an ex-post tracking system is not in the scope of this study, at later stages when more information will be available on actual payments the ex-ante marking at project level could be verified, especially if indicators are linked to this process. An ex-post tracking system would provide more detailed information which could for example be incorporated in the reporting process.

To be able to verify the applied project level markers at later stages a further requirement could be added to the 'tick-box' exercise. Project applicants could list biodiversity-relevant **indicators** in the 'comment box'. This would inform the verification process of ex-post tracking at project level, i.e. at the level of actual payments. Nevertheless, one should keep in mind that although more detailed bottom-up information could bring many advantages it could also increase the administrative burden and thus requirements should be well balanced.

- ***Tracking financial instruments***

It is acknowledged that the contribution of financial instruments to biodiversity objectives should also be tracked, but the question arises how this information could be captured during reporting processes foreseen under the financial instruments of LIFE. The Commission is required to report annually to the Parliament and the Council on activities relating to financial instruments.¹⁰⁹ For this exercise the Commission will rely on reporting of the financial intermediaries, i.e. information provided by the EIB (European Investment Bank). The level of detail provided in these reports will need to be assessed and potentially tailored to be able to track the biodiversity relevance of activities supported by EU budgetary contributions. The study team understands that discussions on the reporting requirements for financial instruments under LIFE are currently ongoing. The most accurate tracking could take place if information on the biodiversity relevance of actions supported by financial instruments under LIFE would be provided at the level of operations. Nevertheless, as investments will be demand driven the tracking of financial instruments at ex-ante level is very challenging. Subsequently, the study team suggest that tracking of financial instruments under LIFE should primarily focus at the ex-post level.

¹⁰⁸ Personal communication with DG ENV

¹⁰⁹ European Commission (EC) (2013) Financial Regulation applicable to the general budget of the Union and its rules of application, Synoptic presentation

4.4 Classifying expenditure according to the 100, 40 and 0 per cent markers

This section applies the 0, 40 and 100 per cent markers at the level of projects, providing justification for the use of different markers.

4.4.1 *Classifying expenditure at the level of projects based on project examples from the previous programming period*

Table 4.9 and Table 10 below apply the 0, 40 and 100 per cent markers at the level of individual projects. As project level information is only available at later stages of the LIFE Programme (the first calls for proposals took place on 18 June 2014 and application deadlines were in September/October 2014), the proposed approach builds on project examples derived from the previous programming period of LIFE. The tracking presented below used the online project list and database of LIFE projects which also categorises the projects into different thematic areas, such as biodiversity issues, climate change and energy, waste and water. In the project database a summary is provided for all projects, which gives a background to the project and lists its objectives and expected results. All of this information was used in the marking exercise and a short justification is provided for each project example. The advantage of applying markers at such a detailed level is that the tracking can be extremely precise based on the stated objectives and intended impacts of the supported projects.

Via the application of the three markers this section also provides an illustrative list of typical project examples to be coded and reported as 0, 40 and 100 per cent. Projects **marked with an asterisk (*)** are examples where the tracking exercise is considered to be more challenging and greater attention needs to be paid to the specific objectives and expected effects of the projects. Furthermore, in some cases it is suggested that at ex-ante level a conservative approach should be used and that markers should be verified and revised if needed at an ex-post level. At that stage indicators could provide a useful support in verifying the different markers.

Two projects under the Environment and Resource Efficiency priority area and **one project under the Climate Change Mitigation** priority area were found to be primarily biodiversity relevant and therefore were marked as 100 per cent. Even though biodiversity seems to be the main objective of these projects, given their other focus areas such as water, soil and climate change mitigation, they were not categorised under the Biodiversity and Nature priority area in the online project database. Nevertheless, it is important to keep in mind that in the future only projects under the Nature and Biodiversity priority area can receive a 100 per cent marker and therefore it is expected that in the current programming period similar projects will be listed under the Nature and Biodiversity priority area. These three projects are **indicated in italics**.

Finally, a number of **projects under the Climate Change Adaptation** priority area are **highlighted in yellow**. These projects represent some examples where both biodiversity and climate change adaptation were found to be equally significant objectives. Projects with similar focus should be recognised as 100 per cent relevant to biodiversity even if they are categorised under priority areas other than the Biodiversity and Nature priority area. Further details and some options for refinement in relation to this topic are indicated in section 4.3.4.

Table 4.9 Classifying expenditure at the level of projects under the sub-programme for Environment

Thematic Priorities	Project example from previous programming period ¹¹⁰	Marker (0, 40 or 100%)	Justification
Sub-programme for Environment			
Priority area Environment and Resource Efficiency			
Water	Water re-born - artificial recharge: innovative technologies for the sustainable management of water resources	40%	The project's main objective is to use artificial recharge to protect and enhance water and land ecosystems. As the project also focuses on the aspects of water availability a 100 per cent marker is not justified and thus 40 per cent is applied.
	Durable Regions On Peripheral Areas for Water Reduction	0%	The project focuses on water scarcity issues and aims to reduce water usage. As no significant biodiversity or ecosystem services relevance is foreseen the 0 per cent marker is applied.
	Implementing the Water Framework Directive to temporary rivers: tools for the assessment of their ecological status	40%	The project focuses on the development of a software tool which will help to assess the ecological status of water bodies as required under the WFD. As the adequate assessment of the ecological status of waters can help to sustainably manage water resources in Europe, a 40 per cent marker is justified.
	Demonstrative technique to prevent eutrophication by agrarian nitrates in surface waters in the Mediterranean climate*	0%	Even though an indirect benefit for biodiversity is foreseen under this project, neither the objectives nor the expected results mention the protection of ecosystems and thus a conservative approach, i.e. 0 per cent marker, is applied. This marker could be revised at an ex-post level by looking at the actual results of the project.
	<i>Creation and restoration of aquatic ecosystems for improvement of water quality and biodiversity in agricultural basins*</i>	100% ¹¹¹	The project specifically aims to improve land-based and aquatic biodiversity in wetland areas used for agricultural purposes by reducing nitrate concentrations, so a 100 per cent marker is applied.
	Implementation of efficient irrigation management for a sustainable agriculture	0%	Even though sustainability is indicated in the project description and water use efficiency can have an indirect impact on ecosystems, no

¹¹⁰ Project examples presented here are indicated in the LIFE Programme's online project list and database. For nature and biodiversity projects see: <http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.getProjects&strandID=2> For environment and resource efficiency projects see: <http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.getProjects&strandID=1> [Accessed: 08/05/2014]

¹¹¹ A project similar to this is expected to be classified as a Nature and Biodiversity priority area project under the current LIFE therefore the application of the 100 per cent marker is possible.

			explicit relevance to biodiversity is mentioned and thus a conservative use of markers is applied.
	Strategies for Marine Litter and Environmental prevention of sea pollution in coastal areas*	0%	Even though an indirect benefit for biodiversity is foreseen under this project, neither the objectives nor the expected results mention the protection of ecosystems and thus a conservative approach, i.e. 0 per cent marker, is applied. As the project refers to environmental stewardship the 0 per cent marker could be revised ex-post by looking at the actual results of the project and changed to 40 per cent if needed.
	Treatment and re-use of urban storm water runoff by innovative technologies for removal of pollutants	0%	The main aim of the project is to develop and demonstrate cost-effective and efficient technologies for removing dissolved pollutants from storm water run-off to reduce diffuse urban pollutant loads onto receiving waters. Even though some indirect benefits can be expected for ecosystems a conservative use of markers is applied and it is suggested that the marker could be revised ex-post by looking at the actual results of the project.
	Tailoring hybrid membrane processes for sustainable drinking water production	0%	The project uses a membrane technology for drinking water treatment and does not indicate biodiversity conservation as an objective.
	Improving Water Reuse at the coastal areas by an advanced desalination process	0%	No explicit relevance to biodiversity or ecosystem services as the project focuses on increasing the amount of wastewater available for reuse in areas where the salinity of fresh water is a limiting factor.
	Verification and assessment of technologies for tertiary treatment of municipal wastewater	0%	No explicit relevance to biodiversity or ecosystem services as the project focuses on improving the effluent standards from tertiary technologies used at wastewater treatment plants.
	Reduction of waste water nitrogen load: demonstrations and modelling*	40%	The project's main aim is to demonstrate a waste water treatment technology which would remove nitrogen to reduce eutrophication of water bodies. The technology will use the natural ecosystem services provided by the sediments and aims to protect the long-term environmental integrity of the lakes. Subsequently, the 40 per cent marker is applied.
Waste	Regeneration of hazardous waste into valuable raw material for the European steel industry	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on hazardous waste recycling.
	Sustainable recycling in polyvalent use of energy saving building elements	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on demonstrating an effective process for using various waste materials to produce innovative construction materials.

	Recovery of Clean Wood from Dirty Wood	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on the recovery of contaminated wood.
Resource efficiency, including soil and forests and circular economy	Demonstration of innovative soil washing technology for removal of toxic metals from highly contaminated garden soil*	40%	The focus of this project is on soil contamination. It is clearly indicated that soil contamination has a negative impact on biodiversity and thus the 40 per cent marker is applied.
	Regenerative agricultural practices: demonstration of an alternative sustainable management of agrarian soils*	40%	The project aims to prevent soil degradation and improve soil quality. As not only the food provisioning services of soil are covered under the project but biodiversity conservation is specifically mentioned, the 40 per cent marker is applied.
	<i>Identification, monitoring and sustainable management of communal forests in Extremadura*</i>	100% ¹¹²	The project's main objective is to monitor the environmental status of forests in order to facilitate their future conservation.
	LCA, environmental footprints and intelligent analysis for the rail infrastructure construction sector	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on reducing the carbon and water footprint of rail infrastructure.
	Circular Economy Metrics	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on developing a web-based tool to move towards the concept of circular economy.
Environment and health	REACH Database for Safety Data Sheets (SDSs) and Workplace Instruction Cards (WICs)	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on creating a method for communicating safety information about hazardous products used in the tourism and construction industries.
	Cross-Mediterranean Environment and Health Network	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on the assessment of the human health impacts of chemical agents.
	Endocrine Disruptors in silico / in vitro Evaluation and Substitution for Industrial Applications	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on providing substitutes of bisphenol A/BPA, phthalates and parabens.
Air quality and emission	Monitoring air pollution effects on children for supporting Public Health Policy	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on assessing the health effects of air pollution on children.
	Mediterranean Health Interview Surveys Studies: long term exposure to air pollution and health and surveillance	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on carrying out a long-term survey to assess the effects of air pollution on human health.

¹¹² A project similar to this is expected to be classified as a Nature and Biodiversity priority area project under the current LIFE therefore the application of the 100 per cent marker is possible.

	Air Pollution and biometeorological forecast and Information System	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on developing a new air pollution management and information system.
	Priority area Nature and Biodiversity		
Nature	Re-wetting valuable raised bogs in the northern Hannover Region	100%	The primary objective of all listed projects under the Nature and Biodiversity priority area is the conservation and restoration of biodiversity and the maintenance of ecosystem services. Consequently, all projects are marked as 100 per cent.
	Preservation of wetland habitats in the upper Biebrza Valley	100%	
	Grassland for meadow birds	100%	
	Improvement of yew tree (<i>Taxus baccata</i>) conservation status in north-eastern Iberian Peninsula	100%	
	Development of the strategy to manage the Natura 2000 network in the Lombardia Region	100%	
Biodiversity	Implementation of integrated habitat networks to improve ecological coherence	100%	
	Development of an urban green infrastructure in the Chanteloup loop	100%	
	Control and eradication of the invasive exotic plant species <i>Ailanthus altissima</i> in the Alta Murgia National Park	100%	
	Control of invasive alien species to restore threatened habitats in inland wetlands of northern Tuscany	100%	
	Priority area Environmental Governance and Information		
	The key role of big trees and mature forests in biodiversity conservation*	100%	This awareness raising campaign aims to improve the conservation of large trees and mature forests. Even though the project is an educational project, as the main objective is the conservation and sustainable use of biodiversity the 100 per cent marker is applied.
	European week for waste reduction	0%	As the aim of this project is to contribute to the reduction of municipal waste in Europe the 0 per cent marker is applied.
	Integrated information campaign for the reduction of smoking related litter on beaches	40%	The aim of the project is to carry out an awareness raising campaign on the negative impacts of cigarette butts discarded on coastal areas, thus protecting the coastal environment and safeguarding public health. As biodiversity conservation is not the only objective of the project, the 40 per cent marker is suggested.
	The ecological services, social benefits and economic value of the Ecosystem Services in Natura 2000 sites in Crete	100%	The main objective of this project is to support conservation actions focusing on Natura 2000 sites in Crete by motivating the public to participate in relevant decision-making processes. Even though the project is an awareness raising project, as the main objective is the

			conservation and sustainable use of biodiversity the 100 per cent marker is applied.
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Table 10: Classifying expenditure at the level of projects under the sub-programme for Climate Action

Project example from previous programming period ¹¹³	Marker (0, 40 or 100%)	Justification
Sub-programme for Climate Action		
Priority area Climate Change Mitigation		
Smart net metering for promotion and cost-efficient grid-integration of PV technology	0%	No explicit relevance to biodiversity and ecosystem services as the focus is on making the energy supply system more efficient.
Improved heat recovery in clay roof tile and brick production	0%	No explicit relevance to biodiversity and ecosystem services as the focus is on energy efficiency measures.
Biological two-stage biogas treatment process	0%	No explicit relevance to biodiversity and ecosystem services as the focus is on biogas as an alternative to fossil fuel sources.
Reduction of greenhouse gases from agricultural systems	0%	No explicit relevance to biodiversity and ecosystem services as the focus is on emission reduction in the agriculture sector.
Good practices to minimise impacts of wind farms on biodiversity*	40%	The project aims to harmonise the needs of wind farm developers with the conservation needs of EU biodiversity. Even though the main objective is to support renewable energy sources, the project has a secondary aim to reduce the impact on biodiversity and therefore a 40 per cent marker is applied.
Eco-efficient technologies development for environmental improvement of aquaculture	40%	The main objective of the project is to promote the usage of more efficient and low-carbon technologies in aquacultures. Nevertheless, as increasing the environmental sustainability of the cultivation cycle of fishes and salt water molluscs is also an objective of the project the 40 per cent marker is applied.
Sustainable management of shrub formations for energy purposes*	0%	Even though the project's title may suggest the application of the 40 per cent marker, the project's main aim is to reduce forest fire risk by removing flammable scrubs biomass in a sustainable way. No

¹¹³ Project examples presented here are indicated in the LIFE Programme's online project list and database. For climate change related projects see: <http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.getProjects&themeID=5&subThemeList> [Accessed: 08/05/2014]

		significant biodiversity and ecosystem services related benefits are foreseen, so the 0 per cent marker is applied.
<i>De-urbanising and recovering the ecological functioning of the coastal systems of La Pletera*</i>	100% ¹¹⁴	The main aim of the project is to recover the ecological function of the La Pletera coastal lagoon system, which has been altered by building works, with a focus on increasing the carbon fixation capacity of the area and its resilience to climate change. As both ecosystem services and biodiversity are priority objectives the 100 per cent marker is suggested.
Integrated agroforestry practices and nature conservation against climate change*	40%	The main aim of the project is to demonstrate agroforestry carbon sequestration projects, while at the same time promoting active nature conservation with an expected effect of increased biodiversity. Even though both biodiversity protection and the maintenance of ecosystem services (carbon sequestration of forests) are targeted the main objective is climate change mitigation and thus a 40 per cent marker is applied.
Priority area Climate Change Adaptation		
Integrated lake management in order to reduce vulnerability of the lake to climate change	40%	The project's main aim is to reduce the vulnerability of the lake Alte Donau to the effects of climate change and anthropogenic measures and to maintain its ecological status and bathing water quality. As biodiversity conservation is a significant but not primary objective a 40 per cent marker is applied.
Climate change indicators and vulnerability of boreal zone applying innovative observation and modelling techniques*	40%	The project's aim is to build a comprehensive platform, via the understanding of water and carbon balances, for analysing climate change effects on boreal ecosystems, assessing their vulnerability and monitoring their mitigation potential. This project can be regarded as a capacity building project and its results can be used to increase the resilience of ecosystems and improve ecosystem services, thus it is marked as 40 per cent.
Development & demonstration of management plans against the climate change enhanced invasive mosquitoes in South Europe*	0%	Even though this project includes both environmental and socio-economic objectives in relation to the integrated management plan against invasive alien species there is no specific reference to biodiversity. Consequently, a 0 per cent marker is applied and it is suggested that the marker should be verified and revised if needed

¹¹⁴ A project similar to this is expected to be classified as a Nature and Biodiversity priority area project under the current LIFE therefore the application of the 100 per cent marker is possible.

		at an ex-post stage, where result indicators could be also used.
Helping enhanced soil functions and adaptation to climate change by sustainable conservation agriculture techniques*	40%	The project aims to improve the ecological function of soils and integrate conservation practices into agricultural techniques. As the ecosystem services provided by soil are a key focus area but biodiversity conservation is not targeted, a 40 per cent marker is applied.
Urban forestation*	40%	The project's main aim is promote reforestation in urban areas to improve quality of life and environment. Even though biodiversity conservation itself is not an objective the improvement of forests' ecosystem services, e.g. carbon sequestration and water retention, is regarded as an expected result and thus a 40 per cent marker is applied.
Collaborative Local Engagement Strategies for Climate Adaptation	0%	The project focuses on stakeholder engagement at local level in order to support climate change adaptation techniques. No explicit relevance to biodiversity and ecosystem services is foreseen.
Intermunicipal cooperation on water management and climate change adaptation	0%	There is no explicit relevance to biodiversity and ecosystem services as the focus is on cooperation at municipal level in order to adapt the water management systems to the effects of climate change.
Resilience to climate change in Mediterranean forests*	100%	There is an explicit biodiversity relevance as the main objective is to enhance the Mediterranean forests' resilience to climate change and to preserve forest ecosystems. Both biodiversity and climate change adaptation are equally significant objectives.
Conservation measures to assist the adaptation of <i>Falco eleonora</i> to climate change*	100%	The main aim of the project is to implement a series of targeted conservation actions to help the Eleonora's falcon in adapting to climate change by improving the species' breeding performance and the quality and availability of its foraging areas. Both biodiversity and climate change adaptation are equally significant objectives.
Priority area Climate Governance and Information		
Experimenting and communicating sustainable lifestyles to promote energy autonomy	0%	No explicit relevance to biodiversity and ecosystem services as the focus is on the reduction of greenhouse gases through awareness raising on everyday energy consumption.
Ecological Lifestyles for CO ₂ Reduction	0%	No explicit relevance to biodiversity and ecosystem services as the focus is on the reduction of carbon emissions via the support of low carbon lifestyles.

4.4.2 Classifying expenditure of the proposed financial instruments of LIFE

Table 11 and Table 12 below apply the 0, 40 and 100 per cent markers for the financial instruments proposed under the LIFE Programme. It is important to note that only the EU contribution to financial instruments should be included in the tracking; the expected/achieved 'leverage effect' (mobilised additional public or private capital) should not be covered in the tracking exercise. Nevertheless, the leverage effect could still be accounted and used in reporting.

Tracking of financial instruments at the current stage of the programming period and at the ex-ante stage is very challenging as investments will be demand driven and therefore information on the supported operations are not yet available. Nevertheless, an initial assignment of the markers can take place **at the level of project categories under the Natural Capital Financing Facility (NCFF)** and **at the level of 'core objective' of the Private Financing for Energy Efficiency Instrument (PF4EE)**, which are the most detailed levels of information about the two financial instruments at the current stage of the programming period and are identified in the first MAWP. At later stages once further information is available **at the level of operations** more precise classification will be possible. Nevertheless, as operations are likely to cover similar areas to projects under the two sub-programmes of LIFE, the tracking methodology presented at ex-ante project level in the sections above can provide useful guidance until more detailed information is available at the level of operations.

As the **NCFF** will contribute to the priority areas Nature and Biodiversity and Climate Change Adaptation and will be based on natural ecosystems, it is foreseen that potentially all operations will be marked as 100 per cent. On the contrary, the PF4EE addresses the limited access to adequate and affordable commercial financing for energy efficiency investments under the sub-programme for Climate Action and thus operations are expected to be marked as 0 per cent.

The marking proposed in Table 11 and Table 12 below builds on the description of the different project categories and core objectives of the financial instruments indicated in the first MAWP.

Table 11: Classifying expenditure under the Natural Capital Financing Facility at the level of project categories identified in the MAWP

Project category identified in the MAWP	Marker (0, 40 or 100%)	Justification (building on details included in the MAWP)
Projects involving Payments for Ecosystem Services	100%	Explicit relevance to biodiversity through the conservation of ecosystem services.
Projects focusing on Green Infrastructure	100%	Green infrastructures deliver a wide variety of ecosystem services, including the provision of water, air quality, forestry, pollination and resilience to climate change. Subsequently, the conservation and restoration of biodiversity and ecosystem services is the primary objective and the 100 per cent marker should be applied.

		Nevertheless, if the development and management of green infrastructure is a significant objective alongside other benefits and services, e.g. infrastructure investments combine green and grey infrastructure, the 40 per cent marker could be applied. However, the study team understands that most of the operations supported by the NCCF will primarily focus on biodiversity conservation and restoration and thus it is foreseen that the 100 per cent marker will be applied in most cases.
Projects using biodiversity offsets	100%	Biodiversity offsetting purely covers conservation actions, therefore the 100 per cent marker should be applied.
Innovative pro biodiversity and adaptation investments	100%	This project category covers projects aiming to protect biodiversity or increase the resilience of communities and other business sectors. If biodiversity conservation measures form the main objective a 100 per cent marker should be applied. On the contrary, if actions also focus on general climate adaptation measures the 40 per cent marker is suggested.

Table 12: Classifying expenditure under the Private Finance for Energy Efficiency Instrument at the level of core objectives identified in the MAWP

Core objectives identified in the MAWP	Marker (0, 40 or 100%)	Justification (building on details included in the MAWP)
Actions aiming to make energy efficiency lending more sustainable	0%	No specific relevance to biodiversity and ecosystem services as the focus is on energy efficiency.
Actions aiming to increase the debt financing to projects supporting energy efficiency priorities of Member States set in the NEEAPs	0%	No specific relevance to biodiversity and ecosystem services as the focus is on energy efficiency.

4.5 Conclusions

- The study team's proposed tracking approach is different from the Commission's proposal as it only applies biodiversity-related expenditure **tracking at the level of actual projects**. It is suggested that tracking at the programme level is not carried out from 2016 as it only provides some very rough estimates. Furthermore, as of 2016 project level information will be available through the project applications and more accurate tracking can take place.
- In order to apply a **consistent approach** to the 'technical' tracking at project level and the tracking in the annual budget documentation at the level of specific objectives, we propose that the figures of the project level tracking should be aggregated and be presented at the level of specific objectives, i.e. in the case of LIFE at the level of the priority areas.
- It is also important that from 2016, when project level information will be available for the **sub-programme for Climate Action**, biodiversity-related financing under this sub-programme is recognised and well captured under the biodiversity tracking process. This means that in some cases biodiversity- and climate-related financing figures in the annual EU budget documentation might take account of the same contributions twice. The figures are however not added together to provide a total climate- and biodiversity-related expenditure in the EU budget as the tracking of climate- and biodiversity-related expenditure are two separate reporting processes.
- The proposed **'tick-box exercise'** in the project application process should be applied under both sub-programmes. As the **Nature and Biodiversity priority area** is the only dedicated finance stream for the conservation and restoration of biodiversity and the maintenance of ecosystem services, all projects under this sub-programme will be marked 100 per cent. Furthermore, those projects which purely focus on biodiversity under the Environmental Governance and Information priority area will also receive a 100 per cent marker.
- Apart from the Biodiversity and Nature priority area, project examples showed a mixed picture throughout the classification exercise. Actions in relation to **water, soil, forests and climate change adaptation** were seen to be more relevant for biodiversity than waste, circular economy, health, air quality and climate change mitigation related projects. Nevertheless, the application of markers should be carried out on a case-by-case basis with a focus on the stated objectives and expected effects of the individual projects.
- It is important that only the EU contribution to financial instruments is included in the tracking exercise. As the **Natural Capital Financing Facility** focuses on biodiversity conservation and climate change adaptation, all operations are expected to be marked as 100 per cent. On the contrary, as the **Private Finance for Energy Efficiency Instrument** targets energy efficiency, all operations are expected to be marked as 0 per cent.
- The proposed system does not include any **'ex-post' tracking** (at the level of actual payments) and does not establish a link to result indicators. The system is based on financial data which is aggregated ex-ante; however there is scope for improving the system in this respect. The ex-ante application of markers at project level should be used conservatively with the option to verify them later (ex-post) by using result indicators.

5 The EU Framework Programme for Research and Innovation (Horizon 2020)

Prepared by ICF

5.1 Introduction to the 2014-2020 EU Framework Programme for Research and Innovation

Horizon 2020, the new Framework Programme for Research and Innovation, is the financial instrument implementing the Innovation Union. Running from 2014 to 2020 with a €77 billion budget, the EU's new Programme for Research and Innovation is part of the drive to create new growth and jobs in Europe.

Horizon 2020 has three mutually reinforcing priorities dedicated to:

- Excellent science – aiming to boost top level research in the EU;
- Industrial leadership – supporting R&D in new technologies and SMEs; and
- Societal challenges – supporting research that addresses major social, environmental and economic issues and challenges.

Research and innovation will play an important role in addressing the EU's biodiversity policy priorities, so Horizon 2020 represents a major and important source of funding.

Potentially all three of the priorities will support biodiversity related actions. While the "societal challenges" priority specifically identifies biodiversity related research as one of its objectives, the "industrial leadership" priority will fund research in particular technologies, some of which may benefit biodiversity, while the "excellent science" priority will help to strengthen the capacity, skills, infrastructure and basic science underpinning research into biodiversity, as well as other research topics.

Specific objectives for Horizon 2020 are identified under the three priorities and the sub-themes within them. Some of these specific objectives are more relevant than others. The "climate action, environment, resource efficiency and raw materials" objective under the "Societal Challenges" priority is the one most directly focused on biodiversity, and provides dedicated funding for biodiversity research. This challenge is allocated a budget of €3.1 billion over the 2014 to 2020 period, roughly 4 per cent of the Horizon 2020 budget, and will address a range of challenges related to ecosystems, raw materials, eco-innovation, global environmental observation and information systems as well as climate change. As well as meeting climate objectives, the rationale for this challenge includes that "Union and global policy frameworks must ensure that ecosystems and biodiversity are protected, valued and appropriately restored in order to preserve their ability to provide resources and services in the future" and that "water challenges need to be addressed and to protect aquatic ecosystems".

In addition, one of the other five challenges (Food security, sustainable agriculture and forestry, marine, maritime and inland water research and the bio-economy) makes specific mention of biodiversity objectives, while two others ("Secure, clean and efficient energy"; "Smart, green and integrated transport") can be expected to benefit biodiversity indirectly by supporting solutions that reduce pollution and address climate change.

In addition, the “Excellent Science” theme may fund scientific research with relevance for biodiversity, among a wide range of other issues, by supporting researchers and their teams, future emerging technologies, Marie Curie Actions which offer training and career development for researchers, and supporting Europe’s research infrastructures. The “Industrial Leadership” theme will invest in the development of key industrial technologies, such as biotechnology, some of which may potentially have biodiversity benefits, as well as supporting access to risk finance, and innovation for SMEs, some of which may potentially relate to biodiversity relevant activities.

Financial instruments (including loans, loan guarantees and equity investments) represent an important vehicle in supporting risk finance for innovative SMEs.

The additional specific objectives “Spreading excellence and widening participation” and “Science with and for society” may also support biodiversity relevant science and innovation activities. The JRC activities in Horizon 2020 will focus on the Union policy priorities and the societal challenges addressed by them, including the key challenges identified above.

Therefore, some biodiversity related expenditures through 2020 can be identified on a thematic basis, while others will require an analysis of projects within broader funding categories.

Horizon 2020 funding is managed at the EU level, through a combination of direct management by the Commission, indirect management (through delegation of implementation tasks to executive agencies and other bodies), and joint management with international organisations (including the European Space Agency).

5.2 Stock-taking of the currently emerging/agreed approach by the Commission on biodiversity tracking

As for climate and sustainable development, the approach developed by the Directorate General for Research and Innovation (DG R&I) to tracking of biodiversity expenditures is well advanced, and has been endorsed by all other Commission DGs involved in (co-)managing Horizon 2020. It is based on an understanding that some expenditures under Horizon 2020 are thematically defined, enabling a “top down” approach to tracking at the specific objective or Work Programme topic level, while others (particularly under the “Excellent Science” priority) are cross-cutting and require a “bottom-up” analysis of projects.

A three stage approach to *ex ante* tracking of expenditures is therefore applied:

1. Broad assessment based on marking of specific objectives within **Annual Programme Statements**.
2. Assessment of **Annual Work Programmes**, and marking of topics within them.
3. Analysis of **individual projects**.

The first stage is rather crude and broad-brush, because of the breadth of the specific objectives against which annual budgets are allocated. Analysis of Work Programmes enables a much more accurate picture of relevant expenditures to be gained, for those parts of Horizon 2020 where actions are topic based. However, the Work Programmes do not allow a complete analysis, as some parts of Horizon 2020 (especially the Excellent Science) priority are not thematically determined but defined on a “bottom-up” basis, in line with the priorities of individual applicants. These “bottom-up” actions require analysis at the project level to identify relevant expenditures.

DG R&I has provided an analysis of the 2015 Annual Programme statement and has undertaken an assessment of the 2014 and 2015 Work Programmes. The results of the latter assessment are currently being verified.

At the project level, DG R&I is committed to tracking expenditures on climate and sustainable development for “bottom-up” projects; there is logic in including analysis of biodiversity expenditures at this stage, but there is no formal target or commitment to do so.

DG R&I has also issued internal guidance, drafted in close collaboration with DG Environment (DG ENV) and DG Climate Action (DG CLIMA), on tracking climate action, sustainable development and biodiversity expenditure in Horizon 2020. This sets out the general approach to applying the markers and provides illustrative guidance on relevant expenditures.

For the financial instruments, DG R&I proposes to include marking of biodiversity, climate and sustainable development related expenditures in the reporting of intermediaries.

5.3 Study team’s proposal for an improved tracking approach

The general tracking approach adopted by DG R&I is sound and well-advanced, and is supported by the research undertaken in this assignment.

The main scope for value added in the current study is therefore:

- To propose consistent definitions of biodiversity relevant expenditures, and the application of the markers, which help to ensure that the tracking of expenditures in Horizon 2020 is aligned with that for other parts of the EU budget; and
- To test the practical application of the study team’s guidance and definitions, in order to inform potential refinements.

The internal guidance provides illustrative examples of relevant expenditures, but provides only more general rules about distinguishing between expenditures which have biodiversity as a “significant” objective (40 per cent marker) and “primary” objective (100 per cent marker).

However, there is inevitably a degree of judgement involved in the marking of individual items of expenditure, such that different analysts may produce different estimates, even when applying common guidance.

Testing the definition and typology of expenditures developed for the current study, and comparing the results with those of internal estimates derived by DG R&I, offers potential to identify areas of uncertainty and to use the results to inform a consistent and practical approach that can inform the wider approach to tracking across the EU budget.

The illustrations in the next sections are intended to inform the practical application of the agreed approach.

5.3.1 Recommendations how biodiversity-tracking could be refined over time

The approach being applied by DG R&I, which takes ex-ante tracking of expenditures to the project level, should provide accurate estimates of relevant expenditures, providing the markers and definitions are consistently and accurately applied. *Ex post* assessment – involving marking of actual expenditures rather than decisions – may offer some scope for refinement in cases where approved projects were, for some reason, not fully completed. However, it is considered that this would produce only minor changes in expenditure estimates. Such an approach would have to be applied at the project level, applying the markers to relevant projects on completion. There are no plans at the moment to do a true '*ex post*' evaluation and no indicators which would currently enable this to be done easily.

There may be more scope for refinement in testing and improving the application of the markers, and underlying definitions, over time, and re-marking expenditures where necessary to refine the estimates. Such an approach could be undertaken independently across different parts of the EU budget, to ensure that different DGs are applying the markers consistently and using consistent definitions, such that estimates are consistent and comparable across DGs and instruments.

Financial instruments represent a significant challenge for expenditure tracking, because biodiversity-relevant expenditures are difficult to identify *ex ante*. Investment will be demand driven, and biodiversity related investments are likely to represent a small proportion of those made, and are not identifiable at the thematic level. Moreover, much of the investment will be made through financial intermediaries such as banks and venture capital funds. The European Investment Bank (EIB) and the European Investment Fund (EIF) will play an important role, as entrusted entities, in implementing each financial instrument facility on behalf of and in partnership with the European Commission.

The 2014/15 Work Programme for “Access to Risk Finance” does not enable any biodiversity related investments to be identified ex-ante (but does identify themes related to climate change).

It appears therefore that biodiversity related expenditures will only be identifiable ex-post. This will require financial partners, fund managers and financial intermediaries to report on the share of EU finance that is used to support biodiversity related investments (such as on green infrastructure, biodiversity offsetting and pro-biodiversity businesses).

5.4 Classifying expenditure according to the 100, 40 and 0 per cent markers

The three stage approach to tracking biodiversity expenditures is illustrated as follows.

5.4.1 Stage 1: Annual Programme Statements

The Annual Programme Statements allocate the 40 per cent marker to three lines of expenditure, as follows.

Table 5.13: Tracking of biodiversity expenditures in the Annual Programme Statements

Name of activity	Marker (100/40 or 0%)	Justification
Societal challenges – Food Security, Sustainable Agriculture, Marine and Maritime research and the Bio-economy	40%	Includes objectives to support sustainable agriculture and forestry that safeguards biodiversity and enhances ecosystems, as well as marine and maritime research to support sustainable exploitation of marine resources.
Societal challenges – Climate Action, Environment, Resource Efficiency and Raw Materials	40%	Biodiversity and ecosystem related objectives are prominent alongside others related to climate and resource efficiency. Includes objectives to protect the environment, sustainably managing natural resources, water, biodiversity and ecosystems; to ensure the sustainable supply of non-energy and non-agricultural raw materials; to enable the transition towards a green economy through eco-innovation; and to develop comprehensive and sustained global environmental observation and information systems.
Non-Nuclear Direct Actions of the Joint Research Centre – to provide customer-driven scientific and technical support to Union policies, while flexibly responding to new policy demands	40%	JRC activities in Horizon 2020 will focus on the Union policy priorities and the societal challenges addressed by them. This includes support for the two “Societal Challenges” identified above.
All other expenditures	0%	No other expenditures with a “significant” biodiversity objective can be identified at the specific objective level. However, other budget lines will undoubtedly support some biodiversity relevant expenditures.

Marking expenditures in this way is justifiable – since biodiversity is a significant objective of each of the three expenditure lines - although the estimates it produces are very rough. In particular, it is likely to overestimate relevant expenditures from JRC’s budget, given the range of activities of the Centre. On the other hand, other activities marked at 0 per cent may include some biodiversity related expenditures (e.g. under the “Excellent Science” priority).

By applying these markers, the analysis of Annual Programme Statements estimates that biodiversity-related expenditures will amount to €269 million in 2014 and €278 million in 2015, comprising just less than 3 per cent of the Horizon 2020 budget.

5.4.2 Stage 2: Annual Work Programmes

Analysis of Annual Work Programmes allows a more accurate assessment of relevant expenditures.

An analysis of Work Programmes by DG Research and Innovation indicates that the main Work Programmes for which biodiversity related topics are identifiable are the two Societal Challenges identified above. However, some other potentially relevant expenditures are also identifiable in the following Work Programmes:

- Biotechnology (topic on metagenomics – 40 per cent)
- Space (some topics on earth observation)

- Research Infrastructures (topic INFRAIAI 1)

Analysis has yet to be undertaken for the JRC Work Programme.

DG R&I's analysis indicates that possibly 3-4 per cent of expenditures in Horizon 2020 in those Work Programmes that are thematically determined can be classed as biodiversity related in 2014 and 2015. This analysis excludes those expenditures for which priorities are determined "bottom-up".

Analysis at the Work Programme level provides a more accurate assessment of levels of relevant expenditure than assessments at the broader, specific objective level. However, at this level, some relevant expenditures are still not identifiable, while others may be overestimated by applying the markers to broad topics.

Guidance on biodiversity expenditure tracking in two Work Programmes

Guidance on how the markers could be applied to the Work Programme for 2014-15 for the societal challenges "Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy" and "Climate action, environment, resource efficiency and raw materials" are given in Tables 5.2 and 5.3 respectively.

The proposed markers are based on the reconciliation of independent analyses by DG R&I and ICF International.

Table 14.2: Guidance on marking the topics in the Work Programme ‘Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy’

Measure	Suggested Marker	Notes
Call for Sustainable Food Security		
<i>Sustainable food production systems</i>		
SFS-1-2014/2015: Sustainable terrestrial livestock production	40%	
SFS-2-2014/2015: Sustainable crop production	40%	
SFS-3-2014: Practical solutions for native and alien pests affecting plants	40%	
SFS-4-2014: Soil quality and function	40%	
SFS-5-2015: Strategies for crop productivity, stability and quality	40%	
SFS-6-2014: Sustainable intensification pathways of agro-food systems in Africa	0%	The 0 per cent marker is conservative, since sustainable intensification could have an important role in biodiversity conservation. However, there is no stated biodiversity objective.
SFS-7-2014/2015: Genetic resources and agricultural diversity for food security, productivity and resilience	100%	Although the objectives are to promote food production, diversification and security rather than biodiversity per se, there is a strong case for applying the 100 per cent marker, as the topic focuses entirely on genetic diversity within agriculture.
SFS-8-2014/2015: Resource-efficient eco-innovative food production and processing	0%	The topic could benefit biodiversity indirectly, but this is not a stated or significant objective.
SFS-9-2014: Towards a gradual elimination of discards in European fisheries	40%	
SFS-10-2014/2015: Tackling disease related challenges and threats faced by European farmed aquatic animals	0%	It is stated that proposals should also take into consideration parasitic transfer between wild and reared fish species and its mitigation. However, this is only one small aspect rather than being a significant objective.
SFS-11-2014/2015: Implementation of an Ecosystem-based approach for European aquaculture	40%	
<i>Safe food and healthy diets and sustainable consumption</i>		
SFS-12-2014: Assessing the health risks of combined human	0%	

exposure to multiple food-related toxic substances		
SFS-13-2015: Biological contamination of crops and the food chain	0%	
SFS-14-2014/2015: Authentication of food products	0%	
SFS-15-2014: Proteins of the future	0%	The topic seeks to address environmental sustainability issues and land-use and food security concerns related to increasing protein demand. Applying the 0 per cent marker is conservative, since positive impacts on biodiversity are mentioned, but do not appear to be a significant objective.
SFS-16-2015: Tackling malnutrition in the elderly	0%	
SFS-17-2014: Innovative solutions for sustainable novel food processing	0%	
<i>Global drivers of food security</i>		
SFS-18-2015: Small farms but global markets: the role of small and family farms in food and nutrition security	0%	The main focus is the contribution of family farms and in particular smallholder farms to food and nutrition security; biodiversity is not mentioned as an objective although it is noted that small farms can maintain more diverse mixed production systems.
SFS-19-2014: Sustainable food and nutrition security through evidence based EU agro-food policies	0%	
SFS-20-2015: Sustainable food chains through public policies: the cases of the EU quality policy and of public sector food procurement	0%	
Call for Blue Growth: Unlocking the potential of Seas and Oceans		
<i>Sustainably exploiting the diversity of marine life</i>		
BG-1-2015: Improving the preservation and sustainable exploitation of Atlantic marine ecosystems	100%	The entire focus of the topic is on marine ecosystems, though as well as conservation, the project aims to promote the sustainable exploitation of these ecosystems for production purposes.
BG-2-2015: Forecasting and anticipating effects of climate change on fisheries and aquaculture	40%	
BG-3-2014: Novel marine derived biomolecules and industrial biomaterials	40%	
BG-4-2014: Enhancing the industrial exploitation potential of marine-derived enzymes	0%	
<i>New offshore challenges</i>		

BG-5-2014: Preparing for the future innovative offshore economy	0%	
BG-6-2014: Delivering the sub-sea technologies for new services at sea	0%	
BG-7-2015: Response capacities to oil spills and marine pollutions	40%	
<i>Ocean observation technologies/systems</i>		
BG-8-2014: Developing in-situ Atlantic Ocean Observations for a better management and sustainable exploitation of the maritime resources	40%	
BG-9-2014: Acoustic and imaging technologies	40%	
<i>Horizontal aspects, socio-economic sciences, innovation, engagement with society and ocean governance across the blue growth focus area</i>		
BG-10-2014: Consolidating the economic sustainability and competitiveness of European fisheries and aquaculture sectors to reap the potential of seafood markets	0%	The Work Programme recognises the link to biological sustainability and proposals are invited to promote responsible practices (labels, certification schemes etc.) However, the main focus is economic, and on a limited number of commercial species.
BG-11-2014: Monitoring, dissemination and uptake of marine and maritime research	0%	The main focus is on the Blue Growth agenda and support to the implementation of the Marine Strategy Framework Directive and revised Common Fisheries Policy. Applying the 0 per cent marker is conservative - although there is no explicit mention of biodiversity objectives, the topic should contribute to relevant policies and mentions the environment, food and biotechnologies sectors, and contribution to the Competence Centre for Good Environmental Status.
BG-12-2014/2015: Supporting SMEs efforts for the development - deployment and market replication of innovative solutions for blue growth	0%	
BG-13-2014 Ocean literacy – Engaging with society – Social Innovation	40%	
BG-14-2014: Supporting international cooperation initiatives: Atlantic Ocean Cooperation Research Alliance	40%	
BG-15-2014: European polar research cooperation	40%	
BG-16-2015: Coordination action in support of the implementation of the Joint Programming Initiative on 'Healthy and Productive Seas and Oceans'	0%	This topic aims to streamline effective trans-national research networking and synergies related to healthy and productive seas and oceans, progress towards the creation of a European Research Area in marine research, integration and alignment in sharing, use and funding of research

		infrastructure between Member States and enhanced cooperation in data collection, and contribute to the implementation of key marine and maritime policies. Applying the 0 per cent marker is appropriate since biodiversity is not explicitly mentioned, but conservative since biodiversity is a key component of healthy and productive seas and oceans.
Call for an Innovative, Sustainable and Inclusive Bioeconomy		
<i>Sustainable Agriculture and Forestry</i>		
ISIB-1-2014: Provision of public goods by EU agriculture and forestry: Putting the concept into practice	40%	The topic does not explicitly mention biodiversity but refers to the delivery of ecosystem services and other public goods. Not all public goods delivered by agriculture and forestry are related to biodiversity (e.g. social and cultural public goods).
ISIB-2-2014/2015: Closing the research and innovation divide: the crucial role of innovation support services and knowledge exchange	0%	
ISIB-3-2015: Unlocking the growth potential of rural areas through enhanced governance and social innovation	0%	
ISIB-4-2014/2015: Improved data and management models for sustainable forestry	40%	
<i>Sustainable and competitive bio-based industries</i>		
ISIB-5-2014: Renewable oil crops as a source of bio-based products	40%	
ISIB-6-2015: Converting CO2 into chemicals	0%	
ISIB-7-2014: Public procurement networks on innovative bio-based products	0%	
<i>Cross-cutting actions covering all activities</i>		
ISIB-8-2014: Towards an innovative and responsible bioeconomy	0%	
ISIB-9-2014: Supporting National Contact Points for Horizon 2020 Societal Challenge 2 on 'Food Security, Sustainable Agriculture, Marine and Maritime Research and the Bioeconomy' and the Key Enabling Technology (KET) 'Biotechnology'	0%	
ISIB-10-2014: Networking of Bioeconomy relevant ERA-NETs	0%	
ISIB-11-2014: Coordination action in support of the implementation by participating States of a Joint Programming Initiative on Agriculture, Food Security and Climate Change	0%	

ISIB-12-2014/2015: Public-Public Partnerships in the bioeconomy	0%	
Fast Track to Innovation – Pilot		
Other actions (not subject to calls for proposals)		
1. External expertise	In proportion to above	
2. Group of independent experts for policy relevant analyses and forward looking reflection on Bioeconomy related research		
3. Inducement prize for an Innovative, Sustainable and Inclusive Bioeconomy		

Source: Analysis undertaken separately by ICF, and by DG Research and Innovation.

Table 15: Guidance on marking the topics in the Work Programme ‘Climate action, environment, resource efficiency and raw materials’

Measure	Suggested Marker	Notes
Call – Waste: A Resource to Recycle, Reuse and Recover Raw Materials		
WASTE-1-2014: Moving towards a circular economy through industrial symbiosis	0%	
WASTE-2-2014: A systems approach for the reduction, recycling and reuse of food waste	0%	
WASTE-3-2014: Recycling of raw materials from products and buildings	0%	
WASTE-4-2014/2015: Towards near-zero waste at European and global level	0%	
WASTE-5-2014: Preparing and promoting innovation procurement for resource efficiency	0%	
WASTE-6-2015: Promoting eco-innovative waste management and prevention as part of sustainable urban development	0%	There is only brief mention of ecosystem services and soil ecology, and it is debateable whether these would form a significant element.
WASTE-7-2015: Ensuring sustainable use of agricultural waste, co-products and by-products	0%	
Call – Water Innovation: Boosting its value for Europe		
WATER-1-2014/2015: Bridging the gap: from innovative water solutions to market replication	40%	
WATER-2-2014/2015: Integrated approaches to water and climate	40%	

change		
WATER-3-2014/2015: Stepping up EU research and innovation cooperation in the water area	0%	There is no specific mention of biodiversity/ ecosystems, although the project aims to promote sustainable water management.
WATER-4-2014/2015: Harnessing EU water research and innovation results for industry, agriculture, policy makers and citizens	0%	There is mention of sustainability, but not biodiversity or ecosystems specifically.
WATER-5-2014/2015: Strengthening international R&I cooperation in the field of water	40%	
Call – Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials		
FIGHTING AND ADAPTING TO CLIMATE CHANGE		
SC5-1-2014: Advanced Earth-system models	0%	The 0 per cent marker is conservative since the topic includes, among other things, impacts on ecosystems. However, ecosystem impacts only are briefly mentioned and not prominent, and the topic focuses primarily on climate modelling.
SC5-2-2015: ERA for Climate Services	0%	
SC5-3-2014: The economics of climate change and linkages with sustainable development	0%	
SC5-4-2015: Improving the air quality and reducing the carbon footprint of European cities	0%	
SC5-5-2014/2015: Coordinating and supporting research and innovation for climate action	0%	
PROTECTING THE ENVIRONMENT, SUSTAINABLY MANAGING NATURAL RESOURCES, WATER, BIODIVERSITY AND ECOSYSTEMS		
SC5-6-2014: Biodiversity and ecosystem services: drivers of change and causalities	100%	
SC5-7-2015: More effective ecosystem restoration in the EU	100%	
SC5-8-2014: Preparing and promoting innovation procurement for soil decontamination	0%	There is no specific mention of biodiversity/ ecosystems. Applying the 0% marker is conservative as the topic should have some benefits for soil ecosystems and biodiversity of soil (micro-) organisms, though these are not mentioned in the text in the Work Programme and it could be questioned whether they are a significant objective.
SC5-9-2014: Consolidating the European Research Area on biodiversity and ecosystem services	100%	

SC5-10-2014/2015: Coordinating and supporting research and innovation for the management of natural resources	100%	The overall title of the topic refers to sustainable natural resource management, and not just biodiversity/ ecosystems. However, the dominance of biodiversity and ecosystem services suggests a strong case for applying a 100 per cent marker.
ENSURING THE SUSTAINABLE SUPPLY OF NON-ENERGY AND NON-AGRICULTURAL RAW MATERIALS		
SC5-11-2014/2015: New solutions for sustainable production of raw materials	0%	
SC5-12-2014/2015: Innovative and sustainable solutions leading to substitution of raw materials	0%	
SC5-13-2014/2015: Coordinating and supporting raw materials research and innovation	0%	
ENABLING THE TRANSITION TOWARDS A GREEN ECONOMY AND SOCIETY THROUGH ECO-INNOVATION		
SC5-14-2014: Consolidating global knowledge on the green economy in support of sustainable development objectives in the EU and internationally	0%	
DEVELOPING COMPREHENSIVE AND SUSTAINED GLOBAL ENVIRONMENTAL OBSERVATION AND INFORMATION SYSTEMS		
SC5-15-2015: Strengthening the European Research Area in the domain of Earth Observation	0%	The topic includes observation related to ecosystems. However, this does not appear to be a significant objective. There is no specific mention of biodiversity.
SC5-16-2014: Making Earth Observation and Monitoring Data usable for ecosystem modelling and services	100%	There is a primary and specific focus on biodiversity and ecosystems.
SC5-17-2015: Demonstrating the concept of 'Citizen Observatories'	0%	There is no specific mention of biodiversity, and this does not appear to be a significant objective, although reference is made to 'environmental monitoring, co-operative planning and environmental stewardship, with special impact on land resources management'.
SC5-18-2014/2015: Coordinating and supporting Earth Observation research and innovation in the EU, and in the North African, Middle East, and Balkan region	0%	The topic includes ecosystem related activities, though there is no specific mention of biodiversity or ecosystems.
CROSS-CHALLENGE TOPICS		
SC5-19-2014/2015: Coordinating and supporting research and innovation in the area of climate action, environment, resource efficiency and raw materials	40%	
SC5-20-2014/2015: Boosting the potential of small businesses for eco-innovation and a sustainable supply of raw materials	0%	This topic is targeted at all types of eco-innovative SMEs in all areas addressing the climate action, environment, resource efficiency and raw materials

		challenge, and will potentially support SMEs active in biodiversity and ecosystem related actions. However, ecosystems and biodiversity are not mentioned explicitly in the text.
Other Actions		
Interim evaluation of the Joint Baltic Sea research and development programme (BONUS)	0%	
Policy relevant analyses and forward looking reflection	40% (2014) and 0% (2015)	The 2014 Work Programme includes a range of topics related to biodiversity and ecosystems

The analysis found that in a number of examples a case could be made for applying either the lower or higher marker, and that the choice of markers is therefore not always clear-cut. Areas in which there are challenges in applying the markers include cases where:

- **Expenditures mention environmental objectives, which may be relevant for biodiversity, but where biodiversity is not explicitly mentioned as an objective** (e.g. sustainable intensification, resource efficiency, eco-innovation, soil decontamination). In these cases a case could be made for applying either a 0 per cent or 40 per cent marker, depending on the prominence of biodiversity concerns among environmental objectives. However, a conservative approach would be to apply the 0 per cent marker where biodiversity is not stated as a significant objective;
- **Expenditures have a strong biodiversity focus but other objectives are emphasized** (e.g. management of genetic resources for production and food security; sustainable management and exploitation of marine ecosystems; management of land and natural resources). Application of the markers can be tricky in these cases; analysis needs to focus on whether action relates to biodiversity and ecosystems (rather than selected commercial species or resources), and whether it contributes to conservation and sustainable use (and not merely exploitation);
- **Expenditures cover actions** (e.g. marine research, Earth monitoring) **or aim to inform policies** (e.g. MSFD, CFP) **which have important biodiversity elements, but for which biodiversity is not explicitly mentioned.** Here it is proposed that actions that will support policies and agendas with prominent biodiversity objectives are considered to be biodiversity related; these actions can be regarded as biodiversity related if they are expected to have significant biodiversity benefits, even if a specific biodiversity objective is not stated. However, the significance of biodiversity related to other objectives may often be a matter for debate.

5.4.3 Stage 3: Project Level Analysis

An example of how project level analysis could be applied to the more cross cutting parts of the budget (for which expenditures are not identified thematically) is provided as follows for the Marie Curie Actions from the 2007 to 2013 budgeting period.

Examples of Biodiversity Marking of Projects under FP7 People (Marie Curie Actions), 2007-2013

Projects that could be coded and reported as 100 per cent

Name of the project
EURO-ARCTIC LAB - The European Union and the Legal Protection of Marine Biodiversity in the Arctic
LINKTOFUN - Linking tree and belowground biodiversity to forest Ecosystem function
BIO-LCA - Bio-LCA: Introducing biodiversity in Life Cycle Assessment (LCA)

Projects that could be coded and reported as 40 per cent

Name of the project
TRA_MED - patterns of pastoral migrations in the Mediterranean region
DIOMFISH - Design and Implementation of Optimal Management Systems for European Fisheries
BADEPAS- Behavior and distribution of emerging pollutants in aquatic systems

Projects that could be coded and reported as 0 per cent

Name of the project
ENERMIN - Energy-use minimization in residuals management in the personal care product industry
WASTE2BIOHY - Sustainable hydrogen production from waste via two-stage bioconversion process: an eco-biotechnological approach
TRANSOLAR - Assessing the conditions for a region-wide TRANSition to SOLAR energy in the Mediterranean

5.5 Conclusions

- A robust, three staged approach to tracking biodiversity expenditures under Horizon 2020 has been developed by DG R&I.
- The main scope for refinement in biodiversity tracking relates to the practical application of this approach, and to the application of agreed definitions in marking individual expenditures. This has the potential to affect the overall estimates of expenditures, and the consistency of tracking across the EU budget.
- Guidance on the marking of expenditures in Annual Work Programmes is provided above. This is based on the reconciliation of markers proposed in independent analyses by DG R&I and the study team. These analyses revealed some differences in the initial choice of markers for some topics, which were then reconciled through discussion. The analyses identified some areas which present particular challenges for tracking, and suggested that estimates can be influenced by individual judgement, but that discussion of areas of uncertainty and the application of common definitions and approaches enables agreement on the choice of markers.
- For the financial instruments, tracking of biodiversity related expenditures will only be possible ex-post. This will require financial partners, fund managers and financial intermediaries to report on the share of EU finance that is used to support biodiversity

related investments (such as on green infrastructure, biodiversity offsetting and pro-biodiversity businesses).

- For grant expenditures, *ex post* tracking of actual expenditures (rather than decisions) may offer some limited scope to refine the expenditure estimates, if undertaken at the project stage to record actual rather than planned expenditures. However, this would require additional administrative effort and new reporting approaches, and it is considered that this would make only a small difference to the expenditure estimates over time.

6 The Copernicus Programme

Prepared by IEEP

6.1 Introduction to the 2014-2020 Copernicus Programme

6.1.1 General objectives relevant for biodiversity

The European Union Earth observation and monitoring programme, the so-called Copernicus Programme¹¹⁵, stipulates **five general objectives** in the adopted Copernicus Regulation¹¹⁶ (Article 4), of which the following are relevant for biodiversity:

- Monitoring the Earth to support the protection of the environment and the efforts of civil protection and civil security;
- Maximising socio-economic benefits, thereby supporting the Europe 2020 Strategy and its objectives of smart, sustainable and inclusive growth by promoting the use of Earth observation in applications and services; and
- Ensuring autonomous access to environmental knowledge and key technologies for Earth observation and geo-information services, thereby enabling Europe to achieve independent decision-making and action.

6.1.2 Specific objectives relevant for biodiversity

Article 4 of the Copernicus Regulation lists **three specific objectives**, of which only one can be considered directly relevant for biodiversity: delivering accurate and reliable data and information to Copernicus users, supplied on a long-term and sustainable basis to enable the Copernicus atmosphere monitoring, marine environment monitoring, land monitoring, climate change, emergency management and security services, and responding to the requirements of Copernicus core users. In addition, in some cases the other two specific objectives on providing sustainable and reliable access to in situ data and spaceborne data can be considered indirectly relevant for biodiversity, as the Copernicus services mentioned above rely on such data.

6.1.3 Measures and expenditure types relevant for biodiversity (direct and indirect)

The Copernicus Programme consists of **three components**: a service component, a space component and an in situ component. The **service component**, which is considered to be the most relevant for biodiversity, includes the following six services (Article 5):

- The atmosphere monitoring service;
- The marine environment monitoring service;
- The land monitoring service;
- The climate change service;

¹¹⁵ The Copernicus Programme is the continuation of the European Earth Monitoring Programme (GMES) established by Regulation (EU) No 911/2010.

¹¹⁶ Regulation (EU) No 377/2014 of the European Parliament and of the Council of 3 April 2014 on establishing the Copernicus Programme and repealing Regulation (EU) No 911/2010, Official Journal of the European Union, L 122 44-66, 24.2.2014. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0377&qid=1399391767946&from=HU>

- The emergency management service; and
- The security service.

The land monitoring, emergency management and security services are already in their operational phase, while the marine environment monitoring, atmosphere monitoring and climate change services are still in a pre-operational mode and are expected to reach their full operational mode in later stages of the programming period.

Three of these six services – the marine environment monitoring, land monitoring and climate change services – cover actions with relevance to biodiversity.

The **land monitoring service** provides information on land use and land cover, cryosphere, climate change and biogeophysical variables, including their dynamics, in support of the global-to-local environmental monitoring of biodiversity, soil, inland and coastal waters, forests and vegetation, and natural resources, as well as general implementation of environment, agriculture, development, energy, urban planning, infrastructure and transport policies (Article 5).

The **marine environment monitoring service** provides information on the state and dynamics of physical ocean and marine ecosystems for the global ocean and European regional marine areas, in support of marine safety, contribution to monitoring of waste flows, marine environmental, coastal and polar regions, and of marine resources, as well as meteorological forecasting and climate monitoring (Article 5).

The **climate change service** will provide information to increase the knowledge base to support adaptation and mitigation policies. In particular, it will contribute to the provision of Essential Climate Variables, climate analyses, projections and indicators at temporal and spatial scales relevant to adaptation and mitigation strategies for the European Union's various sectoral and societal benefit areas (Article 5).

The Copernicus services use the data provided by the space component (i.e. Earth satellites) and the in situ component (i.e. sensors such as ground stations, airborne and seaborne sensors). These data are then processed under the services via specific projects¹¹⁷ and reliable and up-to-date information is finally provided to the users of Copernicus services, who are mainly policy makers and public authorities.¹¹⁸ Projects which aim to enhance the user uptake of the data provided also exist and are managed by Directorate General for Enterprise and Industry (DG ENTR).

As the **in situ component** provides access to in situ data serving primarily the Copernicus services mentioned above, some indirect relevance to biodiversity can be expected. The in situ component includes the following activities: (i) provision of in situ data to the operational services; (ii) coordination and harmonisation of the collection and provision of in situ data; (iii) technical assistance to the Commission on the service requirements for in situ observation data; (iv) cooperation with in situ operators; and (v) identification of gaps in the in situ observations (Article 7).

Furthermore, as the **space component** also provides spaceborne observations serving the above listed services, it can be also considered indirectly relevant for biodiversity when information is provided for instance for the land monitoring service.

¹¹⁷ These projects deliver the so-called products of the Copernicus Programme.

¹¹⁸ Copernicus website: <http://www.copernicus.eu/> [Accessed: 26/06/2014]

6.1.4 Mode of management

The **overall budget** of the Copernicus Programme for 2014-2020 is **€4,291.48 million** in current prices, of which €897.415 million is allocated to the service and in situ components and €3,394.065 million to the space component (Article 8).

Even though the Copernicus Programme is **centrally managed** at EU level by the European Commission, the Commission can entrust the service implementation tasks to the following entities (Article 11):

- The European Environment Agency (EEA)¹¹⁹;
- The European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union (FRONTEX);
- The European Maritime Safety Agency (EMSA);
- The European Union Satellite Centre (SATCEN);
- The European Centre for Medium Range Weather Forecasts (ECMWF); and
- Other relevant European agencies, groupings or consortia of national bodies.

In addition, the Commission can conclude a delegation agreement with the European Space Agency (ESA) to entrust it with the management of the space component (Article 10).

Articles 14 to 22 cover general provisions applicable to **public procurement**, indicating that public procurement of the entities entrusted with the implementation of Copernicus should be compatible with European Union rules or equivalent standards.

Annual Work Programmes (AWP) are drawn up by the European Commission, and should include an implementation plan which describes the actions needed to implement Copernicus, taking into account evolving user needs and technological developments (Article 12). The **2014 Work Programme**¹²⁰ was published on 5 June 2014, accompanied by an Annex¹²¹ which provides detailed information and an indicative breakdown of the different components and activities under them.

6.1.5 Reporting

No later than 31 December 2017 and after consultation with relevant stakeholders, the Commission will submit an **evaluation report** of the Copernicus Programme, which will include information *inter alia* on the achievement of the objectives of all the tasks financed by Copernicus at the level of their results, impacts and European added value, and on the efficiency of the use of resources. The evaluation will address the continued relevance of all objectives, as well as the contribution of the measures to the objectives, the performance of the organisational structure and the scope of services deployed (Article 32).

¹¹⁹ According to personal communication with DG ENTR a delegation agreement was concluded with the EEA for the land monitoring service and the in situ component.

¹²⁰ EC (2014) Commission Implementing Decision of 5 June 2014 on the adoption of the 2014 Work Programme and the financing of the implementation of the Copernicus Programme, C(2014) 3583, Brussels, 5.6.2014

¹²¹ EC (2014)Annex to the Commission Implementing Decision on the adoption of the 2014 Work Programme and the financing of the implementation of the Copernicus Programme, C(2014) 3583, Brussels, 5.6.2014

6.2 Stock-taking of the currently emerging/agreed tracking approach by the Commission

The tracking approach taken in the 2015 Programme Statement (see section below) provides some initial implications on the methodology for biodiversity-related expenditure tracking under Copernicus. Nevertheless no publicly available DG ENTR documents provide further explanation of the envisioned biodiversity-tracking approach under the Copernicus Programme.

6.2.1 Biodiversity expenditure tracking in the Programme Statements

The biodiversity tracking figures of the **2014 EU Draft Budget** under different funding instruments were indicated in Annex V of the Statement of Estimates.¹²² There were no figures indicated for the Copernicus Programme in this Annex. Nevertheless, it was emphasised in the 2014 Draft Budget that the biodiversity tracking exercise was done while inter-institutional negotiations were still ongoing and only instruments that are likely to have the biggest impact on biodiversity were listed. The delayed agreement on Copernicus potentially led to the non-inclusion of the Programme in the Annex V table.

Nevertheless, the recently published **2015 Programme Statements**¹²³ showed that in 2015 the Copernicus Programme is expected to deliver biodiversity benefits amounting to €5.7 million through the land monitoring service. The document also notes that this amount corresponds to 30 per cent of the land monitoring service budget line, which means that a co-efficient was used to determine the land component's contribution to financing biodiversity. For instance, if only 30 per cent of the project expenditure targets biodiversity, a 40 per cent marker will be applied to this 30 per cent of expenditure. As project level information is not yet available at this stage of the programming period it is assumed that the tracking exercise was based on past project examples.¹²⁴

6.3 Study team's proposal for an improved tracking approach

6.3.1 Most appropriate level of tracking

We propose a staged approach to the tracking of biodiversity-related expenditure under the Copernicus Programme. The two levels reflect the information available throughout the 2014-2020 programming period:

1. At the level of **Annual Work Programmes** (marking of actions under the components of the Copernicus Programme); and
2. At the level of **projects** (marking of actual projects).

The **first stage** of the proposed tracking methodology is at the level of the **Annual Work Programmes (AWP)**. As allocations are established for specific activities under the different components and services, it is proposed that tracking be carried at the level of these activities. The marking exercise presented below builds on the details indicated in the Annex of the 2014 Work Programme.

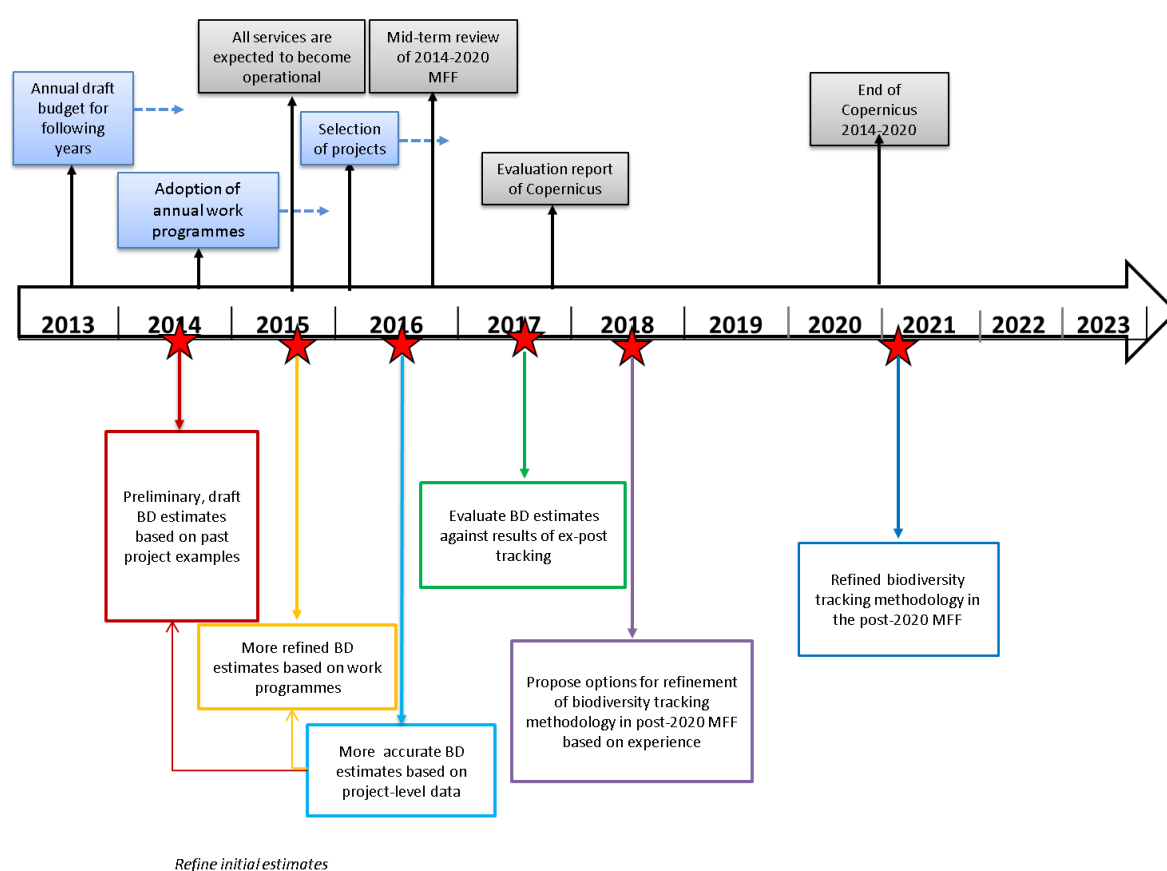
¹²² European Commission (2013) Statements of estimates of the European Commission for the financial year 2014, Annex V – Climate Tracking and biodiversity, http://ec.europa.eu/budget/library/biblio/documents/2014/DB2014_WD_0_en.pdf

¹²³ European Commission (2014) Draft General Budget of the European Commission for the financial year 2015, Programme statements of operational expenditure, COM(2014) 300, June 2014

¹²⁴ Personal communication with DG ENTR

The **second stage** of the proposed tracking methodology is at the level of individual projects. As the service component is considered to be the most directly relevant for biodiversity, project level tracking is only applied to this component of the Copernicus Programme. Tracking at the level of projects provides the most precise information about biodiversity-related expenditure and is the core element of the proposed tracking methodology. However, project level information is only available at later stages of the implementation of the Copernicus Programme, which means that tracking at this level can only be applied as of 2016 in the case of already operational services and even later for services which are still in a pre-operational mode. The proposed approach provides an illustrative marking of biodiversity expenditure to project examples from the previous Copernicus programming period¹²⁵.

Figure 6.1: Summary of the timeline of the Copernicus Programme indicating entry points of the proposed staged approach of biodiversity expenditure tracking methodology.¹²⁶



Source: Own compilation

6.3.2 Recommendations to refine biodiversity tracking over time

- **Practical application of the proposed tracking approaches**

¹²⁵ The acronym of the previous European Earth Monitoring Programme (2007-2013) was GMES.

¹²⁶ Information indicated in the figure is based on the adopted Regulation, the 2014 Work Programme and assumptions made by the study team.

The study team suggests that the tracking at the level of the AWP should be carried out by DG ENTR. However, the practical application of the second level tracking methodology is not as straight forward and thus further recommendations are provided below.

As the different components of the Copernicus Programme are managed by the entrusted entities and the projects are selected via public procurement procedures the tracking of these projects can be challenging. One option could be to build into the public procurement procedure a requirement to provide information on the biodiversity relevance of the projects.

On the contrary, for those projects which are managed by DG ENTR, e.g. projects aiming to enhance user uptake, a tick-box exercise similar to the one proposed under the LIFE Programme could be applied (see Section 4.2). This could be done by including an option to indicate in the project application forms whether the project could be considered to be biodiversity-related.

- ***Proposal for an ex-post tracking system***

Although the study team's proposed tracking methodology is applied **ex-ante** at all levels and therefore has limitations in terms of its accuracy, there is scope for improvement if the tracking of biodiversity expenditure is also undertaken on an **ex-post** basis, i.e. at the level of actual payments. Even though the development of an ex-post tracking system is not in the scope of this study, at later stages when more information is available on actual payments the ex-ante marking at project level could be verified, especially if indicators are linked to this process. Thus, an ex-post tracking system would provide more detailed information if it is incorporated in the relevant reporting processes.

6.4 Classifying expenditure according to the 100, 40 and 0 per cent markers

This section applies the 0, 40 and 100 per cent markers at the level of the Annual Work Programmes and projects, providing justification for the use of different markers. It is important to note that classification at broader levels, i.e. at the level of the AWP, can be challenging as these in some cases remain fairly broad. Consequently, markers should be applied conservatively and may need adjustment at a later stage once further information at the project level is available that would allow more precise classification.

6.4.1 *Classifying expenditure at the level of the Annual Work Programmes based on activities under the different components*

The table below applies 0, 40 and 100 per cent markers at the level of AWP based on the 2014 Work Programme. This Work Programme provides budget allocations for the different components and activities under them. The tracking approach presented below applies markers to these activities, with justifications based on the information provided in the Annex of the 2014 Work Programme.

At this stage the **land monitoring service** is considered to be the most relevant for biodiversity (see 2015 Programme Statement) and as it is already in its operational phase there is detailed information available for the different activities under it. The **marine environment monitoring service** and the **climate change service** might also provide some biodiversity benefits in the future (see the project examples below); however, as they are still in their pre-operational phase the current level of detail is not sufficient and thus a conservative approach is applied (i.e. 0 per cent marker is applied).

Although the **space component**, particularly the Access to Data from Copernicus Contributing Missions (CCM) activity which also links to the Data Warehouse (DWH), provides essential information which is then used by the Copernicus services, the actions listed in the 2014 Work Programme have a very broad and technical nature and thus cannot be linked to biodiversity. A 0 per cent marker is therefore applied for all activities and the second level tracking at project level is only carried out for the service component. Nevertheless, there might be a need to somehow recognise the limited contribution of the space component and in addition the **in situ component** to the land monitoring service and their indirect relevance to biodiversity.

Table 16: Classifying expenditure at the level of the Annual Work Programmes

Activities identified in the 2014 Work Programme	Marker (0, 40 or 100%)	Justification
SERVICE COMPONENT		
Emergency management service		
Mapping	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on supporting users in the field of crisis management.
Early Warning Systems - Floods	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on flood forecast activities for European rivers.
Land monitoring service		
Pan-EU Land Cover	0%	The main focus of this activity is on High Resolution Layers (HRLs) on thematic characteristics of land cover. Even though one component of the activity covers green infrastructures, at this stage a conservative approach is applied which can be revised at a later stage when more detailed information is available. Another option is to revise the marker at ex-post level when the actual results of the activity are known.
European Local Land Cover	100%	The main aim of this activity is to provide detailed information on specific areas of interest based on high resolution images. Objectives include: a) extending the local component on riparian zones to a full pan-European and full river hierarchy coverage of river-systems, for the purposes of biodiversity monitoring, b) the setup of a service to monitor the evolution in Natura2000 sites and the threats to sites due to changes in land cover/land use (LC/LU) practices in the fringe of Natura2000 sites, c) the extension of the Urban Atlas 2012 to the full coverage of the 39 Member States of the European Environment Agency (EEA-39), and d) the preparation of a service to monitor the evolution of man-made activities reflected in changing LC/LU patterns in coastal zones, in the framework of integrated coastal zone management. As all components are considered to be relevant for biodiversity a 100 per cent marker is suggested.

Global Land Cover	40%	The main aim of this activity is to provide information of biogeophysical terrestrial parameters which could inform EU policies, including biodiversity conservation. As biodiversity monitoring is only one component of the objectives the 40 per cent marker is applied.
Global Land Hot Spot Monitoring	100%	As the main aim is biodiversity monitoring of hot spot biodiversity areas the 100 per cent marker is applied.
Reference Data Access	0%	Even though the focus is on the production of reference data in particular for the land monitoring, emergency management, security and other services dealing with terrestrial information and thus there could be a link to biodiversity through the land monitoring service, the link to biodiversity conservation is very weak and thus the 0 per cent marker is applied.
Marine environment monitoring service		
Ramp-up and initial operations	0%	As the marine environmental monitoring service is not yet operational this activity aims to help the preparation process to bring this service into an operational mode. At this stage no explicit relevance to biodiversity or ecosystem services is foreseen.
Atmosphere monitoring service		
Ramp-up and initial operations	0%	No explicit relevance to biodiversity or ecosystem services as the focus of the service when it becomes operational will be on air quality.
Security service		
Border Surveillance	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on border surveillance.
Maritime Surveillance	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on maritime surveillance.
Climate Change service		
Stage 0	0%	As the climate change service is not yet operational this activity aims to help the preparation process to bring this service into an operational mode. At this stage no explicit relevance to biodiversity or ecosystem services is foreseen.
CROSS-CUTTING AND GENERAL IMPLEMENTATION MODALITIES		
Cross-cutting activities	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on communication activities, user uptake, coordination of in situ data and security framework.
SPACE COMPONENT		
Construction	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on space component construction.
Operations	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on the operations of the space component and ground segment.
Data dissemination phase	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on the dissemination of the core data of the Sentinel satellite.

Access to Data from Copernicus Contributing Missions (CCM)	0%	This activity aims to give access to the collected spaceborne information. Even though this activity might provide information for the land service and through this for biodiversity monitoring, the link to biodiversity conservation is very weak and thus the 0 per cent marker is applied.
User Requirements	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on support to identify the user requirements.
Contribution to the Space Surveillance and Tracking (SST) Programme	0%	No explicit relevance to biodiversity or ecosystem services as the focus is on the protection of satellites against the risk of collision.

6.4.2 *Classifying expenditure at the level of projects based on project examples from the previous programming period*

Table 6.17 below applies 0, 40 and 100 per cent markers at the level of individual projects under the service component. As project level information will only be available at later stages of Copernicus, the proposed approach builds on project examples from the previous programming period. The tracking presented below used the online project database of Copernicus projects¹²⁷ which provides a summary of the project objectives and expected results. The advantage of applying markers at such a detailed level is that the tracking can be extremely precise based on the stated objectives and intended impacts of the supported projects.

It is important to note that in the previous programming periods of the Copernicus Programme many projects were supported by the European 6th and 7th Framework Programmes for research and development. As all services are expected to reach their operational mode under the current Programme it is foreseen that most projects will be funded by the Copernicus Programme itself and the role of Horizon 2020 will be less prominent.

Through the application of the three markers this section also provides an **illustrative list of typical project examples** to be coded and reported as 0, 40 and 100 per cent. In general, some of the **marine environment monitoring service, the land monitoring service and the climate change service projects** are considered to deliver benefits for ecosystems, i.e. some projects are marked as 40 per cent or even 100 per cent. Furthermore, in some cases it is suggested that at ex-ante level a conservative approach should be used and that markers should be verified and revised if needed at an ex-post level. At that stage indicators could provide useful support for verifying the different markers.

Table 6.17: Classifying expenditure at the level of projects

Project example from previous programming period ¹²⁸	Marker (0, 40 or 100%)	Justification
Atmosphere monitoring service		

¹²⁷ See: <http://www.copernicus.eu/pages-principales/projects/project-database/database-of-projects/> [Accessed: 15 June 2014]

¹²⁸ Project examples are taken from the online Copernicus project database. See: <http://www.copernicus.eu/pages-principales/projects/project-database/database-of-projects/> [Accessed: 09/05/2014]

Integrated Computational Assessment of Urban Air Quality Via Remote Observation Systems Network	0%	The project focuses on developing an interactive system which would minimise the uncertainty behind the problem of air pollution. As no significant biodiversity or ecosystem services relevance is foreseen the 0 per cent marker is applied.
Air Quality Monitoring and Forecasting in China	0%	The project's main aim is to develop an integrated information system for monitoring and forecasting tropospheric pollutants over China. As no significant biodiversity or ecosystem services relevance is foreseen the 0 per cent marker is applied.
Promote Air Quality Services integrating Observations – Development Of Basic Localised Information for Europe	0%	The focus of this project is to provide information on local air quality to the public. As no significant biodiversity or ecosystem services relevance is foreseen the 0 per cent marker is applied.
Marine environment monitoring service		
Knowledge-based Sustainable Management for Europe's Seas	40%	The project aims to provide guidance for application of the ecosystem-based approach to the sustainable development of European seas. As ecosystems are specifically targeted but biodiversity conservation is not a specific objective under the project a 40 per cent marker is applied.
A European initiative for sustainable coastal erosion management	40%	The project's main aim is to sustainably manage coastal erosion. As there is a focus on ecological sustainability and the project clearly indicates that biodiversity and landscape conservation is part of the actions, a 40 per cent marker is applied.
Mapping Illicit Discharges from Vessels	40%	The project aims to systematically map oil spills which are considered to cause catastrophic ecological damage. As no specific objectives are established for biodiversity conservation but the project clearly has a significant impact on ecosystems a 40 per cent marker is applied.
Real-time Ocean Services for Environment and Security	0%	The project's main aim is to provide a set of services such as monitoring oil spills, water quality and sea level in order to contribute to operational oceanography. As biodiversity is not a specific focus area a conservative use of markers is applied and it is suggested that the marker should be verified and revised if needed at an ex-post stage, where result indicators could be also used.
Land monitoring service		
Conflicting demands of land use, soil biodiversity and the sustainable delivery of ecosystem goods and services in Europe	40%	The project's objective is to understand how economic production drivers can change current and future use of soil-related ecosystem services. The project will value soil ecosystem services with a focus on biofuel and food production and nature conservation, therefore a 40 per cent marker is applied.
Crop Monitoring for Food Security	0%	This project uses meteorological and satellite data to improve food security. No biodiversity relevance is foreseen.

Forest Environmental Monitoring and Management system	40%	Even though the project aims to provide an advanced forest environmental monitoring and management system which examines the environmental status of forests, no specific conservation objectives are formed and thus the 40 per cent marker is applied.
Global Land Surface Albedo	0%	The project focuses on monitoring land surface albedo and thus no biodiversity relevance is foreseen.
Linking pan-European land cover change to pressures on biodiversity	100%	This project focuses on pressure on biodiversity from land cover change, thus a 100 per cent marker is applied.
Climate change service		
Developing Policies & Adaptation Strategies to Climate Change in the Baltic Sea Region	0%	Even though the project assesses the climate change impacts on both natural and man-made systems it does not have any specific reference to biodiversity conservation and thus a conservative use of markers is applied. It is suggested that the marker should be verified and revised if needed at an ex-post stage if results show benefits for biodiversity.
CarboEurope	40%	The focus of the project is on the terrestrial carbon balance of Europe and it examines how carbon sequestration is affected by climate change. As ecosystem services are targeted in the project but no specific conservation objectives are established a 40 per cent marker is applied.
Emergency management service		
Services and Applications for Emergency Response	0%	The focus is on humanitarian crises and thus the project is not considered to be relevant for biodiversity.
An Adaptive Peer-to-Peer Software Infrastructure for Supporting Collaborative Work of Human Operators in Emergency/Disaster Scenarios	0%	The project's main objective is to develop a software and communication infrastructure to support operators during an emergency. The project is not considered to be relevant for biodiversity.
Security service		
Maritime Security Services	0%	The focus of this project is illegal immigration and illegal trafficking by sea and thus no synergies are foreseen with biodiversity conservation.
Thermal Infra-Red Hyper spectral sensing Assistance to clandestine weapon surveillance under Working conditions Linking fixed airborne or space borne systems	0%	The focus of this project is to develop an integrated surveillance system for clandestine weapon development. No synergies are foreseen with biodiversity conservation.

6.5 Conclusions

- The study team proposes a staged approach to biodiversity tracking, firstly **at the level of Annual Work Programmes**, and secondly **at the level of projects**. The presented marking is based on the activities listed in the 2014 Work Programme and project examples are taken from the previous programming period.

- The presented marking exercise and experience from the 2015 Programme Statement revealed that the **land monitoring service** is considered to be most relevant for biodiversity conservation. Previous project examples also showed that some actions under the **marine environment monitoring service** and the **climate change service** can also have some biodiversity objectives.
- The biodiversity relevance of the land monitoring service was also confirmed by the **2015 Programme Statement** of the Copernicus Programme as it indicated that 30 per cent of this service is relevant for biodiversity. It is assumed that this calculation was based on past project examples.
- Finally, the proposed system does not include any **'ex-post' tracking** (at the level of actual payments) and does not establish a link to result indicators. The system is based on financial data which is aggregated ex-ante; however there is scope for improving the system in this respect. The ex-ante application of markers at project level should be used conservatively with the option to verify them later (ex-post) by using result indicators.

7 The Development and Cooperation Instrument (DCI) and the European Neighbourhood Instrument (ENI)

Prepared by ICF

7.1 Introduction to the 2014-2020 Development and Cooperation Instrument and the European Neighbourhood Instrument

Support for development and co-operation plays an important role in financing biodiversity expenditures internationally. Indeed, international experience in tracking international development support for biodiversity has been at the forefront of the development of methodologies for tracking biodiversity expenditures.

The two most important EU Instruments supporting biodiversity expenditures are:

- **The Development and Cooperation Instrument (DCI)**, which aims to contribute to the reduction and, in the long term, the eradication of poverty, while seeking to contribute to the achievement of other objectives, including fostering sustainable economic, social and environmental development.
- **The European Neighbourhood Instrument (ENI)**, which aims to establish an area of prosperity and good neighbourliness involving the European Union and partner countries and territories by developing special relationships.

The **European Development Fund (EDF)** is not part of the Multiannual Financial Framework (MFF) and hence falls outside the scope of the study. However, it still provides a considerable amount of spending on biodiversity in developing countries – the so-called ACP (Africa, Caribbean, Pacific). It should be noted that the proposed definitions, principles and recommendations for future improvement of the biodiversity tracking methodology are relevant to the EDF as well as the other Instruments.

The **Instrument for Greenland** is in theory capable of supporting biodiversity related expenditures, and biodiversity is specified within the areas of co-operation in the partnership between the EU, Greenland and Denmark. However, discussions with DEVCO and reviews of documentary evidence indicate that expenditures focus on education and that no relevant biodiversity expenditures, either past or proposed, can be identified. It is therefore recommended that a 0 per cent marker is applied to this Instrument, unless new evidence becomes available.

This guidance therefore focuses on the DCI and ENI Instruments.

7.1.1 The Development and Cooperation Instrument

During the next MFF (2014 – 2020), the DCI will be structured in the following way:

- Geographic programmes, including regional programmes and bilateral programmes with specific countries (covering cooperation with South, South-East and North Asia; Latin America; Central Asia, the Middle East and a small number of middle-income countries for

which DCI support is being phased out - including Cuba, Colombia, Ecuador, Peru and South Africa).

- Thematic programmes, including:
 - Global public goods and challenges; and
 - Civil society organisations and local authorities.
- The Pan-African programme.

The main category of interest in relation to biodiversity expenditure is the Global Public Goods and Challenges (GPGC) thematic programme, which is further broken down as follows:

- Environment and climate change;
- Sustainable energy;
- Human development;
- Food security and sustainable agriculture; and
- Migration and asylum.

Of the above, the areas of greatest relevance for biodiversity are “environment and climate change” and “food security and sustainable agriculture”. The Regulation specifies that the “Global Public Goods and Challenges” programme should use at least 27 per cent of its funds to cover climate change and the environment.

There are also likely to be some elements of the bilateral and regional geographic programmes that are relevant to biodiversity. For example, the programmes for Latin America; South, South-East and North Asia; and Central Asia all make reference to the need to protect biodiversity and ecosystems and their contribution to sustainable development and livelihoods.

The actions to be financed under DCI will be implemented under direct centralised management by the Commission and/or through the devolved Union Delegations. Joint management may be foreseen, where appropriate, for specific actions with international agencies and organisations.

The geographic and thematic programmes are implemented through a series of Annual Action Programmes which are in turn guided by Country or Thematic Strategy Papers and Multi-Annual Indicative Programmes (MIP).

7.1.2 The European Neighbourhood Instrument

Support under the ENI will promote enhanced political cooperation and progressive economic integration between the Union and the partner countries and, in particular, the implementation of partnership and cooperation agreements, association agreements or other existing and future agreements, and jointly agreed action plans. Support under the ENI is delivered through the following types of programmes:

- Bilateral programmes covering support to one partner country;
- Multi-country programmes; and,
- Cross-Border Cooperation programmes.

The specific objectives for the Instrument mention a number of target areas for support, including *inter alia*, human rights and freedoms, progressive integration into the EU internal market and mobility of people. However, of most direct relevance to biodiversity is the specific objective noted

in Article 2(2)(d), namely to support smart, sustainable and inclusive development in all aspects, which include supporting environmental protection, climate action and disaster resilience.

The actions to be funded will be defined in a series of Multi-annual Programmes. Annex II of the Regulation identifies a list of priorities for support, which include, among other things, agriculture and rural development, and sustainable management of natural resources. There is no specific mention of biodiversity, though it is likely to be covered by these priorities.

The objectives of the ENI will be implemented through different management modes, including centralised direct management by the Commission, centralised indirect management with the delegation of implementation tasks to executive agencies and/or national public sector bodies, shared management with the Member States, decentralised management with third countries, and joint management with international organisations.

7.2 Stock-taking of the currently emerging/agreed approach by the Commission on biodiversity tracking

Directorate General for Development and Cooperation (DG DEVCO) has an established track record in estimating biodiversity related expenditures and makes annual submissions to the OECD DAC using the Rio markers. Since 2009, encoding in CRIS¹²⁹ has been compulsory for every project managed by EuropeAid. The Commission's methodology is set out in a 2010 information note.¹³⁰ This includes definitions of biodiversity expenditures (based on OECD definitions) and gives examples of relevant sectoral activities. DEVCO applies the OECD definitions and reports few difficulties in their practical application. However, some reviews have been undertaken that have resulted in the amendment of markers applied to some decisions.

For overseas aid as a whole, the EU makes annual submissions to both the OECD Development Assistance Committee (DAC) and the CBD, estimating biodiversity related expenditures.

Therefore a tracking system for biodiversity expenditures – which goes down to the project level – is already in operation. Projects are encoded (i.e. Rio marked) in CRIS at the identification stage. This encoding includes the information required for the OECD DAC reporting. The information in the CRIS database, including the Rio markers, is updated during the formulation phase. The encoding is done by the relevant units and delegations and checked by the statistical unit.

The CRIS database allows different levels to be coded using the Rio markers, namely decisions and contracts. Decisions are based on the actions developed in Action Fiches, which can be implemented through either one or several different projects or activities (i.e. contracts). While encoding (i.e. Rio marking) is done at both these levels (i.e. at the decision level and at the contract level), reporting of expenditure is only done at the level of decisions.

In most cases, decisions (i.e. Action Fiches) relate directly to projects. However, some decisions relate to larger programmes of work which can include several components or projects. These are Rio marked 'en masse' which can mean that the accuracy with which the decision's biodiversity relevance is determined can be reduced (e.g. if only some components are somewhat or wholly

¹²⁹ Common Relex Information System, the IT tool used by EuropeAid

¹³⁰ EuropeAid (2010) The Multilateral Environmental Agreements and the Rio Markers. Information Note.

biodiversity relevant). Although the number of cases in which this issue arises is small, the sums that are involved can be quite large.

In previous years, tracking of decisions has enabled estimates of biodiversity expenditures for the previous year to be made in May-July each year. However, the system is being refined to enable more dynamic and interactive monitoring to occur, providing more timely estimates of expenditure.

The OECD DAC publishes annual estimates submitted by the EU and OECD member countries. Latest figures¹³¹ published by the OECD record biodiversity related expenditures by EU Institutions as follows:

- 2010: Principal objective – US\$ 137.2 million; Significant objective – US\$ 582.7 million; Total – US\$719.9 million;
- 2011: Principal objective – US\$62.3 million; Significant objective – US\$ 477.7 million; Total - US\$ 540.0 million.
- 2012: Principal objective – US\$280.6 million; Significant objective – US\$ 621.9 million; Total - US\$ 902.5 million.

It should be noted that the OECD does not apply weightings to these estimates, and that the totals sum expenditures with principle and significant objectives, without applying a weighting to the latter.

DEVCO's established methodology therefore applies the Rio markers at the project level. In the current programming period, a three staged approach to tracking biodiversity related expenditures will be applied:

1. **Annual Programme Statement** - Estimates have been made for the Annual Programme Statement, based on historic expenditures.
2. **Multi-Annual Programming Documents** - DEVCO proposes to estimate relevant expenditures using multiannual programming documents. This should give broad estimates of relevant expenditures which should be more accurate than those in the annual budget but less accurate than those made by tracking decisions at the project level. This makes it possible to estimate likely expenditures *ex ante*, at an earlier stage than by examining individual decisions. Examination of draft programme documents also provides an opportunity to enhance biodiversity related funding by identifying areas of expenditure whose objectives could be refined to enhance biodiversity impacts. Tracking at the programme document level is expected to be for internal purposes only. DEVCO's internal analysis of the geographic Multiannual Indicative Programmes under DCI and ENI has estimated that out of €30,800 million, nearly €2,900 million i.e. 9.38 per cent, might, provided the guidance is taken up properly, potentially contribute to biodiversity, either as principal or significant objective.
3. **Project level tracking**, based on individual decisions.

The DCI Regulation states that the funding allocated shall be subject to an annual tracking system based on the OECD methodology ('Rio markers'), to quantify the expenditure related to climate action and biodiversity at the level of the action programmes, individual and special measures. These data will be recorded within evaluations and biennial reports. Furthermore, an annual

¹³¹http://www.oecd.org/dac/environment-development/Biodiversity-related%20aid%20Flyer%20-%20March%202014_v4.pdf

estimate of the overall spending related to climate action and biodiversity shall be made on the basis of the adopted indicative programming documents.

DG DEVCO recently commissioned a study to review the accuracy of Commission methodology to assess financing of Climate Change, Desertification and Biodiversity (Box 7.1).

Box 7.1: Assessment of the accuracy of Commission methodology to assess financing of Climate Change, Desertification and Biodiversity

A study by IBF International Consulting for the European Commission assessed the accuracy of the tracking of expenditures in two steps:

- The first step assessed the quality and accuracy of application of the OECD DAC Rio marking system by EU institutions (referred to as “**scoring accuracy**”).
- The second step assessed the accuracy of the methodology applied by the Commission to quantify the value of climate, biodiversity and desertification relevant flows, by examining whether the relevant coefficients (0 per cent, 40 per cent, 100 per cent) may be under or over-stated (referred to as “**conversion accuracy**”).

Scoring accuracy was tested through independent scoring of a sample of projects. Ratings were based on project document (Action Fiches) collected through the Commission’s website, and direct access to the Common External Relations Information System (CRIS). Project components were also scored as far as possible. Divergences to the scores applied by EC staff were identified and the reasons for them analysed.

Conversion accuracy was assessed for a smaller sample of projects with detailed costs by component. Each component and, where possible, sub-component was analysed and given a Rio score, and then only the value of those components and sub-components was considered a Rio-relevant expenditures. The actual share of Rio-relevant expenditures over total expenditures was then considered as the correct conversion ratio and compared, on a project-by-project basis, with the one resulting from the methodology currently used by EU Institutions.

With regard to scoring accuracy for biodiversity, the study found only 30 projects in the sample that should be marked as biodiversity significant (40 per cent marker), compared to 59 reported by the EU. It found higher numbers of projects with a principal biodiversity objective (29 compared to 21 projects marked at 100 per cent by EU institutions) and no significant biodiversity objective (349 against 328 projects marked at 0 per cent by EU institutions). In some cases these discrepancies arose because the Action Fiche contained insufficient information to enable the analysts to conclude that projects were biodiversity relevant; in others, there was sufficient information to propose a change of marker. These figures suggest that scoring accuracy can significantly affect estimates of biodiversity-relevant expenditures. The consultants concluded that, in order to achieve greater accuracy in reporting, there is a need to ensure that the appropriate information is included in the Action Fiches, and that guidelines to this effect may be issued and used by staff.

Regarding conversion accuracy, the consultants found that the 40 per cent marker is arbitrary. Through analysis of components, the study showed that the conversion coefficient of 40 per cent seems to be too low, and that a more appropriate value seems to be between 50 and 60 per cent. It also found that the coefficient of 100 per cent is probably too high, and that a more appropriate

value seems to be around 90 per cent. It was found that these differences in coefficients have the effect of counterbalancing each other, but that this is sensitive to the proportion of projects in the sample assigned each marker.

The report suggested that an alternative approach could involve defining a positive list of activities that qualify and whose cost should be included as the only relevant component costs to be fully considered. However, such an approach would require a substantial change in the way EU projects are designed with new mandatory information and calculation, and changes in the IT systems (CRIS) to monitor them adequately. This does not seem doable in the short term.

The consultants recommended that:

- The format of project documents and fiches could be changed to ensure that all relevant information for an accurate estimate of Rio marker scores is included.
- CRIS could include a field for the explanation of each Rio marker score.
- More details of the components of projects could be provided, to enable an assessment based on the cost of components, as well as facilitating greater financial management and transparency. The necessary details are currently reported only for 20 per cent of projects.
- Knowledge could be transferred from DEVCO to other DGs to improve overall Rio marking quality.

Source: IBF International Consulting. Study on accuracy of Commission methodology to assess financing of Climate Change, Desertification and Biodiversity (Rio markers). Final report to the European Commission. September 2014.

7.3 Study team's proposal for an improved tracking approach

The general tracking approach applied by DG DEVCO is sound and well-advanced, and is supported by the research undertaken in this assignment.

The main scope for value added in the current study is therefore:

- To propose consistent definitions of biodiversity relevant expenditures, and the application of the markers, which help to ensure that the tracking of expenditures for development and co-operation assistance is aligned with that for other parts of the EU budget; and
- To test the practical application of the study team's guidance and definitions, in order to inform potential refinements.

The guidance produced by EuropeAid in 2010 provides illustrative examples of relevant expenditures, but provides only more general rules about distinguishing between expenditures which have biodiversity as a "significant" objective (40 per cent marker) and "primary" objective (100 per cent marker).

However, there is inevitably a degree of judgement involved in the marking of individual items of expenditure, such that different analysts may produce different estimates, even when applying common guidance. This is evidenced by the recent research study summarised in Box 7.1 above.

Testing the definition and typology of expenditures developed for the current study, and comparing the results with those of assessments by DG DEVCO, offers potential to identify potential areas of uncertainty and to use the results to inform a consistent and practical approach that can inform the wider approach to tracking across the EU budget.

The illustrations in the next sections are intended to inform the practical application of the agreed approach.

7.3.1 Recommendations how biodiversity-tracking could be refined over time

The existing approach, which takes ex-ante tracking of expenditures to the project (decision) level, should provide accurate estimates of relevant expenditures, providing the markers and definitions are consistently and accurately applied. *Ex post* assessment – involving marking of actual expenditures rather than decisions – may offer some scope for refinement in cases where approved projects were, for some reason, not fully completed. However, it is considered that this would produce only minor changes in expenditure estimates. Such an approach would have to be applied at the project level, applying the markers to relevant projects on completion.

There may be more scope for refinement in testing and improving the application of the markers, and underlying definitions, over time, and re-marking expenditures where necessary to refine the estimates. Such an approach could be undertaken independently across different parts of the EU budget, to ensure that different DGs are applying the markers consistently and using consistent definitions, such that estimates are consistent and comparable across DGs and Instruments.

7.4 Classifying expenditure according to the 100, 40 and 0 per cent markers

7.4.1 The Development and Cooperation Instrument

Application of the markers is complicated by the complexity of the DCI, which comprises a wide range of bilateral and regional co-operation programmes, as well as the new thematic programme ‘Global Public Goods and Challenges’ and the previous sectoral programmes that it succeeds.

- **Stage 1: Annual Programme Statement**

Ex ante assessments of relevant biodiversity expenditures in 2014 and 2015 are made in the 2015 Draft Budget/ Annual Programme Statement. It is estimated that the budget line 21 02 “Poverty reduction and fostering sustainable economic, social and environmental development” will give rise to biodiversity related expenditures of 79.1 million euro in 2014, and 82.9 million euro in 2015. This was based on the biodiversity related commitments tracked for the last 5 years. In view of the current stage of the programming process it was not possible to provide more accurate figures for the DB 2015.

- **Stage 2: Multi-annual Programming Document**

Multi-annual Programming Documents were not, at the time of writing, available for the current programme period. However, an illustration of the possible approach to tracking can be made with

reference to the last period, and a similar analysis could be undertaken for the 2014-2020 programme period as the MIPs become available.¹³²

Table 18: Illustrative example of tracking biodiversity expenditure at the MIP level for the DCI - “Environment and Natural Resources Thematic Programme” 2011-2013

Name of activity	Marker (100, 40 or 0%)	Justification
Priority 1 – Climate Change and Sustainable Energy		
Adaptation and Global Climate Change Alliance	0% or 40%	Activity focuses on climate change, with no specific biodiversity-related objective. However, it could be argued that adaptation measures are likely also to contribute to biodiversity objectives.
REDD	100%	REDD actions contribute equally to biodiversity and climate objectives.
Mitigation and Technology	0%	Activity focuses on climate change, with no specific biodiversity-related objective
Sustainable energy	0%	No specific mention of biodiversity.
Priority 2: Environment for Development		
Biological diversity	100%	Biodiversity is the primary focus of this action.
Forest governance / FLEGT	40%	Sustainable forest management is a key biodiversity objective and is a significant objective of this action.
Green economy	40%	Greening the economy is designed to contribute to biodiversity alongside other environmental objectives.
Priority 3: Strengthening environment and climate governance		
External environmental policy	40%	External environmental policy aims to address biodiversity alongside other environmental objectives.
External climate policy	0%	No specific mention is made of biodiversity objectives
Support mainstreaming	40%	Biodiversity action is a significant – but not the main objective – of mainstreaming activities

- **Stage 3: Project Level**

Illustrative examples of projects funded during the last programme period are provided as follows.

Typical expenditure to be coded and reported as 100 per cent	
Name of the project	
Implementing effective and sustainable biodiversity conservation in Ethiopia’s Afromontane ecosystems. Ethiopia, 2008.	
Support to the Barcelona Convention for the Implementation of the Ecosystem Approach, including the establishment of marine protection areas (MPAs) in open seas areas. Global, 2008	
Support to the Black Sea Commission (Bucharest Convention on the Black Sea) for the mapping of sea-beds	

¹³² MIPs have begun to become available since late October 2014, though this has occurred too late for inclusion in this guidance.

habitats in order to ensure sustainable use of marine resources. Global, 2007

Typical expenditure to be coded and reported as 40 per cent
--

Name of the project

Tanzania Participatory Forest Management Project. Tanzania, 2007
--

Ensuring a seat at the table: supporting NGO coalitions to participate in FLEGT VPA processes with the aim of improving forest governance and strengthening local and indigenous peoples' rights. Global, 2007
--

Support to the implementation of the Baltic Sea Action Plan (BSAP) for EU Marine Strategy in the Baltic Sea (2007-2009) Global, 2007
--

Typical expenditure to be coded and reported as 0 per cent

Name of the project

Understanding the findings of the IPCC Fourth Assessment Report "Climate Change 2007" - Integrating climate change adaptation and mitigation in development planning. Global, 2008
--

Building local capacity to address the flow of ewastes and electrical and electronic products destined for reuse in selected African countries and augment the sustainable management of resources through the recovery of materials in ewastes. Africa, 2008

Best Practise of Rural Electrification Funds in Africa. Africa, 2007
--

7.4.2 The European Neighbourhood Instrument

Application of the markers is complicated by the complexity of the ENI, which comprises a wide range of bilateral, multi-country and cross-border co-operation programmes, each with different objectives and themes.

- **Stage 1: Annual Programme Statement**

Ex ante assessments of relevant biodiversity expenditures in 2014 and 2015 are made in the 2015 Draft Budget/ Annual Programme Statement. With regard to the 2014 to 2020 budget, preliminary *ex ante* estimates of expenditures have been made. It was estimated that the specific objective "Sustainable and inclusive development in all aspects, poverty reduction, including through private-sector development; promotion of internal economic, social and territorial cohesion, rural development, climate action and disaster resilience" will give rise to biodiversity related expenditures of 32 million euro in 2014, and 29 million euro in 2015. The amount constitutes 1.5 per cent of the geographic programmes allocation (i.e. operational credits excluding Erasmus+). The estimation of the contribution from bilateral programmes and Neighbourhood Investment Facility (NIF) is based on the priorities set in the draft programming documents. Biodiversity is targeted through various actions foreseen in the programming for the 2014-2020 period. The majority of actions contributing to biodiversity are reported under specific objective 4. Calculations are based on the assumption that 100 per cent of measures in the environment sector will indicatively contribute to biodiversity; and 40 per cent of measures related to agriculture and rural development will indicatively contribute to biodiversity.

- **Stage 2: Multi-annual Programmes**

The programmes for the 2014 to 2020 period are still under development, and no details were available to the contractors at the time of writing.¹³³

Details on the EuropeAid website of programming arrangements for the 2007 to 2013 period are variable. Some illustrative examples of the biodiversity relevance of different programmes are given as follows, and a similar analysis could be undertaken for the 2014-2020 programme period as the MIPs become available.

Bilateral programmes include some environmental measures. For example, the co-operation programme for Egypt between 2007 and 2013 included support for sustainability of development and better management of human and natural resources, with funding of €298 million between 2007 and 2010 and €200 million between 2011 and 2013. This includes substantial investments in water and wastewater services, which should benefit biodiversity and ecosystems.

Cross Border Co-operation involved 15 programmes in the 2007 to 2013 period, including:

Table 7.19: ENPI CBC South East Finland – Russia Programme

Name of activity	Marker (100/40 or 0%)	Justification
Priority 1 – Economic Development	0%	Not related to biodiversity
Priority 2 - Common challenges - border-crossing and the environment:		
2a – Efficient and Secure borders	0%	Not related to biodiversity
2b – Environment and nature protection	40%	Protection of natural heritage is prominent objective, alongside waste and wastewater
Priority 3 - Social development and civic society	0%	Not related to biodiversity

Table 20: Black Sea Programme

Name of activity	Marker (100/40 or 0%)	Justification
Priority 1 – 1. Cross border support to partnership for economic development based on combined resources	0%	Not related to biodiversity
Priority 2 - Networking resources and competencies for environmental protection and conservation	40%	Protection of natural areas, river and maritime systems is a prominent objective, alongside waste and wastewater
Priority 3 - Cultural and educational initiatives for the establishment of a common cultural environment in the basin	0%	Not related to biodiversity

- **Stage 3: Project Level Tracking**

¹³³ As for DCI, MIPs have begun to become available since late October 2014, though this has occurred too late for inclusion in this guidance.

The Euro-Mediterranean Partnership Regional Co-operation Programme funded five environmental projects in 2007/08 as follows:

Typical expenditure to be coded and reported as 100 per cent

No projects identified.

Typical expenditure to be coded and reported as 40 per cent

Name of the project

EMWIS–Water Sector Cooperation - a tool for the exchange of information and the establishment of cooperation programmes in the water sector, between and within the euro-Mediterranean Partnership countries

MEDAWATER–Resource management - reinforces regional cooperation and develops proposals on water management, through capacity strengthening, training, information and know-how exchanges

SMAPIII – Sustainable environmental development - Promotes sustainable development and supports high priority environmental related activities, through technical and financial assistance

Civil Protection - supports the development of a euro-Mediterranean system of mitigation, prevention and management of natural and man-made disasters, through technical assistance and capacity building.

Typical expenditure to be coded and reported as 0 per cent

Name of the project

Avian Influenza And Global Influenza Pandemic Preparedness

7.5 Conclusions

- A robust, three staged approach to tracking biodiversity expenditures under the development and co-operation budgets has been developed by DG DEVCO.
- The main scope for refinement in biodiversity tracking relates to the practical application of this approach, and to the application of agreed definitions in marking individual expenditures. This has the potential to affect the overall estimates of expenditures, and the consistency of tracking across the EU budget.
- It is therefore recommended that the main scope for refining expenditure estimates is through testing, and, if necessary refining the marking of individual projects and topics. There would be value in undertaking such an exercise across different DGs and funds, to promote consistency of approach.
- *Ex post* tracking of actual expenditures (rather than decisions) may offer some limited scope to refine the expenditure estimates, if undertaken at the project stage to record actual rather than planned expenditures. However, it is considered that this would make only a small difference to the expenditure estimates over time.

8 The Partnership Instrument (PI)

Prepared by ICF

8.1 Introduction to the 2014-2020 Partnership Instrument

The primary objective of the Regulation establishing a Partnership Instrument (PI) for cooperation with third countries¹³⁴ is to promote EU and mutual instruments by supporting measures that respond to objectives arising from the Union's relationships with third countries and addressing "challenges of global concern". This includes environmental challenges arising from environmental degradation and climate change. Specifically, the Regulation states that "the EU is committed to helping to meet the global 2020 biodiversity targets and to delivering the associated Strategy for resource mobilisation".

The PI will be managed through "direct management". **Multiannual Indicative Programmes (MIPs)** will be drawn up detailing the priority areas selected for Union financing, the specific objectives, the expected results, and the indicative financial allocation overall, per priority area and per partner country or group of countries. Programmes will then implemented through more detailed **Annual Action Programmes (AAPs)** based on the general indications provided by the MIPs.

Reporting requirements of the PI and other instruments financing external action are described in the Common Implementing Regulation (CIR)¹³⁵. A report on progress in implementing the measures of each instrument (including the PI) is to be submitted annually to the European Parliament and to the Council. In 2017 a report will be prepared on the achievement of the objectives of each instrument by means of result and impact indicators. The report will also address the contribution of the instrument to the Union priorities for smart, sustainable and inclusive growth.

An annual estimate of the overall spending related to biodiversity shall be made on the basis of the adopted indicative programming documents. This expenditure should also be reported in evaluations and annual reports. There is also a requirement to provide information on the contribution to biodiversity financing through Programme Statements submitted to Directorate General for Budget (DG BUDG), starting with the Draft Budget 2014. In the Programme Statements the information on biodiversity-related expenditure will be presented as aggregated per relevant objective and complemented with related outputs.

8.2 Stock-taking of the currently emerging/agreed approach by the Commission on biodiversity tracking

As the PI is a new instrument, the approach to tracking of biodiversity expenditures is still being developed by the Foreign Policy Instruments Service (FPI).

¹³⁴ EC (2014) REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a Partnership Instrument for cooperation with third countries. 234/2014 (COD). Available from: <http://old.eu-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2014:077:0077:0084:EN:PDF>

¹³⁵ EC(2014) REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL laying down common rules and procedures for the implementation of the Union's instruments for financing external action. 236/2014 (COD). Available from: http://ec.europa.eu/enlargement/pdf/financial_assistance/ipa/2014/236-2014_cir.pdf

Annex V of the DG BUDG proposal on the 2014 annual EU budget¹³⁶ includes an estimate of biodiversity-related spending for different instruments. No biodiversity expenditure is identified for the PI.

However, indicative estimates are included in the Draft Budget for 2015¹³⁷. This identifies Specific Objective 1 (Global Challenges) as being relevant to the financing of biodiversity expenditures. It estimates relevant expenditure contributing to biodiversity action at €0.0 million in 2014, and €4.0 million in the draft budget for 2015. Few details of the methodology employed are given. However, it is stated that the indicative financial allocation is that a maximum of 20 per cent of the PI budget should be dedicated to Global Challenges (as endorsed by the EP during the Strategic Dialogue), that FPI has identified projects with climate action and biodiversity component on the basis of Rio markers as developed by Directorate General for Development and Cooperation (DG DEVCO), and that the annual reporting should confirm the contribution amounts entered in the Programme Statement. As the PI is a new instrument, FPI might verify the allocations and change the methodology after the first annual exercise.

8.3 Study team's proposal for an improved tracking approach

A four-stage tracking approach is proposed which reflects the information available at different stages of the 2014-2020 Multiannual Financial Framework (MFF):

- At the level of specific objectives in the annual **Programme Statement**;
- At the level of **Multiannual Indicative Programmes** for internal purposes only;
- At the level of actions specified in the **Annual Action Programmes**;
- At the **reporting level**.

Pros of the proposed approach:

- Integrates biodiversity tracking method into existing reporting systems, by using existing information which would already be prepared / made available and therefore this approach would create limited additional burden;
- Provides a sense of the Instrument's 'direction' with regards to biodiversity-related expenditure. This would lead to a more realistic estimate of what the instrument is likely to deliver in terms of biodiversity expenditure before project level commitments are made. The estimates could be reviewed mid-way through the MFF to check how actual commitments complied with this estimate, with the possibility of proposing remedial action in the remaining years of the MFF.

Cons:

- There is still a level of approximation as the priority areas of support may still be relatively vague and unspecified.
- It may be that only one or more element under the wider priority area is biodiversity-relevant. Without indicative allocations of funding at this, more detailed, level, the

¹³⁶ EC (2013) Statement of estimates of the European Commission for the financial year 2014, SEC(2013) 370, June 2013, Available from: http://ec.europa.eu/budget/library/biblio/documents/2014/DB2014_WD_0_en.pdf

¹³⁷ EC (2014) Draft General Budget of the European Commission for the financial year 2015. Working Document Part I Programme Statements of operational expenditure

proportion of biodiversity-related expenditure may have to be estimated using appropriate coefficients which could introduce further uncertainty.

- These estimates would be based on multi-annual documents, and therefore would not be able to provide a more granular, annual estimate.

8.3.1 Recommendations how biodiversity-tracking could be refined over time

Tracking could also take place on the basis of the information provided in the **annual report**. The reports provide detailed information on all actions and projects funded in preceding year, the relevant budget and its execution. Hence tracking would be applied to actions and projects where spending has already been signed and committed (although not necessarily fully spent).

8.4 Classifying expenditure according to the 100, 40 and 0 per cent markers

8.4.1 Classifying expenditure at the level of specific objectives in the annual Programme Statement

In order to provide early information on the envisaged spending on biodiversity-related aspects under the PI, the tracking of the corresponding expenditure could initially be applied on the basis of currently available information namely the specific objectives in the proposal for the PI. Although past MIPs and Annual Action Programmes from the 2007-2013 period for the previous Instrument for Co-operation with Industrialised and other high income countries and territories (ICI) could be used to develop a hypothetical ex-ante estimate of what the PI might deliver in terms of biodiversity expenditure, given that the structure and the focus of the PI has changed significantly from the ICI it is unlikely that this is likely to provide an accurate estimate of on biodiversity-related expenditure. FPI has explicitly stated that the PI should not be considered as a successor to ICI.

Thus, tracking at the level of specific objectives could provide an early indication of the biodiversity relevance of particular objectives before more detailed information becomes available in the MIPs, AAPs etc. Table 21 provides proposed tracking at the level of specific objectives. Given the limited detail of the specific objectives, tracking at this level would only provide a very crude, initial estimate. In some cases these estimates are likely to be an underestimate of potential biodiversity-related expenditure under specific objectives. This would need to be clarified at a further level of tracking based on the availability of more detailed information with the adoption of Multiannual Indicative Programmes, Annual Action Programme and at the reporting level as set out in sections below.

Table 21: Proposed tracking at the level of specific objectives

Objective	Marker	Justification
Global challenges	40%	The objective seeks to project EU policies in support of addressing major global challenges such as combating climate change, reversing biodiversity loss, and protecting global public goods and resources. As such there may be a wide range of activities to support this objective. It is not clear what proportion of this objective would be relevant to biodiversity, although it is clear that biodiversity is a significant if not principle component of this objective. Hence the 40 per cent marker is applied. Details of this Objective are still being determined, and so this assessment might need to be revised once further information is available.
"Europe 2020" &	40%	This objective seeks to support all areas within the scope of 'Europe 2020'.

policy support		This could include encouraging other countries to be in line with the EU 2020 biodiversity strategy and targets. Hence the 40 per cent marker is applied.
Market access, trade, investment & business opportunities	0%	Although some elements of this action may be relevant for biodiversity, it is unclear at this point what proportion of expenditure may be biodiversity-related, if any. Moreover, some activities may be completely unrelated to biodiversity. In this case, the 0 per cent marker would therefore have to be applied ex-ante based on the available information.
Academic cooperation, public diplomacy & outreach	0%	Although some elements of this action may be relevant for biodiversity, if outreach campaigns are related to biodiversity, it is unclear at this point whether any of the campaigns will focus on biodiversity-related issues and therefore what proportion of expenditure may be biodiversity-related, if any. In this case, the 0% marker would therefore have to be applied ex-ante based on the available information in order to provide a conservative estimate. This is potentially an underestimate of potential biodiversity-related expenditure, although the contribution to biodiversity expenditure is likely to be minor.

8.4.2 Classifying expenditure in the Multiannual Indicative Programmes

The budget of the PI will be implemented through Multiannual Indicative Programmes (MIPs).

Article 14 of Regulation 236/2014 laying down common rules for and procedures for the implementation of the Union's instruments for financing external action commits the Commission to making annual estimates of biodiversity expenditures based on the indicative programming documents adopted:

Climate action and biodiversity expenditure

An annual estimate of the overall spending related to climate action and biodiversity shall be made on the basis of the indicative programming documents adopted. The funding allocated in the context of the Instruments shall be subject to an annual tracking system based on the OECD methodology ('Rio markers'), without excluding the use of more precise methodologies where these are available, integrated into the existing methodology for performance management of Union programmes, to quantify the expenditure related to climate action and biodiversity at the level of the action programmes and the individual and special measures referred to in Article 2(1), and recorded within evaluations and the annual report.

Once the MIPs are prepared, these will provide information of biodiversity-related expenditure at an ex-ante level (before commitments and spending having taken place).

The MIPs shall set out the Union's strategic and/or mutual interests and priorities, the specific objectives and expected results. The MIPs shall also set out the priority areas selected for financing by the Union and shall outline the indicative financial allocation of funds, both overall, per priority area and per partner country or group of partner countries. The information in the MIP should therefore provide an indicative amount of the biodiversity-related expenditure that is envisaged for the concerned period. The priority areas set out in the MIPs can thus be used to provide a slightly more refined estimate of biodiversity-related expenditure than that provided on the basis of specific objectives. This can be used for internal purposes within the Commission to provide a rough indication of the direction of expenditure under the instrument. Given that this will only provide a rather crude estimate, it is proposed that this is not formally reported on to avoid the information being misleading.

The activities to be undertaken (projects, programmes and actions) will be developed in the Annual Action Programmes which will in turn provide more detailed estimates of biodiversity-related expenditure as discussed in the section below.

8.4.3 *Classifying expenditure at the level of actions specified in the Annual Action Programmes*

Tracking of biodiversity-related expenditure in a more concrete manner can be undertaken using the Annual Action Programmes (AAP). The AAPs will include a description of each action, specifying its objectives, main, activities, expected results, prospective budget and timetable and performance monitoring arrangements. These should provide sufficient detail on the actions to be supported (and thus the planned funds) over the calendar year and can be used to prepare information on biodiversity-related expenditure for the forward-looking Programming Statements for DG BUDG.

8.4.4 *Classification of expenditure at the level of reporting*

Tracking of biodiversity-related expenditure can finally be undertaken at the level of reporting in line with the provisions of the CIR. According to Article 13, an annual report will be submitted each year to activities in the previous year. Hence tracking would be applied to actions and projects where spending has already been signed and committed (although not necessarily fully spent). However, the main disadvantage of this approach is that this, more accurate, estimation will be based on past rather than future commitments to project-level spending, which will therefore not be able to be used to prepare the forward-looking Programming Statements for DG BUDG. The benefit of this approach is that it does not create any additional burden.

8.5 Illustration of expenditure types

Some hypothetical examples of biodiversity-related activities that could be assigned the markers 100, 40 or 0 per cent are set out in the tables below. As noted previously, there is not much information on potential actions under the PI so the examples should be treated with some caution, and for illustrative purposes only, as it not clear to what extent these types of projects may actually be implemented under the future PI.

Typical expenditure to be coded and reported as 100 per cent

Promote the objectives of the EU 2020 Biodiversity Strategy to partner countries
Promote the development of ambitious policies on reversing biodiversity loss and ecosystem degradation
Increase coordination on issues of common concern specifically around reversing biodiversity loss
Cooperation to gain a better understanding of the economic and social costs of biodiversity loss and ecosystem degradation in countries of global significance
Enhance cooperation with partner countries on the protection of ecosystems and how to manage them sustainably

Typical expenditure to be coded and reported as 40 per cent

Partnerships with biofuels-producing and consuming countries, such as Brazil, the US and other producers in Africa and Asia, aimed at promoting sustainability requirements for biofuels and bio-liquids
Increase focus in all dialogues on resource efficiency
Promote the transition to a green and resource efficient economy
Help EU businesses to develop effective and low-cost policies to achieve environmentally friendly goals in the partner countries

Typical expenditure to be coded and reported as 0 per cent
‘Global challenges’ Objective
Non-biodiversity related actions related to the environment (e.g. renewable energy strategies etc.)
‘Europe 2020 and policy support’ Objective
Other external aspects of EU policies related to the Europe 2020 Strategy
Market access, trade, investment and business opportunities not relevant for biodiversity
Promoting business cooperation with partner countries
Providing support to EU companies in other industrialised markets
‘Academic cooperation, public diplomacy and outreach’ Objective
Strengthening political dialogue with the partner country
Outreach related to the EU and non-biodiversity related policies

8.6 Conclusions

- The Partnership Instrument is a new instrument which diverges significantly from the 2007-2013 Instrument for Cooperation with Industrialised and other high income countries and territories (ICI).
- A tracking system is still under development for the PI. The tracking system developed should be in line with the relevant provisions of the CIR. The indicative programming documents should provide an estimate of the overall spending related to biodiversity for the concerned period.
- Accurate estimates of biodiversity expenditure under the PI should be possible by tracking actions specified in the Annual Action Programming documents. Detailed information will also be possible at reporting level although this will be based on past rather than future commitments to project-level spending.

9 The Instrument for Pre-accession Assistance (IPA II)

Prepared by ICF

9.1 Introduction to the 2014-2020 Instrument for Pre-accession

The overall goal of the Instrument for Pre-accession Assistance (IPA) II is to continue to deliver the enlargement policy, which is one of the core priorities of EU External Action. The IPA supports candidate countries and potential candidates in their preparations for EU membership and the progressive alignment of their institutions and economies with the standards and policies of the EU. This includes alignment with the EU's efforts relating to the achievement of environmental goals. Whilst biodiversity is not explicitly mentioned in any of the specific objectives of the IPA, one of the thematic priorities for assistance is to "protect and improve the quality of the environment. IPA II funding shall promote policies to support the shift towards a resource-efficient, safe and sustainable low-carbon economy."

The Regulation notes that the IPA II will be implemented through different management modes. This includes **centralised direct** management by the Commission, **indirect management** (formerly "decentralised management") to beneficiary administration, and **shared** management where appropriate. Shared management is used under the cross-border cooperation component.

Assistance under the IPA II shall be based on **strategy papers** which are specific strategic planning documents made for each beneficiary to cover the 7-year period 2014-2020. These will be the main documents for programming under IPA II. Multi-annual country and multi-country strategy papers will be drawn up by the Commission in partnership with beneficiary countries.

9.2 Stock-taking of the currently emerging/agreed approach by the Commission on biodiversity tracking

It is important to note that specific components of the current IPA are managed by Directorate-General for Enlargement (DG ELARG) and Directorate-General for Agriculture and Rural Development (DG AGRI), the latter being responsible for the rural development component.

9.2.1 Assistance managed by DG ELARG

The approach to tracking biodiversity-related expenditure is fairly well advanced. All projects are coded using the Rio markers for biodiversity and climate-related expenditure in the CRIS database. Projects are encoded in CRIS during the preparation of the relevant Commission Decision.

Both the OECD DAC policy marker (i.e. in this case 'biodiversity') and the appropriate Rio markers must be indicated. For biodiversity expenditure, data collection is based a scoring system based on three values:

- Principal objective (2);
- Significant objective (1);
- Not targeted to the objective (0).

The same activity may qualify for more than one Rio marker, as in some cases, the same expenditures can simultaneously address climate change, biodiversity and desertification objectives. The most obvious examples relate to the sustainable management of natural resources. For example, a sustainable forest management project can contribute to biodiversity conservation, to capturing carbon (climate change mitigation) and to reducing climate risk (climate change adaptation).

This coding information is then used to track biodiversity-related expenditure. **Currently, tracking is done *ex-ante*¹³⁸, at the level of decisions for spending commitments** (i.e. at the point at which a commitment to spending is made, but before the project is actually delivered).

The CRIS database allows different levels to be coded using the Rio markers, namely decisions and contracts. While encoding is done at these different levels, reporting of biodiversity expenditure is only done at the level of decisions. In most cases, decisions (i.e. Action Fiches) relate directly to projects. However, this approach can create difficulties when a decision relates to a larger programme of work which can include several components or projects, of which only some are biodiversity related. In such cases the accuracy of the estimated amounts in relation to biodiversity can be affected.

9.2.2 Assistance managed by DG AGRI

The rural development component of IPA (IPARD) supports policy development as well as preparation for the implementation and management of the Common Agricultural Policy (CAP) in pre-accession countries. In particular, it contributes to the sustainable adaptation of the agricultural sector and rural areas and to the candidate countries' preparation for the implementation of the *Acquis Communautaire* concerning the CAP and related policies.

The rural development interventions in IPA countries are implemented through a Rural Development Programme, modelled on EU rural development policies (e.g. the EAFRD Regulation). The EAFRD includes a range of measures which can be used for a variety of purposes, including promoting the maintenance and enhancement of biodiversity and ecosystem services. The complete list of EAFRD measures which can be used to deliver biodiversity outcomes are set out in Annex 1 to the fiche on the Common Agricultural Policy (see Chapter 3). Only a selected number of measures are available to IPA countries. From this shortlist, candidate and potential candidate countries can decide on the measures to be supported according to the strategy of the program (based on a thorough analysis of the national agriculture and rural context).

The available measures are shown in the table below (these consist of previous measures from IPARD 2007-2014 complemented with some new ones e.g. Art 21). Experience from IPARD 2007-2014 is that support for farm investment and the food industry (e.g. modernisation of physical assets and efficiency improvements) as well as diversification is easiest to be implemented.

¹³⁸ Tracking which is classified as “*ex-ante*” applies to any level of tracking which is done before spending takes place. This can therefore encompass tracking of expenditure which is done before commitments are made, as well as tracking of commitments, as both of these occur before any funds are spent.

Table 22: Measures available under IPARD 2014-2020

Article No.	Measure Name	Biodiversity	Type of support
Article 17	Investment in physical assets	Supporting	Investment
Article 27	Setting up of producer groups and organisations	Supporting	Capacity
Article 28	Agri-environmental-climate	Key	Land
Article 34	Forest-environmental and climate services and forest conservation	Key	Land
Article 21	Investments improving the resilience and environmental value as well as the mitigation of potential forest ecosystems	Key	Land
Article 20	Basic services and village renewal in rural areas	Supporting	Investment
Article 19	Farm and business development	Supporting	Investment/ added value
Articles 42-44	Preparation and implementation of Local Development Strategies- Leader Approach	Supporting	Capacity
Article 14	Knowledge transfer and information actions	Supporting	Capacity
Article 15	Advisory services	Supporting	Capacity

The focus of the measures deployed on the ground by national and regional authorities will depend on the way in which they choose to apply them to local priorities and needs in their IPARD Programme. Candidate and potential candidate countries are free to choose (within the rules of the measure) what the specific focus of the measure should be.

Detailed information about planned expenditure for the 2014-2020 period will be available within individual IPARD Programmes once these are adopted and become operational. These are due to be adopted in late 2014. DG AGRI, however, has indicated that the biodiversity expenditure is likely to be minimal. For IPARD countries most expenditure is under the physical assets measure in supporting diversification of activities and modernisation. As such, DG AGRI has not developed an approach to tracking biodiversity spend.

9.3 Study team's proposal for an improved tracking approach

The following section sets out possible approaches to track biodiversity expenditure at different levels for both the DG ELARG and DG AGRI components.

9.3.1 Assistance managed by DG ELARG

- *Classification of expenditure at instrument level based on historical data for IPA*

In order to provide early information on the envisaged spending on climate- and biodiversity-related aspects under the Instrument, the tracking of the corresponding expenditure should be applied at an *ex-ante* level (i.e. before spending has taken place).

Given that DG ELARG instruments have been tracking biodiversity-related expenditure since 2010, *ex-ante* estimates based on currently available information can be produced from historical data which has been reported to the OECD DAC, to establish historical (i.e. baseline) levels of biodiversity-related expenditure. These historic levels (expressed as per cent) could be applied to the headline categories of expenditure to produce indicative estimates. It is noted that the Programme Statement in the 2015 budget provides an estimate of climate related expenditure but not biodiversity spend.

- ***Classification of expenditure at the programming level***

The Regulation establishing common rules for instruments related to external action requires that annual estimates of the overall spending related to climate action and biodiversity should be made on the basis of the adopted indicative programming documents.¹³⁹ However, indicative programming documents are not currently being used to calculate annual estimates of overall spending on biodiversity.

There may however be value in, and potential for, using programming documents (i.e. strategy papers) to implement an ‘informal’ means of tracking potential future biodiversity-related expenditure. This would mean that an intermediate level of tracking could be undertaken, which tracks likely levels of biodiversity-related expenditure based on the Instrument’s objectives, but before detailed actions are decided upon.

This information could then be used to provide decision makers with a ‘sense of direction’ of the instrument in terms of biodiversity-relevant expenditure by giving them an initial estimate of the proportion of biodiversity-related expenditure which is likely to be achieved, before any formal decisions have taken place and before any commitments have been made. This information could inform future plans and strategy papers as appropriate.

This information is likely to be very basic and will only give a rough indication. It is proposed therefore that this is done for internal purposes only, and should not be formally reported upon to avoid the information being misleading. Tracking at this level would therefore not inform any formal purpose or reporting, but could provide decision makers with useful information early on in the programming cycle.

The strategy papers will identify the policy areas for assistance and specify the indicative allocations of funds per policy area, broken down for one or more years. The European Commission (DG ELARG), EU Delegations and IPA beneficiary countries are expected to develop Sector Support Programmes for funding under IPA II that are defined in the Country Strategy Papers. Therefore, the markers for biodiversity expenditure will be allocated at sector level.

The decision on which marker to apply should be determined by looking at the specific sectors, as well as the expected results and the main activities being undertaken where these are provided. This information should be detailed in the strategy paper.

¹³⁹ EC (2014) REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL laying down common rules and procedures for the implementation of the Union's instruments for financing external action. 236/2014 (COD). Available from: http://ec.europa.eu/enlargement/pdf/financial_assistance/ipa/2014/236-2014_cir.pdf

- ***Classification of expenditure at the commitment level: Decisions / Projects***

It is proposed that biodiversity-tracking continues at the decision level as has been done since 2010. This allows for biodiversity-related expenditure to be tracked at the point at which the commitment for spending has been made (although does not track actual expenditure). This process would follow the existing approach for tracking biodiversity-related expenditure, using the CRIS database which feeds into the OECD DAC database, using the Rio markers.

The project's purpose code, objectives and outcomes would need to be assessed to determine whether it is biodiversity-relevant and which marker to use.

Quality controls will also be important to ensure that projects are coded correctly. Guidelines have already been established on how to code projects, and which projects should be coded in which way, with illustrative examples provided. In some cases, projects can be automatically coded depending on what CRIS purpose code is entered.

For large decisions which involve multiple components of which only some may be biodiversity relevant, consideration should be given to whether these can be manually tracked (alongside their encoding into CRIS through the OECD DAC form), to provide a more accurate and granular estimate of biodiversity-relevant expenditure. Whilst these cases may be few in number, the sums involved could be significant. However, at this stage it would not be advisable to carry out such a manual review given the administrative work required.

As a check on whether decisions have been correctly coded, it might also be worth considering random checks (i.e. based on automatic data sampling) to cross-reference whether the coding of eventual individual contracts under a coded decision matches the marker which was applied at the decision level.

Using the CRIS database, the 100, 40 and 0 markers are applied to different projects. Guidelines on how to code projects on the CRIS database have already been established, and it was noted that this guidance was sufficient and does not need to be supplemented. In some cases, projects are automatically coded depending on what CRIS purpose code is entered.

However, these guidelines do not present a detailed assessment of how each purpose code should generally be coded. Instead general examples are given, without specifying what markers could apply and emphasis is placed on using the project documentation in each individual case to determine what marker should be applied. It is hoped that the guidance and definitions on tracking biodiversity expenditure developed for this project should help to provide more detailed guidance on the identification of relevant expenditures.

Our analysis of how different purpose codes could be marked is given in the Directorate-General for Development and Cooperation (DG DEVCO) cluster fiche. In many cases, which marker to be used can only be determined once more information is available on the project's context and specific aims. However, it is clear that many purpose codes may provide opportunities for biodiversity-related expenditure.

9.3.2 Assistance managed by DG AGRI

- **Classification of expenditure at the level of IPARD measures**

It is proposed to track biodiversity expenditure at the level of the measures detailed in the multi-annual rural development programme for each country. It should be noted that DG AGRI-managed expenditure is not entered into CRIS and thus tracking of spend at project level is not possible. Each measure is fairly broad in nature in terms of the sorts of activities it could fund, some of which may be biodiversity related and some of which may not.

In the previous programming period, rural development programmes were established for each candidate country¹⁴⁰. These set out the measures that may be supported under the IPARD component in the country and the specific objectives of each. The issue here is that the measures are quite broad in scope and involve a range of activities that may vary significantly in how they relate to biodiversity. According to DG AGRI, biodiversity-related expenditure in the 2014-2020 IPARD programmes is likely to be minimal with most rural development support aimed at investments in physical assets on commercial farms. Only one agri-environment measure is currently envisaged across all the 2014-2020 IPARD programmes (not adopted at time of writing). Activities in line with the LEADER approach are also expected to be minimal. In the Turkey 2014-2020 indicative strategy paper¹⁴¹ (high level document outlining the overarching objectives and indicative financial allocations for the seven years) an estimate of climate expenditure is provided but there is no estimate of biodiversity expenditure. As such, it is important that the tracking approach is relatively simple and does not cause any undue burden.

Alternatively, tracking could be based on the Annual Report which provides detail on each measure which was implemented in the preceding year, including the title of the measure, the financial allocation to the project, a short description of the project/measure and the activities undertaken. However, the main disadvantage of this approach is that this, more accurate, estimation will be based on past rather than future commitments to project-level spending, which will therefore not be able to be used to prepare the forward-looking Programming Statements for Directorate-General for Budget (DG BUDG).

9.3.3 Illustration of expenditure

- **Assistance managed by DG AGRI**

In the table below biodiversity markers are proposed at the level of the rural development measures. Many of the measures will fund a range of activities, some of which are relevant to biodiversity and some of which are not, highlighting the benefits of assessment of individual projects.

Table 9.23: Biodiversity markers applied to the IPARD measures

Measure	Marker	Justification

¹⁴⁰ For example, the IPARD for Turkey 2007-2013 is available online here:

http://ec.europa.eu/enlargement/pdf/turkey/ipa/tk5_tk_ipard_programme_2007_en.pdf

¹⁴¹ http://ec.europa.eu/enlargement/pdf/key_documents/2014/20140919-csp-turkey.pdf

Investment in physical assets	0 or 40%	Most expenditure will be for investments to modernise physical assets on farms and food processing facilities e.g. upgrading obsolete machinery. However the non-productive investment part could be used to plant native hedges, create or restore ponds. Activities could also include the definition and identification of eligible Natura 2000 sites and other eligible High Nature Value Areas. These will result in biodiversity benefits. Other activities however will have no relevance to biodiversity and should be awarded a 0 per cent marker.
Setting up producer groups	0%	Activities under this measure are intended to meet Union Priority FA3a “Improving competitiveness of primary producers by better integrating them into the food chain”. As such, they are unlikely to result directly in concrete biodiversity benefits.
Agri-environmental-climate	40 or 100%	This measure aims to achieve three Union priorities, one of which (FA4a) is “restoring and preserving and enhancing biodiversity”. Some activities under this measure could be awarded a 100 per cent marker. Other activities may not have biodiversity as their principal objective but still have significant biodiversity benefits (e.g. preventing soil erosion and improving soil management) and so a 40 per cent marker could be allocated.
Forest-environmental and climate services and forest conservation	40 or 100%	Activities under this measure are likely to result in biodiversity benefits.
Investments improving the resilience and environmental value as well as the mitigation of potential forest ecosystems	40 or 100%	Activities under this measure are likely to result in biodiversity benefits.
Basic services and village renewal in rural areas	0%	Activities under this measure are unlikely to result in biodiversity benefits.
Farm and business development	0, 40 or 100%	Activities under this measure may not necessarily be biodiversity-related but there may be instances where diversification may deliver biodiversity outcomes e.g. conservation schemes for farmland birds and plants, or grassland restoration measures.
Preparation and implementation of Local Development Strategies- Leader Approach	0 or 40%	Activities under this measure may not necessarily be biodiversity-related but there may be instances where the Leader approach is used to fund activities that have biodiversity benefits.
Knowledge transfer and information actions	0 or 40%	Activities under this measure may not necessarily be biodiversity-related but there may be instances where knowledge transfer may deliver biodiversity outcomes e.g. capacity building/ training of farmers in new skills/knowledge to improve their agricultural management practices that have positive impacts for species and habitats e.g. integrated pest management designed to achieve biodiversity and agronomic objectives, etc.
Advisory services	0, 40 or 100%	Activities under this measure may not necessarily be biodiversity-related but there may be instances where advisory services are provided to help farmers improve their agricultural management practices that have positive impacts for species and habitats e.g. management of field margins for wildlife, soil and water conservation – for those activities 40 or 100 per cent could be allocated.

The tables below set out the types of projects and measures that might be allocated the different biodiversity markers. In many cases, multiple objectives will be identified for a single measure.

Typical expenditure to be coded and reported as 100 per cent

Project 1: Agri-environment-climate measure under EAFRD to maintain or restore semi-natural grassland habitats

Project 2: Advice to farmers under EAFRD to manage arable field margins in ways that promote pollinator species

Project 3: Agri-environment-climate measure under EAFRD to introduce management to increase populations of farmland birds

Project 4: Use of the non-productive investment part of the investment in physical assets measure to plant native hedges, create or restore ponds

Project 5: Use of the forest-environment measure to conserve or extend forest areas with native forest species and diversity of valuable flora and fauna

Typical expenditure to be coded and reported as 40 per cent

Project 1: Use of the non-productive investment element of the investment in physical assets measure to plant fodder strips, which, among other objectives, improve wildlife habitat, soil quality and encourage game birds

Project 2: Introduction of organic farming to improve soil management

Typical expenditure to be coded and reported as 0 per cent

Project 1: Provision of Broadband internet under the improvement and development of rural infrastructure measure

Project 2: Numerous activities under farm diversification such as retail outlets and catering (e.g. opening a farm shop) or the training and promotion of rural craft. These have the objective of increasing competitiveness improved farm income, without particular regard to biodiversity objectives.

9.4 Conclusions

- In the 2014-2020 programming period most of the IPA funds will be allocated and managed by DG ELARG, however rural development assistance under policy area "Agriculture and Rural Development" will be managed separately by DG AGRI.
- An advanced tracking system is in place for the IPA assistance which is managed by DG ELARG. The system tracks project-level expenditure at the level of decisions on the basis of the CRIS database which feeds into the OECD DAC database. This has been on-going since 2010. This tracking system includes a quality control process to check that projects are coded correctly.
- In most cases, decisions (i.e. Action Fiches) relate directly to projects. However, this approach can create difficulties when a decision relates to a larger programme of work which can include several components or projects, of which only some are biodiversity-related. In such cases the accuracy of the estimated amounts in relation to biodiversity can be affected. Another issue is whether tracking at decision level can be applied to all projects, especially where there is indirect management in certain beneficiary countries. In this instance, detailed information is not collected on individual contracts/payments. Information is available at the highest level but not at a disaggregated level.
- For the assistance managed by DG ELARG, we propose that the existing system of tracking could be complemented by informal tracking at the level of priority areas specified in the strategy papers for internal purposes only to provide an intermediate 'check' on the direction of expenditure. This would need to be followed by more accurate tracking at the commitment level as per the existing approach for tracking for the CRIS database.

- For large decisions which involve multiple components of which only some may be biodiversity relevant, one could also potentially consider manual tracking (alongside their encoding into CRIS), to provide a more accurate and granular estimate of biodiversity relevant expenditure. Whilst these cases may be few in number, the sums involved could be significant. However, at this stage it would not be advisable to carry out such a manual review given the administrative work required.
- As a check on whether decisions have been correctly coded, it might also be worth considering random checks (i.e. based on automatic data sampling) to cross-reference whether the coding of eventual individual contracts under a coded decision matches the marker which was applied at the decision level.
- DG AGRI does not track expenditure using the CRIS database. It is in the process of proposing an approach to tracking biodiversity expenditure method for the rural development assistance which it manages. This proposes to track expenditure at the level of rural development measures detailed in the multi-annual rural development programmes for each country. These measures are quite broad in scope and involve a range of activities that may vary significantly in how they relate to biodiversity. Alternatively, tracking could be based on the Annual Report which provides detail on each measure which was implemented in the preceding year, including the title of the measure, the financial allocation to the project, a short description of the project/measure and the activities undertaken. However, the main disadvantage of this approach is that this, more accurate, estimation will be based on past rather than future commitments to project-level spending, which will therefore not be able to be used to prepare the forward-looking Programming Statements for DG BUDG.

10 The Union Civil Protection Mechanism (UCPM)

Prepared by ICF

10.1 Introduction to the 2014-2020 Union Civil Protection Mechanism

The Union Civil Protection Mechanism (UCPM) aims at helping Member States to ensure a rapid, cost-effective and efficient mobilisation of European civil protection assistance in case of major emergency in third countries. The general objective of the Mechanism does not specifically mention biodiversity. However, in aiming to protect the environment during disasters, it could be argued that biodiversity is indirectly covered. Both natural hazards and man-made disasters can have detrimental consequences for biodiversity leading to the loss of flora and fauna.

The UCPM is managed through centralised direct management by the Commission. It will be implemented through Annual Work Programmes (AWP).

10.2 Stock-taking of the currently emerging/agreed approach by the Commission on biodiversity tracking

There is no approach to tracking biodiversity-related expenditure in Directorate-General for Humanitarian Aid and Civil Protection (DG ECHO) for the UCPM.

Annex V of the Directorate-General for Budget (DG BUDG) proposal on the 2014 annual EU budget¹⁴² includes an estimate of biodiversity-related spending for different instruments. No biodiversity expenditure is identified for the UCPM.

The Programme Statement in the 2015 Draft Budget includes an estimate for climate relevant expenditure of €2.0 million in 2014 and €2.1 million in 2015. This expenditure relates to the exchange of experts and represents 38 per cent of budget line 23 03 01 02 'Disaster Prevention and Preparedness in Third Countries'. However, the contribution of UCPM to financing biodiversity is considered "Not applicable".

10.3 Study team's proposal for an improved tracking approach

Biodiversity relevant expenditures under UCPM are likely to be small, and it is debateable whether efforts should be devoted to expenditure tracking.

However, if a decision is made to track biodiversity related expenditures, this could be done at two levels:

- **At level of actions specified in the Annual Work Programmes.**
- **Project level tracking.**

¹⁴² EC (2013) Statement of estimates of the European Commission for the financial year 2014, SEC(2013) 370, June 2013, Available from: http://ec.europa.eu/budget/library/biblio/documents/2014/DB2014_WD_0_en.pdf

10.3.1 Actions specified in the Annual Work Programmes

The AWP set out the allocation of funds between each objective and actions to be financed. Once the AWP are prepared, these can be used to produce more accurate information of biodiversity-related expenditure at an ex-ante level. The Work Programmes will set out the allocation of funds between each priority area and actions to be financed. Therefore, the markers for biodiversity-related expenditure could be allocated at the level of the actions under relevant objectives.

However, given that biodiversity is unlikely to be a principal objective of any projects, the 40 per cent marker will be the maximum marker which could be awarded. As such, it is likely that this approach will provide insufficient detail to provide an accurate estimate of biodiversity related expenditure.

Pros:

- Likely to entail lower administrative costs/burden as the approach is based on existing reporting mechanisms.

Cons:

- There is still a level of approximation as it is not clear how exactly the actions given in the Annual Work Programmes will be implemented. Moreover, it may only be that the biodiversity relevance of an action becomes clear once there is further detail available on the exact nature of the projects.
- It may be that only one or more sub-activities under an action may be biodiversity-relevant. Without indicative allocations of funding at this, more detailed level, the proportion of biodiversity-related expenditure may have to be estimated using appropriate coefficients which could introduce further uncertainty.

10.3.2 Project level

Tracking could be applied at the level of projects in order to provide an accurate estimate of biodiversity-related expenditure. At this level, tracking of biodiversity-related expenditure can be done by including in the call for proposals an option to indicate whether the projects may have implications for biodiversity in order to be counted according to the markers. This could be a tick box with more detailed information/justification to be provided by project applicants if they indicate that projects do have biodiversity relevance. That way, the spending estimates based on the AWP can be improved and corrected after each call for proposal once it is known how many projects will be financed (and thus the funds committed) in each priority area.

However, this approach would not be able to cover any actions or projects under Objective 3, given that this component is implemented on an ad hoc basis and is not pre-programmed. Nonetheless, it is unlikely that many projects under this Objective would be considered biodiversity-relevant, so the level of under-estimation by not accounting for this spend is likely to be small.

10.3.3 Recommendations how BD tracking could be refined over time (ex-post)

Tracking could also take place on the basis of the information provided in the **annual report** (e.g. annual activity report). The reports provide detailed information on all actions and projects funded in preceding year, the relevant budget and its execution. Hence tracking would be applied to actions and projects where spending has already been signed and committed (although not necessarily fully spent). This annual implementation report, being based on activity in the preceding year, should also

be able to capture any biodiversity relevant expenditure under Objective 3 given that commitments to spend will already have been made.

10.4 Classifying expenditure according to the 100, 40 and 0 per cent markers

Biodiversity will not be a principal objective of any of the projects. As such, the 40 per cent marker is the maximum that can be applied. The table below provides illustrative examples on how the Rio markers could be applied to different levels and projects, based on calls for proposals of the Civil Protection Financial Instrument (CPFI) in 2013.

Table 24: Examples of projects from Calls from Proposals 2013 of the Civil Protection Financial Instrument (CPFI)¹⁴³

Project	Marker	Justification
<i>Projects on preparedness</i>		
e-learning : Fight Against Oil Spills (eFAOS)	40%	Oil spills can seriously harm marine animals and plants in two ways: from the oil itself and from the clean up operations. Understanding both types of impacts can help spill responders minimise overall impacts to ecological communities and help them to recover much more quickly. Therefore preparation of how to combat marine pollution in the wake of a spill should help to reduce negative impacts on biodiversity. However, biodiversity is not a principal objective. As such, the 40 per cent marker is applied.
Autonomous Underwater Vehicles Ready for Preparedness of Oil Spills (URready4OS)	40%	Oil spills have serious implications for marine flora and fauna. Preparation of how to combat marine pollution in the wake of a spill should help to reduce negative impacts on biodiversity. However, biodiversity is not a principal objective. As such, the 40 per cent marker is applied.
Joint Force Water Environment Disaster Relief Operations Platform (FWEDROP)	0%	This project aims to share best practices for search, rescue and recovery of missing people in the water environment. No biodiversity relevance.
<i>Projects on prevention</i>		
Area-wide Assessment of Risk Evaluations 2 (BE-AWARE-2)	40%	This project aims to develop a marine pollution prevention policy quantifying resources available, current and future maritime activity levels and environmental sensitivity. However, biodiversity is not a principal objective. As such, the 40 per cent marker is applied.
Operational tools for improving efficiency in wildfire risk reduction in EU landscapes	40%	This project aims to improve wildfire prevention and attenuate the impacts of fires. Wildfires damage lead to the destruction of flora and fauna. Thousands of hectares of forests are destroyed in Europe each year by fires. Activities to prevent fires and reduce their impacts will result in benefits for biodiversity. However, biodiversity is not a principal objective. As such, the 40 per cent marker is applied.

¹⁴³ List of 2013 projects available online here: http://ec.europa.eu/echo/funding/cp_projects2013_en.htm

10.4.1 Illustration of expenditure types

Biodiversity will not be a principal objective of any of the projects. Instead projects may indirectly protect and conserve ecosystems, species and genetic diversity. As such, the 40 per cent marker is the maximum that can be applied.

Typical expenditure to be coded and reported as 40 per cent
Activities to prevent or prepare for marine pollution
Activities to prevent or prepare for forest fires

Typical expenditure to be coded and reported as 0 per cent
Search, rescue and recovery of missing people in the water environment
Increase preparedness against terrorist attacks
Increasing the Participating States' preparedness for receiving assistance

10.5 Conclusions

- No tracking system is currently in place in DG ECHO for the UCPM.
- It is likely that any actions under UCPM will only have indirect relevance for biodiversity.
- Levels of biodiversity relevant expenditure are likely to be small, and it is questionable whether tracking would justify significant administrative effort and resources.
- If a decision is taken to track biodiversity-related expenditure, this could be done at the level of actions specified in the AWP. However, this level of tracking is likely to only be able to provide indicative information about biodiversity-related expenditure. More accurate assessments could be derived by more detailed analysis of actions at the project level, especially since some expenditures are not programmed (i.e. actions under Objective 3 consists of financial assistance to respond to crises as they arise).
- Project level tracking could be implemented by including in the call for proposals an option to indicate whether the projects could be considered biodiversity-related in order to be counted according to the markers. This information could be used to improve initial estimates based on the information in AWP. Alternatively, or in addition, *ex post* estimates of biodiversity related expenditure can be made from annual activity reports, which cover projects funded over the preceding year.