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COMMISSION STAFF WORKING PAPER

ANNEXES TO THE IMPACT ASSESSMENT

Accompanying the document

Proposal for a Regulation

on the establishment of a Programme for the Environment and Climate Action (LIFE)

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Disclaimer: These annexes commit only the Commission's services involved in its preparation and do not prejudge the final form of any decision to be taken by the Commission.

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ANNEX 1: LIST OF ABBREVIATIONS

6EAP	6th Environment Action Programme
AEM	Agri-environment Measure
AMPs	Annual Management Plans
BAT	Best Available Techniques
BBOP	Biodiversity Offsets Programme
BREF	Best Available Techniques Reference Document
CAP	Common Agricultural Policy
CBA	Cost-benefit analysis
CBD	Convention on Biological Diversity
CF	Cohesion Fund
CFP	Common Fisheries Policy
CIP	Competitiveness and Innovation Programme
CITES	Convention on international trade in endangered species
CoE	Council of Europe
CoR	Committee of the Regions
CP	Cohesion Policy
DGs	Directorates-General
DMC	Domestic Material Consumption
DPSIR	Driving Forces-Pressures-State-Impacts-Responses
DRB	Danube River Basin
EACI	Executive Agency for Competitiveness and Innovation
EAFRD	European Agricultural Fund for Rural Development
EC /EP / EU	European Commission / European Parliament / European Union
EEA	European Environment Agency
EFF	European Fisheries Fund
EIB	European Investment Bank
ELENA	European Local Energy Assistance Scheme
EMS	Environmental Management System
ENP	European Neighbourhood Policy
ENRTP	Thematic programme for environment and sustainable management of natural resources including energy
ENVI	European Parliament Committee on the Environment, Public Health & Food Safety
EP	European Parliament

EPG	Environment Policy Governance (LIFE+ strand)
ERDF	European Regional Development Fund
ESF	European Social Fund
ETAP	Environmental Technologies Action Plan
ETUC	European Trade Union Confederation
ETV	Environmental Technologies Verification
EU	European Union
EU12	Group of countries which joined the EU from 2004 onwards
FDOs	Financial Desk Officers
FP7	Seventh Framework Programme
FP8	Eighth Framework Programme
GDP	Gross Domestic Product
GHG	Greenhouse gas
GIF	Growth and Innovation Fund
GIS	Geographic Information System
GVA	Gross Value Added
HSAP	Hydropower Sustainability Assessment Protocol
IA	Impact Assessment
IPs	Integrated Projects
IPA	Instrument for Pre-accession Assistance
ICPRD	International Commission for the Protection of the Danube River
ICUN	International Union for Conservation of Nature
IMPEL	European Union Network for the Implementation and Enforcement of Environmental Law
INF	Information and communication (LIFE+ strand)
IPPC	The Intergovernmental Panel on Climate Change
ISG	Inter-Service Steering Group
IUCN	International Union for Conservation of Nature
JASPERS	Joint Assistance to Support Projects in European Regions
JEREMIE	Joint European Resources for Micro to medium Enterprises
LFA	Less Favoured Areas
LRTAP	Long-range Transboundary Air Pollution
MDG	Millennium Development Goals
MAFF/MFF	Multi Annual Financial Framework

MTE	Mid-term evaluation
MS	Member State
N2K	Natura2000
NAT	Nature & Biodiversity (LIFE+ strand)
NCP	National Contact Points
NGO	Non-governmental Organisation
NOx	Nitrogen Oxides
OECD	Organisation for Economic Co-operation and Development
PAFs	Prioritised Action Frameworks
PAN	Pesticides Action Network
PES	Payments for Ecosystem Services
PM	Particulate Matter
PPP	Polluter pays principle
PPPs	Public Private Partnerships
R&D	Research and Development
REACH	Registration, Evaluation, Authorisation and Restriction of Chemical substances
RSFF	Risk Sharing Finance Facility
SDS	Sustainable Development Strategy
SICAs	Specific International Cooperation Actions
SMEs	Small and Medium Enterprises
SOER	State of the Environment Report
SOx	Sulphur Oxides
TA	Technical assistance
TCY	Third Countries
TDOs	Technical Desk Officers
TEEB	The Economics of Ecosystem Services and Biodiversity
TFEU	Treaty on the Functioning of the European Union
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
VAT	Value added tax
VOCs	Volatile Organic Compounds
VOSL	Value of a Statistical Life
VOLY	Value of Life Years

WFD	Water Framework Directive
WTO	World Trade Organisation
WTP	Willingness to pay
YVIE	Your Voice in Europe

ANNEX 2: THE LIFE PROGRAMME AS PER THE COMMUNICATION FROM THE COMMISSION ON A BUDGET FOR EUROPE 2020, 29TH JUNE 2011

The LIFE programme will be composed of two sub-programmes: an Environment sub-programme and a Climate Action sub-programme. It will have a global envelop of €3.2 billion for the seven years with €2.4 billion (75%) for the Environment sub-programme and €800 million (25%) for the Climate Action sub-programme.

1. The Environment sub-programme

It will be organised according to the following priorities:

(a) **LIFE Biodiversity,** while still focusing on Natura 2000 and on the development and sharing of best practices in relation to biodiversity, will also target wider biodiversity challenges in line with the Europe 2020 biodiversity strategy target to maintain and restore ecosystems and their services.

(b) **LIFE Environment** will focus on supporting the implementation of EU environmental policy by the public and private sectors and in particular the implementation of environmental legislation relevant to the Europe 2020 resource efficiency objectives (such as the Water Framework Directive or the Waste Framework Directive).

(c) **LIFE Governance** will support the creation of platforms for the exchange of best practices for improved compliance with EU environmental policy priorities and enforcement, policy development and knowledge-based decision-making (e.g., wide dissemination of project results), with an emphasis on good governance. This strand will also support environmental NGOs and promote awareness-raising, advocacy and dissemination of environmental information, as these are inextricably linked to achieving good governance and full implementation and compliance.

The instrument will focus on two types of project: new Integrated Projects, the number and financial share of which will gradually increase over the lifetime of the programme; and "traditional" projects. Projects will continue to be selected for their EU added value and potential for transfer of know-how. LIFE Integrated Projects are designed to demonstrate the sustainable implementation of environmental action plans relating to major EU environmental directives, such as the Habitats Directive or the Water Framework Directive. A structured cooperation with other EU funds will be established through the Common Strategic Framework.

2. The Climate Action sub-programme

It will, in particular, support efforts contributing to the following objectives:

(a) **Mitigation:** *Support for the reduction of greenhouse gas emissions***.** Actions for setting up pilot projects, which can be used to test innovative approaches including through support to SMEs, to improve the knowledge base and to facilitate the implementation of the climate *acquis*.

(b) **Adaptation:** *Support to efforts leading to increased resilience to climate change***.** Actions to support the development or implementation of national/regional/local adaptation strategies. Actions enabling decision makers to effectively use knowledge and data about climate change impacts in particular for adaptation related planning.

(c) **Governance and Awareness:** support for efforts leading to increased awareness, communication, cooperation and dissemination on climate mitigation and adaptation actions. Actions for awareness-raising amongst EU citizens and stakeholders including on behaviour changes.

ANNEX 3: SUMMARY OF THE STAKEHOLDERS' CONSULTATIONS

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1. Introduction

The **European Parliament** made several contributions, including the Böge report on the Mid-Term Review of the 2007-2013 Financial Framework.[1] This report calls for providing the Union with the means to fulfil its political ambitions in the area of fighting against climate change. It also stressed that the EP is ready to examine the possibility of creating a specific fund for that purpose. Moreover, it highlighted the need to climate proof "all major programmes, including agriculture, cohesion, transport and energy networks, and development programmes". The climate activities across the EU budget including LIFE+ are to be reinforced to reflect this new priority.

The **Council[2] and the European Parliament**[3] have indicated their support to the continuation of the LIFE Programme. The Council Conclusions highlighted the importance of LIFE+ and the need to keep all its components. The European Parliament report on "Investing in the future: a new Multiannual Financial Framework for a competitive, sustainable and inclusive Europe"[4] underlined that LIFE has been successfully implemented and has proven its importance in safeguarding biodiversity and protecting the environment and emphasises the need for continuing the programme. The report highlighted the need to continue LIFE support especially to achieve biodiversity objectives.

The **European Economic Social Committee opinion[5]** and **Committee of Regions opinion (CoR)[6]** also show strong support for the continuation and enhancement of LIFE. The CoR also requested additional funds under LIFE for biodiversity and climate action.[7]

The impact assessment has been preceeded by the following **public consultations** in order to gather as many comments and suggestions as possible from individuals and bodies concerned:

An initial stakeholder consultation was carried out on the Commission's behalf by GHK[8] from October 2010 until February 2011. The consultation gathered a total of 192 stakeholder responses, including from NGOs, social partners, Member States and Commission officials. This includes:

- Commission services: 11 interviews with Commission officials, including in DG Environment and DG Climate Action (DG CLIMA), as well as representatives from DG Agriculture and Rural Development (DG AGRI), DG Regional Policy (DG REGIO), and DG Maritime Affairs and Fisheries (DG MARE. (GHK Interviews).

- Stakeholders: A total of 34 survey responses were received: 16 from NGOs, 6 from social partners and 12 from LIFE National Contact Points (NCP) (GHK Survey).

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[1] http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+COMPARL+PE-418.451+02+DOC+PDF+V0//EN&language=EN.

[2] Council Conclusions "Improving Environmental Policy Instruments", 17 January 2011.

[3] ENVI Committee Opinion for the Special committee on the policy challenges and budgetary resources for a sustainable European Union after 2013.

[4] http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A7-2011-0193+0+DOC+PDF+V0//EN&language=EN.

[5] EESC's Opinion LIFE+/Mid-term Review: http://www.eesc.europa.eu/?i=portal.en.nat-opinions.18989

[6] CoR's Opinion on *"The EU Life Programme. The way forward"* .

[7] CoR's Opinion on 30 June 2011 on Climate mainstreaming and the future EU budget.

[8] Hereinafter referred to as "GHK survey".

- Project beneficiaries: project beneficiaries were also surveyed separately on the problem definition and 147 responses were received (GHK Survey).

Surveys aimed to obtain quantitative information on stakeholders' perspectives regarding environmental and climate problems facing the EU and the potential role for a financial instrument dedicated to the environment and climate action. Also, LIFE project beneficiaries (147 responses) were consulted to obtain information on the administrative burden of the programme, the quantitative estimates regarding impacts, and on their views on the problems. There was a general agreement that the most important problem is the lack of implementation of EU environmental legislation and inadequate integration of environment into other policies. Responses emphasised the need for a specific instrument to catalyse and leverage change.

An open online consultation was carried out on *'Your Voice in Europe'*[9]. Around 1000 responses were received from a variety of stakeholders, of which 58% had never received LIFE funding. Some 35% of respondents were organisations, 13% were competent authorities and 53% were private individuals. The main views are:

- 84% of respondents consider that there is a need for a specific financial instrument for the environment and climate action with only 10% supporting discontinuation.

- Stakeholders consider all LIFE interventions needed: 87.7% respondents support action grants, 65.7% support operating grants for NGOs and 74.9% procurement. 81.6% of respondents support the role of LIFE in boosting eco-innovation and 78% in allowing EU-wide exchange of information and awareness raising.

- As to scope, stakeholders support a more focused instrument (main priorities mentioned were biodiversity, adaptation to climate change, resource use and waste, and climate mitigation), but priorities should be non-exclusive. 67.5% of respondents support carrying out activities outside the EU.

- When it comes to the budget, 54.6% of respondents indicated that the current budget is too low to achieve the Programme's objectives. As to the management, 68.1% of respondents supported current central direct management by the Commission. Only 20% of respondents showed a preference for other management modes,[10] of which shared management (7%) was preferred to an executive agency (3%).

More targeted consultations have been carried out to complement the stakeholder survey: one organised with the LIFE Committee members and Member States' environmental attachés on 27 January 2010, and an **ad-hoc stakeholder meeting**[11] with around 100 representatives on 28 January 2010 (e.g. NGOs, farmers association, business, and public authorities).

In both cases, responses were consistent with the results of the online consultation with strong opposition from the Member States to discontinuing LIFE and eco-innovation activities funded under LIFE. Similarly, there was strong opposition to eliminating the traditional LIFE smaller bottom-up projects. Support for an increased budget was very strong with the exception of farmers associations that considered the current budget adequate. One Member State (UK) considered that a lower budget could be envisaged. Options were discussed during

[9] Hereinafter referred to as "YVIE".

[10] Options available were management by the European Commission, management by national authorities only, shared management between the European Commission and national authorities, and EU Executive Agency.

[11] Hereinafter referred to as "EC workshop".

both meetings, with stakeholders showing a preference for the Strategic and Integrated Programming.

A specific consultation on the territorial impacts by the **CoR** targeting local and regional authorities received a total of 40 responses, mostly from Spain (11) and Italy (10). The main conclusions were similar to other consultations with specific support to Integrated Projects, appreciating their high added value and considering them quite feasible.

Additional discussions with the public led to the following recommendations:[12]

- **On Nature and Biodiversity –** enlarged territorial scope, more programmatic approach to funding Natura 2000, more structured cooperation with other EU funds.

- **On the "Environmental Policy and Governance" strand -** increase budget, better exploitation of project results, clearer identity for LIFE Environment, better coordination with other funds, 3 year prioritisation, removal of national allocations.

In February 2011, Member States were informed via **the European Climate Policy Group** of the results of the consultations which showed general support for continuing a specific environment instrument, but to revise the instrument, including an increased focus on climate action.

1.1. Purpose of stakeholder consultation

The stakeholder consultations aimed to contribute to the process of defining problems, objectives and subsequent options.

As can be seen from the below, considerable effort went into defining the problems and need for a future financial instrument for the environment as the basis for determining the rationale and agreed objectives. The results of this effort, in the form of the developed options, were only then presented at the stakeholder workshop, where the options were discussed and developed further.

1.2. Interviews with the Commission

The interviews with Commission officials focused on qualitative discussions around:

- The type and scale of the environmental policy problems in the EU (including available evidence) and potential for EU added value

- The relative importance of particular problems and the drivers behind the problems

- What responses might best address the problems; what could/should be the priorities, objectives and activities for an Instrument for the environment.

1.3. GHK Survey of stakeholders

Surveys of NGOs, NCPs and social partners aimed to obtain quantitative information on stakeholder perspectives regarding the environmental policy problems facing the EU and the potential role for a financial instrument dedicated to the environment.

[12] Proceedings available at http://ec.europa.eu/environment/life/news/events/lifeconf_env/index.html.

A total of 34 surveys were received in response: 16 from NGOs[13], 6 from social partners[14] and 12 from NCPs.[15] It is not possible to determine how many recipients the survey was sent to, as several were passed onto networks who distributed the survey to members.

1.4. GHK Survey of project beneficiaries

This survey primarily served to gather data for the assessment of the baseline impacts, against which the options would then be assessed. Project beneficiaries were also asked questions about their opinion on the nature and scale of the problems that a European environmental instrument should seek to address.

All project beneficiaries from the 2007, 2008, 2009 calls for proposals were surveyed (totally 549 projects). The responses received totalled 147 (a 30% response rate).

1.5. EC Online Survey

In parallel to the GHK surveys described above, a separate survey was also conducted by the Commission's LIFE Unit in "Your Voice in Europe". The purpose of this survey was to gather views on the objectives, activities and support modalities of the instrument.

The consultation was open to all organisations registered inside or outside the EU as well as to individual citizens. Stakeholders consulted as part of this survey covered a broad spectrum of sectors and included those who were not recipients of any LIFE funding as well as direct beneficiaries. Of these responses 53% were from private individuals, 35% from organisations and the remaining 13% from Competent Authorities in Member States. Roughly 10% of the responses were campaigns answers from Eurosceptics. Most responses originated from Italy (13%), Germany (13%), France (9%), Belgium (9%) and Spain (8%). Answers were also received from outside the EU.

The survey included questions on the following areas:

- the need and the rationale for the LIFE instrument;
- the most effective design and management of the LIFE instrument;
- the most appropriate delivery mechanisms;
- relevant priorities for the LIFE instrument;
- the most effective ways to improve integration and synergy;
- the most effective ways to improve the visibility of LIFE.

1.6. EC Workshop led by GHK

Once the options had been developed on the basis of the stakeholder consultation, a Workshop was held on 28 January 2011 where stakeholders were consulted on their views of

[13] Including AIFM, Bankwatch, EUCC, Euro Group for Animals, Europarc, FACE, FERN, FOE Europe, National Trust UK, Pan-Europe, WWF EPO, IFOAM, ECO standard, CCB and WECF.

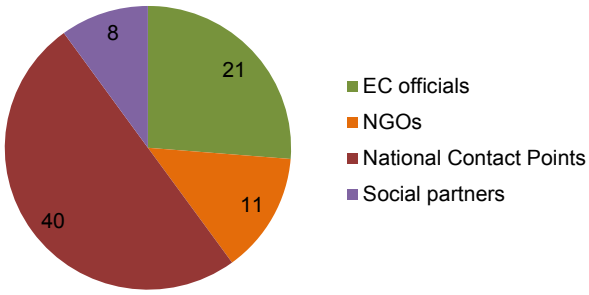
[14] Including BC Europe, GNM (Romania), IGOAT (Portugal), UEAPME (European Association of Craft, Small and Medium-sized Enterprises), SRDCP (Sustainable Development Research Centre) and Environment Agency (UK).

[15] These included responses from the National Contact Points of Italy, Germany, Portugal, Sweden, Belgium, Bulgaria, Czech Republic, Spain, Slovenia, Lithuania, Malta and Romania.

the revised problem definition, the rationale for an EU financial instrument, and the proposed options. The aim was to present and gather the views of stakeholders on the developed options for a future financial instrument for the environment and climate action. The options were presented to stakeholders in advance of the workshop in a 'LIFE Options Consultation Paper'.

The workshop was attended by roughly 100 stakeholders, comprised of NCPs and Member State representatives, NGOs and social partners, representatives from the private and public sectors, and European Commission officials. The breakdown of the stakeholder types of participants is shown in 0 below.

Figure 1.1 Half of the workshop participants were national contact points, with the other half being composed of EC officials, NGOs and social partners



Source: GHK analysis, EC Workshop

1.7. The CoR survey

This was an EC-led survey which ran after the GHK stakeholder workshop. Its aim was to gather the opinions of local and regional authorities (LRAs) on the important environmental problems, the weaknesses and limitations in implementing EU environmental policy, and the potential role for a future EU financial instrument for the environment.

A total of 40 survey responses were submitted from 12 EU MS, mostly from Spain (11) and Italy (10).

2. Problem definition

The initial stage of research sought to define the problems to be addressed by a specific instrument for the environment. To initiate the stakeholder consultation, a set of five environmental problems that could potentially form the basis for a specific instrument for the environment was devised. This was subject to stakeholder consultation and discussion with Commission services.

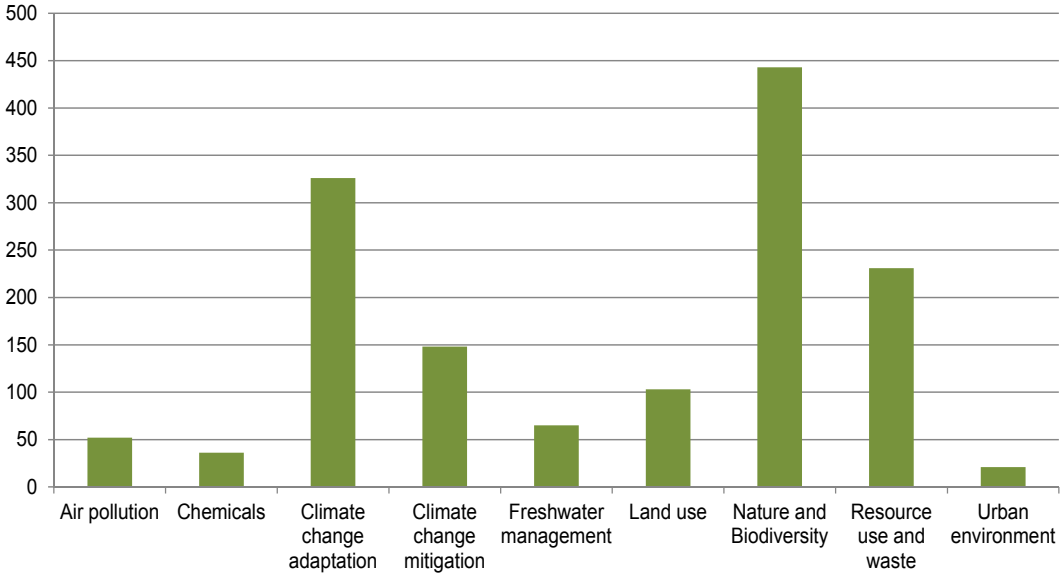
In light of these consultations the description of the five problems was revised and sought to clarify more particularly the distinction between:

- physical environmental problems; and
- institutional drivers that lead to policy gaps and weaknesses that result in the continuation of the physical problems.

2.1 Physical environmental problems and challenges in the EU Member States

Workshop participants were asked to rank the three most important environmental problems facing the EU. The weighted totals are shown in the graph below (where a problem ranked number 1 was given a weight of 10, number 2 was given a weight of 5, and a 3 was given a weight of 2).

Figure 2.1 The weighted totals of the rankings given by stakeholders to the environmental problems facing the EU indicate that stakeholders believe the most important problems are nature and biodiversity, climate change adaptation and resource use



Source: GHK analysis, EC Workshop

The results indicate that stakeholders believe the greatest environmental challenges facing the EU are that of nature and biodiversity, climate change adaptation and resources use and waste. Similar findings came out of the CoR survey, where climate change adaptation was identified as being highly significant by 69% of respondents, resource use and waste by 67% and nature and biodiversity by 42%. The two surveys differ however, in that nature and biodiversity was seen as more important than climate change adaptation and resource use by workshop participants than responses from the CoR.

Notably, most CoR respondents (54% of responses) identified a weak cause-and-effect relationship between their local environmental problems and those occurring in other countries; two thirds of the remaining respondents believe that these problems are to some extent related (31% of responses), while only one third of them (15% of responses) consider that such a link exists to a great extent.

2.2 Institutional drivers and underlying causes

The key institutional drivers identified during the options development are:

- Variable and inadequate levels of environmental protection through weaknesses in policy development;
- Variable and inadequate levels of environmental protection through weaknesses in policy implementation;

- Inadequate coordination, and inadequate integration of the environment into policy and practice (including non EU countries);
- Inadequate sharing of information and awareness of EU environmental problems;
- Inadequate system of support for eco-innovation.

In the following, stakeholder views are presented on each of these barriers, considering:

- Their importance; and
- Their underlying causes and barriers.

The extent to which a financial instrument dedicated to the environment should be used to address these institutional problems is discussed in Section 0.

2.2.1 Unregulated environmental problems: Policy Development

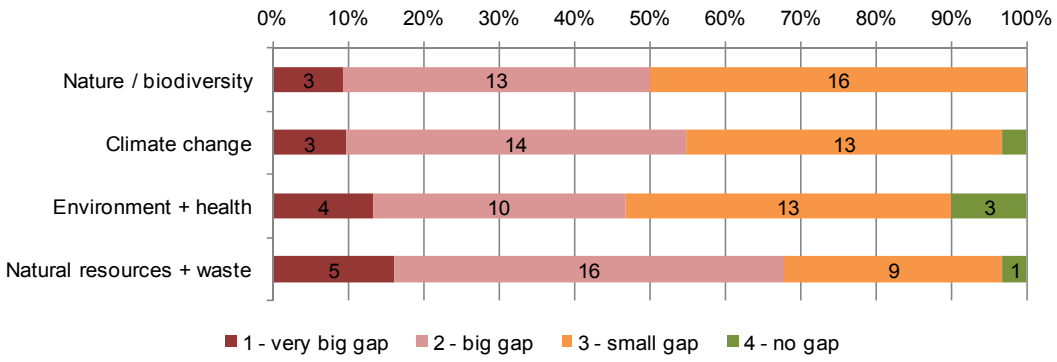
2.2.1.1 Extent and importance of the problem

Although most stakeholders (62%) from the **GHK survey** (including non-project stakeholders and project-beneficiaries) agreed that there is a need for continued policy development, the scope of the current *acquis* was not identified as being one of the most important problems that needs addressing. In fact, the scope of the *acquis* was the problem that was considered second least important (with addressing international problems as the least important). Most GHK survey stakeholders (54%) also believed the problem is most likely to stay the same in terms of severity, with only 25% believing the problem will increase in severity.

This relative lack of importance attributed to the scope of the acquis across all stakeholder consultations was largely a reflection of the fact that stakeholders could only identify a few areas which the current *acquis* does not address.

Policy gaps were also identified by **GHK survey** respondents. For instance, in terms of broad policy areas, two-thirds of GHK survey respondents identified natural resources and waste policy as having the biggest need for policy development. 45% of respondents also believed that there was a gap in the development of policy in terms of climate change. There was a division of opinion in relation to biodiversity with half believing there is only a small, or no gap at all, whilst the other half believed there is either a very big or big gap to fill. Environment and health policy was thought to be the most comprehensive.

Figure 2.2 Policy development was only considered to be a significant problem by some stakeholders across the four environmental policy areas



Source: GHK analysis, GHK Survey

2.2.1.2 Underlying causes and barriers to the problem

Results from the **EC workshop** further supported these findings. However, attendees noted that a potential barrier to improving the scope of the acquis is the perceived lack of appetite for new legislation and legal standards. It is therefore, likely to become more difficult to regulate future environmental challenges, especially in the current economic and political climate. The perceived decline in support for the EU and its activities is also a potential issue.

2.2.2 Inadequate Policy Implementation

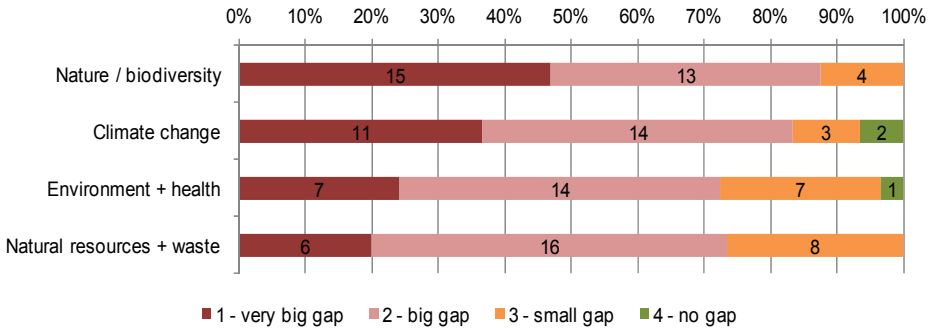
2.2.2.1 Extent and importance of the problem

The implementation of the *acquis* was consistently considered to be the most important issue to address across all stakeholders consultations. More than 80% of the **GHK stakeholder survey** agreed that the inadequate implementation of policies is causing major environmental problems to persist, and 55% of stakeholders identified inadequate implementation as the most important environmental policy problem in the EU.

On the other hand, respondents to the CoR questionnaire felt that weaknesses in policy development and implementation was not the most important problem to address, however it was still rated as being very significant. Respondents most often rated the weaknesses in policy development and implementation as second most important institutional barrier to addressing environmental problems.

Policy implementation was identified by GHK survey respondents as being a significant concern across all four environmental policy areas; more than 70% of respondents rating the gap in policy implementation as either very big, or big across all four policy areas. The gap was thought to be especially big in terms of nature and biodiversity policy; almost half believed there was a very big gap in policy implementation with almost all the remainder believing there was a big gap (see Figure below).

Figure 2.3 Stakeholders believed there were significant gaps in policy implementation across all four environmental policy areas



Source: GHK analysis, GHK Survey

In the case of nature and biodiversity, the management of the Natura 2000 network remains the biggest challenge as emphasised across all stakeholder groups. The issue of enforcement was also raised in the survey responses as a key barrier to the proper implementation of the acquis. The use of derogations and exemptions by Member States was also noted as being a potential contributing factor to the inadequate implementation .

2.2.2.2 Underlying causes and barriers to the problem

When asked to consider the causes of continuing environmental problems in the EU, GHK survey respondents indicated that more than 40% of the cause is due to weaknesses in the current EU environmental policy and difficulties with its implementation. The remaining 60% was thought to be due to the broad range of demographic, economic and social pressures on the environment which indirectly implies weaknesses in the current policy.

The GHK survey highlighted that the inadequate implementation of the acquis was largely seen as a problem of insufficient resources and differing competencies and understandings at Member State level. Similarly, results from the CoR survey showed that 40% of respondents felt that regional level improvements in the implementation of EU environmental policy/legislation are most effective in addressing the identified environmental problems. A further 24% believed that national responses also play a significant role.

However, a few GHK survey respondents also noted that the implementation of the acquis was being significantly hampered at the policy level by the lack of integration of environmental concerns in the implementation other EU policies

CoR respondents were asked to consider the most significant barriers to improving the implementation of the acquis. The two most frequently cited in response were the 'lack of financial resources to adequately implement and enforce policy' and 'conflicting priorities.

The 'least significant' issue in terms of implementing EU environmental policy/legislation for CoR respondents was the 'lack of knowledge': 46% of the respondents consider this issue as 'least significant' and 13% as 'second least significant'. Other issues mentioned by respondents include the lack of technical and human resources, the lack of a relevant policy framework at the national and regional levels, as well as the lack of knowledge and awareness by the general public.

GHK survey respondents were split almost equally across those who thought the problem would improve or get worse to 2020, whilst most (more than 40%), believed the problem

would stay the same. Moreover, the current economic climate is likely to worsen the problem as the environment drops down on the agenda, in favour of other priorities.

2.2.3 Insufficient synergies and inadequate integration of the environment into policy

There is a distinction between integration, and creating synergies (mainstreaming). Integration of environmental concerns into sectoral policies is seen as the responsibility of individual policy units. Creating synergies on the other hand, has less to do with policies than with improving complementarities between actual funding instruments. Stakeholders tended to focus their feedback and discussion on the former issue (i.e. integration of environmental concerns into sectoral policies), rather than on improving synergies between funding instruments as such (i.e. between, for instance, LIFE and the European Agricultural Fund for Rural Development (EAFRD). The latter point was, however, reflected in proposals (especially for Commission service interviews), for developing options for the future of LIFE, whereby LIFE could act as a test bed for pilot projects, which would then be mainstreamed through other funds.

It is important to note that the issue of integration of environmental concerns into sectoral policies can be broken down into two key components:

- integration in principle: the integration of the environment concerns into sectoral objectives; and,

- integration in practice: the lack of implementation of integration objectives (i.e. the lack of implementation of more sustainable concerns into sectoral policies).

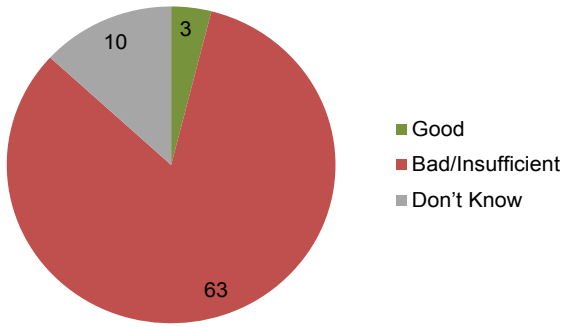
2.2.3.1 Extent and importance of the problem

Consultation of Commission services suggest that whilst some progress has been made in improving environmental integration within sectoral objectives (and to a lesser extent in practice), it remains a key issue across the policy areas and there is still significant room for improvement.

In fact, respondents to the CoR questionnaire most often rated the weaknesses in the integration of environmental policy considerations into other policy areas as the most important institutional barrier to addressing environmental problems (selected as most important weakness by 41% of the respondents and as second most important by 16% of the respondents). Moreover, weaknesses in the use of various EU funding instruments to support the environment was also felt to be a significant problem, being selected as most important weakness by 15.5% of the respondents and as second most important by 22% of them.

The general consensus across **GHK survey stakeholders**, **EC workshop** attendees and **interviews** with Commission officials was that the problem of integration is one of its application, not the principle. Most stakeholders did think that the main problem lay in the implementation of the policies, rather than the definition of polices; instruments such as the Common Agricultural Policy (CAP) are 'greened' in principle, but this does not always translate into their application.

Figure 2.4. The clear majority of workshop participants did not think that the integration of environmental concerns into sectoral policies has been successful



Source: GHK analysis, EC Workshop

Overall, the impact of other EU policies and spending instruments was seen as the second most important environmental policy problem by **GHK survey** respondents (after the implementation of the acquis), especially in the area of nature and biodiversity policy and natural resources and waste. Some **EC workshop participants** for instance, noted that the lack of coherence in funding for biodiversity across major European policy instruments (as well as weak political prioritisation in Member States), are the key factors in the low uptake of the wide range of funding opportunities for biodiversity.[16] Indeed, integration was seen as a problem by most workshop participants, with 83% feeling that integration to date has been poor.

The CAP was mentioned most often as the funding instrument in which integration in practice was most difficult. Participants to the **workshop** perceived the CAP as 'unsuccessful' in integrating nature and biodiversity objectives into the instrument, and as counteracting other environmental policies. Areas outside Natura 2000 were felt to be particularly neglected, with CAP funding being viewed as 'patchy' on the ground, with low uptake by some farmers. However, in its mid-term review of the 6th Environment Action Programme (6EAP) (COM(2007) 225) the Commission expressed a different view from above, through recognising that, "in the agricultural sector, there have been fundamental reforms over the last 15 years that have moved towards seeing farmers as stewards of nature". Specifically in the case of nature and biodiversity, integration was seen as a particularly major issue by stakeholders, especially given that currently only 20% of financing needs for the Natura 2000 network are being met. This 'gap' in financing needs highlights the importance of other instruments, namely rural development and regional funding, and the role they can play in contributing towards filling the gap. Currently, although instruments such as the CAP and the European Regional Development Fund (ERDF) are 'proofed' and 'greened' (e.g. explicitly mention Natura 2000) and opportunities to finance activities relating to the network exist, uptake remains poor in practice. This lack of application 'on the ground' is most likely associated with poor administrative and absorption capacity in the Member States, and the fact that for example in agriculture, less strategic planning is undertaken for nature and biodiversity.

[16] Changing Perspectives: How the EU budget can shape a sustainable future (2010). Available from: http://www.eeb.org/EEB/?LinkServID=7819455B-C145-9353-9D77F0192D2A9BD2&showMeta=0.

2.2.3.2 Underlying causes and barriers

Given the general viewpoint that integration is an issue of application, it is perhaps unsurprising that many stakeholders in the GHK survey, in the workshop and in the interviews with EC officials, noted that the problem of integration manifested itself at a national, Member State level (once the policies had been developed and environmental concerns integrated); there is a disconnect between what is happening at the EU policy level and what is happening in practice at the local level. This is possibly due to the degree of flexibility given to Member States to utilise the funding from the key instruments and/or because the instruments are regionally managed.

Although most GHK survey stakeholders (46%) believed the problem would largely stay the same until 2020, almost 40% thought the environmental problems caused by the impact of other EU policies was likely to increase.

2.2.4. Lack of awareness and information sharing

2.2.4.1 Extent and importance of the problem

The need to improve awareness levels and to increase knowledge sharing was most often rated as having middling importance by GHK survey respondents. Similarly, CoR respondents gave a lower level of importance to the inadequate levels of awareness of environmental problems by policy-makers, with 22% ranking this weakness as second most important and an equal percentage as third most important. However, Commission interviewees believed that awareness of the public and of politicians is a key issue which needs to be improved, especially given the links between awareness and policy implementation.

A lack of awareness and knowledge sharing was rated by GHK survey respondents as second most important in the policy area of environment and health. However Commission interviewees considered that the problem was relevant to virtually all policy areas. Interviews with Commission services suggested that knowledge sharing was also seen as important in the case of waste policy and resource use, with a lack of knowledge transfer between national and local levels, whilst in the case of the Natura 2000 network, the lack of awareness of the benefits of the network is seen as a major barrier to progress.

2.2.4.2 Underlying causes and barriers

EC workshop participants also noted that raising awareness should not be seen as a standalone activity, but rather as an activity that is associated with all other activities. Several workshop attendees noted that a lack of awareness impedes the implementation of policy. Some also thought that an adequate implementation of policy would also lead to greater awareness. Awareness is therefore considered a critical element to ensuring the adequate implementation of policy. As such, many stakeholders indicated that a lack of awareness is an underlying cause of other problems.

Nonetheless, a few GHK survey stakeholders suggested that in the case of politicians (compared to the public) the issue is one of increasing political will, and less a case of increasing knowledge.

2.2.5 Inadequate support for eco-innovation

2.2.5.1 Extent and importance of the problem

Regarding general implementation of the eco-innovation issue, all stakeholders recognised that new policy and technological responses are required to address continuing and future environmental problems, above all of the other drivers. Some workshop participants however, suggested that the lack of support for eco-innovation should not be considered as a driver (especially when interpreted strictly as supporting innovative eco-technologies).

Respondents to the CoR survey rated the inadequate support for eco-innovation as one of the least important issues to address. Views in the case of the GHK survey were very much divided about how important the need for eco-innovation is; roughly a third each thought it was most important, of middling importance, and of low importance. Almost the same was found when GHK survey respondents were asked how the problem would change in severity by 2020, with roughly a third each saying it would decrease, stay the same, or increase.

Eco-innovation was rated by survey respondents as by far the most important issue to address in the policy area of climate change.

2.2.5.2 Underlying causes and barriers

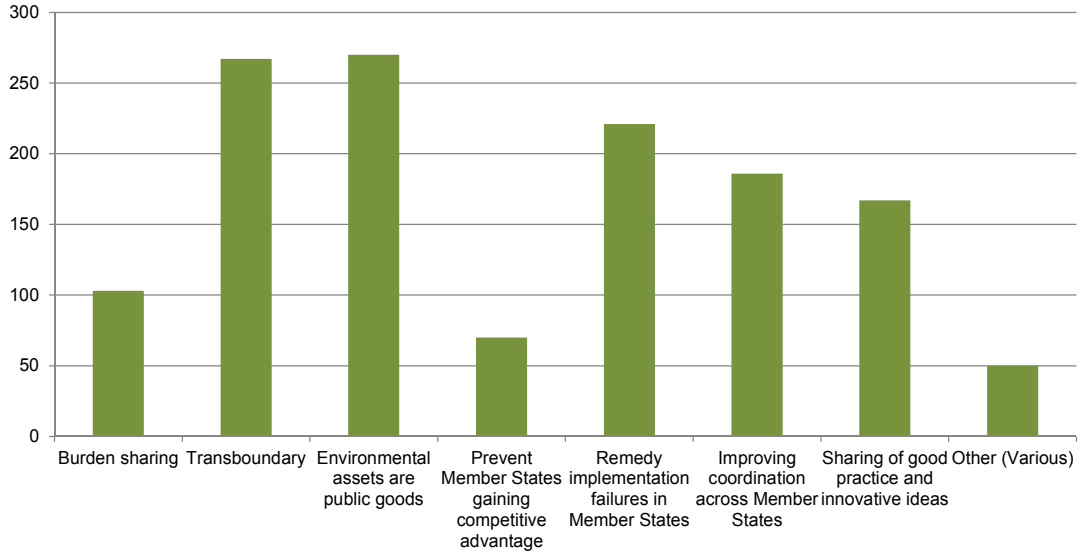
The underlying causes and barriers were not commented on by stakeholders.

3 The rationale for, and EU added value of, a specific instrument for the environment and climate action

3.1 Justifications for an instrument for the environment

Several reasons were felt to be important justifications for having a dedicated instrument for the environment. The two most important reasons according to workshop participants are the transboundary and public asset nature of environmental assets (see 0)

Figure 3.1 Weighted ratings indicate that the most important justifications for an instrument for the environment rated by workshop participants is the transboundary and public goods nature of environmental assets



Source: GHK analysis, EC Workshop

However, viewpoints between different stakeholder groups did differ somewhat. For instance, social partners believed the most important reason for a dedicated instrument for the environment was for the sharing of good practice and innovative ideas, while for government officials, the most important reason was to remedy implementation failures in Member States. For NGOs and NCPs, both felt that the most important justification was the public asset nature of environmental assets, although NGOs also felt that implementation failures in Member States was almost equally as important.

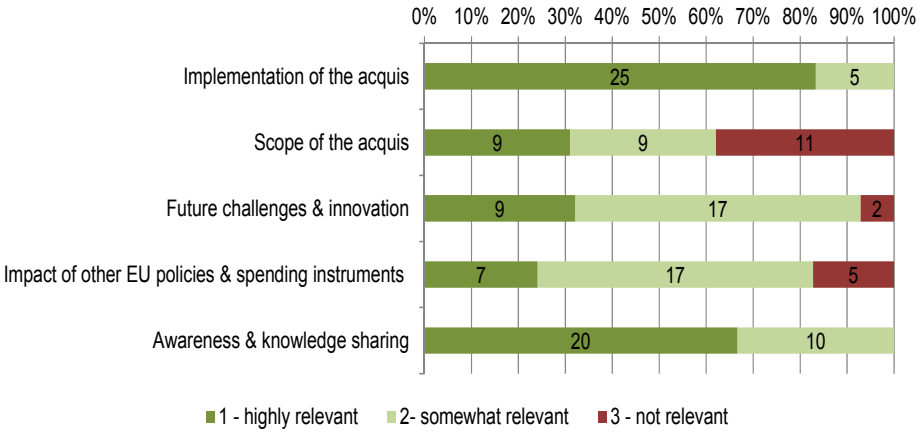
In the case of CoR respondents, who were asked a similar question, the rationale for EU level action that were considered highly valid by stakeholders (50% of respondents) was that 'EU action is required to remedy failures in Member States in the transposition, implementation and enforcement of EU environmental policy' was considered highly valid by 50% of the respondents. 'Improved coordination of policy efforts across Member States (MS) in (central/regional level) in order to better integrate environmental policies in sectoral policies', was placed in the top two validity levels by 85% of the respondents. A similar indication was given by 77.5% of the respondents about 'burden sharing at EU level to increase the effectiveness of MS policy in meeting EU objectives'. Moreover, 40% of the respondents considered highly valid the following arguments: 'Environmental problems are often trans-boundary across MS borders and require EU level responses' and 'environmental assets are public goods and require EU action to ensure adequate provision'.

3.2 EU added value of the existing instrument for the environment

Stakeholders believe the LIFE instrument is a valuable programme and should definitely continue into the future. Results from the YVIE survey were also clear on this point – almost 80% of respondents believed to a great extent that there is a need for a specific instrument for the environment. Moreover, 98% of workshop participants also felt that a specific instrument for the environment was necessary in order to meet environmental challenges. However, whilst virtually all participants felt that there is a clear need, some noted that it will not be sufficient to address environmental problems unless the integration of environmental considerations into other funding instruments is improved and the resources available to it are significantly increased.

The overwhelming consensus across all stakeholders consulted is that the most important focus for LIFE should be the implementation of the acquis. Its role in implementing policies for nature and biodiversity (e.g. the Natura 2000 network) was seen as being particularly important, given the absence of any other financial instrument specifically focused on nature protection. The promotion of awareness and knowledge sharing was seen as a particularly important activity. GHK survey respondents stated that other relevant areas of activity for LIFE+ were the funding of innovative means of addressing future challenges as well as addressing the impact that other EU policies and spending instruments can have on the environment.

Figure 3.2 The existing LIFE instrument was thought to be most effective (first figure) and most relevant (second figure) in the case of the acquis' implementation, with its role in awareness raising and knowledge sharing also being especially significant

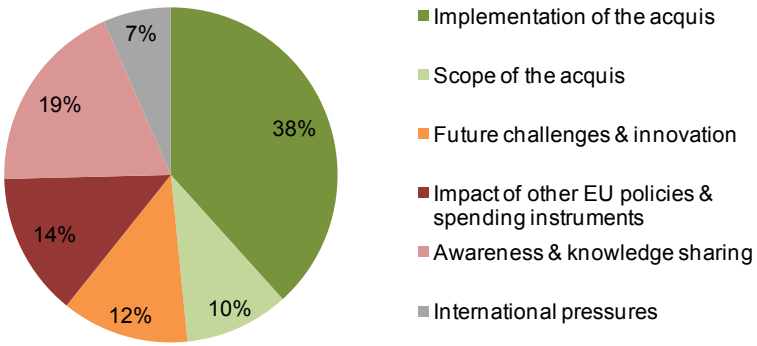


Source: GHK analysis, GHK Survey

Survey respondents were also asked to allocate resources across the different policy problems, and consequently spread the resources across all the policy problems, although most of the resources (38%) were thought to be best allocated to the implementation of the environmental acquis. This provides further indication that the focus of a future instrument for the environment should be on improving the implementation of the acquis.

There was a clear preference for the instrument to focus a significant portion of its resources on the implementation of the acquis (see figure below). GKH survey respondents thought that after the implementation of the acquis, almost equal portions of resources should be spent on awareness raising and knowledge sharing, and addressing the impact that other EU policies and spending instruments can have on the environment. Respondents thought that the least amount of resources should be spent on addressing the impacts of international pressures on the EU (see Figure below). Thus, despite the current resource limitations, none of the stakeholders believed the instrument should be restricted to addressing just one type of policy problem or activity.

Figure 3.3. GHK survey stakeholders believed, on average, that 38% of the resources of LIFE should be spent on addressing the inadequacies of the acquis' implementation



Source: GHK analysis, GHK Survey

3.3 Rationale for an instrument for the environment to intervene in the five main problems identified

3.3.1 Policy development

Although the need for further policy development was not thought to be as great relative to other environmental policy issues, almost 70% of GHK survey stakeholders believed there was substantial added value from EU level action. The transboundary nature of environmental problems was by far the most commonly cited rationale by GHK survey respondents for EU intervention in policy development.

Whether a dedicated financial instrument for the environment is the best means to address this problem however is not so clear. For instance, participants in the EC workshop expressed reservations as to whether an instrument for the environment should address weaknesses in the development of EU policy.

3.3.2 Policy implementation

Although the implementation of the acquis was largely seen as a problem at the Member State level, virtually all GHK survey stakeholders believed there was substantial added value from EU level action to improve the implementation of environmental legislation, with all respondents believing there was a need for financial intervention to address the problem. The most common rationales given for doing so was the transboundary nature of environmental problems and the regulatory failures in Member States.

90% of GHK survey respondents indicated that there was substantial EU added value for EU level action to improve policy implementation, with 97% believing that there is a rational for EU financial intervention. Enhancing the capacity of Member States to implement policy was ranked as the most important role for a specific instrument for the environment.

More than 80% of respondents to the "Your Voice in Europe" survey also noted that EU financial assistance for the implementation of the environmental acquis is relevant or very relevant as a justification for a specific instrument for the environment. 70% also believed that supporting and improving implementation was either very important or important for a future financial instrument for the environment.

3.3.3 Integration of environmental concerns into sectoral policies

Improving the integration of environmental concerns into other policies is considered imperative by all groups of stakeholders because of:

- the cross-cutting nature of the environment and biodiversity;
- the negative impacts on the environment and biodiversity of other policies; and
- the fact that direct funding for the environment is severely constrained, and so financing for the environmental acquis is highly dependent on other policies and funding instruments.

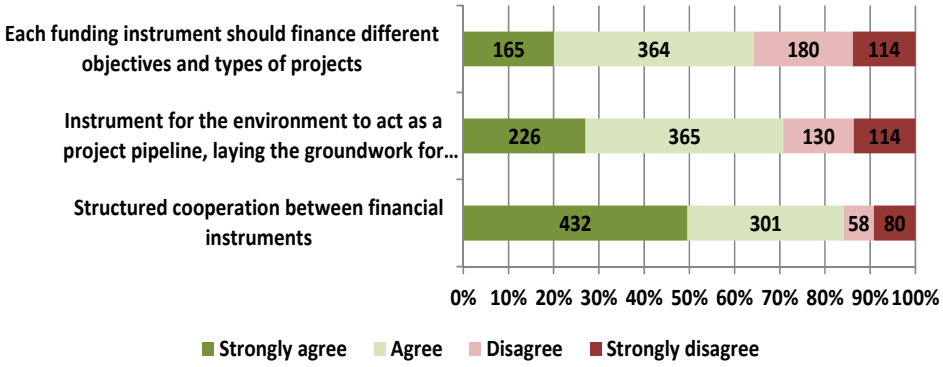
Most (almost 75%) of GHK survey respondents thought the added value of EU level action to improve the impact of other EU policies on the environment was substantial. The most popular rationales given for doing so was the fact that environmental assets are public goods,

requiring EU action to ensure their adequate provision, and the need to mitigate the possible adverse impacts on competitiveness. 75% of stakeholders thought the problem merited financial expenditure at the EU level.

With regard to synergies between different funding instruments, YVIE results showed that most respondents agreed (more than 80%) that a structured cooperation between the future EU financial instruments for the environment and other EU funding instruments should be established. This was by far the preferred option for enhancing synergies between LIFE and other EU programmes.

A further popular suggestion was to use the future instrument for the environment to develop a project pipe-line, funding exemplar initiatives to demonstrate feasibility and disseminating results as the basis of subsequent mainstream funding other EU instruments (65% of GHK stakeholder survey respondents agreed or strongly agreed that this would improve complementarity). A significant number of respondents to the YVIE also believed that this approach would be a good means to improving complementarities between different funding instruments (see figure below)

Figure 3.4 The most popular suggestion for improving complementarities between funding instruments was for structured cooperation to be established between the financial instruments

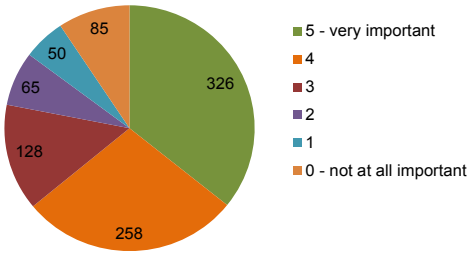


Source: GHK analysis, YVIE Survey

3.3.4 Awareness raising and information sharing

Slightly more than half of the GHK survey respondents believed there was substantial added value for EU level action to improve awareness levels (with the other half believing there was at least some added value). The majority of respondents (almost 90%) also believed there was a rationale for EU level expenditure to do so, because of the need to share good practice and innovative ideas, and to support burden sharing. In the case of the YVIE survey, a considerable number of respondents felt that it was very important for a future instrument for the environment to contribute to awareness raising and information activities (being given a rating of 5 or 4 by 64% of respondents). However, some workshop participants felt that awareness had already been sufficiently mainstreamed, and that other instruments and other stakeholders are already addressing this issue.

Figure 3.5 Most YVIE respondents felt it was important for a future instrument for the environment to contribute towards awareness raising and information sharing was an important



Source: GHK analysis, YVIE Survey

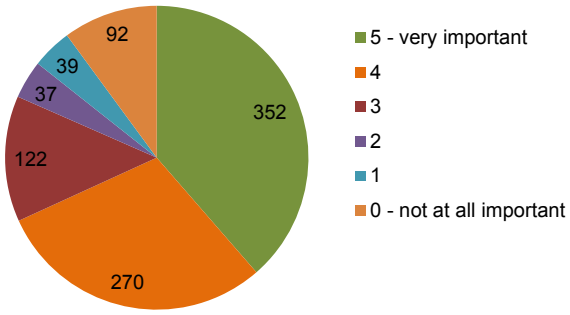
3.3.5 Support for eco-innovation

Almost 60% of survey respondents believed there is substantial EU added value from supporting eco-innovation (with 77% agreeing that this should include financial support), with the key justification being the need for knowledge sharing.

In the case of the YVIE survey, a considerable number of respondents felt that it was very important for a future instrument for the environment to contribute to awareness raising and information activities (being given a rating of 5 or 4 by 68% of respondents).

However, although thought to be an important issue in addressing environmental problems in general, only a third of GHK survey respondents felt that a specific instrument for the environment should address the needs of eco-innovation given the presence of other instruments in this field, particularly that of the Competitiveness and Innovation Programme (the CIP) and the Seventh Framework Programme. More than 60% of survey respondents felt that addressing eco-innovation is only somewhat relevant for an instrument dedicated to the environment.

Figure 3.6 Most YVIE respondents felt it was important for a future instrument for the environment to boost innovative actions for the environment



Source: GHK analysis, YVIE Survey

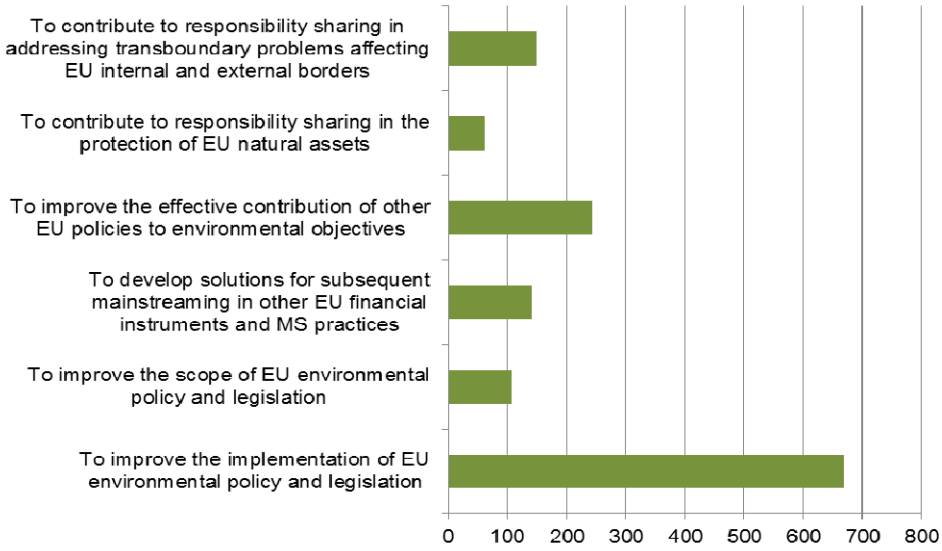
4 Objectives, Activities and Resources of a future instrument for the environment

4.1 Objectives

The stakeholder workshop considered suggested objectives. These were largely accepted. As with the GHK survey, the most important objective for a specific instrument for the environment was felt to be the implementation of the acquis (see 0).

However, there was some concern that a specific objective relating to EU international commitments might lead to an instrument that gave insufficient weight to issues of more immediate concern and which would provide clearer EU added value.

Figure 4.1 Workshop participants indicated that the most important objective for an instrument for the environment is to improve the implementation of the environmental *acquis* (weighted scores)



Source: GHK analysis, EC Workshop

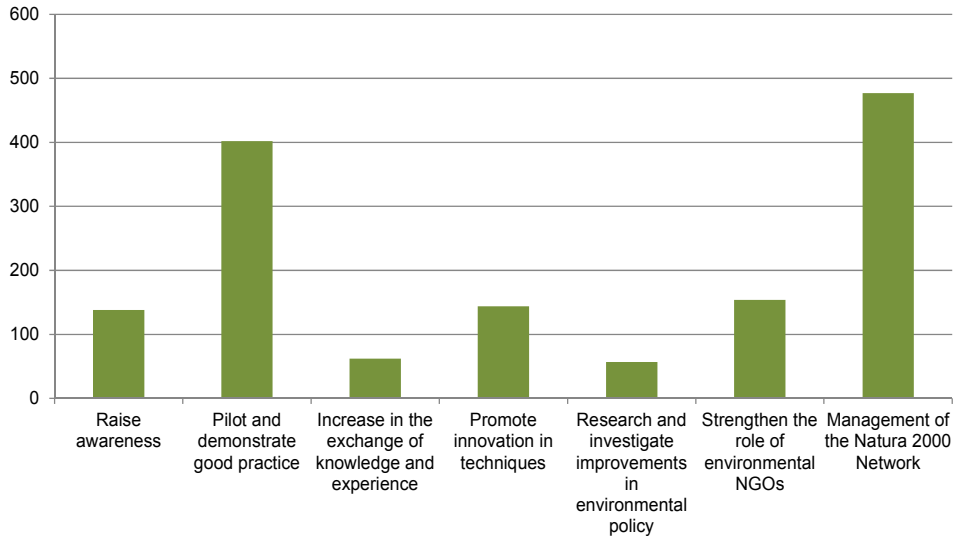
4.2 Activities

Workshop participants were asked to rate potential activities that a future instrument for the environment could undertake. By far the most important activities rated by participants were the management of the Natura 2000 network, and the demonstration of good practice through pilot projects.

The demonstration and sharing of best practice was rated the most important objective for an instrument for the environment by respondents to the YVIE survey, although only marginally.

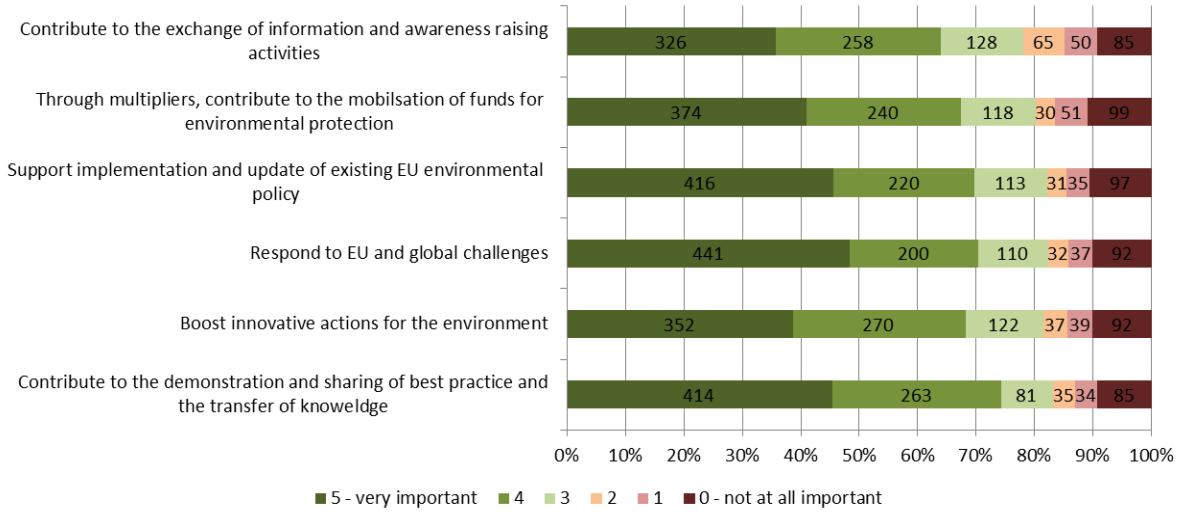
Some stakeholders also suggested that LIFE should fund bottom-up projects, as well as projects programmed at national level within a national framework to develop innovative approaches that provide new solutions to the key problems.

Figure 4.2 Weighted ratings by workshop participants indicate that the management of the Natura 2000 network and the demonstration of good practice are the key activities perceived by stakeholders for an instrument for the environment



Source: GHK analysis, EC Workshop

Figure 4.3 Demonstration and sharing of best practice was most often given the highest ratings when YVIE respondents were asked what role a future instrument for the environment should play



Source: GHK analysis, YVIE Survey

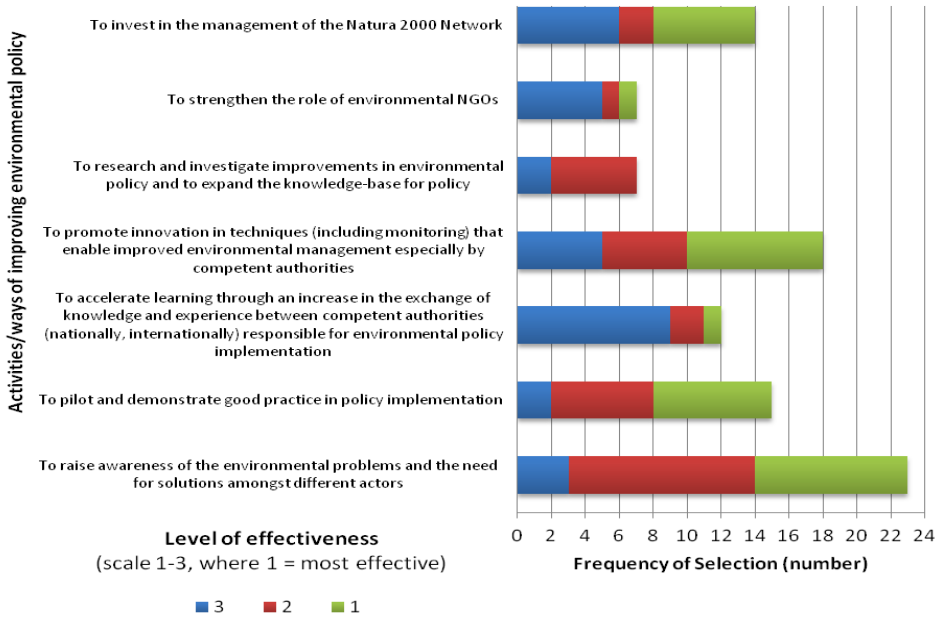
CoR respondents were also asked to consider what activities would be most effective in improving environmental policy and its implementation. In contrast to the results found in the GHK and YVIE survey, the most frequently selected activities was the "raising awareness of the environmental problems and the need for solutions amongst different actors" (selected as most effective by 28% of the respondents and as second most effective by 34.5% of the respondents) and "promoting innovation in techniques (including monitoring) that enable improved environmental management especially by competent authorities" (selected as 'most effective' by 25% of the respondents and second most effective by 16% of the respondents).

The demonstration of good practice (selected as 'most effective' by 22% of the respondents and as second most effective by 19% of the respondents) and investment in the management

of the Natura 2000 network (selected as most effective by 19% of the respondents and as third most effective by an equal percentage of respondents), whilst also popular choices, were considered slightly less important than those activities mentioned above.

The least effective of the activities were considered to be 'to research and investigate improvements in environmental policy and expanding the knowledge base for policy', 'to strengthen the role of environmental NGOs' and 'to accelerate learning through an increase in the exchange of knowledge and experience between competent authorities responsible for environmental policy implementation'.

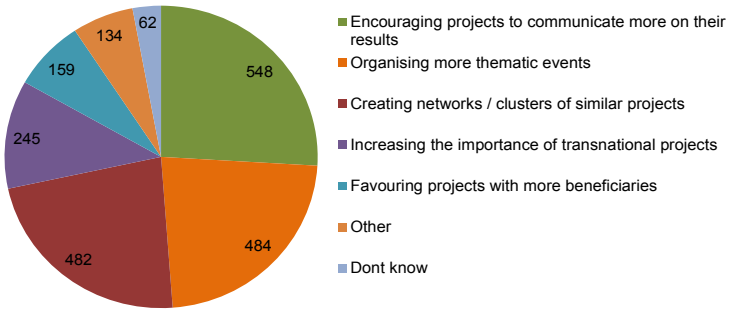
Figure 4.4 CoR respondents most often selected the need to raise awareness of environmental problems and solutions, and the promotion of innovation as the key activities to improve the implementation of environmental policy



Source: CoR Report: 'Assessment of Territorial Impacts of the EU LIFE+ Instrument' – results from the Committee of the Regions survey

YVIE respondents were also asked what activities they thought would most act to increase the visibility of the results of LIFE+ funded projects and encourage their replication at a larger scale. Most respondents thought this was best done through encouraging projects to communicate more on their results. However, more thematic events, and the creation of networks and clusters of projects within the same environmental field and/or which have similar objectives was also thought to be useful.

Figure 4.5 YVIE respondents believed that the communication of project results was most often selected as the activity which would increase the visibility and replicability of LIFE+ project results



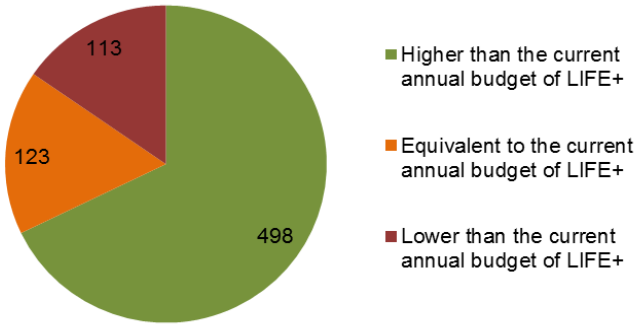
Source: GHK analysis, YVIE Survey

4.3 Resources

Although stakeholders identified opportunities for improvement, they also noted that a key factor limiting the effectiveness of LIFE+ has been its limited resources.

Results from the YVIE survey indicate that the clear majority of respondents (68%) thought that a future instrument for the environment should have an annual budget that is higher than the current annual budget of LIFE+. Only the least number of respondents (15%) believed the budget should be decreased.

Figure 4.6 The majority of respondents to the YVIE survey believed that the budget for a future instrument for the environment should be increased

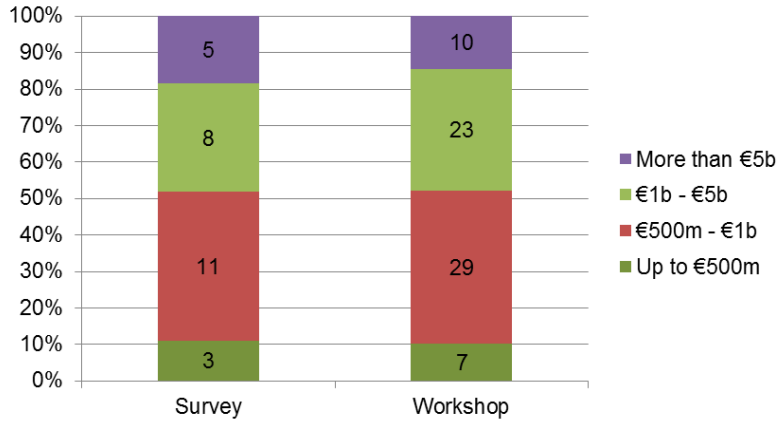


Source: GHK analysis, YVIE Survey

The result was even more unequivocal in the case of the **GHK survey**, where 90% of survey respondents believed that LIFE+ was under-resourced and should have access to considerably more funding. Whilst many did not think there would, realistically, be a very significant increase, most nonetheless considered that significantly more resources were required. Similarly with EC workshop participants, the sentiment was one of, "the more the better", as long as there was a commensurate increase in capacity to manage the funds.

Most survey respondents, and 42% of EC workshop participants, believed that resources of €500 million to €1 billion a year would be more appropriate (see figure below) than the current €0.3 billion. The majority of the remaining workshop participants (33%) voted for an increase in resources to €1 – 5 billion a year.

Figure 4.7 The preference of stakeholders consulted by GHK, (an almost identical proportion of those consulted in the survey and in the workshop), was to increase the resources available to LIFE+ to levels of between €500 million and €1 billion a year (about 40%), while the second most popular option was to increase resources to €1 million and €5 billion a year (about 30%)



Source: GHK analysis, GHK Survey and EC Workshop

5 Thematic and territorial focus

5.1 Thematic focus

None of the GHK survey stakeholders believed the instrument should be restricted to addressing just one type of policy problem or activity. The clear majority of EC workshop participants (75%) were also clear that a thematic focus was not required, with a need to address the whole of the acquis. Some noted that excluding certain themes at different times might compromise the continuity in the support provided to particular themes and hence quality of work delivered. There was a resounding view that all the themes are interlinked and there is a lot of interaction between them, making it difficult to separate out 'more important' themes.

Similarly, respondents to the CoR survey indicated that more than three quarters of the respondents (76%) do not agree with narrowing the focus of the future instrument to a specific area/objective (Chart 20). Those who are in favour of a more focused LIFE instrument, specify climate change (42% of responses), the management of the Natura 2000 Network (33% of responses) and the Habitats and Birds directives (17% of responses) as the most pertinent objectives/areas.

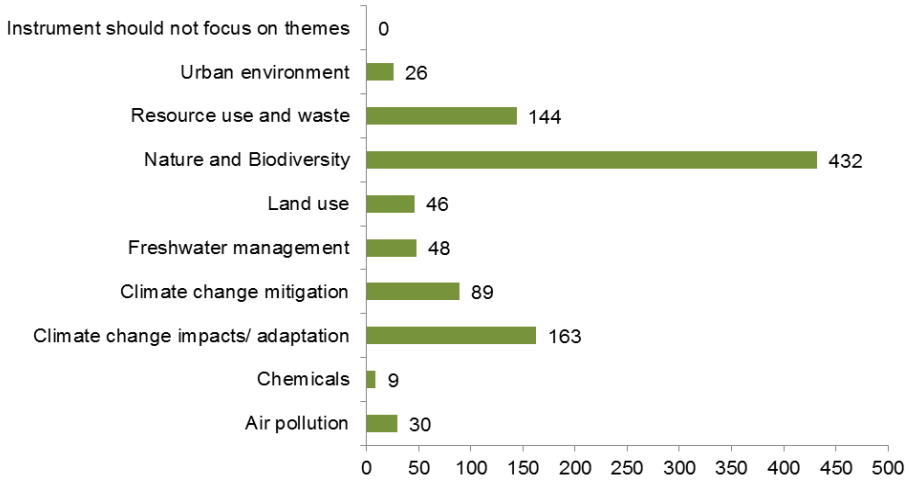
The results from the YVIE survey, however, show that roughly 60% of respondents felt that the Commission should set a number of environmental thematic issues to be addressed in priority. It should be noted that the YVIE survey was asking respondents whether certain environmental fields should be prioritised; this does not necessarily mean that other environmental fields would be completely excluded. Therefore the YVIE results and the GHK survey results are not necessarily contradictory, given that the GHK survey was asking respondents to consider whether a future instrument should be completely limited to certain environmental policy areas. This latter option was clearly much less desirable.

Indeed, whilst many stakeholders noted that a focus on nature and biodiversity in a future instrument would be useful (especially given that no other instruments directly supports nature protection and biodiversity as an explicit objective), other activities which are not explicitly related to nature protection (e.g. water resources) should not be excluded from being potentially funded (see 0).

A similar result was found in the YVIE survey, where nature and biodiversity was thought to be the most relevant environmental policy area for an instrument for the environment, but other environmental fields (e.g. water, climate change, marine, etc.) were also believed to be particularly relevant.

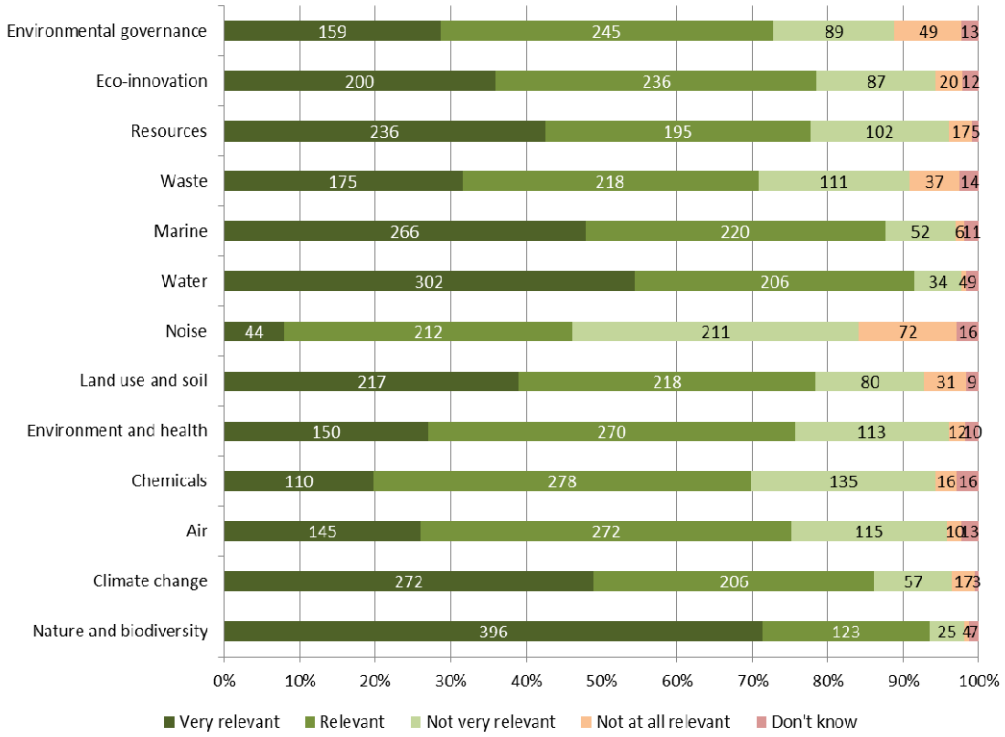
Overall then, it seems that stakeholders are not necessarily adverse to having a *focused* instrument, but they are adverse to having an instrument which focuses *only* on one type of activity or policy area to the exclusion of all others (such as nature protection). Stakeholders felt that priorities, if set, should be non-exclusive, to avoid deterring good ideas and projects but ensuring the weight of the programme addresses the main objectives.

Figure 5.1 Weighted responses from workshop participants indicated that the clear majority felt that a focus on nature and biodiversity was most important, although other environmental policy areas remain relevant



Source: GHK analysis, EC Workshop

Figure 5.2 YVIE results indicate that the most relevant environmental policy area for an instrument for the environment is nature and biodiversity, although other environmental policy areas also remain important



Source: GHK analysis, YVIE Survey

5.2 Territorial focus

The territorial focus could better be considered in the design of the future instrument. Several Commission interviewees stated that it was regrettable that the Third Country component was removed from LIFE, as they felt these projects had been effective in the past. Stakeholders across all the consultations generally supported the potential for a specific instrument for the environment to fund activities outside the EU, as long as it provided EU benefits.

Almost 70% of respondents to the "Your Voice in Europe" survey agreed that a specific instrument should allow for the possibility of some activities to be carried out outside the EU. Of those who responded in the affirmative, most (almost 40%) thought that external action should only be carried out where there is a clear contribution to achieving an EU policy objective. Other justifications given for external action were in the case of countries which aim at becoming members of the EU in the future ('candidate countries' and 'potential candidates') and in the case of countries neighbouring the EU.

Similarly, workshop participants considered that the primary focus for activities outside the EU should be on issues with neighbouring countries, rather than international commitments. Funding activities outside the EU would help with awareness raising and knowledge sharing as there is often a significant need for joint action.

For transnational projects, the current minimum share of LIFE+ funds allocated (15%) is viewed as reasonable by the majority of stakeholders consulted. In fact, the current instrument spends 30% of the budget on transnational activities.

However, 39% of respondents to the CoR survey believe that the new LIFE instrument should address EU countries only. Nonetheless, 36% consider that it should ideally include 'minor allowances for third countries involvement'. The few arguments raised by the respondents regarding this matter suggest that involvement of countries outside the EU should be allowed if required by the project, or more specifically, whenever there is a clear contribution towards achieving specific EU policy objectives and/or promoting solutions to shared problems.

Overall, these results are not entirely surprising, in light of the fact that most stakeholders believed that burden sharing and the transboundary nature of environmental problems is the second most important rationale for a specific instrument for the environment to exist (EC workshop participants), and the most important rationale by YVIE survey respondents. survey).

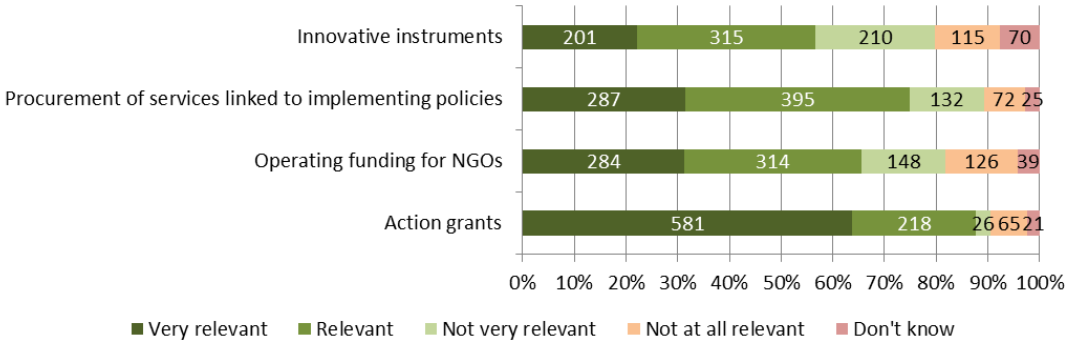
6 Delivery Mechanisms and Management Options

6.1. Delivery Mechanisms

In general, the existing suite of mechanisms used in the current LIFE+ instrument was seen by stakeholders as being adequate. Respondents to "Your Voice in Europe" noted that action grants were, by far, the most important activity, followed by public procurement of services. Procurement of services (e.g. studies, technical assistance) was only somewhat thought to be more relevant than the operational grants given to NGOs. There was considerable more uncertainty about the use of innovative instruments (e.g. provision of interest rate subsidies, subsidised loans, venture capital, micro-credit).

In the case of the CoR survey, the most effective mechanisms to be used in the future LIFE instrument are considered to be 'action grants (transnational projects, integrated and technical assistance)', followed by 'operational grants', (42% and 23% of responses, respectively). The other two mechanisms listed in the questionnaire ('public procurement' and innovative instruments) received less than one fifth of responses (19% and 16% respectively).

Figure 6.1 YVIE results indicate that respondents believe that the most relevant delivery mechanism for an instrument for the environment is nature action grants



Source: GHK analysis, YVIE Survey

6.2 Action grants

Despite the support given by stakeholders to the need for, and importance of, action grants (as indicated in figure 6.1), stakeholders did raise some issues with the current **co-financing rate** for action grants, with 65% of YVIE respondents noting that the current 50% rate is not appropriate. Some workshop participants, for instance, felt that the current co-financing rate is regressive, and discriminates against poorer Member States. It was suggested that

differentiated co-financing rates, would be beneficial, with higher co-financing rates for those Member States who find it difficult to submit project applications or absorb funding. The number of quality projects being financed may also be lower, as some project beneficiaries are unable to secure sufficient match funding to be eligible for LIFE funding.

Overall, there was a general agreement among workshop participants that the EU should contribute a maximum of 75% of the total project budget to ensure that beneficiaries maintain ownership of their projects.

6.3 Operational grants

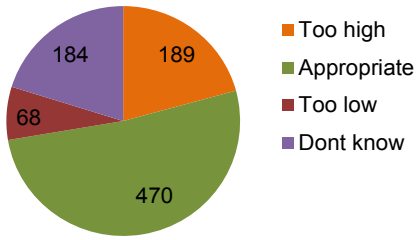
Although operational grants received less support in the YVIE survey than public procurement or action grants, workshop participants nonetheless noted that strengthening the role of environmental NGOs was a very important activity, given their importance in linking inputs from the general public to policy development, in raising awareness and sharing knowledge, as well as ensuring that the views of civil society are represented at a policy level.

When asked whether the current co-financing rate of 70% for NGO operating grants is appropriate, most stakeholders (52%) believed it was. However, several respondents also believed it was too high, although an almost similar amount was not sure (see figure below). When asked further whether this operational funding should be gradually decreased over consecutive years, there was an even split between respondents who thought it should, and respondents who thought it should not (38% each way).

A clearer response was given to the question of whether a future instrument for the environment should prioritise the funding of certain types of NGOs; in this case, 46% believed this approach should be adopted, whilst a third believed it should not.

The type of NGOs that were most often chosen as being prioritised, are the NGOs that work on the implementation of EU policy. Other preferred means of prioritisation were NGOs which are involved in shaping EU policy, and those which have large geographical coverage. Respondents were less likely to indicate that prioritisation should be given to those NGOs which work on specific topics and new NGO networks.

Figure 6.2 YVIE results indicate that most stakeholders believed the current co-financing rate for NGO operating grants (70%) to be appropriate



Source: GHK analysis, YVIE Survey

6.4 Use of innovative instruments

The use of innovative instruments (e.g. loans) had the least support. For instance, many workshop participants believed that loans are not likely to be appropriate for nature and biodiversity projects, which are better served by grants. However, loans could be more

feasible for EPG-type demonstration projects that are close to market (although the potential for overlaps with the CIP would need to be carefully managed).

6.5 Integrated Projects

Views were somewhat divided on the benefits of integrated projects (IPs). Some thought they have the potential to increase complementarity and policy interaction, especially respondents to the YVIE survey, where 55% thought that IPs should be encouraged. Fewer respondents felt that IPs are suited to the management of the Natura 2000 network (42%), and a significant number of respondents were not sure (41%). Slightly more respondents (50%) thought IPs were right, however, for other sectors. Again though, many were unclear about the nature and benefits of IPs (38%).

In the case of the CoR survey, 85% of the respondents liked the idea of IPs, as opposed to only 10% who disagreed with that concept; 5% of respondents did not express an opinion. Respondents have underlined the suitability of IPs when searching for local solutions to regional or national environmental problems. They also claim that IPs are appropriate to enhance coordination in environmental issues especially when involving international cooperation; can help promote coordination between sectoral policies and between different territorial areas; and allow the optimisation of resources. On the other hand, respondents have commented that the necessary staff capacity to support IPs is missing at the local level, as well as that integration in projects can be both a desirable aspect and a burden (as sometimes it is important to have the option to address only environmental issues in a project). Moreover, those who are against IPs, argue that in practice, such projects are too complex and fail to achieve high quality standards.

About three quarters of the respondents consider IPs quite feasible, while 21% finds those projects very feasible; only 5% believe that such projects are not feasible (Chart 15). As one of the respondents commented, IPs offer the advantage of a comprehensive solution to the problem at regional level, but at the same time require quality coordination of activities and increased financing. In addition, respondents raised concerns over the increased coordination requirements between the different agencies governing IPs, calling for consensus at a high governance level. The need to simplify financial reporting procedures was also mentioned, along with comments on the difficulties faced by public bodies lacking resources to co-finance IPs.

At the same time, respondents highlighted the potential of IPs to maximise synergies and value for money, as well as to create opportunities for the implementation of large-scale actions, bringing together both a large number of experts/technicians and adequate funds.

Many participants at the workshop believed IPs would be difficult to operationalise in practice. Some issues that were raised included the potential difficulties in fulfilling eligibility requirements, possible difficulties in managing projects and actually coordinating the project across the different funding instruments involved given the very different management and organisational cultures. The perceived clash between the programmatic approach in other instruments and the project approach in LIFE was a key reason for why stakeholders were sceptical of the potential for integrated projects to be successful in practice. It was noted that IPs are likely to be more feasible for nature and biodiversity projects as the future instrument would be able to ‘activate’ other funds and gather diverse sectoral policies.

However, CoR respondents suggested that IPs could most realistically and effectively be used to address a wide variety of environmental problems/challenges met within their

region/municipality, notably: 'freshwater management' (21.5% of responses); 'nature and biodiversity' (18% of responses); 'resource use and waste' (14% of responses); as well as 'urban environment', 'air pollution' and 'land use' (each counting for 9% of responses). In addition, a total of 14% of the related responses concerned climate change issues (either adaptation or mitigation).

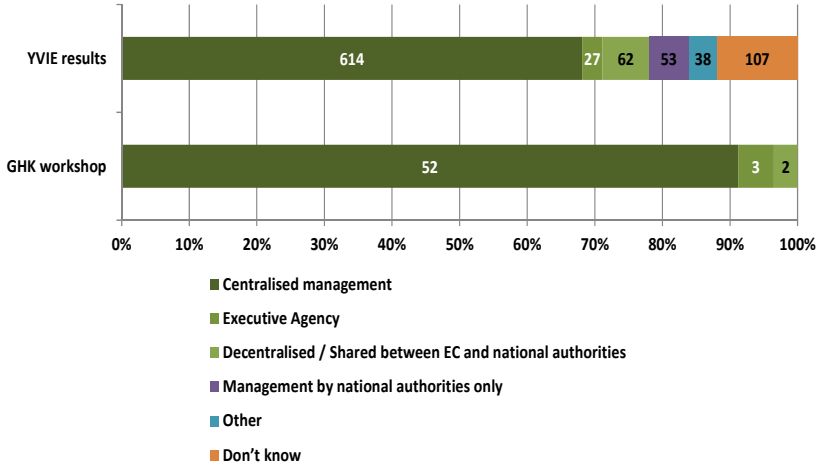
About half of the CoR respondents (47%) were not certain if their municipality/region would be interested in applying for an integrated project in the next programme period; as few respondents commented, such a decision remains subject to their capacity and availability of resources. 45% of the respondents anticipate such an action in the future, while only 8% is negative in that respect.

6.6 Management approaches

An interesting discussion was had between workshop participants regarding the most suitable management approach. The overall conclusion was the best management approach varies depending on the size of the budget. With the current budget however, the significant majority (81%) agreed that the current direct centralised management approach is best (see 0). Although there was significantly more variation in response to the YVIE survey, a clear majority (almost 70%) of respondents also wanted to see the current central management approach continue.

YVIE respondents who felt that a management system other than the current centralised approach was more appropriate, varied in what they believed was the best alternative. Slightly more than a third of those (34%) believed that shared management between the European Commission and national authorities was best. Slightly less than a third of those (29%) believed that the management of a future instrument for the environment should be entirely left to national authorities. The least popular approach for YVIE respondents was an European Executive Agency.

Figure 6.3 The clear majority of workshop participants and YVIE respondents felt that a centralised management system would continue to be the most appropriate management approach



Source: GHK analysis, YVIE Survey and EC Workshop

The direct centralised approach was seen as the preferred approach for a number of reasons:

- the Commission has gained a wealth of experience in managing the instrument and seems to have delivered it competently to date;

- management by the Commission enables a good oversight of the programme, making the creation of synergies with other instruments easier; and,

- it is the best approach for maintaining the linkage between what happens on the ground and policy development, which participants feared would be lost through a European Executive Agency approach.

Although some workshop participants recognised the benefits (e.g. potential cost savings) of having an Executive Agency managing the future instrument, very few felt that these were significant enough given the effort and time that would be required to change the current system, especially when the current system is established and is working quite well.

Decentralising the management of a specific instrument for the environment was only seen as a feasible alternative if the budget was to significantly increase (and if the subsequent increase in resources would outstrip the capacity of the Unit to manage the increase).

7 The Options

7.1 Brief overview of the options

The options that have been developed were only discussed in depth with workshop participants, as the options were only developed after, and on the basis of, the initial stakeholder consultation (surveys).

The five options which had been identified for a future specific financial instrument for the environment for the period 2014-2020, partly reflecting the terms of reference, and partly the underlying problem and related intervention logic, are given in the Box below. These are the five options which were discussed and developed in the workshop:

Instrument option 1: Zero Option – no LIFE financial instrument (other than the continuation of the 'common pot' for policy development and review)
Instrument option 2: Baseline Option – continuation of the current LIFE+ Regulation and related delivery mechanisms ('Common pot', Action Grants, Operating Grants)
Instrument option 3: Strategic Programming Option – combining a stronger strategic planning framework with 'bottom-up' delivery that includes but also expands current delivery mechanisms
Instrument option 4: Restricted Activities Option – focusing on a smaller number of activities linked most closely with the development and implementation of the environmental acquis
Instrument option 5: Restricted Thematic (Biodiversity and Climate Action) Option – focusing on the two major global and EU environmental problems and the development and implementation of policy responses

It should also be noted that the options consider an instrument for the environment including climate change, recognising the creation of a separate Directorate-General (DG).

All options assume that other EU financial instruments continue to operate in the next programme period, as they operate within the current programme.

Table 7.1 below provides a brief comparison of the instrument options, highlighting key differences.

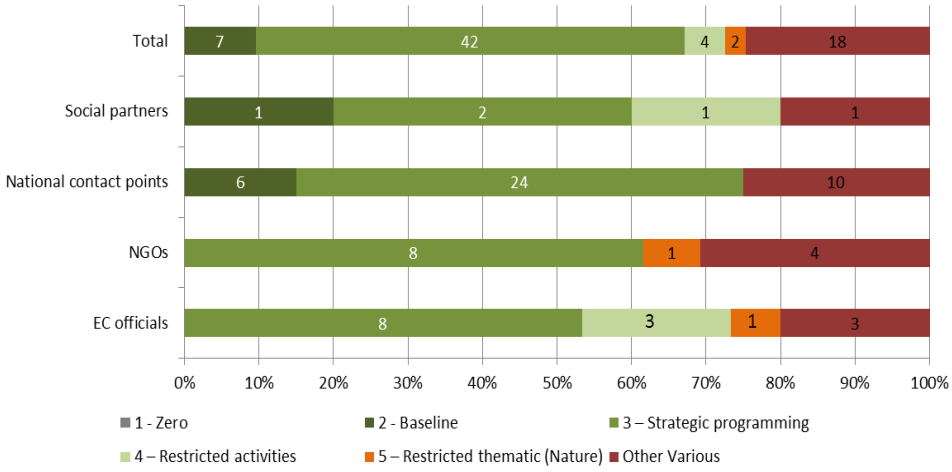
Table 7.1 Quick comparative overview of policy options (with key differences highlighted)

Features	Zero Option	Baseline	Strategic Programming	Restricted Activity	Restricted Theme (Biodiversity + Climate)
Strategic planning	None	Limited	Extensive	Extensive	Extensive
Catalytic value	None	Limited	Extensive	Extensive	Extensive (in themes)
Thematic focus	None	None	None	None	Biodiversity + Climate
Activities	'Common Pot'	All	All	Restricted	All
Delivery mechanisms	Public procurement only	Only existing mechanisms	Expanded + Additional	As required to reflect activities	Expanded + Additional

7.2 Feedback on the options

Overall participants reacted positively to the options proposed. It was clear however that the most popular option was Option 3 (Strategic Programming), with almost 60% of participants voting for that option over the others. This option was also consistently the most popular across all stakeholder types.

Figure 7.2. The most popular option amongst Workshop participants, across all stakeholder types, was Option 3 (Strategic Programming)



Source: GHK analysis, EC Workshop

Discussions made it clear that there were, in particular, two key aspects to be considered: the future budget and the fact that most participants saw the current LIFE instrument as being generally effective and fit for purpose (although there are some areas where improvements could be made). Consequently, the general sense was that participants did not want to stray too far from the current instrument and participants were keenly aware of budgetary constraints which might affect whether certain options are realistic or not.

Some felt that the current wide thematic scope was also a clear advantage, by providing flexibility, where projects can reflect needs as they arise. Moreover, some participants felt that setting a strict thematic focus could reduce the quality of projects, in which good ideas are not accepted as they do not "fit" the priorities. Other participants however felt that without a clear focus, an instrument for the environment risks being 'aimless'. Several participants noted that having priorities could increase the EU added value of an instrument such as LIFE. Overall,

the general consensus was that strategic priorities would be useful, *so long as they are non-exclusive*.

This strategic programming was the key element that stakeholders appreciated in Option 3. For instance, survey respondents were asked to rank 9 potential aspects for LIFE in order of importance; improving the strategic management of LIFE was rated the most important most often. Option 3 was also the most popular of the 5 options presented, with 58% of the participants voting for this option as their preferred choice. Nonetheless, several participants noted that the emphasis on integrated projects to improve complementarities between funding instruments may be an unrealistic expectation.

8 Summary of stakeholder consultations

The importance of the institutional barriers

- The implementation of the acquis was considered to be the most important issue to address; stakeholders across the various consultations tended to identify **inadequate implementation as the most important environmental policy problem in the EU.** The majority of stakeholders agreed the inadequate implementation of policies is causing major environmental problems to persist.
- Although most stakeholders agreed that there is a need for continued environmental policy development, **the scope of the EU acquis was not considered an important issue**. The existence of, and need to fill, policy gaps in certain areas was emphasised.
- Stakeholders recognised that the **integration of environmental and climate concerns into other EU policies was a problem**. Consultation of Commission services indicated that some progress has been made in improving environmental integration but it remains a key issue across policy areas.
- Stakeholders believe that **awareness of the public and of politicians is a key issue (although less important than that of policy implementation and integration)**, especially given the links between awareness and policy implementation.

The rationale for intervention in the institutional barriers

- The **value of, and need for, a future instrument for the environment and climate action was recognised across all the various consultations** that were conducted and considered; stakeholders believe the LIFE instrument is a valuable programme and should definitely continue into the future in order for environmental challenges to be met. There was also a clear view that there is also a clear rationale for this role to be a financial one.
- The majority of respondents indicated that **there was substantial EU added value for EU level action to improve policy implementation**, with stakeholders also believing that there is a rational for EU financial intervention. Enhancing the capacity of Member States to implement policy was most often ranks as the most important role for a specific instrument for the environment.
- **Policy development** was cited as important by the majority of stakeholders who believed there was substantial added value from EU level action although a third believed there was no added value for financial expenditure at the EU level on policy development.
- The **majority of stakeholders thought that the added value of EU level action to improve the impact of other EU policies on the environment was substantial**, the rationale being that environmental assets are public goods, requiring EU action to ensure their adequate provision.
- Stakeholders also recognised **the added value for EU level action** to improve awareness levels.
- Although the issue of **eco-innovation was recognised as important, stakeholders generally believed there was less added value for EU level action from a specific instrument for the environment in these areas.** For instance, in the case of eco-innovation, stakeholders did not feel that eco-innovation should not be the focus of the instrument as other instruments such as CIP exist to fulfil this aspect.

Objectives and resources for a future instrument for the environment

- The consensus across all stakeholders is that the most important **focus for LIFE should be the implementation of the acquis**. Its role in implementing policies for nature and biodiversity (e.g. the Natura 2000 network) was seen as particularly important, given the absence of any other financial instrument specifically focused on nature protection.
- Another particularly important role for a future instrument for the environment, as seen by stakeholders, was **the demonstration and sharing of best practice**.
- Stakeholders noted that a **key factor limiting the effectiveness of LIFE+ has been its limited resources**; as such the clear majority thought these **resources should be increased**. The general view was that the budget should be increased to levels of between €500 million and €1 billion a year (about 40%), although a significant portion of stakeholders also thought that the budget should be further increased to between €1 million and €5 billion a year.

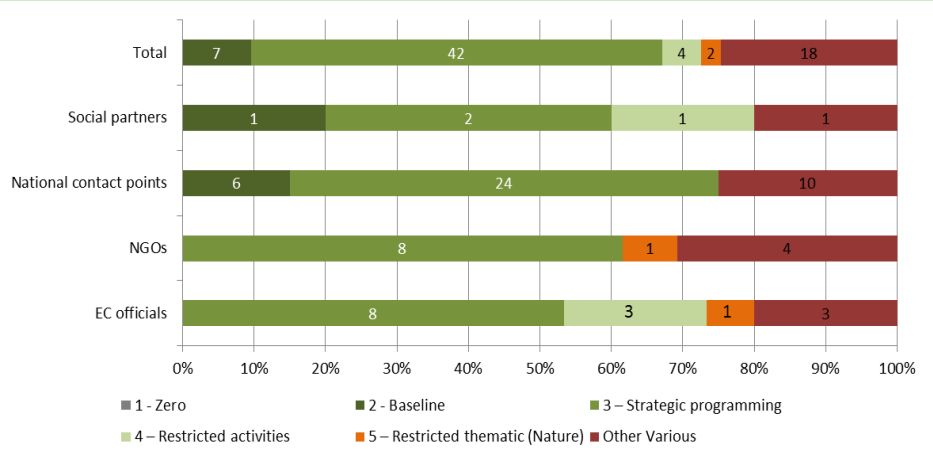
Design and delivery of a future instrument for the environment

- In terms of thematic focus stakeholders are not averse to having **a *focused* instrument**, but they are averse to having an instrument which focuses *only* on one type of activity or policy area to the exclusion of all others.
- In terms of territorial focus, stakeholders supported the potential for a specific instrument for the environment to **fund activities outside the EU, as long as it provided EU benefits**.
- Regarding delivery of the instrument respondents noted that **action grants were, by far, the most important activity,** followed by public procurement of services. Overall there was a general agreement that the EU should contribute a maximum of 75% of the total project budget to ensure that beneficiaries maintain ownership of their projects. Strengthening the role of environmental NGOs was also noted as a very important activity.
- **The use of innovative instruments (e.g. loans) had little support**. For instance, many workshop participants believed that loans are not likely to be appropriate for nature and biodiversity projects, which are better served by grants.
- **Views were somewhat divided on the benefits of integrated projects**. Some thought they have the potential to increase complementarity and policy interaction. However, others believed they would be difficult to operationalise in practice.
- The majority of respondents agreed that the current **direct centralised management approach is most appropriate**, although some other stakeholders believed that other management options, such as a shared management between the European Commission and national authorities, should be considered.

Options for a future instrument for the environment and climate action

- The options that were developed were only discussed in depth with workshop participants, as the options were only developed after, and on the basis of, the initial stakeholder consultation.
- Option 3, **strategic programming, was the most popular option** amongst workshop participants (see figure below). This option was also consistently the most popular across all stakeholder types.
- This option was thought to include the most positive aspects of the current baseline situation including centralised management, the broad eligibility of activities, and the support given to NGOs. At the same time participants felt that options 3 had the most scope to allow for additional improvements to be introduced.

The most popular option amongst Workshop participants, across all stakeholder types, was Option 3 (Strategic Programming)



Source: GHK analysis, EC Workshop

The response statistics for the 'Consultation on a future EU financial instrument for the environment (continuation of LIFE+)' conducted by the Commission online on 'Your Voice in Europe' and the conclusions of the CoR 'Assessment of territorial impacts on the EU LIFE+ instrument' can be found at:
http://ec.europa.eu/environment/life/about/beyond2013.htm

ANNEX 4: Summary of conclusions and recommendations from the Ex-post evaluation of the LIFE Programme (1996-2006) and from the Mid-term evaluation of the implementation of the LIFE+ Regulation (2007-2009)

EX-POST EVALUATION OF THE LIFE PROGRAMME (1996-2006)

Background:

The ex-post evaluation was commissioned in July 2008 by the European Commission Directorate General Environment and carried out by COWI. It covered projects co-financed by the LIFE Programme initiated during the period 1996-2006. This period, comprising three generations of the LIFE Programme, saw the co-financing of a total of 2026 projects of which 1076 were under the Environment component, 771 under the Nature component and 179 under the Third Countries component. The total commitments made from the LIFE Programme amounted to EUR 1315 million.

The overall objective of the evaluation was to assess the relevance and impact of activities and projects financed under the LIFE Programme. The ex-post evaluation focused on assessing the effect of the LIFE Programme through evaluating results and impacts of LIFE projects implemented under the three components. The results and impacts have been assessed according to four main evaluation criteria: effectiveness (i.e. the extent to which planned objectives have been reached, and the extent to which LIFE Programme management contributed to the effectiveness of LIFE projects); efficiency (i.e. the extent to which results were achieved at a reasonable cost, and the extent to which LIFE Programme management contributed to the efficiency of LIFE projects); sustainability (i.e. the extent to which positive impacts have continued or are likely to continue; and utility (i.e. the extent to which impacts address key environmental needs and priorities in the EU and for the stakeholders concerned).

Conclusions of the evaluation:

LIFE Programme managed effectively and efficiently

The main conclusion in respect to the analysis of programme management was that the LIFE Programme was managed effectively and efficiently by the LIFE Unit in DG Environment. Through high demands to project design, rigorous procedures and a close follow-up the projects selected were typically well designed and provided with the necessary assistance to support an effective and efficient implementation process. Some areas for further improvement were identified. Selection of projects was a slow process with cumbersome application procedures which could benefit from further optimisation and outsourcing of tasks, and there was some scope to further enhance transparency and clarify award criteria in the selection process. Concerning the monitoring of the programme and projects, the set-up was less effective concerning the strategic management of the programme. Although managed in accordance with the objectives set out in the respective LIFE Regulations, little interest was shown on the part of the LIFE Unit and DG Environment as a whole to further target the programme to specific policies. While the monitoring of the individual projects was very detailed, there was no reporting on how the LIFE instrument was performing at programme level.

LIFE Nature component – a successful instrument targeted at the Birds and Habitats Directives

The specific objectives guiding LIFE Nature were relatively clear focusing on implementation of the Habitats and Birds Directives. Effectiveness was assessed as high as the projects clearly made a significant contribution to the implementation of these Directives in the Community. The projects were estimated to have covered 8-9% of all Natura 2000 sites and a significant share of the habitats and species listed in the Annexes to the Birds and Habitats Directives. Considering the relatively limited budget of approximately EUR 70 million per year, this is considered a significant achievement. The LIFE projects played a very important role in increasing the general level of awareness concerning biodiversity, Natura 2000 and the related policies and regulatory requirements among national, regional and local authorities. Also, through the LIFE projects, capacity to implement and manage the interventions required to implement the Birds and Habitats Directives was built up – both within relevant authorities and NGOs. This affected in a positive direction the general implementation of the Directives within the individual Member States. LIFE Nature thus made a significant contribution towards addressing the challenges related to nature conservation in the Community and reaching the objectives of the Biodiversity Action Plan. The utility of LIFE Nature was therefore assessed as high. However, the evaluation also showed room for continued development of the LIFE Nature instrument to respond to developments in biodiversity policies and the future challenges of nature conservation in the EU. The level of sustainability was assessed as high. Projects requiring less intensive follow-up and recurrent funding were by nature more sustainable. Other key factors explaining the high level of sustainability were well-designed projects, attention to building the necessary management and monitoring capacity to continue activities after project completion and ability of the projects to secure recurrent funding after project completion. Competing interests from agriculture and (to a lesser extent) forestry posed a significant threat to sustainability. The challenges to ensure project sustainability were more significant in the cases where the projects involved private land as opposed to public land already designated for conservation. In these cases, a number of projects have been successful in preparing the ground for continued management through agri-environmental measures under the Guarantee section of the European Agricultural Guidance and Guarantee Fund.

LIFE Environment component – less impact at European level but with good local results

LIFE Environment differed from LIFE Nature with a diffuse programming strategy that did not couple specific environmental priorities with selection criteria. Since it was the objective of the LIFE programme to fund environmental projects and since this evaluation documents that eligible projects were selected and subsequently effectively implemented, a satisfactory relation between results and objectives can be noted. The innovation 'content' was generally found to be highest in technology projects undertaken by private enterprises (and research institutions). A significant part of the projects, especially those of the management type, seemed not to be genuinely innovative but rather adaptations or optimisations of existing systems, approaches and methods to a particular geographic setting or other specific conditions. On the average probably more than 50 % of the LIFE Environment projects were continued, fully or partially, at the site or in the organisation where they were executed. Considering the innovative nature of many projects, this was assessed as a satisfactory level of sustainability. The direct or immediate environmental results and impacts were generally small and typically restricted to the project area/site itself, which in most cases were quite local. The bottom-up programming strategy did not ensure that the most important/urgent environmental problems from a Community perspective were addressed. The wider impact

arising from the possible replication of the projects was uncertain, but probably only occurring in approximately 10-20 per cent of the projects. Many projects were found to demonstrate technical feasibility and a number even additionally to be considered economically viable. However, the demonstration potential was often not fully released or exploited because the necessary dissemination of activities and results did not take place or at least only to a limited extent.

Third countries component – positive local impacts but lack of sustainability

Overall, the LIFE TCY projects led to positive local impacts in terms of improvement of capacities and environmental performances of beneficiaries. It was a useful instrument for transfer of knowledge and experience, awareness raising and highlighting environmental issues at policy level. At national level, the impact of LIFE TCY projects was more visible in Cyprus, Malta and Candidate Countries in terms of approximation of legislation. In the other countries, the global impact of LIFE TCY was more limited due to the small proportion of LIFE projects in relation to the size of the particular country; the divergence of fields covered, and, largely, due to insufficient involvement of national authorities. The overall effectiveness and efficiency of the TCY projects clearly improved over time as a result of the significant improvement to the selection and monitoring system. In general, the TCY projects successfully achieved their objectives in a cost effective manner. However, lack of sustainability was the largest gap in TCY projects. Although there were positive developments, particularly in Candidate Countries, many projects did not generate long term effects either due to insufficient dissemination of information or lack of ownership by the national authority.

Efficiency difficult to evaluate but assessed as reasonable

Since the LIFE Programme 'produced' not easily measurable 'products' as environmental improvements, innovation and capacity-building, a precise cost-effectiveness assessment could not be given. The evaluation constructed comparisons when possible and compiled qualitative cost-benefit assessments, on the basis of which efficiency was assessed as reasonable.

Recommendations from the evaluation:

A set of 13 key recommendations has been formulated on the basis of the analysis:

Strategic management and programming:

1. Clarify the role and objectives of the LIFE Programme in relation to implementation of EU environmental policy and creation of European added value - Set targets and indicators for the Programme to determine the degree of success. The LIFE Unit should increase co-ordination with Policy Units e.g., through a steering committee for the LIFE programme. The LIFE Unit could also be reorganised into thematic desks. The role of the LIFE programme is unclear and having a unit dedicated to project management has improved streamlining and efficiency but it has become removed from the policy development function.

2. Implement regular monitoring and reporting on the performance at programme level - Systems for regular monitoring and performance should be developed on the basis of objectives and indicators. A uniform set of indicators should be applied across all projects and a regular annual status report on programme performance could be produced. Current

monitoring and reporting systems were focused on the project level - monitoring of programme performance is irregular (external evaluations) and lack of knowledge existed about programme performance against objectives.

3. Develop support systems to improve the basis for strategic management, i.e., database on Nature projects linked to database on Natura 2000 - The systems containing the project level information should be developed to provide information on project objectives and achievements in line with the indicators for the Programme. For LIFE Nature it was recommended that a geographical database should be developed, comparable with the Natura 2000 database to see how far LIFE projects were supporting the implementation of Natura 2000. The organisation of the LIFE Unit as a functional, project management secretariat was not effective concerning the strategic management of the programme as little interest was shown on the part of the LIFE Unit and DG Environment to further target the programme to specific policies.

Co-ordination, dissemination, partnerships

4. Promote active knowledge sharing at European level, e.g. through thematic workshops and seminars - Organise thematic conferences for knowledge sharing and to involve increased numbers of stakeholders to promote general awareness of LIFE. Co-ordinate events with policy units to create synergy. The ex-post evaluation discovered a need to focus more on dissemination and knowledge sharing to exploit the learning and replication potential of the LIFE projects.

5. Target dissemination efforts to reach the right audience through a strategic communicative effort in individual projects and at programme level - Ensure considerations of key messages, target groups and communication channels were high by urging beneficiaries to think along the lines of communication strategy. Projects which found appropriate communication channels to reach target group saw the most positive results in regards to dissemination and replication.

6. Build capacities of potential LIFE beneficiaries to increase number and quality of applications - Broaden the client-base of the LIFE Programme to ensure a sufficient number and quality of applications. Consider less experience organisations for LIFE Nature to increase number of organisations capable of managing conservation actions. The LIFE Unit should be proactive in building relations through national focal point and arrange information meetings, training seminars, etc.

7. Involve Member States in dissemination and capacity building activities - The Unit should be more proactive in engaging the national focal points to play a key role as access points to potential beneficiaries, marketing the LIFE Programme and providing guidance to applicants. This would contribute to a more uniform approach among the Member States to guiding potential applicants.

Procedures for selection and monitoring

8. Further improve application guidance and application forms, e.g., by simplifying and digitalising application forms - The guidance to applicants should be improved and application forms simplified and digitalised. This would also minimise the time required for assessing the applications. Eliminating the approval procedure of final projects by Member States (the LIFE Committee) would reduce the length of the selection period.

9. Outsource the receipt, eligibility check, selection and award phases of the selection procedure - Outsource the entire process from receipt of applications to the award phase. The calculation of administrative costs compared to commitments made indicated a slight annual increase in the period 2002-2006.

10. Further clarify criteria for selection and scoring system - The evaluation guide should be clarified with regard to the evaluation of the award criteria in order to ensure equal treatment of the applications. Ambiguities were identified in the definition of criteria, e.g. guides to applicants mentioned priorities which were not reflected in the criteria, there was a lack of clarity in how the sub-criteria/questions mentioned under each criteria are to be weighted.

11. Further clarify tasks of the monitoring team - A broader dialogue with the monitoring team should be initiated, e.g. focus more on common training seminars, conferences, etc. This dialogue should clarify tasks and quality criteria for the evaluation of project reports to avoid duplication of tasks. It was noted that dialogue is to a large extent decentralised to the individual TDO/FDO and monitoring expert in connection with specific countries.

12. Apply a prioritised approach to individual project monitoring based on risk assessment - A more strategic approach focusing on visits to high-risk projects and replacing some visits with cross-project (thematic) conferences/workshops to reach a larger number of projects and still achieve similar benefits for each project. Visits to projects and face-to-face contact with beneficiaries were found to be important parts of the effective monitoring system in place.

13. Optimise document flow and clarify the role of the verifier in the Unit - Prepare the signatories when receiving the evaluation from the beneficiaries. The system for verification should also be clarified so that unnecessary time used on verification can be eliminated.

MID-TERM EVALUATION OF THE LIFE+ PROGRAMME (2007-2009)

Background:

The Mid-Term Evaluation (MTE) has been commissioned to GHK, in association with Arcadis and VITO to advise on the progress to-date of the activities undertaken under the LIFE+ Regulation (the Regulation), introduced in 2007, examining the relevance, economy, effectiveness, efficiency, consistency, distributional effects and acceptability of the Regulation.

Main findings from the evaluation:

LIFE+ Regulation

Simplification

The adoption of the strategic planning and financial budgeting procedures has been implemented effectively in so far as it regularised previous activities, with little need to change operating practices.

As regards third country involvement in environment policy development and implementation, alternative instruments are available through the international assistance managed by DG RELEX and DG AIDCO. Although these instruments are designed, at least in part, to support similar objectives, they are heavily subscribed and applicants that might have secured funding under the previous LIFE programme would not necessarily be funded by these instruments.

Article 1(2) of the LIFE+ Regulation and the Financial Perspectives has been interpreted as implying that all activities financed under the instrument must be for the benefit of the EU and its Member States. This has led to several trade-offs in the functioning of the three interventions. For action grants, nature projects requiring the co-operation of third countries to protect certain species that have trans-boundary patterns have been particularly affected.

Annex II of the Regulation defines the priorities of the Regulation. This represents a high level summary of the 6EAP. However as a result, the Action Grant Programme is constrained from introducing further definition and detail of the needs and priorities, and can not reflect changes in these priorities through time. As a result, the calls for proposals are less well defined than in previous programmes and can not focus on or target specific needs. The resulting projects, whilst consistent with 6EAP in general, are not necessarily targeted at the most important issues.

Consolidation

The Regulation consolidated three previous programmes: Forest Focus (FF), Sustainable Urban Development (SUD) and NGOs. For Forest Focus, comparison of previous and current objectives and activities suggests that there may be a loss of effectiveness as a result. For Sustainable Urban Development, there has been a change in the nature of beneficiary and type of activity, with less involvement of public authorities in networking activity. The consolidation of these two programmes has led to some savings of staff time. However, it led to increased costs for those beneficiaries that would have previously used the closed programmes because of the greater effort of application.

LIFE+ Programme of Action Grants

Changes and additions to Components

The LIFE Programme first started in 1992 and has been continually assessed to be an essential intervention through successive programmes. The conclusions of the recent ex-post evaluation of the previous activity confirmed the relevance and added value of the LIFE Programme. The MTE has assessed the Programme to have a continuing relevance based on the well documented needs of environment policy and its implementation combined with the recognition in the Regulation that EU added value derives at least in part from the bottom-up approach.

Three major changes were made to the Action Grants Programme: the introduction of the biodiversity theme with the Nature component; the revision and expansion of themes under Environment Policy & Governance (EPG) and the introduction of Information and Communication Projects (INF). These changes have the potential to significantly increase the capacity of the Programme to contribute to EU policy and the generation of EU added value. However, this capacity is not being fully utilised, because the number of projects under the new components and themes (biodiversity, new EPG themes and INF) is as yet too small. Moreover; in all three cases the projects that have been funded lack a degree of programme level coherence, i.e., the ability to generate outcomes and impacts beyond the individual project level.

The Nature theme has remained the same as in previous Programmes, with the improvement in LIFE+ of a formal recognition that projects must represent 'Best Practice‘, with the objectives of supporting the Natura 2000 network and the implementation of the 'Birds‘ and 'Habitats‘ Directives. LIFE+ Nature and Biodiversity is seen as a key funding mechanisms for promoting and implementing nature and biodiversity objectives across all regions in the EU.

Impact of the Operational Approach on EU Added Value

National allocations and priorities

The Regulation introduced the allocation of Programme funding by MS based on specified criteria in the Regulation, and the opportunity for MS to indicate national priorities for the programme. The project appraisal process seeks to take into account national needs and priorities as only one of the four criteria concerned with EU added value. The limited demand for the programme in some MS has allowed funding to be transferred to those MS where demand exceeds the national allocation. Where all national allocations are taken up, the risk is that the weaker projects as identified by appraisal are funded in-line with the national allocation, at the expense of stronger projects elsewhere. This risk of reduced EU added value is increased, firstly because the population based allocation criteria are a limited proxy of EU policy needs and affects EPG projects particularly; and secondly because of the general failure by MS to specify national priorities. The change has therefore the strong potential to limit the capacity of the Programme to deliver EU added value.

Project selection and programme coherence

The programme has selected and contracted with 338 projects under the first two calls; and provided co-finance of €392m. This has been matched by funding form project beneficiaries of €405m, a total investment of €797m. Details are summarised in the Table below.

Table 1: Projects selected and funded by component (2007 and 2008)

Programme	Number of Project Applications	Number of Projects Selected	EC funding (€m)	Total investment (€m)
Nature & Biodiversity	491	138	201	371
Environment Policy & Governance	613	171	172	390
Information & Communication	216	28	17	37
Total	1,320	337	390	798

The overall project selection process works well. However, the change in the appraisal process compared to LIFE III has the potential to reduce programme capacity to deliver EU added value. The revised process has reduced the transparency and consistency of assessment and the assessment of EU added value because of the lack of specificity of criteria. However, of more strategic importance is the risk that even within themes, the projects lack coherence as a programme, addressing a wide range of issues and approaches and limiting the scope for effective multipliers.

Project and Programme monitoring

The general process and operation of the monitoring system works well, with developed procedures supported by fully defined and well executed technical assistance. However, the agreed adoption of the proposed LIFE+ monitoring and evaluation system for the definition and measurement of results and outcomes at project level, and as the basis for aggregation across the Programme, has not been fully implemented. Projects have complied with new requirements to define output indicators, but in the main, have yet to define result indicators.

Programme Management

There has been considerable effort over this and previous LIFE programmes to better integrate the Action Grant activity more centrally within the policy development and implementation processes with the DG. However, despite improvement, there continues to be a perceived lack of integration of the Programme within DG Environment. This results from: a lack of understanding of the role of the instrument; variable utility of the instrument across different policy units; the limited scope to translate specific policy needs and priorities into calls for project proposals; and a weaker multiplier effect in the case of EPG projects through insufficient learning and exchange and testing of transferability, reducing the lessons and advice to policy makers.

Complementarity

The risks of double-funding have pre-occupied existing guidance, despite which some National Contact Points (NCPs) and applicants still remain confused. This guidance, together with the appraisal process, focuses on safeguarding against the risk of double-funding. The importance of complementarity is also recognised as an explicit criterion in project appraisal.

However, the focus on risk management has tended to dominate over a focus on building and enhancing linkages and synergies with other programmes and financial instruments, and has led to some conservatism about developing linkages. Building these linkages with other programmes is especially difficult where, unlike LIFE, they are implemented through shared management arrangements. The most obvious area where activity has helped build and support linkages is with the CIP Programme to support eco-innovation through its market replication strand.

Overview of Findings on Action Grants

LIFE began in 1992 and to date LIFE has co-financed over 3,000 projects across the EU, contributing approximately €2.2 billion to the protection of the environment. The current phase of the programme, LIFE+, runs from 2007-2013 and has a budget of €2.1 billion. LIFE+ covers both the operational expenditure of DG Environment and the co-financing of projects. According to Article 6 of the LIFE+ Regulation, at least 78% of the LIFE+ budgetary resources must be used for project action grants (i.e. LIFE+ projects).

The MTE has highlighted that the main impact of the simplification process is the adoption of Annex II based on 6EAP as the general statement of needs and priorities and the failure of national allocations and priorities to provide any further guidance to applicants. The MTE has also emphasised that the three major changes in the components is considered to be positive and increases the capacity of the Programme to deliver EU added value. Currently, the level of funding awarded in all the new areas is insufficient to make any major difference at this time, partly because of a lack of information to potential beneficiaries not previously familiar with the Programme, and the lack of specification of needs and priorities that applicants should address. This is in turn reflected in the request for illustrations of 'exemplar‘ projects to help guide applications.

The primary issue for the Programme is therefore the scope to create the impact from the programme that is more than just the sum of the individual projects.

<u>NGO Operating Grants</u>

Types of NGO Activities

The allocation of operational funding by the NGOs seems to be balanced over the following types of activities: policy implementation, policy development and internal and external capacity building. Policy development is clearly more important for Brussels based NGOs, while internal capacity building and enlargement is more important for EU12 based NGOs. Press releases, participation in conferences and written submissions to the Commission are the most observed activities in the field of policy development and implementation. However, the quantitative indicators on these activity levels do not provide much information on the quality of the work performed. Staff training is the major instrument applied for organisational development and capacity building.

Topics of NGO Activity

The NGOs cover all topics of the Sixth Environmental Action Programme. However, amongst the topics listed in Annex II of the LIFE+ Regulation, barely any NGOs cover noise, innovation or soil. Out of 50 applications, 30 NGOs have been funded in the last two years, representing a broad range of NGOs. They represent generally an equitable distribution over the regions and the topics. Grants range from relatively small amounts (such as approximately €30,000) to very large amounts (almost €1m - or 1/10 of the overall budget). Although it is acknowledged that large NGOs that undertake a wide range of activities should receive a 'fair share', smaller, more sectoral organisations should also receive adequate levels of funding. Increasing the budget for NGOs would ensure that the size of the grant reflects the evolving environmental agenda, and would allow NGOs to attract and retain better qualified staff. There appears to be a logical link between the size and experience of an NGO and the probability that it receives a grant. Indeed, the larger a NGO, the more likely it is to submit a good application (good paper, clear mission, clear description of deliverables). In general, there is no apparent objection to the NGO operating grants intervention, with most suggestions relating to improvements in procedural or administrative concerns, rather than the underlying rationale for the existence of the intervention itself.

Public Procurement

Technical Assistance

The review of the performance of the technical assistance provided to the LIFE+ Programme indicated that the work was well organised and delivered to good standard.

Communications

DG ENV general communication activities are funded under the LIFE Regulation. The review of these activities suggests that communication is focused on the 6th Environmental Action Plan priorities. The review of the outputs, and where available success indicators and outcomes, suggests that the non LIFE communication activities meet the objectives set out for these activities. As regard *LIFE related communication*, the LIFE Units have undertaken a range of new information and communication activities and have improved existing activities. Furthermore, the LIFE Units have worked to ensure a more proactive involvement of the NCPs. The review, however, also suggests that activities in the main have reached an audience already aware of LIFE and to a large extent also, audiences already involved in LIFE in some form. There is therefore a need to consider how communication activities undertaken can be better targeted at the 'non LIFE community'.

Service Contracts

The expenditure of DG ENV is linked appropriately to the objectives and priorities of the Commission and DG ENV's work programmes. The majority of the public procurement contracts are studies or forms of technical assistance which feed directly into implementation of different EU environmental policies, ranging from the Birds and Habitats Directives to the Emissions Trading Scheme. Contracts do appear to be consistent with the priorities of the Units within DG ENV. Furthermore, the performance of contractors appears to be either satisfactory, or at times, exceeds the expectations of the managing desk officer. However, the feedback mechanisms within the DG for commenting on the quality of contractors appear to be rather informal and weak.

Summary of Findings Against the Main Evaluation Criteria

Evaluation Criteria	Overall Regulation	Action Grants	NGO Operating Grants	Public Procurement
Relevance	Clear rationale Unique focus on environment policy	Clear rationale, especially in relation to policy implementation	Continuing relevance of NGO activity and contribution to EU policy dialogue	Clear rationale, especially in relation to policy development
Economy	Adoption of Financial Perspectives largely regularises previous activities	Project evaluation, selection and monitoring processes are largely effective in allocating resources	Some concern over the transparency and administrative burden	The ABB process under the Financial Perspectives allows effective allocation of resources
Effectiveness	Overall impact is marginal given that it largely regularises previous activities	Capacity for further EU added value provided by changes. Some key issues to address have been identified	NGO programme is largely unaffected by the change in Regulation.	Technical assistance procured is effective Service contracts effective
Efficiency	Consolidation has generated staff cost savings of around 10%.	Savings on TA in comparison with previous Programme Significant increase in project size	Administrative costs are largely unchanged Some loss of efficiency from ineligibility of members' interests	Public procurement process designed to provide best value. Process governed by standard ASP/AMP procedure
Consistency	Reduced risk of duplication, but little effect on improving complementarity	Strong effort to avoid double-funding; and to increase complementarity especially with CIP	Programme and NGO awareness raising complementary. Some scope to improve linkages between NGOs.	Some use of project results in service contracts Limited scope for increased flexibility in choice of instrument.
Allocative / Distributional	Limited effect on the distribution of resources	Possible future issue with national allocations if demand is high	Limited effect on the distribution of resources	Reflects the planning process, governed by Commission procedure
Acceptability	Broad character of Annex II reduces focus on key issues	Well accepted by stakeholders (projects and NCPs). Issue of EC integration	NGOs and Commission stakeholders accept the programme	Process is well understood and accepted

Recommendations from the Mid-Term Evaluation:

Relevance of the Instrument and Generating EU Added Value

The MTE confirms the relevance of the three interventions funded under the LIFE+ Regulation. In the case of public procurement, this derives from the planned use of procurement to meet agreed policy needs through the standard Commission procedures. NGO Operating Grants continue to be relevant given the continuing importance of transparent and open dialogue on EU policy needs and priorities. In the case of Action Grants, the MTE has assessed the Programme to have a continuing relevance based on the well documented needs of EU environment policy and its implementation and the EU added value derived from the bottom-up project based approach.

Therefore, the major issue is not whether the Regulation is relevant and provides EU added value, but how to best maximise this through careful design and operation of the three interventions. In this context, it is clear from the MTE that the changes made in the Regulation to the Action Grants Programme has the biggest influence, not least because it accounts for 78% of the resources. In the case of Action Grants, the Regulation has not increased EU added value as expected; and does not provide any significant improvement compared to the previous LIFE III Programme.

The lack of improved added value stems in large part from the weakness of Annex II and the system of national allocations and priorities to provide the necessary framework for a focused and targeted statement of needs and priorities. Since these are defined by the Regulation, there is a difficulty of establishing the specific needs and priorities without being seen to go beyond the Regulation. This is a particular problem for EPG projects where there is a danger that, although good projects are funded, because of the lack of targeted activity, together they lack coherence and have limited multiplier effect.

The continuing importance of the underlying rationale for the Regulation and the LIFE+ Programme argues for action to remedy this weakness by changes in the methods of implementation, under the terms of the existing Regulation.

Changes to the Regulation – Possible Strategic Directions

At the time of conclusion of the MTE (Spring 2010), attention was turning to the plans to be made for the strategic priorities in DG Environment with the end of the 6EAP plan period in 2012 and the next programming period starting in 2014 to 2020. More widely, attention was turning to the new financial perspectives to frame the next programming period. There is therefore considerable uncertainty over the context for discussion over the successor to the LIFE+ Regulation.

At the same time, the decisions on the re-allocation of responsibilities for climate change and GMOs/pesticides to other DGs from DG Environment means that to the extent that the Regulation governs DG Environment activity, it increases uncertainty over the framing of the future financial instrument.

In terms of the next programme period, there seem to be three basic options: either make changes to the Regulation per se, revert back to a more formal separation of the Grant programmes under a new Regulation, governed by its own specific strategic framework, or recognise Action Grants as one of a number of funding instruments, and allow policy units to define and be responsible depending on policy needs, again under a new Regulation.

Changes to the drafting of the Regulation

The major change would be the removal of Annex II (and national allocations and priorities) to be replaced by an annual work programme specifying the particular needs and priorities to be addressed by the Programme and setting a detailed framework for the calls for proposals. The work programme would seek to focus on selected policy needs and would target particular MS, sectors, technologies, prospective beneficiaries depending on the EU significance and character of the problem. The Annual Framework would be drawn up, as part of the Annual Management Plan, between the policy units and the LIFE units.

Other changes could include provisions for:

1. A more explicit understanding of EU added value.

2. A more explicit distinction between policy development and implementation – and the particular focus of the grants programme and public procurement.

3. A greater emphasis on mutual learning and shared exchange, testing of transferability, and trans-national co-operation as the basis of stronger multipliers and increased EU value. The minimum indicative of 15% to be allocated to transnational activity would be increased substantially given the contribution of transboundary activity to EU added value

4. Partnerships with third country partners where co-operation is needed and where alternative instruments can be shown to be ineffective.

5. Differentiated intervention rates by type of beneficiary to encourage especially smaller authorities, institutes and NGOs.

6. Removing the innovative / demonstrative requirement of the biodiversity theme to aid the selection of higher quality projects.

In addition, the opportunity would be taken to combine CIP and LIFE+ Environment Policy and Governance activity on eco-innovation into a single eco-innovation funding mechanism under shared management using the market replication management as the model. This would also allow scope to introduce leveraged funding instruments.

Drafting a New Regulation – Stand alone Programme

The rationale and policy need for the Regulation is unlikely to change and by implication a new Regulation would address the same objectives (of development and implementation of EU environment policy). However, the Programme would by design be directed to supporting policy implementation in the MS, rather than policy development. The new Regulation would stipulate the need and specific funding for a Programme, operating within its own strategic framework.

The strategic framework would need to be based on extensive consultation with EC and MS. The strategic framework would provide the detailed basis for the programme (missing at the present time) and would place the emphasis firmly on improving the MS implementation of existing or revised environmental legislation where it responds to major legal, economic or environmental problems caused by inadequate implementation. Transnational activity would be expected to be strongly supported.

The Framework could consider adopting aspects of the Open Method of Co-ordination (OMC) approaches for the operation of the Programme (for example, agreed indicators, benchmarks, reporting and structured Peer Learning Activities), making it more explicit that the programme is primarily targeted at supporting MS needs in achieving the more effective and efficient implementation of environmental legislation.

The specific responsibilities of MS for engaging with the Programme would be defined based on clearly specified environmental needs and problems with implementation. The need and approach to the animation of potential beneficiaries around key issues should be discussed explicitly and made a formal requirement. The State of the Environment report could help identify those needs. MS would be required to develop specific priority programmes as requested under Article 8 of Habitats Directive.

Drafting a New Regulation – No Specific Programme

The rationale and policy need for the Regulation is unlikely to change and by implication a new Regulation would address the same objectives (of development and implementation of EU environment policy).

The new Regulation should allow a flexible response to the specific nature of the needs and priorities as they arise. The specific roles and responsibilities of MS in defining needs and priorities would need to be explicitly defined. The response however, would be framed by the policy units as a standard part of the Commission's work programme and making use of whichever financial instrument is best suited. In other words there is no formal action grant programme.

The form of funding instrument would be dependent on the purpose and the types of intervention required. The new Regulation would define the appropriate suite of funding instruments but allow the relevant choice and mix of instruments dependant on specific goals. There would be no earmarked money for any one of the financial instruments - only a single reference budget; bids to use the reference budget would be made as part of the standard strategic and annual planning. This will provide flexibility to adjust to changes in priorities and require explicit justifications for the choice of instrument.

The logic would suggest that there would not be an Action Grants Programme as such but rather that Action Grants would be one of the delivery mechanisms to be used as defined by the needs of policy units. Some central co-ordination would be required but the activity would be the responsibility of the policy units.

The full version of the report 'Ex-post Evaluation of Projects and Activities Financed under the LIFE Programme', Final Report, July 2009 by COWI can be found at:
http://ec.europa.eu/environment/life/publications/lifepublications/evaluation/index.htm#expost

The full version of the report 'Mid-term Evaluation of the Implementation of the LIFE+ Regulation', Final Report, April 2010 by GHK in association with Arcadis and VITO can be found at:
http://ec.europa.eu/environment/life/publications/lifepublications/evaluation/index.htm#mte2010

ANNEX 5: SCALE OF THE ENVIRONMENTAL PROBLEM, UNDERLYING CAUSES AND BENEFITS OF ACTION (EXTERNALITIES)

1. The environment and climate problems

When analysing the need for a specific instrument for the environment and climate action, as well as its design and focus, an identification of existing and emerging environmental and climate problems is needed to clarify the drivers and the underlying causes that should be addressed by a specific instrument or thematic areas for action.

The **problems** that have been identified are as follows:[17]

- The 2010 assessment of Europe's environment[18] as well as the 2009 Environmental Policy Review[19] show that, although considerable progress has been made in single thematic areas, **halting the loss of biodiversity and improving resource efficiency along with climate change and environment and health related concerns remain key challenges for the EU** in its path to "prosper in a low-carbon, resources constrained world while preventing environmental degradation, biodiversity loss and unsustainable use of resources."

- **There are new and emerging threats and challenges in the EU** posed by changes to the economic and technological landscape, including new materials and substances placed on the market in the future that could pose a threat to the environment (e.g., some nanomaterials). Similarly, changes to economic activity and demography in the future will change the type and magnitude of pressures placed on the environment and climate. On the other hand projected climate change impacts pose a significant threat to the economy. This in turn generates an increasing need for new approaches.

- **The burden from global and non-EU problems is increasing.** The EU is contributing to environmental pressures in other regions of the world and at the same time the impacts of activities elsewhere are increasingly affecting the EU. Examples of EU pressures include over-fishing, or climate change while POPs originating in other regions are affecting the EU. In some cases, for action to be effective within the EU, investment outside the EU may be required, e.g. migratory species, international river basins, marine environment.

- **Difficulty in decoupling economic activity from the natural resources/environmental impact** is an extension of environmental challenges which is explicitly defined to recognise the established need for decoupling.

[17] Combined Impact Assessment and Ex-Ante Evaluation of the Review of the LIFE+ Regulation (GHK).

[18] EEA, The European Environment State and outlook 2010 available at http://www.eea.europa.eu/soer.

[19] SEC(2010) 975 final.

2. Scale of the environmental problems

2.1 Approach to the assessment

The assessment is concerned with establishing the broad orders of magnitude of the environmental costs associated with pollution and the use of natural resources. These environmental costs, expressed as far as possible in monetary terms, reflect the external costs of economic and social activity on the environment; and which fail to be reflected in the prices and therefore decisions of producers and consumers.

The intention of the assessment is only to provide a broad contextual estimate of the approximate overall scale of the environmental problem in the EU. The assessment is based on the availability of existing literature to quantify and value these external costs. There is considerable uncertainty in the valuation of at least some of these external costs, and the assessment seeks to provide the approximate order of magnitude of the problem, rather than offer a precise calculation of the scale of the problem.

There are a number of studies currently under way (for example with respect to climate change and resource efficiency) that are examining and updating existing estimates of environmental externalities. The analysis should therefore be understood as a work in progress and not a definitive statement.

Because there are significant inter-linkages between environmental problems (for example climate change affects biodiversity, air pollution can cause water pollution from acidification), there is considerable risk of double-counting these external costs from a 'bottom-up analysis' of individual problems. A conservative assessment was adopted, omitting impacts where there is a risk that is reflected in part at least in another impact. This is compared to available 'top-down' or aggregate assessments of external costs.

The methodologies employed in the literature to quantify and value environmental impacts is by now well developed. In essence, these methodologies seek to quantify the physical environmental impacts (reflected most recently in the State of the Environment assessment[20]) and then to establish the costs of damage (damage costs) to various 'receptors' such as adverse human health effects, damage to agriculture, forestry, buildings and infrastructure, biodiversity loss, and adverse impacts on recreation and tourism. These impacts can be monetised by reference to the loss in market value (e.g. of crops, timber or tourism) and, in the absence of markets, estimates of the willingness of society to pay to avoid these impacts using revealed or stated preference techniques. In some cases, where environmental objectives and standards have been set, the expenditure to comply (compliance costs or environmental expenditure) provides a proxy of the minimum estimate of the value of the environmental impact. For example, the cost of improving water quality by removing the subset of pollutants from wastewater can be a reasonable proxy for the economic cost of the pollution to water. The presence of pollution creates an economic cost.

A major determinant of the economic value of environmental impacts is the scale and impact on human health. In some cases where the literature reports health impacts but has not

[20] State of the Environment (SOER) Assessment, European Environment Agency (2010): http://www.eea.europa.eu/soer.

provided a monetary value, the assessment has followed IA Guidelines[21] to estimate the economic cost. These advise that the Value of a Statistical Life (VOSL) should be taken as between €1-2 million and the Value of Life Years (VOLY) as between €50-100,000, Mid-range estimates of €1.5 million and €75,000 respectively have been used to convert health related impacts to monetary estimates.

It is important to note that both VOSL and VOLY estimates include several important uncertainties. For example, VOSL is calculated based on two general approaches, the human capital approach and the willingness to pay (WTP) approach. The human capital approach measures the economic productivity of the individual whose life is at risk; it takes an individual's discounted lifetime earnings as its measure of value, assigning valuations in direct proportion to income. The WTP approach is based on the assumption that changes in individuals' economic welfare can be valued according to what they are wiling (and able) to pay to achieve that change[22]. Thus the monetary estimate of the value of a statistical life will be influenced by an individual's ability and propensity to pay, which itself depends on their individual financial circumstances. In addition, an individual's perception of risk-changes will influence their WTP, and thus the final VOSL value.

The themes particularly analysed:

- Climate change and energy
- Air pollution
- Water pollution and resources
- Biodiversity and nature
- Material resource use and Waste management

The review presents an overview of the environmental problem and a discussion of the related available estimates of the external environmental costs.

2.2 The scale of environmental problems in the EU

The most recent State of the Environment Report (2010), published by the European Environment Agency (EEA), concluded that mounting demands on natural capital are exerting increased pressure to ecosystems, economies and social cohesion in Europe and elsewhere.[23] Despite some progress and improvements to the environment, major environmental challenges remain, which will have significant consequences for Europe if left unaddressed.

2.2.1 Thematic approach

The analysis adopts a thematic approach based on the range of physical environmental problems and examining the available estimates of external costs.

The different thematic impacts and their environmental costs can be aggregated, as long as care is taken to avoid double-counting particular impacts. In the summary table below are

[21] Section 9 of Annex to Part III: Annexes to impact assessment guidelines (European Commission 15 January 2009).

[22] European Commission (2005) ExternE – Externalities of Energy: Methodology 2005 update http://www.externe.info/brussels/methup05a.pdf.

[23] Available from: http://www.eea.europa.eu/soer/synthesis/synthesis.

indicated those impacts that have not been included in the overall order of magnitude estimate to avoid the double counting risk.

The table is a summary of the costs of the environmental issues described above. This value is an approximation, and should not be considered as a comprehensive valuation of all environmental issues in Europe.

Table 1.1 Aggregation of Thematic External Costs in the EU (€ per year)

Environmental theme	Type of Environmental Cost	Annual Value (€ billion)	Aggregated Annual Value	
			(€ billion)	(%)
Climate Change	External cost of European GHG emissions	€162 billion	€162	24%
Biodiversity	Loss of Ecosystem Services (Cost of Policy Inaction)	€218 billion	€269	40%
	Invasive Alien Species	€13 billion		
	Soil Degradation	€38 billion		
Air and Industrial Pollution	Ozone (premature deaths)	€1 billion	€95	14%
	Ozone (crop damage)	€7 billion		
	Particulate matter	< €1 billion		
	SOx, NOx. PM, VOCs, mercury	€87 billion		
Water Resources	Drought	€12 billion	€114	17%
	Abstraction	€102 billion		
Freshwater Pollution	Pesticides (benefit of implementing policy)	€1.billion	€16	2.5%
	Urban waste water (compliance cost)	€15 billion		
Marine Environment	Fishing	< €1 billion	€8	1%
	Urbanisation and development	< €1 billion		
	Eutrophication (Baltic Sea)	€8 billion		
Waste	Benefit of Landfill Directive	€2 billion	€2	0.5%
Total			**€666**	

Source: Individual thematic assessments

The aggregated assessment indicates that the total environmental cost in the EU each year is in the order of €666 billion. This is a conservative assessment, given the risks of double counting, and might be considered a minimum estimate. To put the figure of €666 billion in context, the GDP of the EU-27 was €11,783 billion in 2009[24]. External environmental costs therefore represent, conservatively, 5.7% of EU GDP.

Finally, it is worth noting the analysis by UNEP et al summarised in the Table 1.2. This suggests that global external costs are in the order of €5,000 billion. This figure does not include the cost of ecosystem services associated with biodiversity loss. Based on the EU share of global GDP (as a crude proxy of the share of external cost) of 20%, this would

[24] Eurostat.

suggest that the aggregated annual external cost in the EU is in the order of €1,000 billion, which comparable with the aggregate thematic figure above.

The UNEP report also suggests that the external cost will continue to increase. At a global level, the increase to 2050 is in the order of four times. For the EU, assuming the EU share of global GDP falls to say 10% by 2050, as a result of the relatively higher rates of growth in the rest of the world, the UNEP report suggests annual external cost would still double in real terms to over €2,000 billion without further policy action.

Table 1.2 Global Environmental Costs in 2008 and Projected to 2050

Environmental Impact	External costs in 2008 (€ billions)	External cost relative to global GDP in 2008	Projected external costs in 2050 (€ billions)	Projected external cost relative to global GDP in 2050
Greenhouse gas (GHG) emissions	3,398	7.5%	15,607	12.9%
Water abstraction	920	2.0%	3,527	2.9%
Pollution (SOx, NOx, PM, VOCs, mercury)	410	0.9%	1,445	1.2%
General Waste	148	0.3%	476	0.4%
Natural resources				
Fish	41	0.1%	215	0.2%
Timber	32	0.1%	192	0.2%
Other ecosystem services, pollutants and waste	Not available (NA)	NA	NA	NA
Total	4,946	11.0%	21,461	17.8%

Source: UNEP/FI Trucost, 2010. Adjusted to Euro at $1=€0.75

The recently published impact assessment of the new EU biodiversity strategy to 2020[25] provides information on economic reasons for action to reach the 2020 objective of halting biodiversity loss[26]. The assessment of the economic impact of the different targets showed that increased benefits from ecosystem services are to be expected if new initiatives are implemented. Though no aggregate information is yet available, project-based evidence showed the cost-benefits ratio of restoration projects can range from 3 to 75. In addition, payments for water-related ecosystem services are expected to amount to USD 30 billion by 2050. The implementation of green infrastructure, amongst others, could reduce the social costs of traffic accidents. In Switzerland for example, these amount to €42 million per year. No detailed assessment of the impact of different initiatives to be taken in the context of the strategy is available yet.

2.2.2 Resource Use and Decoupling

A different approach to considering the scale of environmental external costs is to consider the cost savings from improving the efficiency with which resources are used and hence

[25] European Commission (2011). Communication on our life insurance, our natural capital: an EU biodiversity strategy to 2020, COM(2011) 244 final, http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/2020/1_EN_ACT_part1_v7%5B1%5D.pdf.

[26] European Commission (2010). Communication on options for an EU vision and target for biodiversity beyond 2010, COM(2010)4 final, http://ec.europa.eu/environment/nature/biodiversity/policy/pdf/communication_2010_0004.pdf; Environment Council Conclusions of 15 March 2010, http://register.consilium.europa.eu/pdf/en/10/st07/st07536.en10.pdf.

reducing the associated external cost. It should be clearly noted that this approach is an alternative method of examining external costs, and should not be included in the thematic aggregation of external costs, above. It more specifically relates to those costs resulting from the inability to decouple economy from use of natural resources/environmental impact.

Potential resource savings, achieved by improving resource efficiency in the EU to levels already achieved by the most efficient Member States, have been estimated. This provides an indication of the scale of benefits available using existing technologies.

The analysis is based on Eurostat data for EU27 on total domestic material consumption (DMC) and domestic inland energy consumption. This data refers to raw materials only and does not address natural resources and the associated challenges such as underestimation. The resource savings are based on Member States (MS) achieving the level of resource efficiency set by the average achieved by the five most efficient MS, calculated as the resources used per unit of GDP by MS.

The analysis (Table 1.3.) indicates that the scope for resource savings is greater for materials (46%) than for energy (20%), due in part to the higher unit costs of energy. The resource savings are estimated using the market price of materials and for energy, plus an estimate of the associated external cost savings from reduced pollution, based on available externality estimates. The saving at market prices is €550 billion a year. A further €60 billion a year in reduced externality costs might also be secured. The total economic value achieved is equivalent to over 5% of EU GDP.

Table 1.3 Estimated savings in market and external costs from improved resource efficiency in the EU (€ billion)

Indicator	Unit	Materials	Energy	Total
Total resources (EU27)	mil tonnes; mil toe	8,200	1,800	
Resource saving (avg of top 5)	mil tonnes; mil toe	3,800	370	
Savings as a share of total	%	46%	20%	
Unit value of external cost	€/tonne; €/toe	2.40	151	
Unit value of market price	€/tonne; €/toe	9.80	1,508	
External cost	€ billion per annum	10	60	60
Market value	€ billion per annum	40	550	590
Total economic value	€ billion per annum	50	610	660

Sources: GHK own estimates using data from Eurostat. External cost estimates sourced from COWI (using a UK study of the externalities of primary aggregate production and likely to be a minimum estimate; and taken as 10% of market price for energy, at current price of $100 a barrel, which approximates to €0.01 per kWh)

Notes:

1. Materials: The total amount of materials directly used, defined as the annual quantity of raw materials extracted from the domestic territory, plus all physical imports minus all physical exports. Data for 2007.

2. Energy: The total energy necessary to satisfy inland consumption of the EU based on consumption by the energy sector itself; distribution and transformation losses; and final energy consumption by end users. Data for 2008.

2.2.3. New and emerging problems in the EU

In addition to the problems of well defined environmental impacts, there is also the risk that new and emerging problems will add to the current stock of problems. One case that illustrates this is the environmental risks from nanotechnology. It is likely that other risks will

emerge in coming years. However, stakeholders considered this risk to be of less significance than the problem of implementing current policies.

2.3 The scale of environmental problems outside the EU

Table 1.3 provides an indicative estimate of the global external cost per year from a range of environmental impacts. The recent European Environment State and Outlook Report 2010 (SOER2010) highlights close link between Europe's environmental challenges and those in the rest of the world. Europe is contributing to environmental pressures in other regions of the world, and at the same time, the impacts of activities elsewhere are increasingly affecting Europe.

This analysis provides a brief overview of key environmental issues that link the EU and other parts of the world: these are presented in the table below, which describes both EU influence on the rest of the world as well as those of other regions on Europe.

For the sake of analysis, these issues have been divided into three levels:

- Global issues
- Regional issues (in this case, the Pan-European region of countries that are members of the UN Economic Commission in Western, Central and Eastern European, the Caucasus and Central Asia)
- Europe's neighbourhood (bordering countries and others under the European Neighbourhood Policy, ENP).

The EU has subscribed to number of multilateral environmental agreements to address these common issues. These agreements are found at global level, in the Pan-European region and also with neighbouring countries. A selected set of key conventions are also shown in the Table 1.4., together with key agreements the EU has undertaken, such as the Cancun Agreement on climate change agreed at the December 2010 COP. In a few cases, EU legislation calls for cooperation with neighbouring countries on shared ecosystems: an example is the Water Framework Directive (listed in the table).

SOER provides a description of environmental issues, including projections for some issues. It also provides an analysis of the long-term global megatrends that will influence Europe's environment. Key megatrends are presented in the last column of the table along with brief information on projections, where available.

Table 1.4 Key environmental issues linking the EU and the rest of the world

Issue	Global influence on EU environment	EU influence on environment in other regions of the world	Selected EU Commitments	Global megatrends and their potential influence in coming years (from EEA, SOER 2010)
Shared global environmental issues				
Climate change: mitigation	• GHG emissions in the rest of the world affecting climate change impacts in Europe	• EU commitment to reduce GHG emissions • EU commitment to address climate change and assist developing countries in so doing	• UNFCCC and the Kyoto Protocol • The Cancun Agreement • Climate and Energy Package	*Increasing severity of the consequences of climate change* • Growth of emerging economies will increase their share of global GHG emissions in coming decades
Climate change: adaptation	• GHG emissions in the rest of the world affecting climate change impacts in Europe	• EU commitment to assist countries with adaptation	• UNFCCC • The Cancun Agreement	*Increasing severity of the consequences of climate change* • Without new policies, global climate change impacts will become more severe
Biodiversity protection	• Alien species from other parts of the world disrupt EU ecosystems • Habitat loss outside EU affects migratory species	• Biodiversity loss in the EU affects global trends • EU imports of endangered species • EU commitment to support global biodiversity goals	• CBD • Nagoya Declaration • CITES • MDG 7b • EU Council (3/2010)	*Decreasing stocks of natural resources* *Increasing severity of the consequences of climate change* • Resource consumption and climate change are growing pressures on global biodiversity
Transboundary movements of hazardous waste		• Illegal EU exports of hazardous waste	• Basel Convention	*Increasing unsustainable environmental pollution load* • Waste exports from emerging economies may grow; possible backlash in receiving countries
Other transboundary waste movements		• Legal and illegal EU exports (e.g. electronic waste, cars exported as second-hand goods)	• Waste Framework Directive, other legislation	*Increasing unsustainable environmental pollution load* • Waste exports from emerging economies may grow; possible backlash in receiving countries

Issue	Global influence on EU environment	EU influence on environment in other regions of the world	Selected EU Commitments	Global megatrends and their potential influence in coming years (from EEA, SOER 2010)
Transboundary movement of chemicals	• Chemicals imported to the EU as well as chemicals found in agricultural and manufactured imports may harm human health and the environment in Europe	• EU exports of chemicals (including pesticides) could harm human health and the environment in other parts of the world, especially if their storage, use and disposal are not properly managed	• Rotterdam Convention (Prior informed consent) • Stockholm Convention (persistent organic pollutants) • Support for sound management through SAICM	• Thousands of chemicals are in commerce and for most, their effects on human health and the environment are poorly understood • Chemical production outside the EU and OECD countries is growing rapidly • EU legislation – in particular REACH – provides a comprehensive approach to assessing risks and applies to imports; moreover, many governments are looking at EU legislation.
EU share of consumption of global renewable/non-renewable resources	• Competition for natural resources (from oil and gas to rare metals and timber) affecting resource extraction in EU (from oil from regional seas to timber)	• EU imports of renewable/ non-renewable imports and "embedded" GHG emissions, water consumption, etc. • EU goods imports and "embedded" GHG emissions, water consumption, etc.	• MDG 7a	*Intensified global competition for resources* *Decreasing stocks of natural resources* • With rise of emerging economies, global resource demand will grow along with issues of price and scarcity: a concern for EU in terms of environmental security
Insufficient access of the share of global population to safe drinking water supply and basic sanitation		• EU support for a shared global commitment to halve the share of global population without access to safe drinking water and basic sanitation	• MDG 7c	*Increasing unsustainable environmental pollution load* • UN reports progress to drinking water goal, but sanitation goal remains more distant
The adverse living conditions of slum dwellers		• EU support for a shared global commitment to improve the lives of at least 100 million slum dwellers	• MDG 7d	*Living in an urban world: spreading cities and spiralling consumption* • Improvements not keeping pace with growing numbers of urban poor
Ozone layer protection	• High share of ODS emissions from non-EU sources	• Decreasing with accelerated phase-out of ODS in EU	• Montreal Protocol	• Global ODS consumption expected to decline in coming years
Regional environmental issues (i.e. Pan-European)				

Issue	Global influence on EU environment	EU influence on environment in other regions of the world	Selected EU Commitments	Global megatrends and their potential influence in coming years (from EEA, SOER 2010)
Transboundary air pollution	• Air pollution from neighbouring countries to EU • Air pollution from other continents	• Air pollution from EU to neighbouring countries • EU commitments under LRTAP	• LRTAP	*Increasing unsustainable environmental pollution load* • EU emissions of SO_2 and NO_x expected to decline (PM and others to remain stable) • Inter-continental pollutants expected to raise background levels of pollution in EU
Transboundary water pollution	• Water pollution from neighbouring countries to EU	• Water pollution from EU to neighbouring countries	• Helsinki Convention • Water Framework Directive	*Increasing unsustainable environmental pollution load* • Water pollution from urban areas in EU should decrease; agricultural trends unclear
Issues in Europe's direct neighbourhood				
Shared ecosystems: regional seas • Arctic • Baltic • Black • Mediterranean • NE Atlantic	• Exploitation of fisheries by other countries	• EU fishing, aquaculture and agricultural runoff, as well as chemical pollution from ships and industry, are having major impacts on coastal waters and seas • EU exploitation of shared fisheries (varies by sea)	• Conventions for Baltic, Black and Med. seas and NE Atlantic • Marine Strategy Framework Directive	*Decreasing stocks of natural resources* • Concerns over oil and gas exploration in Arctic *Increasing severity of the consequences of climate change* • Climate change will increase ecosystem vulnerability
Shared cross-border ecosystems (e.g. Carpathians, Dinaric Alps, Bialowieza Forest)	• Shared migratory species and habitats	• Shared migratory species and habitats • Links with neighbouring areas can support habitats and species in the EU	• Carpathian Convention and others • COE Conventions	*Increasing severity of the consequences of climate change* • Climate change will increase ecosystem vulnerability – and need for ecological corridors
Shared watercourses (e.g. Danube, Dniestr, Daugava)	• Water pollution from neighbouring countries affecting EU • Shared water resources and ecosystems	• EU water pollution affecting neighbouring countries • Shared water resources and ecosystems	• Water Framework Directive • Danube Convention and others	*Increasing severity of the consequences of climate change* • Climate change will increase ecosystem vulnerability • The intensity and frequency of water scarcity, droughts and flooding are expected to increase

The impacts of the activities of non-EU countries on the effectiveness of EU environmental policy and intervention

Depolluting the Danube

The Danube River Basin (DRB) is Europe's second largest river basin, and the world's most 'international' river basin as it includes the territories of nineteen countries, nine of which are non-EU countries. The DRB contains 130 identified industrial pollution hot spots and suffers from toxic chemical pollution as well as eutrophication caused by nutrient runoff from agriculture and industrial pollutants discharged into the river. The DRB also faces water quantity issues as a function of dams and flood control measures and vulnerability to climate change and extreme weather events[27].

The Joint Action Programme[28] of the ICPDR demonstrated that the Danube Countries were willing to invest over €4.4 billion over the period 2001-2005 in order to respond to priority needs in the sectors of municipal waste water collection and treatment, industrial waste water treatment, and agricultural pollution and land use.

Countries within the DRB are socially and economically diverse and face a variety of challenges that are bound up with the environment. Serbia and Romania contain significant mineral deposits that could serve as an economic foundation for rural development. However, the risks to the environment from poorly planned and technologically inadequate mining operations are great. While the EU's environmental legal framework provides a protection to the environment, there are concerns that since this does not apply to non-EU countries, such as Serbia, it could undermine EU efforts to address pollution in the Danube.

Threats to the conservation of the Egyptian vulture

The Egyptian Vulture was listed as Endangered in the IUCN Red List following a very recent and extremely rapid population decline in India, Europe and West Africa, owing to a variety of threats[29]. The species is included in Annex I of the EU Wild Birds Directive and in Appendix II of the Bern, Bonn and CITES Conventions. As a result of the important decline in Europe, the species was classified as Endangered at European and EU level.

The species is migratory and spends a considerable part of its life cycle in Africa, where it may be facing significant threats. The threats stem from a range of activities including the use of poison baits (prohibited in Europe by the Bern Convention and in the EU by both the Birds and the Habitats Directives); and the electrocution of migratory and wintering, Egyptian Vultures that prefer to roost on electrical poles and pylons. In the latter case, halting these deaths requires the insulation of the power lines, especially near Port Sudan and coordination with the Sudanese Electricity Company to ensure the use of a safe model of pylons.

It is not possible to quantify the costs relating to the losses of these vultures, EU based vultures,. based in the Balkans and also Southern Europe, particularly Spain. However this example demonstrates how activities taking place outside the EU are undermining the EU's conservation efforts relating to these species, most notably through projects funded by the LIFE programme to conserve a number of raptors[30].

3. Underlying causes of environment and climate problems

The problems described above are a consequence of wide range of economic and social activity and behaviour, such as institutional drivers, market failures and regulatory failures.

The role of LIFE is not to solve the environmental problems but rather to act as catalyst for change in areas where a small instrument would be effective and achieve the highest EU added value. This has been achieved by funding start-up's actions and innovative, demonstrative, and best practice projects that could be replicated elsewhere, as well as by acting as a platform for knowledge-sharing. LIFE also acted as a gap filler. Given these characteristics, the instrument typically deals with institutional drivers (and in some cases also market failures). For this reason, only these drivers are described in this section.

[27] Antypas, A (2010) Environment and the Purposes of a Danube Area Macro regional Strategy.
[28] The Joint Action Programme (JAP) of the ICPDR outlines the specific steps that were agreed to be taken over the period 2001-2005 to achieve the environmental objectives outlined in the Danube River Protection Convention.
[29] BirdLife International, 2008.
[30] http://ec.europa.eu/environment/life/themes/animalandplants/lists/raptors.htm.

- Uneven and inadequate level of environmental protection due to the insufficient implementation[31] or scope of environmental and climate policy

Despite the well documented health and socio-economic benefits of implementing environmental and climate legislation, a high rate of implementation failures remains.[32] New strategies for implementation and compliance are being analysed in an effort to reduce implementation failures. The underlying causes for implementation failures identified are diverse and vary from Member State to Member State. One of the drivers to be highlighted is insufficient administrative capacity. The capacity of institutions include individual compentence, organisational capacities, the enabling environment and partnerships/network organisations (that describes the quality of the intereaction and cooperation among the relevant public, and private actors as well as with development of partners in the sector or among authorities). This situation occurs in a moment where the most demanding EU environmental acts (such as the Habitats Directive, the Water Framework Directive, the Marine Strategy Framework Directive, Waste Framework Directive, the EU Climate and Energy Package or REACH to name a few) enter their crucial period of implementation.

- Uneven integration of environment and climate concerns into other policies

The principle of environmental integration recognises that environmental policy alone cannot achieve the environmental improvements needed.[33] However, evidence (e.g., see the latest Cohesion report) suggests that this approach has shown some limits. As a consequence, in practice, there are substantial divergences in the way environmental and climate objectives are incorporated into national/regional programmes and dealt with by the various authorities and the private sector. Underlying causes identified include different competing priorities, lack of absorption capacity and knowledge sharing, or lack of coordination between authorities (including the fact that environmental authorities often do not have direct access to funding sources) and poor strategic planning. Overcoming barriers such as the lack of knowledge of the benefits that can be gained from improved integration will be key to addressing this area.

- Inadequate levels of awarenness and sharing of information

The problem of implementation and integration described above arise in part because of an inadequate sharing of information. The problem is twofold: insufficient understanding of environmental problems and challenges and insufficient knowledge sharing (e.g., potential solutions to the problems). Insufficient understading requires raising awareness among EU citizens and stakeholders to drive behavioural changes and promoting environmental responsiveness. Inadequate sharing of information and EU environmental/climate policy lessons requires more attention to networks, means for information flows, and cooperation between different actors that remain insufficient and inadequate, limiting the capacity for experience sharing and mutual learning.

[31] It was discussed whether to consider implementation as a problem as such. However, given that legislation and thus implementation of the *acquis* aims at solving the environmental and climate physical problems, it was decided to limit environmental problems to physical problems and consider uneven implementation as a driver to those problems. Nevertheless it should be acknowledged that most of the drivers and underlying causes mentioned can also be considered drivers and underlying causes for inadequate implementation in addition to independent drivers to environmental and climate physical problems.

[32] One third of all open cases for non-compliance are environment related cases, which indicates that the implementation of environmental legislation remains far from satisfactory.

[33] COM(2004)394 "Integrating environmental considerations into other policy areas – a stocktaking of the Cardiff process".

- Inadequate support to eco-innovation

The pursuit of eco-innovation is not just developing new consumer products, services and technologies that are intrinsically cleaner and greener than their predecessors. It is also about engendering better practices and approaches across the economy. While market failures are addressed by other EU funds, institutional weaknesses in the area of eco-innovation are more insufficiently dealt with. This is particularly relevant for activities related to developing policy-driven and public sector oriented solutions to environmental problems that have no market replication potential and that simply promote new and more cost effective ways to implement environmental policy. Simirlaly, testing of new approaches remain inadequate. Low carbon technology development is hampered by uncertainty and knowledge spill-over in general, which may lead to lower investment in R&D than optimal. In addition, there is a commercialisation problem for capital intensive technologies where investments are marked by long lead times. After technologies have been developed they need to be tested at a small scale, hence it will be critical to foster the take up of low carbon approaches, strategies and tools and to accelerate the learning curves as cost-effectively as possible.

4. Benefits of action

The scope for improvements in EU policy implementation and development can be demonstrated by the achievements of recent EU policy development and improvements. This can be evidenced to experience in MS and by reference to particular EU polices to demonstrate the costs and benefits of better, and better implemented, environmental policies.

Evidence 1: Benefits of improved environmental policy implementation and development

The development and implementation of improved environmental policies and legislation will lead to a wide range of benefits, including health benefits, eco-system benefits, and broader benefits such as benefits to natural resources (e.g. fisheries or agriculture), social benefits and also general economic benefits (e.g. attracting tourism or eco-efficiency gains). It is, however, important to clarify up front what is meant by benefits and how they are calculated. Many of the benefits are in fact avoided damage. This is the case notably for health benefits and other environmental benefits such as eco-system benefits. In other words, the benefit is calculated on the basis of understanding what the impact or level of damage is and how this will be reduced with improved environmental regulation. This leads to estimates for reductions in the incidence of respiratory diseases for example, the reduction in the number of poor quality rivers, or the reduction in agricultural losses from pollution deposition. Other benefits are more 'common sense' benefits, i.e. where improved regulation leads to actual improvements rather than just a reduction of damage. For example, the social benefits of increased learning and awareness of environmental impacts and increased involvement in solving environmental problems is this type of benefit. Another example is the issue of improved access to clean drinking water. Also, improved environmental policy may lead to enhanced competitiveness and new job opportunities, e.g. by promoting environmental technologies and innovation

Source: Ten Brink and Bassi, 2008[34]

A number of recent case studies illustrate the economic and social benefits of improvements in the development and implementation of environmental policies at the MS level, which demonstrate the capacity to secure environmental objectives and to do so cost-effectively.

Evidence 2: Benefits of policy action for the environment – evidence from case studies

Implementation of Birds and Habitats Directive – Belgium (Flanders)

The Birds and Habitats Directives are the cornerstone of the EU's nature and biodiversity policy. Although most of the Natura 2000 network (central to implementation of the Directives) has now been established, effective protection, management and restoration of sites is now of utmost importance. In Flanders, one of the most densely populated regions

[34] add

of the European Union, widespread pressures on environmental quality and natural areas particularly due to pollution and habitat fragmentation are affecting the ability of the region to reach its biodiversity targets, for example in terms of reducing the barriers to migratory fish species and improving the connectivity of its rivers. In response, the Flemish region has increasingly focused on a number of ecological restoration measures as part of its activities to meet the objectives of the Directives. This includes a trend towards larger restoration projects (supported by increased funding provided by the LIFE instrument); the acquisition of land for creation of nature reserves and the use of large public works such as port development/design of flood control areas, to carry out restoration activities.

In Belgium, the cost of implementing the network per year was recently estimated to be €195/ha/year, compared with an EU-25 average of €63/ha/year (Gantioler et al. 2010). The high per hectare costs are likely influenced by cost drivers such as population density (increased costs due to increased pressure on the site), highly scattered and small sites, and high levels of income (e.g. GDP, reflecting wages and land costs). No overall monetary valuation of the benefits of the Natura 2000 network compared to costs has yet been undertaken in Belgium (although site-level cost-benefit studies do exist). However, it has been shown through a range of studies that ecosystem restoration provides a number of ecosystem services which are of extremely high value, such as improving the resilience of the region against flooding (Decleer, K. (2008). Additional studies (De Nocker et al. not dated, Liekens et al 2009, LNE 2010) have been undertaken attempting to estimate the value of these ecosystem services, which would otherwise have been lost without restoration of sites. Some of those studies have shown that a combination of measures such as dykes and floodplains can be cost-effective, offering higher benefits at lower costs compared to more intensive man-made measures, such as the development of huge flood barriers near Antwerp.

Bio-waste prevention – Hungary

In 2005, 4,646 ktonnes of municipal waste was generated in Hungary, 27.6% of which is considered bio-waste. Hungary has not asked for a derogation under the Landfill Directive, and so has to reduce the amount of its biodegradable municipal waste going to landfills by 75% in 2004, 50% in 2009 and 35% in 2016. The majority of municipal waste (82%) is currently landfilled, with less than 5% of bio-waste being composted. By 2020, it is estimated that Hungary's generation of bio-waste will have increased by more than 30% compared to 2008 levels (2.1 ktonnes). There is thus a strong rationale for implementing waste prevention and recycling measures to divert waste from landfill. Waste prevention measures and changing the current disposal and treatment methods, (increasing the amount of bio-waste (59%) disposed of through in-vessel composting) is expected to provide significant economic savings as well as reducing the environmental impacts of municipal waste

The PV of avoided environmental damage is estimated to be almost €90 million from 2013-2020 (roughly €10 per capita). The PV of the financial cost for composting is about €45 million (2013-2020), however the financial benefit from avoided landfilling, incineration, MBT and home composting reduces the overall cost. This case study did not investigate any potential benefits from job creation resulting from these measures.

Landfill diversion of biodegradable waste – Bulgaria

Bulgaria is confronted with widespread dumping in non managed dumpsites, although it is currently developing a network of well managed landfills combined with sanitation and land restoration of closed dumpsites. Despite this, complementary measures are needed, in particular the development of a bio-waste treatment capacity. One of the main measures relating to this is the development of a windrow composting plant, as an affordable solution to divert bio-waste from landfills. Bio-waste treatment, as one of the main composing elements of biodegradable waste, will help in reaching the EU acquis, and beyond.

The investment costs for developing such a plant are estimated to be almost €900,000 and operational costs are approximately €15/ton. The benefits of such a measure are multi-faceted and are mainly in terms of cost savings through home composting (avoided transport costs) and avoided landfill costs, as well as avoided CO_2 emissions, which totalled for the project period, amount to €240,000. Other benefits include positive impacts on human health, reduced water and soil contamination, aesthetic and landscape impacts and economic impacts, all of which impact on social welfare and thus need to be taken into consideration. The case study demonstrates that by increasing the recycling capacity and the quantity of biodegradable waste to be handled by composting, stimulated by funding programs, a significant benefit can be realised.

Air emission reduction measures – Croatia

The Croatian Air Protection Act is harmonised with Directive 96/62/EC on Ambient Air Quality Assessment and Management and takes into account other EU Directives relating to air quality and emissions into air (97/101/EC). Potential technical and policy measures have been proposed that can be implemented in the short term to guarantee that present and future air quality standards can be respected in Rijeka Port, thus complying with the European acquis.

[35] Nera & Accent (2007): Report on the benefits of Water Framework Directive programmes of measures in England and Wales, by Nera and Accent for the UK Department for environment, food and rural affairs (Defra), November 2007.

Potential measures include the use of fuel with a lower sulphur; flue gas desulphurization; advanced internal engine modification such as dry water injection (DWI), humid air motors (HAM) and exhaust gas recirculation.

The mandatory use of 0.1% content sulphur fuel by shipping when in the harbour would cost €4.6 million a year, and €2.4 when at berth. The annual cost of installing sustainable shore side electricity (above 5 visits) driven by the use of a differentiated harbour tax would amount to €2.4 million. Other benefits for agricultural production, cultural heritage or ecosystems from reduced pollutant emissions are excluded and the potential benefits under-estimated The annual cost of implementing a secondary catalytic reduction process would amount to €1.6 million. By using figures in the Clean Air for Europe (CAFE) Programme on the average damages on human health, the resulting reduction in pollutant emissions by implementing these select measures would lead to net benefits of €7.3 million a year. Other measures (e.g. flue gas desulphurization and more significant motor adaptations) lead to significant net costs due to the high investment costs of the measures.

Water Framework Directive – UK

Improving water quality is the leading objective of water policy within the EU. As a resource, the quality and availability of water is important for economic sustainability, social well being, human health and the preservation of the environment. The Water Framework Directive (WFD) is the overarching legislative tool aimed at achieving this objective. To achieve compliance with the Directive, each environmental standard must be accomplished (or a derogation issued) and a series of reporting deadlines must be met to ensure that national plans and systems are in place to effectively implement and enforce the Directive.

It is difficult to provide an EU-level cost in this case study for methodological reasons. However, the results of the UK assessments are indicative of the order of magnitude of the expected costs and benefits. They suggest that the cost of full compliance with the WFD is approximately €63 billion in the UK by 2015 (although this does not take into account the fact that less stringent targets apply and phased improvements are permitted). A UK benefits study[35] estimated the aggregate willingness to pay (WTP) benefits of the WFD by households ranged from €21-€33 billion per annum. However, other benefits must also be considered - in terms of cost savings for industries which rely on both large volumes of water and good quality water resources (such as cost savings in drinking water treatment). The EU wide benefit of this was estimated to be around €362.5 million per year due to reduced pesticide contamination and €70 million in the Netherlands alone from reduced metal removal costs. Taking these other benefits into account demonstrates that the benefits of effective implementation of WFD are sizeable and justify the costs of implementation.

The value of this process can be identified from a review of recent improvements in EU policy development, two examples of which include:

1. **Air quality improvements**[36] - Additional measures to deliver better air quality would cost between 0.04% and 0.12% of EU-25 GDP in 2020, but would achieve health benefits alone that would exceed the costs by a factor of two or more;
2. **Improved pesticides management**[37] - Introducing further measures on the sustainable use of pesticides would generate net benefits to the EU especially farmers even with additional costs to some industries.

These examples are further discussed in the Box below. The exploitation and demonstration of such opportunities to improve the scope and stringency of the acquis, where marginal changes can be made, and where the cost-effectiveness of action can be shown, will continue to be needed.

Evidence 3: Environmental and economic benefits of improvements in EU environmental policy - exemplars

Thematic Strategy on Air Pollution and the Directive on Ambient Air Quality and Cleaner Air for Europe[38]

36 The Communication on Thematic Strategy on Air Pollution and The Directive on "Ambient Air Quality and Cleaner Air for Europe" Impact Assessment. http://ec.europa.eu/environment/archives/cafe/general/keydocs.htm.

37 European Commission (2006)Thematic Strategy on the Sustainable Use of Pesticides. Impact Assessment. http://ec.europa.eu/environment/ppps/pdf/sec_2006_0894.pdf.

38 The Communication on Thematic Strategy on Air Pollution and The Directive on "Ambient Air Quality and Cleaner Air for Europe" Impact Assessment. http://ec.europa.eu/environment/archives/cafe/general/keydocs.htm.

Emissions of pollutants to air, not only damage the environment through changes to the climate and air quality (i.e. greenhouse gases and particulate emissions), but can also have repercussions for water and soil environments, as suspended pollutants in the atmosphere can be deposited in each environment through precipitation. Recognising the success of previous strategies and the legislative action taken to reduce air pollution and protect the environment, the Commission has investigated what additional measures could be employed to deliver greater benefits by revising the strategy and its constituent legislative tools. To achieve significant improvements by 2020, three options for abatement of emissions are assessed, based on incremental degrees of pollution abatement. Net of the baseline, the direct abatement costs for the EU were estimated to be in the region of €5.9 billion for Scenario 1, and €14.9 billion for Scenario 3 per year in 2020. Additionally, the indirect costs were also assessed using the GEM-E3 general equilibrium model of the EU economy which accounts for the direct and wider economic impacts, such as those relating to price changes, labour market adjustments and feedback effects caused by implementing the abatement measures. The estimated costs of the scenarios in this model were estimated to be between 0.04% and 0.12% of EU-25 GDP in 2020 respectively.

Assessing the benefits of these measures, the following estimates were calculated:

- Human health benefits of €37-€120 billion in scenario 1 and €49-€160 billion in Scenario 3, based on the value of statistical lives saved in 2020 (equivalent to 0.1%-0.35% of GDP);
- Damage reduction to agricultural crops in 2020 of €0.3 billion per year; and
- Environmental benefits equivalent to 74% less forest area and 39% less freshwater area where acidification critical loads are exceeded, plus 43% less area where critical loads for eutrophication are exceeded in 2020.

Based on the health benefits alone, the analysis indicates that the benefits should at least exceed the costs by a factor of two or more, if the environmental and agriculture benefits are to be accounted for. A clear justification for improving the implementation and development of environmental policy therefore exists.

Thematic Strategy on the Sustainable Use of Pesticides[39]

A review of the thematic strategy on the use of pesticides to include plant protection and biocidal products has revealed that substantial benefits can still be achieved through the introduction of further measures to protect human health and the environment. The Strategy sits between two other leading pieces of environmental legislation, the REACH regulation to regulate what chemicals can be placed on the market and the Water Framework Directive (WFD) which monitors residues of chemicals entering the water environment. The Thematic strategy is therefore responsible for regulating the use of pesticides.

The proposed measures target a reduction of the risks for the environment and human health linked to the use of plant protection products. The overall costs and benefits of the strategy are summarised in Table 1 below, reproduced from the impact assessment.

Table 1: Costs and Benefits of the Thematic Strategy on Pesticides

	Benefits	Costs	Balance
Farmers	€1,110 - €1440 million /yr (Reduced health impacts)	€725 million /yr	€380 - €710 million
Industries	+ 3,000 jobs	€300 - €670 million /yr	
	(could be contained through more advisory services and development of more innovative products)		-€670 to - €300 million/yr + 3000 jobs
Member State Authorities	€200 million /yr (savings for health and environment costs) + 180 jobs		
	Positive impacts on humans and the environment		

The analysis clearly indicates a positive net benefit from the revision of existing legislation protecting human health and the environment.

[39] European Commission (2006) Thematic Strategy on the Sustainable Use of Pesticides. Impact Assessment. http://ec.europa.eu/environment/ppps/pdf/sec_2006_0894.pdf.

It is not possible to specify the exact contribution of implementation failures to the overall scale of the problem. Moreover, the full implementation of existing policies would not be expected to internalise all external costs, where the costs of doing so would be greater than the environmental benefits achieved. However, the costs of continued environmental damage would be lower if the acquis were properly implemented; difficulties of transposition and inadequate capacities to implement and enforce polices at MS level are resulting in higher external costs. Effective implementation of environmental policy can lead to cost savings as well as environmental benefits.

Benefits from implementing the IPPC – To date, there has been insufficient implementation of best available techniques (BAT). Estimates indicate that implementing BAT is likely to incur additional costs of €2– €7 billion for industry and yield €9 – €30 billion in cost savings, a benefit-cost ratio of over €5 for every €1 spent. This increases to over €7 for every €1 spent if health benefits are included.

This example is further detailed in the Box below.

Evidence 4: Environmental and economic benefits of the implementation of EU environmental policy - exemplars

Industrial Emissions (integrated pollution prevention and control) (recast) Directive[40]

The review process evaluating the performance of the first IPPC Directive 96/61/EC highlighted a number of problems which were adversely affecting the cost effective implementation of the Directive by the Member State authorities and industrial operators. Foremost amongst these problems is the insufficient implementation of best available techniques (BAT) leading to limited progress in the prevention and reduction of industrial emissions and to distortion of competition due to large differences in environmental standards between operators in the different Member States. While the initial compliance costs associated with introducing BAT may be higher, the BREF supporting document prepared for each industry sector prove that sufficient cost savings can occur through greater energy, water and material efficiency, in addition to reductions in waste generation to exceed the initial investment cost. Estimates of the impacts indicate the implementing BAT is likely to incur additional costs of €2.1- €6.5 billion for industry and yield €9 – €30 billion in cost savings. This result suggests a cost benefit ratio of over €5 for every €1 spent.

If health benefits of €7-€28 billion per year due to the reduction of premature deaths/ years of lives lost by 13,000 and 125,000 respectively are included then this ratio increases to over €7 per €1 spent.

[40] Directive of the European Parliament and of the Council on Industrial Emissions (integrated pollution prevention and control) (recast) Impact Assessment http://eur-lex.europa.eu/Notice.do?val=462132:cs&lang=en&list=511975:cs,516991:cs,508612:cs,505133:cs,499125:cs,485132:cs,461932:cs,462133:cs,462132:cs,261603:cs,&pos=9&page=1&nbl=16&pgs=10&hwords=&checktexte=checkbox&visu=#texte.

Environmental externalities values: Data sources used to calculate the economic value of environmental impacts

Theme	Indicator	Economic value per unit €	Source
Environment, Policy and Governance (EPG)			
Climate Change/Air/ Urban Environment	Reduction in CO2 emissions – tonnes	120	Watkiss, P.(2006): The social cost of carbon, by Paul Watkiss Associates, UK, for Defra, available at: http://www.oecd.org/dataoecd/19/21/37321411.pdf. *This reference provides EU price as 70-170 Euros, hence average of 120 Euros per tonne carbon.*
Natural resources and waste	Reduction in energy consumption – tons/CO2	0.0015	The value of energy savings was calculated by converting MJ into kwh, and then using a standard figure for kg / CO2 of electricity generated in the UK. This value was identified at: http://www.defra.gov.uk/environment/business/reporting/pdf/20090928-guidelines-ghg-conversion-factors.pdf). *The total tonnage of CO2 emissions was subsequently multiplied by the social cost of carbon of €120 / tonne.*
	Likely reduction in use of limited or non-renewable natural resources: Tons per year	10	COWI (July 2010) Economic Analysis of Resource Efficiency Policies, DG environment
	Likely reduction in non-hazardous solid waste generation tonnes/year	11	DG Env (2000) A Study on the Economic Valuation of Environmental Externalities from Landfill Disposal and Incineration of Waste *http://ec.europa.eu/environment/waste/studies/pdf/econ_eva_landfill_report.pdf* *Assumes that the landfill is a modern containment landfill that fulfils the demands of the newest directive (EC/31/1999). The landfill has a leachate collection and treatment system. Further, the landfill gas is collected to generate electricity and heat (CHP). Includes global warming, air pollution, leachate, disamenity and pollution displacement externalities.*

Environmental externalities values: Data sources used to calculate the economic value of environmental impacts

Theme	Indicator	Economic value per unit €	Source
	Likely increase in recycling of waste - Tons/year	11	DG Env (2000) A Study on the Economic Valuation of Environmental Externalities from Landfill Disposal and Incineration of Waste http://ec.europa.eu/environment/waste/studies/pdf/econ_eva_landfill_report.pdf *Assumes that the landfill is a modern containment landfill that fulfils the demands of the newest directive (EC/31/1999). The landfill has a leachate collection and treatment system. Further, the landfill gas is collected to generate electricity and heat (CHP). Includes global warming, air pollution, leachate, disamenity and pollution displacement externalities.*
Soil	Reduced of soil erosion - ha	51	From Commission staff working document - Document accompanying the Communication from the Commission to the Council, The European Parliament, the European Economic and Social Committee and the Committee of the Regions - Thematic Strategy for Soil Protection - Impact assessment of the thematic strategy on soil protection {COM(2006)231 final} {SEC(2006)1165} http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52006SC0620:EN:NOT . *Based on intermediate figure for cost of soil erosion in Europe of €7,624 million (2003 €), for approximately 150 million ha. This is only based on data for 13 European countries. Therefore €7624 million/150 ha = €51/ha.*
Forests	Protection of forest area - ha	1836	Ten Brink, P., Braat, L., Rayment, M., Bräuer, I., Chiabai, A., Bassi, S., Markandya, A., Nunes, P., ten Brink, B., van Oorschot, M., Gerdes H., Stupak, N., Foo, V., Kettunen, M., & Gantioler, S. 2009. Further Developing. Figure based on COPI values for bioregions in Europe.
Water	Area of rivers/lakes that will have improved quality (chemical, microbiological or ecological) -ha	36	Benefits from improved environmental quality from eutrophication in marine ecosystem. Valuation of air pollutation ecosystem damage acid ozone nitrogene and biodiversity; DG Environment, October 2007. *A study calculated the potential benefits of improved water in Swedish archipelago as 506-842 SEK. The evaluation team estimated the potential benefits in the EU given the characteristics of the geographical area in question (e.g. the size and the population).*
	Likely improvement in areas meeting national quality standards/ targets - ha	36	Benefits from improved environmental quality from eutrophication in marine ecosystem. Valuation of air pollutation ecosystem damage acid ozone nitrogene and biodiversity; DG Environment, October 2007.
	Area of likely improved groundwater quality - ha	120	EU Water saving potential (Part 2 – Case Studies) ENV.D.2/ETU/2007/0001r, 19. July 2007: Ecologic - Institute for International and European Environmental Policy

Environmental externalities values: Data sources used to calculate the economic value of environmental impacts

Theme	Indicator	Economic value per unit €	Source
Air	Likely improvement of air quality - km2	0.038	COMMISSION STAFF WORKING PAPER Annex to : The Communication on Thematic Strategy on Air Pollution and The Directive on "Ambient Air Quality and Cleaner Air for Europe" *Impact Assessment*, SEC (2005) 1133
	Likely improvement of air quality - Number of people that will be affected	91	COMMISSION STAFF WORKING PAPER Annex to : The Communication on Thematic Strategy on Air Pollution and The Directive on "Ambient Air Quality and Cleaner Air for Europe" *Impact Assessment*, SEC (2005) 1133 *Health benefits under the chosen level of ambition. The evaluation team selected what the EC calls "the mid-range scenario": the middle value improvement in each category. The figure includes fewer premature deaths, less sickness, fewer hospital admission, improved labour productivity.*
	Likely increase in area with ambient air quality meeting EU air quality standards - km2	0.038	The Communication on Thematic Strategy on Air Pollution and The Directive on Ambient Air Quality and Cleaner Air for Europe
	Likely reduction in emissions of noxious gasses (e.g. SO2, NOx, NMVOC an NH3) - tonnes/year	1,308	The Communication on Thematic Strategy on Air Pollution and The Directive on Ambient Air Quality and Cleaner Air for Europe
Environment and Health	People that will be better protected from air pollution by particles? Number of people	37,348	Reference: de Leeuw, F. and Horálek, J. (2009). Assessment of the health impacts of the exposure to PM2.5 at a European level. ETC/ACC Technical paper 2009/1. The benefit per person is €37,300. This is based on an approximate reduction in mortality associated with reducing particulate matter concentrations. If we assume that the LIFE interventions decrease mortality by 5% (low scenario in reference used), then every person lives ~0.5 years longer. Value of a Year of Life Lost is €75,000, so 0.5 years is worth €37,300 per person.
Nature and Biodiversity			
Coastal and Halophytic Habitat	Ecosystem services of habitats that will be created or re-created – ha Habitats that will be restored – ha Habitats that will be bought under sympathetic management – ha	7083	All values across habitats are taken from the following source: ten Brink, P., Braat, L., Rayment, M., Bräuer, I., Chiabai, A., Bassi, S., Markandya, A., Nunes, P., ten Brink, B., van Oorschot, M., Gerdes H., Stupak, N., Foo, V., Kettunen, M., & Gantioler, S. 2009. Further Developing *Figure based on COPI values for bioregions in Europe. There is likely to be considerable variation*

Environmental externalities values: Data sources used to calculate the economic value of environmental impacts

Theme	Indicator	Economic value per unit €	Source
Coastal Sand Dunes and Inland Dunes	Ecosystem services of habitats that will be created or re-created – ha Habitats that will be restored – ha Habitats that will be bought under sympathetic management – ha	60970	*between habitats in specific bioregions due to biotic / abiotic factors.*
Freshwater Habitats	Ecosystem services of habitats that will be created or re-created – ha Habitats that will be restored – ha Habitats that will be bought under sympathetic management – ha	3675	
Temperate Heath and Scrub	Ecosystem services of habitats that will be created or re-created – ha Habitats that will be restored – ha Habitats that will be bought under sympathetic management – ha	317	
Sclerophyllous scrub	Ecosystem services of habitats that will be created or re-created – ha Habitats that will be restored – ha Habitats that will be bought under sympathetic management – ha	89	
Natural and Semi-Natural Grassland Formations	Ecosystem services of habitats that will be created or re-created – ha Habitats that will be restored – ha Habitats that will be bought under sympathetic management – ha	202	
Raised Bogs, Mires and Fens	Ecosystem services of habitats that will be created or re-created – ha Habitats that will be restored – ha Habitats that will be bought under sympathetic management – ha	1845	
Forests	Ecosystem services of habitats that will be created or re-created – ha Habitats that will be restored – ha	1836	

Environmental externalities values: Data sources used to calculate the economic value of environmental impacts

Theme	Indicator	Economic value per unit €	Source
	Habitats that will be bought under sympathetic management – ha		
Invasive Alien Species	Controlling invasive species / ha / year	21	Reference: Kettunen, M., Genovesi, P., Gollasch, S., Pagad, S., Starfinger, U. ten Brink, P. & Shine, C. (2008) Technical support to EU strategy on invasive species (IAS) - Assessment of the impacts of IAS in Europe and the EU (final module report for the European Commission). Institute for European Environmental Policy (IEEP), Brussels, Belgium. 44 pp. + Annexes

ANNEX 6: EXAMPLES ILLUSTRATING THE EU ADDED VALUE OF THE LIFE PROGRAMME

1. The concept of EU added value in LIFE

Most environmental problems have a transboundary or transnational nature and cannot be adequately solved by Member States alone without international cooperation. Member States need to join forces and create partnerships with stakeholders to tackle these problems which, if not solved, may later come at a great cost for the EU as whole. LIFE attracts partnerships that otherwise would be difficult to set-up, ensuring a more effective intervention than Member States' individual action by an increased pooling of resources and expertise.

At the same time, some EU environmental problems are better addressed at regional or local level, also because some EU environmental assets are very localised. Local solutions can be replicated in other areas or transfered to sectors facing similar problems. LIFE provides the platform for development and exchange of best practices and knowldedge-sharing allowing Member States and stakeholders to learn from each other and address the environmental problem more efficiently.

Finally, environmental assets are unevenly distributed across the EU and the obligation to preserve them calls for a consistent application of the principle of responsability sharing and solidarity.

2. Examples of EU added value in the LIFE programme

2.1. Solidarity: Pooling efforts to protect EU natural capital and environmental assets

By assisting Member States that host most valuable EU natural capital or are confronted with transboundary or transational environmental problems, LIFE allows for a better distribution of responsibility and solidarity in preserving the EU environmental common good. This is typically the case of Natura 2000 with high concentration of species and sites of EU importance in certain countries frequently associated with a reduced capacity to address the needs of protecting the network.

Ilustration: LIFE and the Iberian lynx (Spain and Portugal)

The Iberian lynx is the world's most endangered feline species and the most endangered carnivorous mammal in Europe. Numbers of the animal declined significantly from around 1000 in 1990 in Spain and Protugal to 102 by 2002 localised in two areas in Andalucía: Sierra Morena and Doñana. The lynx is one of the most emblematic EU specie and an umbrella species that helps in the conservation of a whole ecosystem.

Building partnerships for species protection. To build on and move beyond the findings of regional projects, the Andalusian government applied for LIFE funding to develop a partnership project to consolidate and guarantee the future of the lynx populations, principally by restoring rabbit populations. The partnership included all those crucial to protecting the lynx such as hunters and landowners organisations, environmental NGOs and international experts on carnivores conservation.

When the project started only 102 specimenes remained in the entire word. After two LIFE projects population has increased up to 270 specimens, it is being reintroduced in new areas, and further reintroduction in Portugal and other Spanish regions is expected. Furthermore, the project works in close collaboration with the captive breeding programme financed by Spain and Portugal creating synergies between EU funding and national funds. Hopes are high to upgrade the conservation status of this EU essential species.

2.2. Catalytic role of LIFE

LIFE acts as a catalyst to start-up action, providing one-off investment needed in a specific area, eliminating initial barriers to the implementation of EU environmental policy and testing

new approaches for future scaling up. LIFE addresses gaps and externalities, raises awareness and demonstrates the benefits of environmental protection.

Illustration: LIFE eliminating barriers to facilitate the implementation and acceptance of the Habitats Directive

LIFE started in 1992 just after the Habitats Directive was adopted. Since its beginnings LIFE was a crucial instrument for its implementation: firstly by financing the inventories required for the designation of the Natura2000 sites both in old and new Member States; secondly by restoring and improving the conservation status of habitats and species; thirdly by building the capacity required to manage the network in the long term; and fourthly by eliminating the initial resistance in many sectors, including public administration, to implement the Directive.

Farming for Conservation in the Burren: The Burren region in Ireland (c.720km2) was always in demand by farmers whose unique pastoral activities – including the reverse transhumance tradition of winter grazing – have been proven to be central to the presence of such a rich biodiversity. However, a distortion of the 'balance' between farming and the Burren in recent decades has resulted in serious conservation concerns: agricultural intensification has impacted on water quality, while a reduction in farming on rough limestone grasslands has resulted in extensive scrub encroachment. Livelihoods in the farming and the tourism sector were also threatened as a result.

An EU LIFE Nature project brought together farmers, scientists, conservationists and agriculturalists to work proactively together to help resolve these problems and formulate a blueprint for sustainable farming in the Burren. Innovative ideas such as the development of new grazing and feeding systems were launched to improve habitat health without further compromising the financial viability of the farming system. The success of this project led to a pioneering 'Burren Farming for Conservation Programme (BFCP)' funded through the Irish Rural Development Programme. Massively oversubscribed, the BFCP now works with 120 Burren farmers managing 12,887ha within Natura 2000.

2.3. Creating synergies, multipliers and leverage

LIFE helps Member States and stakeholders to accelarate and improve the implementaton of EU legislation by finding more cost-effective ways to address environmental problems and by creating synergies across EU funds and national funds while levering in additional national and private sector funds to ensure the continuation of activities financed under LIFE or expanding their results.

Illustration: LIFE ensuring synergies across EU funds and national funds

Protection and usage of aapa mires with a rich avifauna in Finland: The aim of this LIFE project was to prepare conservation and management plans for five areas within the central Lapland aapa mire zone, so that ecotourism and recreational use can be organised on a sustainable basis. The project succeeded in combining resources from different EU sources (LIFE for planning and ERDF for construction of the tourism infrastructure) and national funds (for construction of barns on the hay meadows). The use of various funding sources provided the opportunity to make environmental objectives more ambitious. Implementation of the service structure in Lapland has increased interest in the Natura 2000 network as a whole and brought positive publicity to the project. The success in combining funds led to setting up of a group at regional level responsible for planning the yearly allocation of domestic and EU resources for Natura 2000 allowing greater integration of environment in the wider development objectives, engaging more stakeholders and building capacity.

Protecting coastal meadows in Estonia: LIFE projects have financed the restoration and conservation of Estonian's coastal meadows part of Natura 2000 network. In 2003 the administration of the Silma Nature Reserve applied for a LIFE-Nature project on these habitats. Using the experience of the previous LIFE projects, the Reserve administration set up and started implementing management plans for the Natura 2000 sites concerned. These have been used as a basis for a National Environment Action Plan 2007-2013, the Development Plan of the Environment Ministry and the Rural Development Plan 2007-2013. Moreover thanks to the LIFE project the nature administration in Estonia was reorganised and the management tools developed through the LIFE project are being used in other protected areas of the same region and the experience gained by LIFE project is now available to the whole region. The sustainability of the habitat management has been guaranteed by using the national subsidies for semi-natural grasslands under the RDR scheme. A similar cooperation is currently being developed concerning the use of Regional Development funds, through the State Forest Management Centre, which is responsible for the construction and maintenance of all visitor infrastructures in the area.

Illustration: LIFE as a platform for dissemination best practices and knowledge-sharing (creating multipliers and leverage)

The **Open MI project** developed an innovative tool which allows the integration of predictive models in watershed management and so helps implementing the Water Framework Directive (which requires an integrated approach and thus integrated modelling for the watershed). The project secured continued funding in the form of *venture capital* to allow development of the standard operational software to a next level. As a result, applications for the software are being considered not just in Europe but internationally, with a high level of interest in USA.

The **MAD but Better project:** One of the objectives of the Water Framework Directive (WFD) is the long-term progressive reduction of contaminant discharges to the aquatic environment in urban wastewater. One of the products of wastewater treatment processes is sludge, the use of which is encouraged by the Urban Waste Water Treatment Directive whenever appropriate. However it continues to remain an environmentally senstive issue with a significant need to build confidence through regulatory compliance. The LIFE project developed and demonstrated a full-scale treatment process which made it highly adaptable to a range of companies in this related waste industries and therefore gave the plant high replication transferability potential. It became a catalyst for improved wastewater managenment and the project's technology has now become the new sludge treatment standard for the entire UK water industry. By August 2007, four Enzymic Hydrolysis Plants had been built by the beneficiary and five ordered by other UK. 12 EU Member States and 26 countries around the world have already shown interest in replicating the treatment plant. In addition, the cost of sludge disposal is further reduced to just €210 per tonne of dry solid - this compares very favourably with average landfill costs of €415 per tonne. It also saves farmers around €175 per ha in fertiliser replacement.

PERBIOF: Wastewater treatment plants face recurrent problems such as sludge production and toxicity of treated effluents in the tannery sector. The PERBIOF project developed at demonstration scale an innovative technology for treating municipal and/or industrial wastewater. The high compactness of the plant in comparison with traditional plants meant the footprint is some 25% of that of a standard plant and sludge production is about one thirtieth of the amount produced by a traditional plant. Although investment costs are 10% higher than for a standard plant, operating costs are one-third of those of a standard plant. With €625,000 EU investment over 3 years, the LIFE project estimated that by using its technology, €72 million per year in cost savings could be achieved by the tannery industry. The project yields a Net Present Value (NPV) over 10 years, discounted at 4%, of €655 million. This is equivalent to over €1,000 in benefits generated for every €1 spent in LIFE.

The **"SuperC" project** aimed to demonstrate the economical and ecological advantages of using geothermal energy to heat and cool large buildings. Taking the Students' Service Centre of the RWTH Institute of Technology at the University of Aachen as its demonstration site, it planned to develop an installation which would provide the energy required for the heating and cooling of this large building with a 95 percent reduction in CO_2 emissions.

2.4. Bringing solutions to upcoming environmental challenges of EU interest

Stakeholders are often confronted with environmental problems for which no solutions have been found yet, and which, if not addressed at an early stage, will lead to higher costs. LIFE offers the possiblity for stakeholders (public and private) to find solutions to these problems and a direct channel for influencing EU decision making, such as modification of BREF and BATs or even proposing the development of new legislation and demonstrating the economic feasibility of these solutions.

Illustration: finding cost-effective solutions for emerging environmental policy

PAMELA: Based on the results of the PAMELA project (Process for Advanced Management of End of Life Aircraft), Airbus set up sustainable proccess for aircraft dismantling and recovery applicable across the sector and recommended the development of EU legislation for this waste stream. **TARMAC** (Tarbes Advanced Recycling and Maintenance Aircraft Company) was established in 2007 to provide parking and dismantling services for some of the 6,000 aircrafts that will retire during the next 20 years. TARMAC has already started work on dismantling aircraft and Airbus sees the TARMAC site at Tarbes as the first of a network, all of which will apply the lessons learned from PAMELA.

RECYSHIP: The main expected results of this ongoing project are optimised processes for decontamination and dismantling of end-of-life ships, the definition of suitable areas for possible installation (based on capacity and ecological criteria) and the development of a good environmental management system for European ships. The project also intends to provide support to future EU legislation for ship dismantling.

BIOAGRO project: Support for methods to reduce Greenhouse gas output in the agricultural sector leading to the setting up of a complete facility for producing a carbon neutral biomass pellet fuel. This project was targeted towards developing and implementing an innovative method to reduce greenhouse gas output from the agricultural sector. The project involved the seed industry, combustion technology industry and academia.

2.5. Increased effectiveness and efficiency of EU level intervention: creating critical mass

Changing behaviours is one of the most challenging aspects of EU environmental policy. LIFE has created partnerships between different Member States' authorities and specialists in communication to develop campaigns that raise awareness among authorities, citizens and the private sector on the need to adopt more sustainable practices. Without LIFE, the geographical impact of such campaigns would have been much more limited.

Illustration: Changing behaviours by EU joined action

European day 'In town, without my car?' (subsequently becoming the **European Mobility Week):** In 2002, the campaign succeeded in establishing a truly European initiative with 320 cities from 21 countries taking part in European Mobility Week. A second event held in September 2003 consisted of a week-long series of awareness-raising events focusing on various aspects of sustainable mobility. Mobility Week succesfully continues taking place in Europe and is now spreading to the rest of the world via grassroots networks.

The European Week of Waste Reduction. The LIFE project *EWWR* aims to reduce the amount of waste generated in the EU by mobilising all relevant actors in a EU-wide awareness-raising campaign and changing behaviours of different stakeholders in their waste generation. 4 Member States have joined to develop a common strategy as well as tools to carry out awareness-raising activities on recycling around the EU over one week every year. In 2009, 2,672 initiatives were carried out, in 2010 there were 4,346 in 24 countries reflecting the success of the event. In 2011 expectations are even higher.

ANNEX 7: ASSESSMENT OF THE LIFE+ REGULATION: DATA USED TO CALCULATE THE IMPACTS OF THE BASELINE SCENARIO

1 The LIFE+ Regulation (2007-2013)

For the assessment of the LIFE+ Regulation, assumptions have been the following:

- the basic objectives and structure of the instrument remain the same (and that the completion of the 6EAP in 2012 is followed by a replacement statement that continues to define the strategic policy objectives for the next programme period);
- the current allocation of €2.2 billion over 7 years (€300m per year) remains the same in real terms;
- the emerging policy needs, in so far as they differ from the current period, are reflected in the strategic policy statement and hence in the different delivery mechanisms;
- the priority recommendations adopted from the mid-term evaluation (MTE) of the regulation are implemented. They aim to improve the policy focus and multiplier value of the instrument and also to allow funding of activities in third countries where it delivers EU added value.

The impact assessment has focused on the use of action grants given their significance in the overall instrument, but also includes consideration of the impacts of the operating grants to NGOs. The scale and type of public procurement expenditure is the same for all options and is therefore not included in the impact assessment. The assessment of action grants is based on a survey of project beneficiaries contracted under the first three years of the programme. The table below provides a summary of the responses received. These response rates provide the basis of grossing-up survey responses. Based on the first three years, the annual investment cost of the programme (including Member State investment) is: Nature and Biodiversity (NAT): €199m; Environmental Policy & Governance (EPG): €223m; nformation & Communications (INF): €17m; Total: €438m.

Table 1.1 Summary of the LIFE+ Action Grant projects contracted (2007-2009) and survey responses

	PROJECTS (Number)			FUNDING – Total Investment (€ million)		
	Total	Sample	Response Rate	Total	Sample	Response Rate
NAT*	215	37	17%	563	63	11%
EPG	288	90	31%	668	238	36%
INF	39	13	33%	50	14	29%
Total	549	147	27%	1,318	348	26%

Source: EC LIFE+ monitoring records and GHK survey returns
**Excludes 7 projects and €33m of funding for marine projects*

In the context of a proposal for a specific instrument for environment and climate action, activities that address climate change are included. In the case of nature projects, these contribute directly to climate adaptation through contributing to eco-system resilience and explicit climate adaptation functions, such as flood management. In the case of EPG, climate change is an explicit policy theme and has been recognised as a priority theme in calls for proposals. In the first three years of the current programme 28% of contracted EPG funding was provided to projects classified under the climate change theme. The assessment of action

grants has covered the three sub-components of Nature and Biodiversity (NAT); Environmental Policy & Governance (EPG); and Information & Communications (INF). Given the early stages of projects and the emphasis in some projects on results that only indirectly influence environmental impacts, the assessment focuses on projects funded under NAT and EPG.

1.1. Impact assessment of action grants for Nature & Biodiversity (NAT) and Environmental Policy & Governance (EPG)

The impact of the NAT and EPG projects has been assessed in terms of the physical environmental impacts, the economic value of these benefits in so far as relevant external costs have been identified, and any related economic and social impacts identified by the projects. It is important to recognise that the projects, especially those only recently contracted, have yet to be completed. The assessment is therefore based on the best assessments of project managers as to the likely future impact of the projects.[41] Projects were asked to anticipate the impact three years after the end of the project, recognising a period of elapsed time would be required before the full impacts of the projects could be realised.

1.1.1. Environmental Impacts

The environmental impact has been examined by reference to a series of indicators selected to reflect the nature of the projects, and withthe aim to maintain some consistency with the indicators previously used in the ex-post assessment of the LIFE III programme (see in section 2 the list of indicators used in the assessment). The relevant estimates of the value of the environmental impacts have been sourced from the literature.

(a) Nature & Biodiversity

In the case of NAT projects, the assessment has examined the impacts by broad habitat type. The reported impacts for selected indicators are shown in the Table 1.2. below.

Table 1.2 Reported impacts on habitats: Expected impacts of LIFE+ Nature and Biodiversity projects on selected indicators [42]

	Survey Response		Applied to All Projects*	
Selected Indicators	**No of Habitats/Areas/ Species**	**Area (Ha)**	**No of Habitats/Areas / Species**	**Area (Ha)**
Habitats that will be created or re-created	25	684	200	6,100
Habitats that will be restored	1,221	242,518	10,800	2,154,100
Habitats that will be brought under sympathetic management	2,172	114,733	19,300	1,019,100
Priority areas protected from invasive species	20	9,666	200	85,900
Species and area of habitats that will benefit from local biodiversity action	108	163,060	1,000	1,448,300

**Grossed up results based on the share of total project investment reported.*

[41] See also the Ex Post Evaluation of Projects and Activities Financed under the LIFE Programme. Available from: http://ec.europa.eu/environment/life/publications/lifepublications/evaluation/.

[42] These figures relate to impacts that are expected to be seen after three years of the project ending. The figures therefore relate to expected not achieved results – no projects under the current programme have finished.

The total area benefitting from projects is of around 4.7m hectares of land. This represents some 6% of the total area of the designated Natura 2000 terrestrial sites. Although a number of responses were received from marine based projects, these are not included in the above results, which are based only on terrestrial projects, including coastal projects.

The reported environmental impacts have been converted into an estimated economic value using published externality values for eco-system services associated with different types of habitat. These are applied to estimates of the environmental impacts by habitat type as reported by projects. Given the lack of detailed knowledge of the individual projects (e.g. the level of quality of the ecosystems within these projects) and the related eco-system benefits, the following estimate (Table 1.3) should be taken as providing only a very approximate estimate of the economic value of the environmental benefits. The externality values are based on case studies of the economic value of eco-system services. These cases include the impacts of substantial changes in eco-system services.

Table 1.3 Indicative annual economic value of the environmental benefits provided by Nature projects (€m)

Indicator	Total value	Low estimate (@ 5%)	Medium estimate (@10%)	Higher estimate (@15%)
Habitats that will be created or re-created	53	3	5	8
Habitats that will be restored	6,280	314	628	942
Habitats that will be brought under sympathetic management	1,943	97	194	291
Total	8,276	414	828	1,241

**Grossed up results based on the share of total projects reporting.*

Three habitat types are responsible for most of the benefits calculated above as they are often the main focus of valuation studies: freshwater habitats (accounting for half of the benefits), and coastal habitats and forests each accounting for around 20% of benefits.

The estimated value of benefits takes a conservative approach, assuming the benefits are between 5% and 15% of the published externality values to provide an indicative estimate only. This indicates an annual benefit of between €400m and €1,200m. It is extremely unlikely that the benefits are less than this, but likely that benefits in fact exceed this range. On an annual basis, taking the low estimate, the benefits represent twice the total investment cost of the projects (of €199m). Using the higher estimate, benefits are six times the investment cost. This excludes any economic or social impacts, described below. The benefits are also expected to last for many years (although management costs will be required). Taking the low estimate and assuming the benefits last for 10 years, the discounted (at 4%) present value would be €3.2 billion, almost six times the total investment cost (€562m).

See section 4 for a detailed analysis of habitat improvement.

(b) Environmental Policy & Governance (EPG)

The analysis of Environment Policy & Governance (EPG) projects has focused on those projects anticipating physical environmental outcomes. 33 of the 68 projects that responded provided estimates. These are summarised in Table 1.4. Significant impacts are reported in terms of expected reductions in CO_2 emissions, the area and people likely to benefit from improved air quality, the area of soil erosion prevented, and the reductions in non-hazardous solid waste generation.

Table 1.4 Reported environmental impacts (selected indicators)

Theme	Indicator	Unit	Survey Response	Grossed Response*
Climate Change	Expected reduction in emissions of CO2 or other greenhouse gases	Tons/year	152,467	933,000**
Water	Area of rivers/lakes that will have improved quality	Ha	507,850	1,604,000
Water	Likely improvement in areas meeting national quality standards/ targets	Ha	495,800	1,566,000
Water	Area with likely improved groundwater quality	Ha	5,931	19,000
Air	Likely improvement of air quality	Km2	10,410	30,000
Air	Likely improvement of air quality	No of people (m)	4	12
Air	Likely increase in area with ambient air quality meeting EU air quality standards	Km2	5,400	16,000
Air	Likely reduction in emissions of noxious gasses (e.g. SO2, NOx, NMVOC an NH3)	Tons/year	1,700	5,000**
Air	Expected decrease in CO2 emissions through use of private cars	Tons/year	50,400	147,000**
Soil	Expected reduction of soil erosion	Ha (000)	2,000	7,000**
Urban environment	Expected reduction in CO2 emissions through increase in bicycle traffic	Tons/year	4,803	20,000**
Urban environment	Expected reduction in CO2 emissions through reduction in car traffic	Tons/year	6,301	27,000**
Env& Health	People that will be better protected from air pollution by particles	No of people (m)	1	1
Natural resources & waste	Likely reduction in energy consumption	KwH/Year	3	35
Natural resources and waste	Likely reduction in use of limited or non-renewable natural resource	Tons/year	10,105	119,000
Natural resources and waste	Likely reduction in non-hazardous solid waste generation	Tons/year	27,080	318,000**
Natural resources and waste	Likely increase in recycling of waste	Tons/year	82,435	968,000**
Forests	Forest Area that will be better protected	Ha (000)	2,000	33,000

**Grossed up results based on the share of total project investment reported by theme.*

*** Used to estimate the economic value of environmental impacts.*

Indicators were chosen based on indicators used in the ex-post assessment of LIFE. Project beneficiaries (2007-2009) were then asked to attribute an expected impact to each indicator. The economic value of these environmental benefits has been calculated based on the application of published externality estimates. It is difficult without knowing the specific details and context of the project to be confident that the application of externality values is justified. However, in the case of estimates of reductions in emissions or wastes (rather than changes in environmental quality), externalities can be applied with more confidence to provide a conservative assessment. This means that indicators of changes in air and water quality are not included.

The externality values relevant to each indicator are taken from the literature (see Annex 5). It should however be emphasised that, the transfer of externality estimates does lead to some uncertainty, which has been minimised by excluding indicators of environmental quality, and has not therefore been reflected in the calculation of a range – whilst the benefit estimates should only be taken as being indicative, because of the exclusions they can be taken as the minimum or a 'low' estimate. On this basis, the economic value of the environmental benefits provided by Environment projects could be in the order of €200 million per year (Table 1.5). This represents the minimum level of benefit. Substantial economic benefits are also potentially associated with health benefits (improved air quality and reduced particulates and improved forest protection).

Table 1.5 Indicative annual economic value of the environmental benefits provided by Environment projects (€m)

Indicator	Unit	Estimated Impact	Externality Value (€)*	Economic Value (€m)	% of Total
Expected reduction in emissions of CO2 or other greenhouse gases	Tons/year	933,000	120	112	58%
Likely reduction in emissions of noxious gasses (e.g. SO2, NOx, NMVOC an NH3)	Tons/year	5,000	1,308	6	3%
Expected decrease in CO2 emissions through reduction in use of private cars	Tons/year	147,000	120	18	9%
Expected reduction of soil erosion	Ha (000)	7,000	5	38	20%
Expected reduction in CO2 emissions through increase in bicycle traffic	Tons/year	20,000	120	2	1%
Expected reduction in CO2 emissions through reduction in car traffic	Tons/year	27,000	120	3	2%
Likely reduction in non-hazardous solid waste generation	Tons/year	318,000	11	3	2%
Likely increase in recycling of waste	Tons/year	968,000	11	11	5%
Total annual economic value				194	100%

**Externality value relates to the selected indicator unit, e.g. tons of CO2 per year.*
Note that the different indicators relating to CO2 emissions reflect activities under different themes and does not reflect any double-counting.

On an annual basis, taking the minimum benefit estimate of the 2007-09 projects, the benefits are around the same as the total investment cost of the projects (of €223m). This excludes significant environmental benefits that cannot be monetised as well as economic and social benefits, described below, which are substantial. Environmental benefits are also expected to last for many years. Assuming the benefits last for 10 years, the discounted (at 4%) present value would be €1.6 billion, two and a half times the total investment cost (€668m).

To summarise, the environmental impacts of the LIFE+ Regulation are substantial. In addition to the quantified benefits of some €600m a year, which are based on conservative estimates, the instrument leads to the improved conservation and restoration of some 4.7m hectares of land, representing some 6% of the total area of the designated Natura 2000 terrestrial sites. It also supports a wide range of environmental improvements including improvements in water quality over an area of approximately 3 million hectares; improvements in air quality affecting some 12 million people; and reductions in waste of some 300,000 tonnes and the recycling of a further 1 million tonnes.

1.1.2. Economic and Social Impacts of Nature and EPG Projects

The economic and social impacts of the Action Grants, as reported by Nature and EPG projects, are summarised in Table 1.6, for the indicators selected for the Impact Assessment. Key impacts include:

- a total investment of some €600m is being made in technology outcomes by EPG projects. In addition Nature projects are investing €380m in new approaches and techniques for nature conservation;
- the additional sales generated by the development of new products from EPG projects of €2.7billion, generating around €1.1 billion of GVA[43];
- substantial health impacts both from the investment in improved natural environments and from improvements in environmental quality affecting over 12 million people;
- modest but positive employment impacts of some 2,000 jobs[44] associated with the continuation of project activity post LIFE funding and indirect economic benefits of a further 18,000 jobs based on additional sales of new products[45].

[43]GVA accounts for 40% of environmental technology sales, based on DG Environment, 2007, Table 4.4. Total sales of eco-industries was estimated to be €319 billion in 2008 (2008 prices), (Ecorys, 2009).

[44] In terms of social impacts, a recent analysis on the economic benefits of environmental policy concluded that the Natura 2000 network could be supportive of 122,000 full-time equivalent (FTE) jobs in the regions where the sites are located, if adequately resourced and managed. If indirect and induced effects are taken into account, this could amount to 207,000 FTE jobs at the EU level. However, these job estimates must also be treated with some caution as it is not possible to control for negative or positive impacts in other sectors (Rayment et al (2009) within Kettunen et al (2011).

[45] €147k of environmental technology sales supports one job (including multiplier effets), based on DG Environment, 2007, Table 4.4.

Table 1.6 Estimated economic and social impacts of LIFE Projects (for selected indicators)

Impact Indicators		NATURE & Biodiversity Projects	EPG Projects
Economic Impacts	Additional technology outcomes	64% of the investment in projects will lead to the demonstration or development of new methods, techniques or approaches for species or habitat creation. The total investment in technical outcomes is therefore €380m for NAT projects. *e.g. new methods for marine monitoring such as remote sensing, new approach to wetland restoration, pilot techniques for conservation of amphibians*	88% of the investment in projects will result in new methods, new techniques and/or new approaches. The total investment in technology outcomes is therefore €590m for EPG projects. *e.g. new innovative tools and methods for interactive and co-creative citizens, a new approach for creating a corridor crossing a city and connecting different elements of its environmental and cultural heritage and establishing a set of certifying criteria*
	Additional sales / GVA	11% of projects will include new commercially viable products (eg timber). *(Project beneficiaries were unable to estimate the expected annual sales from these products)*	44% of projects will lead to new commercially viable products, collectively amounting to annual sales of €2.3bn and €1.1bn in GVA (assuming GVA constitutes 40% of sales) *e.g. a new water box technology as a more cost effective solution to irrigation*
	Net cost savings	27% of project investment (€160m) will lead to cost savings for the Competent Authorities. *(Projects were unable to estimate the annual cost savings)*	57% of project investment (€380m) will lead to cost savings for Competent Authorities as a result of new methods, techniques or approaches *(Projects were unable to estimate the level of annual cost savings)*
Social Impacts	NGO contributions to policy	33% of total budget granted for 2007 and 2008 is allocated towards environmental policy development and environmental policy implementation, some €5m	22% of total budget granted for 2007 and 2008 is allocated towards environmental policy development and environmental policy implementation, some €3.5m
	Improvement in human health	4.7m hectares of land (6% of total Natura 2000 designated area) will be protected, restored and improved, helping to improve human health.	At least 1 million people will be better protected from particulate pollution and some 12 million people will be receive health benefits due to improvements in air quality
	Additional employment	A total of 750 jobs are estimated to be safeguarded as a result of the planned continuation of NAT projects post LIFE funding A total of 175 jobs will be created as a result of the LIFE+ project (mainly from increased tourism)	A total of 1,000 jobs are estimated to be safeguarded as a result of the planned continuation of EPG projects post LIFE funding Projects were expected to continue for varying lengths of time, between 2 years and 5 years An estimated 18,000 jobs from additional sales of €2.7 bn of new products

Source: Based on the survey response of project beneficiaries

1.2. Impact assessment of Information and Communication

The main driver behind the introduction of the new Information and Communication component to the LIFE Programme was the political perception that there was a need for greater communication of the LIFE+ Regulation to take place, and to "bring environmental policy closer to the citizens." The main aim of the component has been to actively promote EU environmental policies through information, communication, awareness-raising and dialogue, helping to 'empower' individuals and groups in European civil society, as well as other stakeholders such as industry and local authorities to participate in an informed and active manner in the protection of the environment and the sustainable use of resources. The aim is that, by enhancing their ownership of environmental policy, more effective implementation can be achieved.

In the first three calls of LIFE+ (2007,2008 and 2009), 38 projects were selected for funding under the Information and Communications component, accounting for just over €24 million in EC contributions (total sum of investment was €49 million). 12 of these projects related to nature and biodiversity (with forest fires and climate change accounting for a further 11). Many of these projects aim to raise awareness amongst the general public (some with a particular focus on sub-groups such as schoolchildren and consumers), visitors to Natura 2000 sites, landowners/farmers and other stakeholders, of the importance of nature and biodiversity conservation, and to educate their targeted audience on the effect that human activities can have on the local environment. Other projects aim to raise awareness of a number of target groups of either broader topics (e.g. climate change and its impacts on the local community) or more specific issues that are aimed at a narrower target audience, such as improving the understanding of the olive oil industry of the need to introduce more sustainable production and consumption practices.

However, as a result of the indirect influence the projects have on realising environmental benefits, it is not possible to quantify a specific impact.

1.3. Impact assessment of operating grants

A summary of the impacts of NGOs is presented below, based on evidence collected during the MTE. In summary, the assessment indicates that the funding represents value for money.

Progress of NGOs using outcome indicator data

An analysis of the operational funding of NGOs for 2007 and 2008 undertaken in the mid-term evaluation showed that a substantial proportion of the budget is used for policy development (27%), policy implementation (28%), with external capacity building, awareness raising and enlargement and third countries being smaller fields of activity.

An analysis of reported outcome indicators (based on the indicators reported by the NGOs on the actual application of funds retrieved in the 2008 programme and data on estimated values for the 2009 programme) showed that the most common activities undertaken by the NGOs were press releases, participation in conferences and written submissions to the Commission. In contrast, attention to non compliance and infringement procedures appeared to be less of a priority for the EU-wide operating funded NGOs.

Conclusions

- A large number of NGOs have undertaken a broad range of activities to contribute towards improved EU policy implementation and development. For example, they have:
    - Served as hubs for a growing number of national and international environmental organisations.
    - Provided information about existing and upcoming policies
    - Informed EU decision makers about the views and demands of their members and sought their support, as well as working in coalitions with other organisations (including those outside the environmental movement) to have their views accepted

- Much of the success of NGOs is related to their ability to:
    - Defend or increase the ambitions of EU legislation, and campaign for real implementation of legislation or policy priorities.
    - Assist in increasing transparency and public participation.
    - Contribute to integration of environmental concerns into other policies through the provision of specific expertise.
    - Help members better understand EU environmental policies, to better mobilise the public and decision makers to support a progressive role for the EU on environment and sustainable development.

However, it is relatively difficult to assess the progress NGOs have made with respect to such objectives using quantitative outcome indicators such as those above. Data suggests that NGOs use a wide variety of activities and undertake different tasks to achieve their aims. The nature and level of activity varies significantly between NGOs, reflecting in part the level of specialisation of the particular NGO.

1.4. Effects of the revisions made following the mid-term evaluation

The programme has been revised in two main ways following the mid-term evaluation. The first change was to address the recommendation that calls for proposals reflect a stronger link to EC policy needs. The second change, supported by legal opinion, was to allow funding of activity in third countries where it provided EU added value.

The impact assessment has briefly considered the potential effects of these changes. In the former case, a review of the responses to the first call to have a stronger priority focus (climate change) did not produce any major or obvious difference in the balance of themes reflected in the applications to that in previous calls. In the case of the second, there has been limited time for any cases to be identified.

The MTE also emphasised the importance of increasing the multiplier effects from projects. However, this will need to be reflected in the assessment of bids and management of projects; and only demonstrated some time after. The proposed use of Integrated Projects to assist in this process will not be available until the next period. It is therefore not possible to include any specific allowance for this in this assessment.

Finally, the MTE also raised a concern over the use of the National Allocations and MS specified priorities, potentially leading to a reduced level of EU added value. A response to this conclusion cannot be implemented in the context of the baseline scenario.

Whilst there is recognition of the value of key changes, they are unlikely to have an immediate short-term impact.

1.5. EU added value and subsidiarity

In accordance with the provisions of the Treaty, the priorities of the Budget Review and the current LIFE Regulation, the findings of the MTE, as well as views from stakeholders during the Impact Assessment, confirm the strong rationale and relevance of the instrument, operating at the EU level in support of the shared responsibilities between the EU and Member States for environmental protection. The findings also confirm the actual and potential scope to achieve EU added value. This added value is based on activity largely at the local level which supports burden sharing and the engagement of civil society in EU policy making and contributes directly to meeting EU environmental policy needs and priorities.

The impacts presented above, would have been unlikely to have been generated without the programme and the associated EU spending; the analysis in the zero option confirmed the small level of deadweight associated with the programme. As noted the programme has

facilitated local action in support of EU policy needs, particularly where the collective lessons of groups of projects around particular policy themes provide a critical mass of evidence and lessons for wider replication; which would otherwise not have been undertaken, or if it had then at higher taxpayer expense.

However, the inability to generate strong multiplier value, either through projects with the scale to create spillovers and knock-on effects, or by leveraging other financial instruments in pursuit of environmental objectives was also raised in the MTE. Subsequent instruments should therefore recognise a requirement for stronger, but non-exclusive priorities, clearly reflecting EU needs, expressed through multi-annual work programmes; the use of integrated projects to leverage wider funding; and greater use of national as well local projects to address institutional weaknesses.

The MTE, and subsequently the report of the European Economic and Social Committee on the MTE,[46]also raised concerns over the current use of national allocations to provide an affective basis for enabling the required levels of responsibility sharing. As noted above, the MTE raised the concern of a potential conflict over the quality of projects, where national allocations dictated the selection of projects, that although judged to be eligible, provided less EU added value than projects that would otherwise have been selected.

[46] Opinion of the European Economic and Social Committee on the Communication from the Commission to the European Parliament and the Council: Mid-term review of the LIFE+ Regulation, COM(2010) 516 final, 15/03/11.

2 Indicators used for the assessment

2.1 Environment, Policy and Governance - Environmental Impact indicators by theme

(Impacts expected to be seen 3 years after the project has ended)

Theme	Indicator	Unit
Climate Change	Expected reduction in emissions of CO_2 or other greenhouse gases (expressed in CO equivalent)	Tons/year
	Expected reduction in emissions of Ozone Depleting Substances (ODS)	Tons/year
Air	Likely improvement of air quality	Number of people that will be affected Area km^2
	Likely increase in area with ambient air quality meeting EU air quality standards	Increase in area - km^2 Expected population living in the area
	Likely reduction in emissions of noxious gasses (e.g. SO_2, NOx, NMVOC an NH3)	Tons/year
	Likely reduction in use of private cars	Expected decrease in km travelled per year Expected Reduction in CO2 emissions Tons/day
	Likely improvement of ecosystem negatively affected by acidification	Number of ecosystems that will be improved
Water	Area that will be protected against adverse effects of flooding	Area km^2
	People that will be protected against adverse effects of flooding	Number of people that will be protected
	Area of rivers/lakes that will have improved quality (chemical, microbiological or ecological)	Area - ha
	Likely improvement in areas meeting national quality standards/ targets	Area – ha
	Area with likely improved groundwater quality	Area – ha
	Area that will be protected against adverse effects of flooding	Area – ha
	People that will be protected against adverse effects of flooding	Number of people that will be protected
	Volume of urban wastewater that will meet EC Directive 91/271 requirements	Volume - m^3/year
	Volume of urban waste water discharges that will be shifted from untreated to treated	Volume - m^3/year
	Volume of industrial waste water discharges that will have enhanced quality regarding hazardous chemical substances	Volume - m^3
Natural Resources and Waste	Likely reduction in energy consumption	MJ/year
	Likely reduction in water consumption	Volume - m^3/year
	Likely reduction in use of limited or non-renewable natural resources	Tons or m^3/year

	Likely reduction in non-hazardous solid waste generation	Tons/year
	Likely reduction in hazardous waste generation	Tons/year
	Likely increase in recycling of waste	Tons/year
Chemicals	Expected reduction in use of hazardous chemical substances (e.g. CMR or PBT11)	Tons/year
	Expected substitution of hazardous substances	Number of substances
Sustainable Urban Development	Expected increase in size of urban recreational/ green areas	Area - ha
	Expected increase in pedestrian/ bicycle paths in cities	Area - km
	Expected increase in bicycle traffic	Km/year Expected reduction in CO2 emissions Tons/day
	Expected reduction in car traffic	Km/year Expected reduction in CO2 emissions Tons/day
	Expected success of recreational/green area	Number of users/year
Strategic Approaches	Will eco-friendly products be introduced	State Yes/No Number of products
	Goods that will be purchased under green procurement system	Number of companies that will be involved
	Tourists expected to be on sustainable travel arrangements	Number of tourists
	House units that will be constructed in accordance with sustainable building principles	Number of house units that will be constructed
	Please state any other expected impacts	
Soil	Expected area of improved soil quality	Area – km^2
	Expected extent of reduced soil erosion	Area – km^2
	Please state any other expected impacts	
Noise	Expected reduction in environmental noise caused by traffic	Decibels
	Reduction in environmental noise caused by industrial activities	Decibels
	Reduction in environmental noise caused by recreational activities	Decibels
	Please state any other expected impacts	
Environment and Health	People that will be better protected from air pollution by particles	Number of people
	People that will be better protected from air pollution by ozone	Number of people
	Please state any other expected impacts	

2.2 Nature & Biodiversity Environmental Impacts

(Impacts expected to be seen 3 years after the project has ended)

Indicator	Unit
Land Purchase	**Area (ha)**
Habitats that will be created or re-created	Area - ha Number of habitats created/re-created
Habitats that will be restored	Area - ha Number of habitats restored
Habitats that will be brought under favourable management.	Area - ha Number of habitats brought under sympathetic management
Favourable conservation status that will be achieved for species /habitats	Number of species listed on directive annexes Number of habitats achieving favourable status Number of priority habitats achieving favourable status Overall % change in conservation status from before the project to after
Species that will be reintroduced	Number of individual species reintroduced Original population
Invasive species that will be controlled	Area - ha Number of invasive species that will be controlled Number of priority habitats protected
Demonstration of the wider applicability of the technique(s) applied	State Yes/No Type of audience
Species and area of habitats that will benefit from local biodiversity action	Area ha Number and type of species
Please state any other impacts expected	

3 Activities, outputs and results of the LIFE+ Action Grants

3.1 Analysis of the Nature and Biodiversity survey

3.1.1 Administration costs

(a) Costs of Bidding

The cost to applicants of bidding for LIFE Nature funding was €12,000 per project, taking into account the administration and technical staff time involved. The main cost was the time required to write and submit the bid. Given an average project size of €2.2m, the bid cost represented 0.6% of project value.

The table below provides a breakdown of the average number of hours spent on each task during the bidding stage per project, divided between administrative and professional staff. This indicates that the cost of profession staff accounts for 69% of the total cost.

Table 3.1. LIFE+ Nature Projects – Average time and cost spent on the application process per project bid

Bid tasks	Administrative staff - hours	Technical/ Professional - hours	Administrative staff - cost €	Technical/ Professional - cost €	Total - cost €	%
Researching Funding options	19	21	447	554	1,002	8%
Negotiating, conceiving and writing the proposal	80	162	1,896	4,245	6,141	51%
Submitting the proposal to the competent authority	22	88	513	2,313	2,826	23%
Answering Commission requests	24	24	564	635	1,199	10%
Negotiating/ signing the contracts	12	26	294	677	971	8%
Total	156	321	3,715	8,424	12,139	100%

Source: GHK project survey (n= 44).

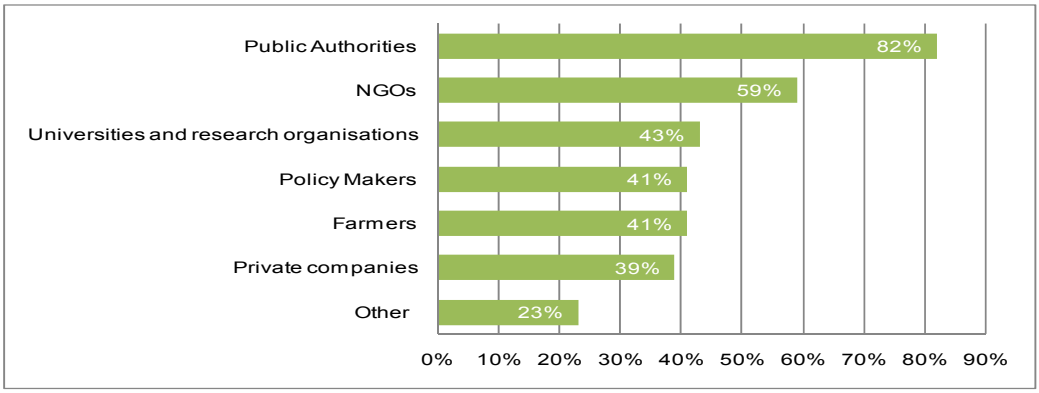
Notes: Average cost per hour based on:

- Administrative staff time - €24/hour.
- Technical & Professional staff time €26/hour.

(b) Costs of Project Management

The cost to beneficiaries of the administration and management of the project including reporting, taking into account the administrative and technical staff time involved, was €25,500, 1.2% of project value. The largest item of cost is the planned expenditure on the preparation of the Final Report, account for a third of costs.

Figure 3.2. Stakeholder involvement



Source: GHK LIFE Nat Survey, Base = 44 respondents. More than one stakeholder could be involved in a project.

The table below provides a breakdown of the average number of hours spent on each task during the project management stage per project, divided between administrative and technical staff time, and the subsequent average cost per project. This indicates that the cost of profession staff accounts for 66% of the total cost.

Table 3.3 LIFE+ Nature Projects – Time and cost spent on the project management reporting and information obligations per project

Project management tasks	Administrative staff - hours	Technical/ Professional - hours	Administrative staff - cost €	Technical/ Professional - cost €	Total - cost €	%
Preparation of the inception report	39	85	925	2,232	3,158	12%
Preparation of mid-term report	89	91	2,106	2,387	4,493	18%
Preparation of final report	97	195	2,310	5,113	7,423	29%
Preparation of layman's report	12	55	284	1,449	1,732	7%
Notification activities linked to changes to the grant agreement other than amendments	9	42	220	1,104	1,324	5%
Amendments to the grant agreement	32	53	761	1,398	2,159	8%
Visits of the monitoring team	33	61	779	1,590	2,369	9%
Visits of the Commission	21	52	500	1,364	1,864	7%
Other	36	4	855	112	967	4%
Total	368	638	8,741	16,749	25,490	100%

Source: GHK project survey (n= 44).

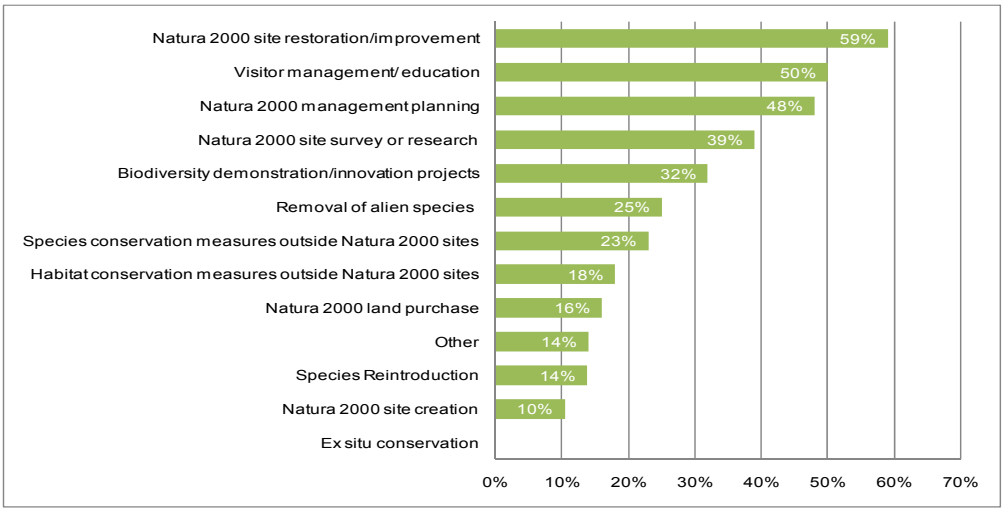
Notes: Average cost per hour based on:

- Administrative staff time - €24/hour.
- Technical & Professional staff time €26/hour.

3.1.2 Activities and Outputs

The majority of projects included activities related to Natura 2000 site restoration or improvement (59%). Natura 2000 management planning and site survey or research was common conservation actions (undertaken by 48% and 39% respectively). As shown in Figure 3.4, a further 50% included an element of visitor management and education which is in line with the objective of creating awareness and knowledge sharing. Natura 2000 site creation or land purchase was generally not an important element of the project cohort who responded to the survey, whilst ex-situ conservation was not part of any project activity for those who replied. The most frequently undertaken preparatory actions were inventories and studies, which were conducted by 64% of projects. Whilst 62% of respondents stated that preparatory actions had not changed objectives and planned results, the remainder stated that preparatory actions had made objectives clearer and more focused.

Figure 3.4. The conservation actions that projects are designed to undertake



Source: GHK LIFE Nat Survey, Base = 44 respondents. Respondents could choose all options that applied

3.1.3 Management Results

Over half of project beneficiaries (59%) felt that their activities had helped to improve the capacity of the area's stakeholders, through the involvement of the local community via schools and public seminars. In addition, seminars and information days engaged local people and demonstration days allowed a larger number of stakeholders, including at the city level, to be engaged. Looking forward, the majority of respondents stated that partnerships would be established. For example, one project aimed to establish a private foundation who would manage restored sites and communication actions aligned through the Park Authority. Others stated more generic activity where local authorities, NGOs and public services would continue to co-operate, including through working groups. Transnational co-operation is likely to be established in over half of projects (54%), with all stating that this would improve project results or help projects to achieve results at least to some extent.

The table below summarises the range of management results planned to be produced by the projects.

Figure 3.5. Management results by indicator

Indicator of management results	Number of projects	Share of projects (%)
Legislative/ policy/ planning documents to be politically approved as a result of your project	23	52%
Management systems or plans to be introduced	29	66%
Implementation of new monitoring or assessment systems	23	52%
Land use agreements to be established or land purchase and land compensation measures conducted	24	55%
Compensation to be provided to landowners/land users affected by projects loss	8	18%
Recreational facilities to be established in project area improving visitors' numbers/ awareness of area characteristics	34	77%
Enlargement of the national Natura 2000 network as a result of the project	8	18%
Improvement of the conservation status of site(s) in the Natura 2000	30	68%

Indicator of management results	Number of projects	Share of projects (%)
network		
Measurable change evident in the extent or condition of particular priority habitats	25	57%

Source: GHK LIFE Nat Survey, Base = 44 respondents. Respondents could choose all results that applied.

47% of projects expected up to three legislative, policy or planning documents to be politically approved as a result of their activity, with 26% expecting one document to be approved and 11% stating that five documents would be approved. The URBANBEES project states that it will develop and implement an action plan to conserve and enhance wild bee diversity in urban habitats. The plan will include guidance on changing conventional practices and the testing will lead to a validated action plan, which will be reproducible in other European cities. The project expects more than 5 legislative, policy or planning documents to be produced. In addition, for the 66% of projects that anticipated, new management systems or plans would be introduced, the systems or plans were expected to be realised at varying scales with 72% of projects introducing management systems at the local level, 55% at the regional level and 41% at the national level. Over half of the projects (52%) will include implementation of new monitoring or assessment systems at all levels, but particularly at the local scale (65%) and regional scale (57%).

A number of recreational facilities are to be established to improve visitor numbers and/or the awareness of the project area's characteristics. As a result of this activity, several respondents were able to estimate an increase in visitor numbers. The average increase in visitor numbers was 64% (although these figures varied from 5% to 500%).

3.1.4 Employment data

Only 14 projects were able to estimate the increase in employment they expected to occur as a result of the LIFE+ project (e.g. from increased tourism to the site). In total these 14 projects estimated that they would result in an impact of 35 FTE.

All projects have to draft an "After-LIFE conservation plan". If projects can not demonstrate how results/activities will be continued afterwards, projects will not secure funding. Respondents were asked whether their projects would continue after the LIFE funding period as the means by which continuation could be secured and 39% of respondents stated that they would. In the other cases, different arrangements are planned to continue the activities. When asked how many years the impacts of the project would last,7% stated up to 5 years, 29% stated 5-10 years and 64% stated 10 years or more.

When asked how many additional people the project would employ answers ranged from no additional Full Time Equivalent (FTE) positions to 10 additional FTE positions (where 1 full-time post is equal to 2 part time posts). Some 30 additional positions are being created by the respondent projects – a total of 150 FTE jobs across all Nature and Biodiversity projects if the sample is fully representative.

3.1.5 Demonstration and Innovation Results

64% of projects include the demonstration or development of new methods, techniques or approaches for species or habitat creation. When asked to elaborate on the kind of demonstration and development, answers included the development of new grazing techniques, the development of early warning systems, measures to control invasive or alien species not undertaken within the country and restoration of certain habitats.

The results of demonstration or development activity may lead to cost savings for the Competent Authorities in some case (27%). However these beneficiaries were unable to estimate the savings that could potentially be made. 70% of projects promote the sharing or upscaling of best practice through a variety of methods including the diffusion of demonstrative actions, media, best practice guidance, and the production of recommendations or communication activity within local communities (including schools etc).

3.1.6 Awareness and Replication

To generate awareness project beneficiaries are required to develop a website. Other methods are also being used (organisation of meetings, workshops and conferences, production of publications, training sessions for local stakeholders etc.).

Through awareness raising activities, most beneficiaries anticipate that their projects will reach some 500 or more people (59%). When questioned further, projects suggested that the target audience could be up to 1 million people. For 20% of the projects it is expected that between 200 and 500 people will be reached. The majority of project results are designed to be replicated (64%) by, for instance, partners, local and regional authorities, NGOs, fisherman and farmers and over periods ranging from three years to ten years.

The results of project activity are likely to benefit a variety of user groups. For example, on average, 62 local authorities, 5 national public authorities, 19 businesses and 6150 community members will benefit from the results of each project. Other groups who will benefit include whole cities, farmers, landowners, NGOs, students and schools. The primary benefits to target users include increased awareness, improvement to environmental quality and habitats, enhanced technical knowledge, income from tourism and increased visitor numbers. 59% of projects will include staff training at the project site.

3.1.7 Summary of EU Added Value

Respondents were asked to consider the extent to which the project would provide added value ranging from a very significant level to not at all. The most important strategic role of the projects was their demonstration of best practice. 89% of respondents agreed their project provided significantly or very significantly. One in four projects (26%) expected to demonstrate or pilot new methods, techniques or approaches to a very significant level. The least important strategic or catalytic role played by projects was leveraging additional investment (either public or private), only 16% expected to achieved any significant or very significant impact. This is in addition to the co-financing already provided and that required to continue with activities after project closure.

When asked to rate the co-ordinating and implementation role of the project, the most significant action was building the capacity of stakeholders which will take place in 65% of projects to a significant or very significant degree. Facilitating the implementation of European policy and legislation to a significant or very significant degree will take place in 59% of projects that responded and improving the co-ordination, networking and working relationships between stakeholders will take place to a significant level in 54% of projects.

All projects will contribute to the dissemination of information and good practice at least to some degree and 41% will disseminate good practice to a significant level. 57% of projects will significantly or very significantly contribute to increased knowledge base.

3.2 Analysis of EPG Survey

3.2.1. Administration costs

(a) Costs of Bidding

The cost to applicants of bidding for LIFE EPG funding was €23,000 per project, taking into account the administration and technical staff time involved, almost double to cost for Nature projects. The main cost was the time required to write and submit the bid. Given an average project size of €2.6m, the bid cost represented 0.9% of project value.

The table below provides a breakdown of the average number of hours spent on each task during the bidding stage per project, divided between administrative and professional staff. This indicates that the cost of profession staff accounts for 83% of the total cost.

Table 3.6: LIFE+ EPG Projects – Time and cost spent on the application process per project

Bid tasks	Administrative staff - hours	Technical/ Professional - hours	Administrative staff - cost €	Technical/ Professional - cost €	Total - cost €	%
Researching Funding options	16	25	438	831	1,270	5%
Negotiating, conceiving and writing the proposal	76	322	2,059	10,591	12,649	55%
Submitting the proposal to the competent authority	19	134	526	4,417	4,943	21%
Answering Commission requests	22	65	592	2,147	2,739	12%
Negotiating/ signing the contracts	13	36	360	1,171	1,531	7%
Total	147	583	3,974	19,158	23,133	100%

Source: GHK project survey (n= 90).

Notes: Average cost per hour based on:

- Administrative staff time - €27/hour.
- Technical & Professional staff time €33/hour.

(b) Costs of Project Management

The cost to beneficiaries of the administration and management of the project including reporting, taking into account the administrative and technical staff time involved, was almost €28,000, 1.1% of project value. The largest items of cost are the expenditure on the preparation of the Inception Report, account for 29% of costs and the Final Report (27%).

The table below provides a breakdown of the average number of hours spent on each task during the project management stage per project, divided between administrative and technical staff time, and the subsequent average cost per project. This indicates that the cost of profession staff accounts for 65% of the total cost.

Table 3.7 LIFE+ EPG Projects – Time and cost spent on the project management reporting and information obligations per project

Project management tasks	Administrative staff - hours	Technical/ Professional - hours	Administrative staff - cost €	Technical/ Professional - cost €	Total - cost €	%
Preparation of the inception report	104	157	2,816	5,164	7,980	29%
Preparation of mid-term report	58	114	1,559	3,752	5,311	19%
Preparation of final report	105	139	2,837	4,586	7,422	27%
Preparation of layman's report	37	32	1,002	1,053	2,056	7%
Notification activities linked to changes to the grant agreement other than amendments	9	21	239	706	945	3%
Amendments to the grant agreement	13	22	363	723	1,086	4%
Visits of the monitoring team	12	29	329	961	1,291	5%
Visits of the Commission	9	17	254	557	812	3%
Other	14	13	385	442	828	3%
Total	362	546	9,786	17,944	27,730	100%

Source: GHK project survey (n= 90).

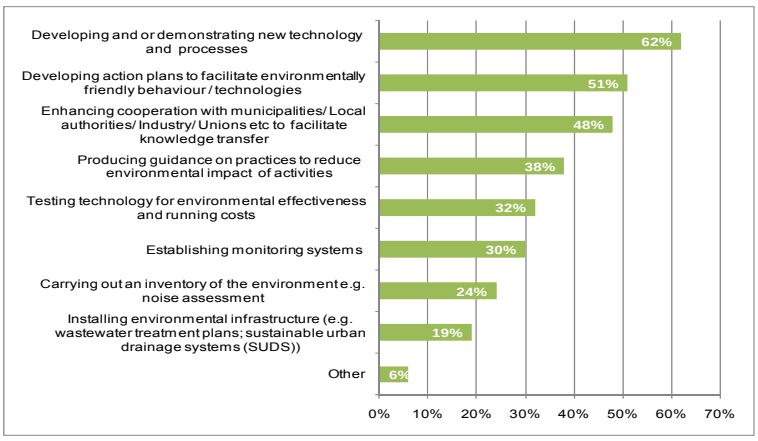
Notes: Average cost per hour based on:

- Administrative staff time - €27/hour.
- Technical & Professional staff time €33/hour.

3.2.2. Activities and Output

Respondents were asked what core activities the project would undertake (Figure 3.8). Developing (62%) and/or demonstrating (51%) new technology and processes were the most frequent responses. Of different preparatory actions, preparatory studies were most frequently undertaken by respondents (78%), closely followed by technical planning (63%).

Figure 3.8. The core actions that projects are designed to undertake



Source: GHK LIFE EPG Survey, Base = 90 respondents.

3.2.3. Management Results

When asked how many legislative, policy or planning documents were to be politically approved as a result of their activity, answers ranged from 0 to 7 with an average response of one per project. In addition, for 61% of projects it was anticipated that new management systems or plans would be introduced. Projects expected these management systems to be realised at the local (49%), regional (41%), national (12%) and EU (18%) scales. Over half of projects (59%) will include implementation of new monitoring or assessment systems. This will occur across all levels, particularly the local and regional scale (45% and 37% respectively). 72% of project beneficiaries felt that their project activity would help to improve the capacity of the area's stakeholders, through training, awareness raising, knowledge sharing and the development of new processes and systems. Approximately two-thirds of respondents stated that partnerships would be established. For example, one project was to establish a collaborative network among technical staff to control performance in terms of reducing the environmental impact of the use of chemicals. Transnational co-operation is likely to be established through just over half of projects (54%), with all stating that this would improve project results or help projects to achieve results at least to some extent.

The table below summarises the intended management results of the projects. Key results include developing early warning systems and monitoring systems for climate change management and introducing life-cycle analysis, waste management strategies and introduction of systems for sustainable management of limited resources.

Figure 3.9. Management results by indicator

Theme	Management results Indicator	Number of projects	Share of projects (%) by theme
Climate Change Management	Early warning climate strategy model that will be implemented	17	43%
	Emissions Trading Schemes that will be established	2	5%
	Monitoring systems	20	50%
Air Quality Management	Monitoring systems	5	50%
	Early warning systems	2	20%
Water Management	River basin management plans/programme	9	38%
	Measures that will be developed for protection of the marine environment	1	4%
	Administrative staff to be trained in River Basin Management Planning	6	25%
Natural Resources and Waste Management	Introduction of system for sustainable management of limited or sensitive resources	12	36%
	Introduction of life-cycle analysis (sustainability-oriented method) as a basis of development of industrial and/or consumer products	14	42%
	Waste management strategy	12	36%
Chemicals Management	People to receive training in safe management, handling and use of chemicals including pesticides	3	30%
	Companies that will be informed about/trained in implementation of EC legislation on chemicals	3	30%

Theme	Management results Indicator	Number of projects	Share of projects (%) by theme
	Strengthening of science-policy integration on chemicals issues	5	50%
	Guidelines for evaluation or classification of chemical hazard/ risks to be introduced	3	30%
	Chemical management guidelines to be introduced	2	20%
	Measures that will reduce risks related to handling or use of pesticides introduced?	3	30%
Urban Environment	Development of urban environmental management plan (or sustainability plan)	4	25%
	Development of a cooperation between citizens and city council regarding urban environment issues	0	0%
Strategic Approaches Management	Environmental management system (EMAS or other)	1	6%
	Environmental assessment system or procedures	4	24%
	Eco-labelling or other broad environmental labelling system	1	6%
	Green procurement system	1	6%
	Guideline for sustainable tourism	3	18%
	Guideline for sustainable building	1	6%
Forest Management	Monitoring systems	5	71%
	A system that will provide comprehensive information on forests to increase understanding in relation to climate change, biodiversity, forest fires, forest conditions and the protective functions of forests	4	57%
	Development of a risk assessment framework concerning multiple stresses on forests over time and space.	2	29%
Soil Management	Soil management plans or monitoring systems	6	67%
Noise Management	Environmental noise management plans or monitoring systems	2	50%
Environment and Health Management	Health management strategy	4	24%
	Monitoring system	3	18%

3.2.4. Employment Data

Respondents were asked whether their projects were likely to continue after the LIFE funding period and 59% of respondents stated that they would. When asked how many additional people the project would employ, answers ranged from no additional Full Time Equivalent (FTE) positions to 150 additional FTE positions (where 1 full-time post is equal to 2 part time posts). The total of all FTE positions created of those who responded to the survey was 300 FTE positions and the projects were expected to continue for varying lengths of time, between a year and a half and indefinitely.

3.2.5. Demonstration and Innovation Results

When asked whether the project could be classified as 'demonstrative' and/ or ‘innovative’ (as per the Commission agreed definition) half of the respondents stated demonstrative, 17% stated innovative and 28% considered that their project was both demonstrative and innovative.

When asked about the innovation activities of projects it was revealed that on average a projects would result in 2 new methods, 2 new techniques and 2 new approaches. For example, the GREECIT, Green citizens of Europe project, aims to develop innovative tools and methods for interactive and co-creative citizens. This project states that it will results in 20 new methods, 10 new approaches and 10 new techniques.

65% of the respondents stated that as a result of the new methods, techniques or approaches, cost savings would be achieved by the Competent Authority. When asked to estimate these annual cost savings responses varied from €35,000 to €10,000,000 per project. Other responses indicated cost savings in terms of savings per ton/waste., and as a share of current costs. Just under half of respondents (48%) stated that their projects would lead to new commercially viable products and when further probed for expected annual sales, responses ranged from €100,000 to €335million.

3.2.6. Awareness and Replication

Through awareness raising activities, a significant number of projects anticipate that they will reach over 500 people (49%), with a target audience up to 100,000 people. A further 25% of projects aim to reach between 200 and 500 people and 20% between 50 – 200 people. These results are fairly evenly split in the geographic focus between local regional and national levels.

The majority of project results are designed to be replicated (76%) by, for instance, partners, local and regional authorities, farmers, NGOs, private businesses and other project organisations, over periods ranging from two years to ten years. The results of project activity are likely to benefit a variety of user groups. For example respondents will collectively provide a benefit to 1,068 local authorities, 331 national public authorities, 3,098 businesses and 1,386,952 community members. In addition 71% of projects will include staff training at the project site.

3.2.7. Summary of EU Added Value

Respondents were asked to rate how well the project would achieve a range of strategic roles. The most important strategic role of projects was the demonstration or piloting of new methods, techniques or approaches, for which 95% of respondents considered their project would have either a significant or very significant impact. 85% also considered they would significantly contribute to the development of new methods, approaches or innovative solutions.

When asked to rate the co-ordinating and implementation role of the project, the most significant role was building the capacity of stakeholders (69%). Beneficiaries also rated highly the degree to which their project would facilitate the implementation of European policy and legislation and improve the co-ordination, networking and working relationships between stakeholders.

All projects will contribute to the dissemination of information and good practice at least to some degree and 55% will disseminate good practice to a significant level. 76% of projects will help to increase the profile of environmental issues and raise awareness. In addition 65% of respondents will contribute to the knowledge base for development and monitoring of environment policy and legislation to a very significant or significant level.

3.3. Analysis of LIFE- Information and Communication Survey

3.3.1. Administration costs

(a) Costs of Bidding

The cost to applicants of bidding for LIFE funding was €10,600 per project, taking into account the administration and technical staff time involved, similar to the cost for Nature projects. The main cost was the time required to write and submit the bid. Given an average project size of €1.1m, the bid cost represented 1% of project value.

The table below provides a breakdown of the average number of hours spent on each task during the bidding stage per project, divided between administrative and professional staff. This indicates that the cost of profession staff accounts for 59% of the total cost.

Table 3.10: LIFE+ INF Projects – Time and cost spent on the application process per project

Bid tasks	Administrative staff - hours	Technical/ Professional - hours	Administrative staff - cost €	Technical/ Professional - cost €	Total - cost €	%
Researching Funding options	20	24	379	583	962	9%
Negotiating, conceiving and writing the proposal	144	166	2,769	4,116	6,885	65%
Submitting the proposal to the competent authority	7	13	142	327	470	4%
Answering Commission requests	28	37	548	920	1,467	14%
Negotiating/ signing the contracts	29	12	566	293	859	8%
Total	229	252	4,404	6,239	10,643	100%

Source: GHK project survey (n= 13).

Notes: Average cost per hour based on:

- Administrative staff time - €19/hour.
- Technical & Professional staff time €25/hour.

(b) Costs of Project Management

The cost to beneficiaries of the administration and management of the project including reporting, taking into account the administrative and technical staff time involved, was almost €14,000, 1.3% of project value. The largest item of cost is the expenditure on the preparation of the Mid-term Report, 31% of costs.

The table below provides a breakdown of the average number of hours spent on each task during the project management stage per project, divided between administrative and technical staff time, and the subsequent average cost per project. This indicates that the cost of profession staff accounts for 48% of the total cost.

Table 3.11: LIFE+ INF Projects – Time and cost spent on the project management reporting and information obligations per project

Project management tasks	Administrative staff - hours	Technical/ Professional - hours	Administrative staff - cost €	Technical/ Professional - cost €	Total - cost €	%
Preparation of the inception report	91	73	1,750	1,801	3,551	25%
Preparation of mid-term report	156	54	3,003	1,333	4,336	31%
Preparation of final report	45	62	874	1,535	2,408	17%
Preparation of layman's report	20	27	376	678	1,054	8%
Notification activities linked to changes to the grant agreement other than amendments	8	11	158	265	423	3%
Amendments to the grant agreement	27	15	524	379	903	6%
Visits of the monitoring team	22	25	428	621	1,049	8%
Visits of the Commission	6	4	124	110	235	2%
Other	0	0	-	-	-	0%
Total	376	272	7,238	6,721	13,959	100%

Source: GHK project survey (n= 13)

Notes: Average cost per hour based on:

- Administrative staff time - €19/hour.
- Technical & Professional staff time €25/hour.

3.3.2. Activities and Outputs

Respondents were asked which core actions the project was designed to undertake. Eleven out of the thirteen projects' core activity was *awareness raising campaigns* related to the implementation, updating and development of European environmental policy and legislation. Seven out of thirteen projects' focus was *information and communication actions* related to the implementation, updating and development of European environmental policy and legislation.

Projects often undertake a number of public events and excursions for those living in the area (on average 24 over the lifetime of the project). Stakeholder events and meetings take place numerous times (an average of 41 times during the project lifetime, however this result is distorted by one project which states 210 stakeholders and events would take place). In addition, educational activities, media activities and participatory activities take place often (on average 41, 21 and 17 times respectively during the project lifetime). Activities comprising of site visits, publications, individual meetings with public authorities and

activities aiming to facilitate user access and awareness take place less often but still on average between 9 and 16 times over the course of the project. On average each project includes 7 presentations at technical conferences, 4 meetings between LIFE projects, 2 films or DVDs, and 1 final conference.

Stakeholder consultation is part of the project's activities for seven of the projects with the number of consultations varying between 1 and 700. Preparatory studies were or will be included in six of projects – for the majority, one study has been undertaken. Three projects included technical planning; for those who provided detail on the number of technical planning actions, responses varied between 2 and 10.

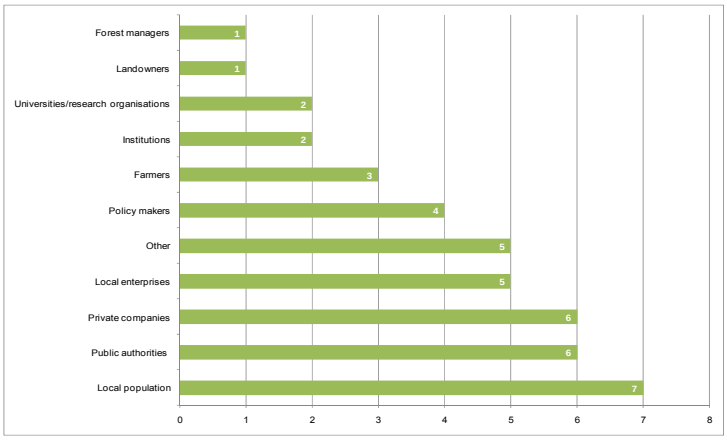
3.3.3. Employment Data

Respondents were also asked whether their projects were likely to continue after the LIFE funding period. Five of the 7 respondents stated that the project was likely to continue and when asked how many additional people the project would employ, one respondent said 2 additional Full Time Equivalent (FTE) positions and the others did not know. One respondent was able to state that the project would continue for three years or more, the others were unable to say.

3.3.4. Awareness and Replication of Results

The primary topics of awareness raising campaigns related to climate change and water sustainability with two further projects focusing on natural resources and waste. More specifically this included local impact and mitigation measures such as energy saving, the restoration of rivers and rational use of water resources and the promotion of green products and reducing carbon emissions and the prevention of waste. Such activity was to be achieved through specific actions with numbers ranging from 2 actions to 4000 actions. The primary targets of awareness raising activity were the local population (7 projects), public authorities (6 projects) and private companies (6 projects) as illustrated in the figure below. In addition 5 projects stated their activity focused on local enterprises and a further four focused on policy makers.

Figure 3.12 Target Audiences of Awareness raising activity



Source: GHK LIFE-Inf Survey, Base = 13 respondents.

Eleven of thirteen projects indicated that they would expect to reach over 500 from their awareness raising activity. Four projects provided further detail on the number of people who would be reached and answers ranged from 10,000 to 25 million. Eleven projects also stated that new knowledge and skills would be imparted to the target audiences following awareness

raising activities. Between 200 and 100,000 people would gain an increased awareness or knowledge of environmental issues, between 30 and 50,000 would receive specific training and between 300 and 50,000 would gain improved skills or competencies to deal with environmental management issues.

Eight projects stated that awareness would be raised regionally by their actions. Six projects stated the awareness would be raised at the national level and a further six projects stated that the impact would be local. Four projects felt that awareness would be improved at an EU level. Seven of the respondents stated that project results were designed to be replicated through the distribution of web tools, the promotion by authorities and associations and the creation of a national campaign. The target audience that respondents anticipated would benefit on average from the projects included local public authorities (810), an average of 8 national public authorities, 20 business and 114 community members.

Four projects said that they had evidence to show the environmental impact of their activity – more specifically this included one project with a 10% decrease in carbon emissions for all those engaged in the project and another which stated that a decrease in per capita water consumption would illustrate the project's environmental impact.

3.3.5. Summary of EU Added Value

To ascertain the added value of the projects, respondents were asked to the rate the extent to which their projects would lead to certain results. The most significant impacts are related to best practice with seven respondents stating that their projects would demonstrate best practice either to a significant or very significant level and nine respondents stating the project will promote the sharing and up-scaling of best practice through the planned dissemination activity. It is also expected that projects will lead to wider adoption of methods, approaches or innovative solutions, with 76% of respondents believing this would take place to some degree or to a significant or very significant level.

There were mixed views as to whether projects would lead to additional private or public sector investment or interest. There was little agreement that projects would contribute to the development of new methods, approaches or innovative solutions, although one-third felt this would take place to some degree.

As to views on the project's coordination and implementation role, the most significant impact is expected to be the improvement of co-ordination, networking and working relationships between stakeholders, with ten projects stating it would occur to a significant or very significant level. Two-thirds of projects were expected to significantly or very significantly build up the capacity of stakeholders. The facilitation of European policy and legislation implementation is likely to be a significant or very significant result for seven respondents.

It was expected that the project would play a significant or very significant part in the dissemination of information and good practice, as would be expected from communications activity. A significant number of projects also anticipated that the profile of environmental projects would be raised as a result of their project activity. Projects held mixed views as to whether they would shape more strategic environmental thinking or whether they would contribute to the knowledge base for the development and monitoring of environmental policy or legislation.

4 Detailed analysis of habitat improvement

The estimated terrestrial area of expected habitat improvement by habitat type for the current

programme was based on the response of LIFE projects to the project survey. In some cases projects cover more than one habitat type, in which case the dominant habitat type was identified.

The survey did not attempt to assess the scale of improvement in environmental quality, based on e-survey responses; and would require site by site appraisal. The survey responses have been grossed up for all terrestrial projects based on the levels of project investment. Marine impacts have not been included.

a. Habitats that will be created or re-created

Habitat Type	Number of habitats created or re-created	Area (ha)
Coastal and Halophytic Habitat	30	650
Coastal Sand Dunes and Inland Dunes	40	590
Freshwater Habitats	60	2,800
Temperate Heath and Scrub	10	360
Sclerophyllous Scrub (Matorral)	1	6
Natural and Semi-Natural Grassland Formations	20	470
Raised Bogs, Mires and Fens	40	840
Rocky Habitats and Caves	1	6
Forests	20	360
Total	220	6,100

b. Habitats that will be restored

Habitat Type	Number of habitats created or re-created	Area (ha)
Coastal and Halophytic Habitat	3,500	105,500
Coastal Sand Dunes and Inland Dunes	3,500	2,700
Freshwater Habitats	3,500	1,238,000
Temperate Heath and Scrub	10	360
Sclerophyllous Scrub (Matorral)	2	60
Natural and Semi-Natural Grassland Formations	60	380,400
Raised Bogs, Mires and Fens	160	15,400
Rocky Habitats and Caves	2	60
Forests	60	411,900
Total	10,800	2,154,000

c. Habitats that will be brought under sympathetic management

Habitat Type	Number of habitats created or re-created	Area (ha)
Coastal and Halophytic Habitat	6,300	103,200
Coastal Sand Dunes and Inland Dunes	6,400	6,100
Freshwater Habitats	6,300	5,000
Temperate Heath and Scrub	10	360
Sclerophyllous Scrub (Matorral)	3	3,300
Natural and Semi-Natural Grassland Formations	90	473,400
Raised Bogs, Mires and Fens	80	3,800
Rocky Habitats and Caves	3	3,300
Forests	60	420,500
Total	19,300	1,019,000

d. Favourable conservation status that will be achieved for species and habitats

Habitat Type	Number of species listed in the Annexes of the Birds and Habitats Directives	Number of habitats achieving favourable status	Number of priority habitats achieving favourable status	Overall % change in conservation status from before the project to after
Coastal and Halophytic Habitat	310	140	50	1,700
Coastal Sand Dunes and Inland Dunes	50	40	30	170
Freshwater Habitats	120	50	20	2,000
Temperate Heath and Scrub	-	9	2	-
Sclerophyllous Scrub (Matorral)	20	1	-	20
Natural and Semi-Natural Grassland Formations	120	40	30	1,600
Raised Bogs, Mires and Fens	240	90	70	380
Rocky Habitats and Caves	20	1	-	20
Forests	160	60	40	200
Total:	1,040	430	240	6,100

e. Number of individual species reintroduced

Habitat Type	Number of individual species reintroduced	Number of species in the population before the project began
Coastal and Halophytic Habitat	160	-
Coastal Sand Dunes and Inland Dunes	150	-

Freshwater Habitats	5,500	1,800
Temperate Heath and Scrub	-	-
Sclerophyllous Scrub (Matorral)	-	-
Natural and Semi-Natural Grassland Formations	20	-
Raised Bogs, Mires and Fens	-	-
Rocky Habitats and Caves	-	-
Forests	40	80
Total:	5,900	1,900

f. Invasive species that will be controlled

Habitat Type	Habitat Type	Area (ha)	Number of priority habitats protected	Number of invasive species that will be controlled
Coastal and Halophytic Habitat	1,700	20	119,200	3,000
Coastal Sand Dunes and Inland Dunes	1,900	20	119,200	3,000
Freshwater Habitats	1,100	60	40	109,500
Temperate Heath and Scrub	120	2	5	-
Sclerophyllous Scrub (Matorral)	110	1	1	-
Natural and Semi-Natural Grassland Formations	21,300	30	119,200	1,599,000
Raised Bogs, Mires and Fens	580	10	20	-
Rocky Habitats and Caves	110	1	1	-
Forests	59,000	40	70	302,000
Total:	85,900	180	357,700	2,017,000

g. Species and area of habitats that will benefit from local biodiversity action

Habitat Type	Area (ha)	Number and type of species	Area (ha)	Number and type of species
Coastal and Halophytic Habitat	3,600	-	31,700	-
Coastal Sand Dunes and Inland Dunes	3,100	-	27,200	-
Freshwater Habitats	142,400	90	1,265,000	780
Temperate Heath and Scrub	-	-	-	-
Sclerophyllous Scrub (Matorral)	2,800	20	24,500	180
Natural and Semi-Natural Grassland Formations	-	-	-	-
Raised Bogs, Mires and Fens	280	-	2,400	-

Habitat Type	Area (ha)	Number and type of species	Area (ha)	Number and type of species
Rocky Habitats and Caves	2,800	-	24,500	-
Forests	8,200	-	73,100	-
Total:	163,200	110	1,448,000	960

ANNEX 8: FULL ASSESSMENT OF THE ZERO OPTION AND OF THE EXPANDED OPTION

1. Full assessment of the Zero option

In this option, all Action Grant funding is undertaken through the main EU financial instruments (especially Common Agricultural Policy (CAP) related funds and the Structural Funds). Public procurement continues. Operating Grants for environmental NGOs is discontinued. The main EU financial instruments are Cohesion Policy, CAP Pillar II and Common Fisheries Policy funds and Horizon 2020. These are assumed to operate as they do now.

To the extent that LIFE+ activities can be funded under other instruments, then the impacts can be assumed to continue under this option, subject to the level of funding. In the case of operating grants for environmental NGOs, it is assumed that no other instrument would be available to fund this activity.

The MTE[47] examined the level of project funding that would have been used in the absence of funding from the LIFE instrument. Projects were asked whether they would otherwise have used other EU and MS programmes.

The results (table below) indicate that some projects consider they could have secured funding from other EU instruments. In total, 12% of EC LIFE funding could have been derived from other EU funds; in the case of EPG projects, 13% of investment could have been funded from other instruments. The main EU instruments considered to provide a source of alternative funding to LIFE were, FP7 and Interreg. Interestingly, the use of the Competitiveness and Innovation Programme (CIP) as an alternative instrument was barely mentioned, reflecting the attempts to distinguish and target the instruments on different activities.

The results also suggest that the possibility of securing alternative funding from Member States' (MS) programmes was very limited (3% for the programme overall, 5% for EPG but zero for the other strands).

Table 1.1 Share of EC project contribution by LIFE Strand that could have been funded from other EU and MS financial instruments

LIFE Programme by Strand	Share of investment from other EU funds (%)	Share of investment from MS funds (%)
Nature & Biodiversity	6	0
Environmental Policy & Governance	20	6
Information & Communications	6	0
Total Programme	13	3

Source: Mid-Term Evaluation (GHK project survey), n = 165 projects; total investment of €374m

Examination of projects that suggested they would have used alternative instruments does not however indicate that other EU instruments would clearly be capable of funding them; projects would of course need to be reconfigured to suit the relevant eligibility criteria of the other instruments whilst essentially undertaking the same activity – and be successful, to generate similar results and impacts.

The possibility of other instruments funding activities funded by Action Grants is being reviewed by strand, and delivering similar types and quality of results and impacts.

[47] Mid-term Evaluation of the LIFE Regulation, European Commission, 2010

1.1. Nature and Biodiversity

Under LIFE III, funding for nature and biodiversity was limited to the implementation of the Birds and Habitats Directives, which established the legal basis for the Natura 2000 network. In 2007, LIFEIII was widened under LIFE+ to include additional funding for a wider biodiversity component (under the "Biodiversity" strand), which focused on the implementation of the broader objectives laid out in the Communication on "Halting the loss of biodiversity by 2010 – and beyond".[48]

Given that much of LIFE's nature-related funding to date has been directed towards funding activities to support the implementation of the Natura 2000 network, this is the area where the implications of having to rely only on other EC funds might be expected to be greatest.

1.1.1. Support for the Natura 2000 network

In this option, Natura 2000 related activity is included within several EU funding instruments aside from LIFE+, including the European Agricultural Fund for Rural Development (EAFRD), European Fisheries Fund (EFF), Structural Funds (i.e. the European Fund for Regional Development – ERDF and the European Social Fund – ESF and the Cohesion Fund) and the 7th European Framework Programme for Research and Development (FP7). Because of their scale, these other financial instruments might well be (and even arguably be better) suited to the needs of the network (e.g. Structural and Cohesion Funds – €336 billion and EAFRD €151 billion over the period 2007 to 2013). EAFRD in particular is suited to providing annual payments to farmers and landowners; these make up a significant proportion of the overall ongoing costs of managing the network. This is set against the significantly smaller budget of LIFE (€2.2 billion over the 2007 to 2013 period of which 39% is to be allocated to grants for Nature and Biodiversity).

Examining the possible use of other instruments to provide the same results and impacts as LIFE Nature, the alternative funding is most likely to come from EARFD, and the Structural Funds. These funds, combined with LIFE, have made available around €3.8 billion for financing Natura 2000 through 2007 to 2013 (see 0). Note that (from 0 above) beneficiaries considered their scope to access alternative funds was very limited – only 6% of beneficiaries thought they could have used other EU funding sources and none considered they could have used MS funding sources.

Estimating the financial allocations for Natura 2000 from the current EU budget is difficult because the budgetary allocations under most of the funds do not allow a distinction between Natura 2000 related expenditure and support to conservation of biodiversity and environment in a wider context. Due to these difficulties, the exercise can easily lead to underestimates or overestimates of the contribution to the implementation and management of Natura 2000 of certain EU funding instruments. According to a BirdLife report (Boccaccio et al. 2009)[49], if spending on agri-environment is considered in relation to its value purely for biodiversity, in 2007 in Austria less than 8 per cent of total budget was spent on sub-measures with 'strong' effects.

In the case of the Structural Funds, payments allocated to Natura 2000 and biodiversity that might directly benefit conservation or restoration are difficult to define since they are covered by the broadly defined heading of category 51 and the wide range of measures possible to be

[48]COM (2006) 216.

[49]Boccaccio L, Brunner A, Powell A (2009). "Could do better."BirdLife International (May 2009); 1-45.

supported within it.[50] The following table attempts to provide a very rough first order estimate of the potential contributions to Natura 2000 under the three most important EU financial instruments assuming a proportion of the key measures is applied for this purpose.

Table 1.2 Approximate allocation under some EU financial instruments which are dedicated to, or are most likely to benefit, Natura 2000 (€million, 2007-2013)[51]

Funding instrument	Estimated allocation (€million, 2007-2013)
LIFE+ Nature & Biodiversity allocation	700
EAFRD direct Natura 2000 payments + agri-environment payments expected to likely contribute to Natura 2000 management (25 per cent of category 214 on agri-environment)	600 - 5,400
Structural funds (25 - 50 per cent of ERDF cat.51 for biodiversity and Natura 2000)	600 - 1,300
Total	**1,900 – 7,400** ***300 – 1,100 per year***

Note: Other rural development measures are also used by Member States to finance Natura 2000, e.g. forest-environment payments, non-productive investments in agriculture and forests

The estimated spending is approximately between 300 – 1,100 million EUR / year, which represents only 5-20 per cent of the estimated financing needs of 5.8 billion EUR / year.

It also needs to be noted that the figures refer to allocated funding and not to actual expenditure. Mid-term information available on financing under EAFRD indicates a disparity between planned allocations and resources used, particularly in the context of the direct Natura 2000 payments (Kettunen et al. 2011). This suggests a slow uptake of the measure at the beginning of the financing period.

Moreover, although there are a range of funds available to support the network, a recent report[52] found that there is a significant range of activities that are not funded by the other instruments (Table 1.3). Key gaps identified include:

- Pilot projects;
- Consultation & networking;
- Conservation management, especially where projects are unable to demonstrate significant socio-economic benefits (as required by other funds;
- Gaps for particular habitats – particularly those that are not managed for agriculture or forestry – especially marine, coastal, water and unfarmed terrestrial habitats. The allocation and uptake of payments for forest measures under EAFRD is low compared to those for agricultural habitats;
- Management planning;
- Monitoring and risk management.

[50]Kettunen, M., Baldock D., Gantioler, S., Carter, O., Torkler, P., Arroyo Schnell, A.,Baumueller, A., Gerritsen, E., Rayment, M., Daly, E. & Pieterse, M. (2011). Assessment of the Natura 2000 co-financing arrangements of the EU financing instrument.A project for the European Commission – final report. Institute for European Environmental Policy (IEEP), Brussels, Belgium. 138 pp + Annexes.

[51] Note figures must be treated with caution. See forthcoming Kettunen report (2011) for caveats linked to EAFRD figures.

[52] IEEP et al (2011, forthcoming): Assessment of the Natura 2000 co-financing arrangements of the EU financing instrument. Final Report.

The scale of the gap is also significant; current EU funding is estimated at €0.5 to €1.1 billion annually compared to estimated annual costs of €5.8 billion[53]. To establish the approximate scale of funding relative to where the gaps are, Kettunen et al (2011) analysed the main costs of implementing the network provided by 11 Member States in the context of the Gantioler et al (2010) study. The results indicated that around 15% of costs are in activities for which there are significant gaps in financing opportunities, and 52% in activities for which there are moderate gaps in financing opportunities. To the extent that LIFE is the only instrument capable of meeting some of these gaps (as indicated below) and is already doing so then there is little or no scope to use alternative instruments.

Table 1.3 Overview of the major and moderate gaps in financing key management measures within the current EU co-financing framework for Natura 2000

Establishment of Natura 2000 Sites		
PILOT PROJECTS	Moderate gaps	In principle, possible in all budget lines. However, restricted under EAFRD. The pilots must usually be in line with the funds general requirements (i.e. have links with rural / regional development). Information if funds have been used for pilot projects is not available.
Management planning		
ESTABLISHMENT OF MANAGEMENT BODIES	Significant gaps	Some possibilities under ERDF but most probable only used indirectly in some transboundary projects.
CONSULTATION AND NETWORKING – PUBLIC MEETINGS, NETWORKING, LIASON WITH LANDOWNERS	Moderate gaps	LIFE communication can provide direct project funding. ERDF provides several indirect options but the real uptake is only realised through transnational cooperation projects.
RUNNING COSTS OF MANAGEMENT BODIES	Significant gaps	None of the funding lines provides funding for running costs. Some use might be possible under LIFE if beneficiaries "sell" their projects as innovative and new to cover ongoing costs.
ONGOING STAFF COSTS	Significant gaps	LIFE provides staff costs only during the project lifetime.
Ongoing habitat management and monitoring		
CONSERVATION MANAGEMENT – HABITATS, SPECIES	Moderate gaps (e.g. marine)	LIFE has a clear track record of projects in this field. Under EAFRD AEM and Natura payments can be linked to specific conservation (e.g. agricultural land and forests), although often not targeted enough. EFF provides several opportunities but most legal opportunities remain unclear with low or no uptake in the national programmes. FP7 provides indirect research possibilities with wider biodiversity context. ERDF provides good opportunities for transboundary activities and in sectoral programmes, although in competiveness objective regions possibilities are limited as nature projects must be investment related and show economic effects. Species conservation is more difficult under ERDF as funding has a clear territorial dimension and species projects need to be linked to concrete land based measures.

[53]Gantioler, S., Rayment, M., Bassi, S., Kettunen, M., McConville, A., Landgrebe, R., Gerdes, H. and ten Brink, P. (2010) Costs and Socio-Economic Benefits associated with the Natura 2000 Network. Final report prepare by the Institute for European Environmental Policy / GHK / Ecologic on Contract ENV.B.2/SER/2008/0038 for the European Commission, DG Environment: Brussels.et al (2010). Costs and socio-economic benefits associated with the Natura 2000 network. Available from: http://ec.europa.eu/environment/nature/natura2000/financing/docs/natura2000_costs_benefits.pdf.

Establishment of Natura 2000 Sites		
IMPLEMENTATION OF MANAGEMENT SCHEMES AND AGREEMENTS	Moderate gaps (e.g. non-rual areas)	LIFE can provide project financing. Significant potential under AEM where a huge diversity of measures exists, can be difficult to target measures on sites as the measures are voluntary. Some positive impacts might come from LFA and Natura 2000 payments but these payments are not targeted at specific outcomes.
PROVISION OF SERVICES, COMPENSATION FOR RIGHTS FOREGONE AND LOSS OF INCOME	Moderate gaps (e.g. non-rual areas)	AEM and Natura payments allow for wide coverage of payments but can lack clear targeting. Also, these payments only cover loss of income and additional cost for agriculture-related activities, not for urban development etc.. LIFE can also finance compensation payments.
MONITORING AND SURVEYING, AND RISK MANAGEMENT	Moderate gaps (e.g. marine)	LIFE projects can realise all kind of measures in this field. In principle measures could be included under LEADER activities but no information is available on the uptake. Under ERDF, monitoring and surveillance could be realised under the risk prevention schemes but no information about uptake is available as most risk prevention plans are linked to industrial risks and hazardous materials.
(ONGOING) SURVEILLANCE OF SITES	Significant gaps	None of the funds provides possibilities for ongoing surveillance.

Source: Edited from Kettunen et al (2011)

There are some activities (e.g. monitoring, surveying, management of risks), which are not generally eligible for funding through other instruments. Only LIFE provides opportunities for funding these important activities. These activities relate more to management activities of the network rather than one-off investments. Activities linked to the latter seem relatively well covered by the various financial instruments. Some two thirds of the estimated costs of running the network relate to management activities (see 0), which are largely ineligible for funding through other means.[54]Without LIFE therefore, entire aspects of the network would receive no funding from EC sources.

Table 1.4 Summary of the main costs of implementing the Natura 2000 network

Cost category	Costs for 25 Member States (€m)	%
One off costs (annualised)		
Management	255	5%
Land purchase	398	8%
Infrastructure	835	16%
Sub-total	***1,671***	***33%***
Recurrent costs (annual)		
Management planning[55]	703	14%
Habitat management & monitoring	2,707	53%
Subtotal	***3,428***	***67%***
Total (25 MS)		
	5,099	**100%**

[54]Kettunen et al (2011) , *initial source Gantioler et al. 2010* .

[55]Some management planning falls under one-off costs, some under recurrent costs. Recurrent costs mainly include the running of management bodies, and to a less extent public communication, and review of management plans.

Source: Edited from Kettunen et al (2011) op cit

These funding gaps result from the different objectives, eligibility criteria and payment structures of these other instruments and arise from the fact that none of them (with the exception of LIFE) were specifically designed to fund nature projects. Even where it is possible to use other instruments as an alternative source to LIFE funding other funds have a specific socio-economic aim other than biodiversity conservation. Therefore, while they can fund conservation actions, it is only when these actions are linked to relevant sectors through socio-economic objectives, that these actions can be funded.[56] LIFE therefore is the only fund which can fund conservation actions where the purpose is conservation alone. Without LIFE therefore, a subset of these activities would receive no funding.

Moreover, while other funds provide valuable finance for Natura 2000, it can be argued that the specialist expertise within DG Environment can be crucial in maximising the added value that its funding delivers for the network. Replacing this funding from other sources would therefore reduce the added value delivered to the overall detriment of the network. At the same time, the LIFE programme combines Commission expertise in helping with the design of the programmes and the use of funds with technical expertise regarding the practical implementation at a national and regional level.

The presence of these gaps in funding argues that the baseline impacts cannot in general be provided by alternative instruments. This is supported by the projects themselves; which considered that only 6% of LIFE funding for Nature could have been replaced by other instruments.

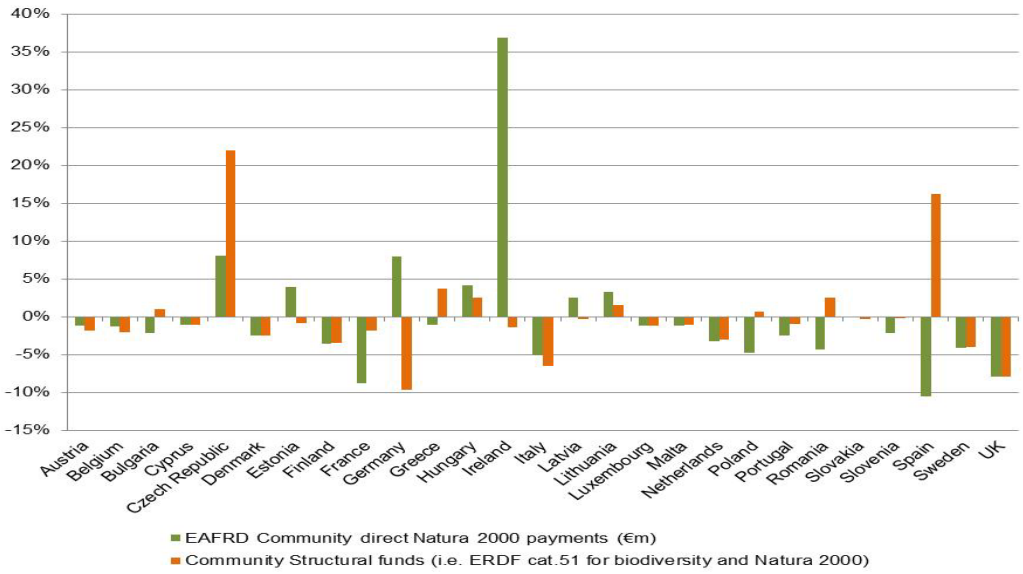
Another consideration is whether the use of alternative instruments provides the same level of EU added value through contributions to burden sharing in the protection of EU natural assets. Figure 1.5 below indicates the funds received by MS under the EAFRD and Structural Funds that are most likely to benefit the Natura 2000 network, relative to the MS allocation under the National Allocation for the LIFE programme, using this as a suitable proxy for the distribution of nature protection priorities.

The variance from the national allocation indicates where Member States receive too much, or too little relative to their needs. The greater the variance, the less the use of these funds contributes to burden sharing. In the case of EAFRD for 7 MS the funding is greater than 5% different to that implied by the national allocation. In the case of the Structural Funds for 5 MS, the funding is greater than 5% different to that implied by the national allocation and suggests that neither fund provides the same level of EU added value as LIFE.[57]

[56] For instance, funding of conservation action under EAFRD is only possible for farmland and forestry, and does not include other types of Natura 2000 sites.

[57] Under proposals for the next MFF, cohesion policy in non-convergence regions will not fund environmental measures: "Transition regions and competitiveness regions would be required to focus the entire allocation of cohesion funding (except for the ESF) primarily on energy efficiency and renewable energy; SME competitiveness and innovation. In these regions, investments in energy efficiency and renewable energy will be at least 20%." - COM(2011) 500 final, page 25.

Figure 1.5. Burden sharing in the protection of natural assets: The variance in the national distribution of EAFRD and Structural Funds relative to the national allocations under the LIFE programme



Source: GHK analysis, adapted from the information in IEEP et al (2011, forthcoming)

Finally, it needs to be questioned to what extent national financing for nature conservation could replace resources from LIFE+. The budget of the instrument is small compared to other EU financing instruments, and if it is only considered by its size, it could be argued that this could be easily replaced at the national level. However, as became evident from the stakeholder consultation and its mid-term evaluation, LIFE+ plays an important catalytic role in leveraging MS funds, and without which less MS funds would be allocated. An analysis of national funding available for Natura 2000 in six case study countries[58] showed that though the level of financing and the application of EU financing instruments strongly vary across Member States, national level funding is generally inadequate and there is a lack of resources to compensate for the heavy reliance on EU financing instruments.

1.1.2. Support for wider biodiversity goals

Aside from the funding of the actual Natura 2000 network, the impact on broader biodiversity goals needs to be considered. Current baseline funding is modest (some €20m in the first two calls). However, the Mid-Term Evaluation (MTE) of the LIFE programme found that this is not an expression of the lack of a need for such activities. Instead, the broadening of the Nature component to include wider biodiversity issues is seen by Member States and stakeholders as both useful and necessary, with the previously restricted focus being seen as too limiting given the need to protect species and ecosystems outside of the network as well as within.

Rather, the limited activity under the Biodiversity strand was seen as an indication of "teething problems" in light of the theme's infancy compared to the Nature theme, which has been operating since the beginning of the LIFE Programmes. The MTE analysis noted that it is likely that the Biodiversity theme would develop in the same way as the Nature theme, and would attract a high number of good quality applications as the biodiversity 'market' matures.

[58]Kettunen et al (2011).

The current impacts of the LIFE programme are therefore likely to under-represent the impacts of the baseline option over the programme period.

Biodiversity and ecosystem services are worth hundreds of billions of Euros per year and underpin EU growth, jobs and wellbeing. Once these services are lost or degraded, it can be very difficult or impossible to restore them or to find substitutes. There is therefore a definite need for funding to maintain and restore biodiversity and the functioning of ecosystem services.[59]

This need for funding is recognised in the development of the new EU biodiversity strategy towards 2020, released in May 2011[60].

1.2. Environmental Policy & Governance (EPG)

As indicated above, projects advise that the possibility of other EU instruments funding project activity is greatest for the EPG strand. The MTE identified the principal risk of overlap and potential for the use of other instruments to fund LIFE activity was in relation to eco-innovation projects.

To assess the implications of this the segment of projects that might be classified as eco-innovation projects has been identified, using the typology described in Table 1.6 below, itself based on a detailed review of project descriptions to understand the major focus of projects. The typology provides the basis of an indicative analysis only, since projects are often multi-faceted and tend to have elements of each of the types of activity described; the typology and related analysis therefore seeks only to reflect the major focus of projects.

Table 1.6. An indicative typology of EPG projects

Main purpose of activity	Type of activity
A - Problem definition – measuring environmental impacts	Environmental investigation / collecting data on the extent of a problem / barriers to implementation / better ways of addressing environmental challenges
	Developing a new approach / technique /process for monitoring of environmental impacts within a municipality or sector
B - Improvements in implementing environmental policy	Develop / demonstrate and introduce methods and action plans for reducing environmental impacts (approach / management system/ process / plans) to reduce environmental impact, informing policy. Mainly at the level of municipality. Sometimes with other national / international partners
	Stimulate behaviour change through new market based instruments
	Assistance in purchasing infrastructure / capital costs that reduces environmental impacts
	Set up public private partnerships (PPPs) to show more effective ways of reducing environmental impacts
C - Improvements in the environmental management of economic activities, integrating environmental objectives	Demonstrate good practice / produce instructions / tools / kits/ guidelines to industry on how to reduce environmental impacts
	Pro-actively engaging with stakeholders (industry involved) to change behaviour

[59] Communication COM(2006)216 "Halting the Loss of Biodiversity by 2010 – and beyond". Available from: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0216:FIN:EN:PDF.

[60] European Commission (2011). Communication on our life insurance, our natural capital: an EU biodiversity strategy to 2020, COM(2011) 244 final.

D - Developing eco-innovative solutions to environmental problems that improve implementation & compliance	Testing and demonstrating / developing a technology / technique / process / product that reduces environmental impacts favouring implementation of and compliance with environmental legislation within a municipality or sector

Source: Adapted from GHK analysis of EPG activities.

Table 1.7 indicates that the eco-innovation focused activity accounts for 42% of projects, but because they tend to be slightly larger projects, to account for 48% of the EC contribution to EPG projects.

The likelihood of using other instruments for each of the different activities has been reviewed:

- **Environmental problems:** Overall assessment of replacing LIFE: *Unlikely*. Projects relate to measuring and monitoring environmental problems. Some projects might get funding from FP7 for research and monitoring activity. Future Cohesion Policy may have a stronger focus on monitoring, although this is still not likely to be an adequate replacement for LIFE. To the extent that these relate to municipality plans there may some very limited scope to combine with urban planning;
- **Environmental policy improvements:** Overall assessment of replacing LIFE: *Unlikely* Projects relate to improving environmental policies and plans, mainly at municipality level. Might conceivably be seen as an element in broader urban planning and cohesion policy, although projects tend to be well focused. Interreg funding was referenced by a small number of projects as a possible alternative;
- **Environmental integration:** Overall assessment of replacing LIFE: *Unlikely*. Projects demonstrate initiatives to integrate environmental objectives in sectoral activities could in principle be funded by others (e.g. CIP, ERDF), but any such opportunities are not always clear given the different objectives of other instruments. Since such projects are expected to demonstrate the possibility of socio-economic benefits, the demonstration projects might form the basis for ERDF funding;
- **Eco-innovation activity:** Overall assessment of replacing LIFE: *Unlikely*. Projects demonstrate innovative solutions to environmental problems, largely by private companies (two thirds of beneficiaries) to assist in meeting compliance requirements directly or as a process to assist other companies (in around a third of cases). In some cases could possibly be funded by FP7 even though they are not always commercially orientated. There is some possible use of CIP where commercial interest are being pursued. The possibility of socio-economic benefits might suggest some use of ERDF / EAFRD.

Table 1.7. An indicative breakdown of EPG projects

EPG Projects by Activity	Share of EPG Projects by Activity	Share of EPG EC Contribution by Activity	Possible use of other instruments to provide the EC contribution (as % of EPG EC contribution)
A. Environmental problems	14%	15%	15-25%
B. Environmental policy improvement	26%	26%	0-5%
C. Environmental integration	19%	11%	5-10%
D. Eco-innovation activity	42%	48%	15-25%
Total EPG	100%	100%	10-18% (weighted total)

Source: GHK Project survey, n=86 projects, with total investment of €190m
GHK own estimates of the use of other instruments based on review

Translating this review into an estimate of the possible share of the EC contribution that might have been funded from other instruments suggests that overall 10% to 18% of the EC contribution to EPG projects might have been financed from other instruments. This compares with the 20% identified by projects from the MTE.

The EPG activity least capable of being funded by alternative instruments is the preparation of new or revised management plans and capacity building for the improvement of environmental policies and also the development of new environmental policies. An example of an EPG project contributing to policy development is a project managed by Airbus which sought to develop an extended product and site-oriented environmental management system (EMS). Large-scale pilot experiments were used to demonstrate a broadening of the scope of the EMS to integrate product-related activities and a life-cycle dimension. Guidelines were produced and used to further disseminate this approach both within the aerospace sector and to other industries. It is considered unlikely that this project would have been eligible under alternative funding instruments.

This has been identified as the biggest 'gap' left by the other instruments, and sets LIFE apart as being an 'initiator of change' and a key mechanism for enhancing the capacity of competent authorities to develop sound planning and policy action. The importance of such plans is often underestimated – without them there is effectively no guidance for how to manage responses to environmental problems or to guide environmental investment.

The other notable gap addressed by the specific instrument is facilitating the development of 'science for policy' as opposed to funding for more commercially-driven 'science for market.' Some solutions are often developed with the sole purpose of addressing a particular problem which a local authority might have, for example, although it may have no commercial value. Given the potential likelihood that the future Framework Programme for Research and Innovation ('FP8') may shift to being a more commercially-oriented instrument, this gap in funding 'science for policy' may, as noted above, become more prominent, suggesting that LIFE would have a more important role to play in financing such solutions.

The first approximation of the impact of the zero option on EPG activities based on the possible use of alternative EU instruments is that between 10% and 18% of baseline results and impacts would be retained through use of other funds. This assumes that the different types of project funded by alternative instruments make the same contributions to results and impacts. The analysis of types of projects indicates that over 56% of results are reported by policy improvement and integration projects and 32% by eco-innovation projects. 59% of reported impacts are from eco-innovation projects. The analysis is broadly in line with expectations, with policy improvement and integration projects focused more on testing and developing new policy approaches and proposals (which only have environmental impacts when implemented); whereas eco-innovation projects are focused on demonstrating environmental benefits as a result of innovative solutions.

Table 1.8. An indicative breakdown of EPG projects by type of activity reporting results and impacts

EPG Projects by Activity	Share of EPG EC Contribution by Activity - Spend	Share of EPG EC Contribution by Activity – Results	Share of EPG EC Contribution by Activity – Impacts
Environmental problems	15%	13%	10%

Environmental policy improvement	26%	38%	23%
Environmental integration	11%	18%	8%
Eco-innovation activity	48%	32%	59%
Total EPG	100%	100%	100%

Source: GHK Project survey,
Projects reporting results, n=31, with EC investment of €25m
Projects reporting impacts, n=42 with total investment of €45m

Based on the possible use of other funds by type of project activity, (low and high estimate, Table 1.7) the share of results and impacts in the baseline that might be produced by other instruments can be calculated by multiplying the estimates in Table 1.8 by the shares in Table 1.8. This suggests that between 8% and 15% of results and between 11% and 19% of impacts produced in the baseline could be generated by other funding instruments.

Based on the conservative impact of some €200m of environmental benefits each year under the current LIFE+ Regulation, then perhaps in the order of €20m to €40m of benefits might be secured under the zero option from other funding instruments. If compared with the baseline, where overlaps have been eliminated and there is a significant increase of climate action-related projects, the zero option would imply a loss of €333 million of environmental benefits each year.

1.3. Information & Communication (INFO)

In reviewing the objectives of other EU financial instruments which could be accessed to meet environmental goals, it is apparent that there is no other alternative EU instrument that has a specific component dedicated to raising awareness amongst a wide range of stakeholders of the importance of various aspects of environmental policy, and the ways in which other policy areas can contribute to better implementation of EU environmental policy.

Recent Eurobarometer surveys suggest that more could be done to provide European citizens with more information about the environment, as there is still a general lack of awareness of environmental problems amongst the general public. Roughly 38% of citizens feel that more information about the environment would be useful. For instance, 47% of citizens feel that the labelling of environmentally-friendly products is inadequate.[61]

Furthermore, unlike EC-wide communication activities that are run by DG ENV itself such as Green Week and the European Business Awards for the environment, projects funded under the Information and Communication component are distinctive because they often have a greater focus on a local area or municipality, a spatial level at which coordinating action can often be more effective.

Given the bottom-up nature of LIFE, it would therefore appear to be the case that no alternative EU instrument would fund projects which aim to raise awareness amongst a broad set of stakeholders specifically about environmental issues at a local and regional level, and to bridge the 'communication gap' between policymakers at the European level and citizens. The MTE also found that communications activities were often ranked low as a priority by most Member States, suggesting that the likelihood of LIFE INF-type activities being funded by alternative MS instruments remains low. The actual contribution of the strand to the results and impacts of the programme is difficult to judge given the indirect nature of its influence, and its relatively modest budget (5% of the Action Grants).

[61] What Europeans think about the environment, Eurobarometer.

1.4. Operating Grants for Environmental NGOs

There are a number of ways in which NGOs contribute towards improvements in EU environmental policy development, implementation and enforcement. An analysis on data collected from the NGOs in the MTE revealed that the activities of NGOs that have been granted an operational fund are split up as follows:

Table 1.9. An indicative breakdown of the type of activities undertaken by NGO Operating Grant recipients

Kind of activity		% of total budget granted for 2007 and 2008
A	Environmental policy development	27%
B	Environmental policy implementation	28%
C	External capacity building of members and partners	17%
D	Environmental education and awareness raising	10%
E	Activities on enlargement and third countries	8%
F	Internal functioning and capacity building	10%

Source: DG Environment and analysis from the Mid-Term Evaluation

These six activities can be grouped into four elements:

Covered by activity A and partly E and F:

- **Problem identification and definition of policy options.** NGOs are systematically invited to participate in various working groups, scientific expert groups, advisory groups and preparatory and implementation committees by the Commission to support policy work. NGOs regularly provide input into various policy areas and act as important counterweights to other stakeholders with financial interests. There are numerous examples of environmental investigation and studies carried out by NGOs in relation to environmental policy, many of which have contributed directly to the policy process. For instance, an investigation by the Pesticides Action Network (PAN) Europe in 2008 of bottles of wine purchased inside the EU found evidence that some wines contain residues of "a large number of pesticides".[62]
- **Policy definition and political debate**. Involving NGOs in consultations and policy debate contributes to a balanced and broader stakeholder representation. The White Paper on European Governance[63] stressed the importance of involving civil society in the consultation processes, and the European Commission encourages civil society representation at the European level. Moreover, the EU is party to the Aarhus Convention, which establishes the right for public participation in environmental decision-making and requires that public authorities enable the affected public and NGOs to comment on environmental decisions, and for these comments to be taken into account. In this, funded NGOs play an important role in coordinating the positions of their members, providing the Commission with a single interlocutor and giving a voice to a large number of local organisations which would otherwise have difficulties reaching EU decision-makers. Examples of activities include preparation of coordinated press releases, position papers and memoranda to EU presidencies. NGOs also reply regularly to public consultations, providing useful input and

[62] PAN Europe (2008) European wines systematically contaminated with pesticide residues. Available from: http://www.pan-europe.info/Media/PR/080326.html.

[63] COM(2001) 428 final.

perspective to the policy process. Operation grants are considered a tool to protect the level playing field in the public debate and the policy development between environmental NGOs and sector-federations or other organisations funded by industry. However only 31% of the NGOs in the MTE thought a level playing field is effectively being reached with the actual operational funding. Of the 34 NGOs funded in 2007 and 2008, 13 specialised mainly in policy development, another 12 focused on multiple activities including policy development.

Covered by activity B, E and F:

- **Policy implementation**. With their networks and specific expertise, NGOs are effective in promoting implementation of EU policy on the ground. They can for example draw attention to cases of non-compliance and publishing black lists, scoreboards and reports. They also act as centres of expertise helping local authorities and economic actors to comply with legal or policy requests, or setting up implementation initiatives themselves.

Covered by activity C and D:

- **Raising awareness of environmental problems and policy issues.** In support of the above functions, NGOs carry out activities to raise awareness of civil society and decision makers, reducing information failure and improving the quality of policy debate and policy decisions. Activities include campaigns, events and awards, and environmental education (targeting various groups such as children, officials and professionals). Genuine grass-root NGOs have a particular advantage of being 'close to the ground' and having high credibility with the public, and therefore being effective in achieving outreach and increasing awareness and knowledge. Specialised NGOs are often recognised as centres of expertise on specific issues and gain credibility from it. NGOs also actively raise awareness and promote EU environmental policy beyond EU borders.

Without funding from the programme through Operating Grants, the beneficiary NGOs would need to substantially reduce their activities, which include their contributions to the EU policy process, either because they lack the direct means for continuing their activities (A to E) or because they lose their internal supporting capacity (F).

Some NGOs, for principal reasons or to avoid any risk or allegation of non-independence, refuse all subvention from governmental sources and all private sponsoring. Only very large and international renowned NGOs can afford to limit their resources to membership contributions and its own merchandising. Most NGOs active in the field of EU policy do not possess these possibilities or cannot compete on a free market of membership and merchandising, because they cover more technical or for the large public less visible topics.

Demands on NGOs, their European structures and their offices in Brussels have grown considerably in recent times, including meeting demands from citizens and requests from the EU institutions for input and expertise. In this context, financial resources for the operation of environmental NGOs remain hugely important and the removal of operating grants for NGO beneficiaries would severely hamper their ability to meet multiple responsibilities for contributing to policy development and implementation, awareness raising and helping to identify problems and potential solutions with regards to environmental policy.

NGOs are not dependent on one single source of income, but tend to apply for different grants, both operation based and project based. However, in the MTE about 81% declared that the operational funding cannot be replaced by either the ERDF, ESF, Cohesion Fund,

EAFRD, CIP, EFF, 7th framework programme or LIFE+ public procurement contracts. 34% thought that LIFE+ action grants could partially replace operational funding. The balance between continuous, operation funded activities and discontinuous project based (and individually granted) activities is an issue, in that in the case of the former, an NGO is able to rely on continuous funding in their role as a stakeholder, whereas in the case of discreet projects, the contribution of an NGO is confined to an individual project where they cannot play a full role as a stakeholder.

Regarding their dependency on LIFE+ operational funding NGOs receiving LIFE+ funding declared that they are:

- Very dependent: survival is not possible without the actual LIFE+ funding: 16%;
- Dependent: shifts in the actual LIFE+ funding would lead to considerable shifts in the working programme: 65%;
- Rather dependent: the NGO would lose efficiency but could find other sources to continue realising its programme: 16%;
- Rather independent: the NGO is strong enough to realise its primary mission, the funds only help to realise useful extra projects: 3%;
- Independent: the NGO can easily swap between possible sources of working means: 0%.

The degree of dependency from LIFE+ operational funding can be expressed by the amount of operational funding received or by the % of co-funding for operational expenditures. NGOs with a LIFE+ co-funding percentage of > 50% or with an amount of > €500,000 can be considered as at risk if LIFE+ operational funding were to be discontinued. This would affect 19 different NGOs out of the 32 NGOs funded for 2010.

The absence of NGO activity leads to major costs. These costs can be linked to the drivers of environmental problems for which a supporting LIFE-like financial instrument could help remediation. Examples of such costs are the risk of unbalanced influence by interested parties, reduced effectiveness of policy through lack of NGO participation in the process and increased costs of consultation as further described below.

The following drivers are identified:

- *Variable and inadequate levels of environmental protection through weaknesses in policy implementation and development;*

1. Without the NGO intervention on policy development there would be an **increased risk of regulatory capture and reduced effectiveness of policy:** The removal of NGO funding would significantly reduce the contributions made by NGOs to the development and implementation of priority policy areas, and, in particular, since these areas are likely to be the subject of particular lobbying and negotiation from affected parties, increasing the risk of unbalanced negotiation and regulatory capture. *Inadequate coordination, and inadequate integration of the environment into policy (including in 3rd countries);*
2. The role of NGOs in the field of coordination and integration is expressed in their policy development, implementation and awareness raising activities, especially when they integrate environmental issues in the larger frame of sustainability. NGOs that work across both environmental concerns and other sectoral areas play important

roles in addressing the inadequate integration of the environment into policy. Without the NGO activities **increased costs for coordination and integration** will occur.

- *Inadequate sharing of information and awareness of EU environmental problems*

3. Increased costs of awareness raising and reduced effectiveness of policy: NGOs can be effective communicators with both civil society and policy makers, disseminating information and improving the quality of policy debate; with subsequent benefits in terms of the quality of policy decisions and hence its cost-effectiveness and acceptability.
4. Increased costs of consultation: NGOs provide a more cost-effective way of dealing with civil society, since in effect, a European environmental NGO represents the co-ordinated views of all national member organisations, consolidating a large number of veiwpoints.(3) Decreased NGO independency: LIFE+ operational funding allows NGOs to keep a higher level of independency compared to national funding, and other funding or resources. A lower degree of independency would affect the quality of the policy input given by the NGOs.(4) Increased costs for facilitating exchange of information between stakeholders or target groups: NGOs possess of a large network of members, sympathisers, contacts and interlocutors, often at grassroots level. NGOs use this network not only for disseminating downhill information or to collect information for uphill public consultation, but also for mutual exchange between contacts in a target group.

1.5. The assessment of the option

The assessment of the option is summarised in the following assessment grids

Table 1.10.Assessment of Zero option (relative to baseline)

Specific objective to be achieved/ problem addressed	Element	Anticipated impact: effectiveness (rated from –5 to +5)		Explanation of rating and aspects of the policy option necessary to achieve impact
To improve the scope of EU environmental policy and legislation.	NAT	-3	-2	Adverse impact, especially biodiversity but main impact is on implementation
	EPG	-1		Adverse impact but main impact is on implementation
	INF	-1		No significant effect on policy scope but lack of awareness can effect policy development
	NGO	-4		Very significant impact by not addressing regulatory capture
To improve the implementation of EU environmental policy and legislation, (including EU commitments to international agreements)	NAT	-5	-4	Very significant impact – little replacement in other funds
	EPG	-4		Very significant impact – some replacement in other funds
	INF	-3		Adverse impact through loss of awareness
	NGO	-4		Very significant impact through loss of implementation activities led by NGOs.
To improve the effective contribution of other EU policies to environmental objectives	NAT	-2	-2	Adverse impact through loss of working with policy makers across policy areas
	EPG	-2		Adverse impact from loss of 'C' Projects – but only small share of EPG
	INF	-2		Adverse impact through loss of dissemination with policy makers

Specific objective to be achieved/ problem addressed	Element	Anticipated impact: effectiveness (rated from –5 to +5)		Explanation of rating and aspects of the policy option necessary to achieve impact
				and economic actors in other sectors
	NGO	-2		Adverse impact through loss of engagement with policy makers and the cross-policy networking capacity of NGOs.
To develop solutions for subsequent mainstreaming in other EU financial instruments and MS practices	NAT	-2	-2	Adverse impact from lack of demonstration
	EPG	-2		Significant impact from loss of 'D' projects - some replacement
	INF	-1		Adverse impact from lack of dissemination to potential applicants
	NGO	-2		Adverse impact from lack of NGO dissemination
To contribute to responsibility sharing in the protection of EU natural assets	NAT	-4	-3	Very significant impact due to loss of investment
	EPG	-3		Significant adverse impact from lack of demonstration
	INF	-2		Adverse impact from lack of awareness of issues – e.g. forest management and forest fire protection
	NGO	-3		Significant adverse impact from lack of expertise
To contribute to responsibility sharing in addressing transboundary problems affecting EU internal and external borders	NAT	-3	-3	Significant adverse impact from loss of transboundary working
	EPG	-4		Very significant adverse impact from loss of transboundary working
	INF	-2		Adverse impact from lack of targeting of transboundary problems and related awareness of issues
	NGO	-3		Significant adverse impact from lack of expertise

Table 1.11. Assessment of Zero option – Against impact indicators

Specific objective to be achieved/ problem addressed		Anticipated impact: effectiveness (rated from –5 to +5)	Explanation of rating and aspects of the policy option necessary to achieve impact
Environmental impacts	Changes in policies/management	-3	No replacement of activity in other funds
	Changes in habitats/eco-systems	-5	No replacement of activity in other funds
	Changes in pollution / resource use	-4	Limited replacement of activities most directly related to these impacts
Economic impacts	Technology outcomes	-4	Limited replacement of activities most directly related to these impacts
	Additional sales / GVA	-4	Limited replacement of activities most directly related to these impacts
	Net cost savings	-4	Limited replacement of activities most directly related to these impacts
Social impacts	NGO contributions to policy	-4	Only limited replacement of activity in other funds
	Improvements in human health	-5	Limited replacement of activities most directly related to these impacts
	Additional employment	-4	Limited replacement of activities most directly related to these impacts

Table 1.12 Assessment of Zero option – Other criteria

Specific objective to be achieved/ problem addressed	Anticipated impact: effectiveness (rated from –5 to +5)	Explanation of rating and aspects of the policy option necessary to achieve impact
Impacts on different social and economic groups	-3	Loss of environmental and social benefits will tend to have adverse effects on lower income groups
Fundamental rights	0	No impact
Risks		
Financial costs to the EU budget (direct staff costs, funding instruments)	€57m	Public procurement costs per year – sometimes called the common pot – this is the same for all options
Financial costs to Member States (e.g. administrative costs for applicants and management costs for beneficiaries)	To the extent that MS can find replacement resources for LIFE there will be additional costs	No member state activity, except for 20% of EPG projects assumed to be funded under other instruments
Summary of benefits and advantages of option	EC savings of €15m MS savings of €5m per year relative to baseline Some €30m-€40m of environmental benefits might be secured from other instruments for the LIFE+ Regulation. Nothing can be secured from alternative sources of funding for the Baseline.	EC savings of €5m staff cost and €10m TA MS savings of €3.4m in bid costs pa and €1.7m in admin costs pa
Summary of disadvantages and risks of policy option (including negative economic and social costs in EU and third countries)	Loss of environmental benefits conservatively estimated to be €600m per year for LIFE+ regulation and between €750-1,000m per year for the Baseline Loss of economic and social benefits, worth at least €1 billion GVA Loss of burden sharing Loss of engagement of civil society in EU policy Long-term risks from failure to address growing problems	
Essential accompanying measures	None	
Feasibility: Issues raised in stakeholder consultations	General concern of lack of action	
Feasibility: Issues raised by Member States	General concern of lack of action	

1.6. Summary of the impact of the option

The analysis has indicated that despite the operation of the main financial instruments, there are significant gaps in their coverage, with the result that in the absence of the instrument only a small level of activity would be otherwise be funded from EU or MS resources. The main area that might otherwise be funded relates to some eco-innovation activity under EPG that could potentially be funded, mainly under FP7 or sometimes CIP. However, in the case of FP7, it was acknowledged that LIFE projects allowed beneficiaries to go beyond research to identify and catalyse policy solutions that might otherwise be ineligible under FP7.

The choice of this option would save the baseline programme cost of some €234m a year. It would however lead to the loss of programme benefits conservatively estimated, under the baseline scenario, of some €600m per year as assessed against the baseline option. When applied to the Baseline, given that potential overlaps have been eliminated and the budget

increase and without taking into account the potential impact of Integrated Projects, the savings would be of around €361 million (€348 million action grants and €13 million for operating grants) a year and €5 million on management costs and €10 million of TA. However, there would be a loss of environmental benefits of some €750-1,000 million each year.

The environmental impacts of the option would be significant. There would very likely be considerable deterioration in the condition of habitats and ecosystems given the fact that there is no replacement of the activities funded under LIFE by other EU funds. There is also likely to be some negative impacts with regard to pollution and resource use, although there are some limited possibilities for these activities to be funded by other means. In the absence of LIFE, there is also likely to be fewer opportunities or means by which policies or management systems can be changed, which would have potentially negative consequences for the environment.

2. Full assessment of the expanded option

2.1. Description of the option

In the context of the Impact Assessment, an additional option was developed to reflect upon a more ambitious instrument. The main difference as compared with the Baseline is:

- the possibility for Integrated Projects in the main environmental sectors where programme-based approach will be more efficient (see section 2.2.2);

- the possibility for allowing technical assistance projects to help Member States to prepare Integrated Projects during the first years of the process as well as to providing enough margin of manoeuvre to fund enough traditional projects as to ensure critical mass in the main environmental sectors (see section 2.2.1).

This has been assessed by GHK as the strongest option against the range of assessment criteria. This option scores highest on all criteria, and the scope to improve EU added value compared to the current LIFE+ Regulation. It has been shown that the same activities and results cannot be obtained through other financial instruments (the Zero option).

The expanded option is detailed in Table 2.1. This option includes provision for adjustments depending on the outcomes of policy developments (e.g. future Horizon 2020) especially with regard to eco-innovative projects. Since discussions about innovative financial instruments and support to eco-innovation have not been finalised this expanded option is flexible enough to adjust to these future decisions.

Table 2.1.Description of the Expanded Option

Dimensions of Instrument Options	Comment
Stage 1: Objective Definition: Definition of policy needs and objectives taking account of alternative instruments	
Scope: Thematic and territorial focus of the option including reference to the need for action outside the EU	The **thematic focus** of the option would reflect the general objective of developing, updating and implementing EU environmental policy. Thus it would seek to address emerging problems of EU scale and the whole of the environmental *acquis*. The option would continue to focus, given the limited funds compared to the scale of the environmental problem, on institutional weaknesses by awareness raising, support for innovation

Dimensions of Instrument Options	Comment
	and demonstration, learning and knowledge exchange, linked to the identification of opportunities and solutions for the improvement and the use of good practice in the development of EU environmental policy and its implementation at MS level. As in the case of the Baseline, EPG projects are refocused towards implementation and integration of the environment into other policies (type B and C projects). Given the Treaty requirements for international action, as well as the importance of global environmental and European neighbourhood problems an explicit role in co-operation with DG RELEX and DG DEV would be included, together with direct interventions with third countries where it provided EU added value (i.e., third countries can participate as associated beneficiaries in EU funded LIFE projects) Budget: considerable scaling up would be possible and would deliver improved cost-effectiveness
Processes: consideration of role of the option given alternative instruments	The intended programme of results of the option is not capable of being funded by other financial instruments. The option takes a pro-active approach to co-operation and the development of synergy with other funding instruments, by introducing integrated projects and looking to support project pipelines. A clear focus on piloting and demonstration of activities to support future project pipelines, and subsequent roll-out through the other funding instruments, especially through CP and CAP. The majority of EC funding in response to environmental problems and especially the investment needs of the existing acquis will continue to be met by Cohesion Policy. The importance of ensuring environmental policy integration results in actual environmental improvements on the ground is also recognised, as endorsed by the Cardiff process.
Stage 2: Design of the intervention taking account of target actors, and desired outcomes	
Approaches: Top-down programming vs. bottom-up project funding	The requirements for activities is defined in the EU strategic statement of objectives for the programme period, and more fully reflected in the multi- annual work plans. The work plans will reflect in part the Directive by Directive decisions made with MS through comitology. The work plans will also specify the desired use of the alternative delivery mechanisms and the expected outcomes • Public procurement – activities are defined and planned through DG Annual Management Plans (AMPs) • Operating Grants – EU level activity by NGOs • Action Grants comprising: o Top-down projects, especially designed for information and dissemination campaigns or to distribute results of a series of projects for a particular sector as well as specific needs (e.g., for developing or update legislation) o Local and regional project activity in MS o Integrated Projects o Technical Assistance – (based on the JASPERS instrument)
Levels of intervention: target beneficiaries, intervention rates, funding levels	The target beneficiaries are the Commission (through funding for public procurement), EU environmental NGOs (through use of Operating Grants), MS through 'top-down' projects, and MS actors (competent authorities, universities/research institutes, businesses, NGOs), through 'bottom-up' project activity Public procurement (100%) of goods & services includes information and communication, and the preparation, implementation, monitoring, checking and evaluation of projects, policies, programmes and legislation Operating Grants with a maximum intervention rate of 70%, to strengthen the participation of EU environmental NGOs in the dialogue process in environmental policy-making and in its implementation; and in the European standardisation process Action grant projects as the basis of the full range of outputs, comprising - Top-down projects with an intervention rate of 70% - Bottom-up projects with an intervention rate of 50%

Dimensions of Instrument Options	Comment
	- Integrated projects with an intervention rate of 75% - Technical Assistance (with an intervention rate of 100%) to support the design and submission of integrated projects.
Stage 3: Operation: Detailed specification of the operation of the instrument	
Interventions: use of different types of Grants / funding	• Public procurement – activities are defined and planned through DG Annual Management Plans (AMPs), combining those of DG ENV and DG CLIMA and subject to standard public procurement rules • Operating Grants – allocated via calls launched and appraised by DG ENV, supported by appointed National Contact Points (NCPs) in MS to disseminate details of the call and to assist applicants • Action Grants: o Traditional projects to range between €1 to €1.5 million of EU co-financing (at 2011 prices) o Integrated projects of about €10 EU co-financing o Technical Assistance for Integrated Multi-funded Projects (minimum size of say €5m) – allocated via annual pre-application call for proposals, launched and appraised by DG ENV, supported by NCPs
Implementing methods: centralised within the EC, Agency, decentralised within MS	Similar to the Baseline.

2.2. Project activity and programme budget

2.2.1. Project activity

A. Project type and scale for Action Grants

Four types of projects are proposed:

- Integrated projects (EU contribution €10m) – large scale activity designed to address a major challenge and involving the need to integrate a range of economic, social and environmental objectives, supported by other funding instruments;
- Top-down projects (EU contribution €1m) – designed to formally recognise the need for cross MS participation in mutual or peer to peer learning in compliance and enforcement and specific dissemination and information sharing projects;
- Bottom-up projects (EU contribution €1.5m) – representing the 'classic' project as contracted under the baseline scenario, although slightly larger;
- Technical assistance (TA) projects (EU contribution €0.25m) – designed to support the costs of preparing the Integrated projects.

B. New features as compared to the Baseline

Technical Assistance as a tool for Capacity Building

LIFE is being extensively used as a capacity building tool for nature protection and environmental policy and governance. However, further support for capacity building is a key requirement for the future, in light of the fact that a lack of capacity is a significant part of the reason for Natura 2000 sites being ineffectively managed and/or protected and for the continuing infringements of EU legislation by Member States.

A recent report[64] identified the lack of stakeholder capacity as one of the major constraints for a more successful uptake of EU funding for Natura 2000. Improving stakeholders' capacity to access and effectively utilise different EU funding opportunities would also enhance stakeholders' ability to seek new, more innovative sources for funding, thus increasing the overall resources available and securing the financing of Natura 2000 in the long term. Capacity building at the level of relevant government officials in various ministries would also help to improve integration of nature protection and other policy needs into relevant EU funds at the national level, and, potentially, improve coordination and cooperation between relevant administrative bodies.

Integrated Projects as well as projects funded under the Governance strand will be essential tools for achieving this objective.

This option also includes provision for the use of more targeted technical assistance in support of integrated projects, but also perhaps in support of specific capacity building through the funding of networks of projects. Such examples include ELENA – European Local Energy Assistance scheme and JASPERS – Joint Assistance to Support projects in European Regions (see Box below).

Possible Examples of Support for Technical Assistance

ELENA - European Local Energy Assistance Scheme

ELENA was set up by the European Commission and European Investment Bank (EIB) and managed by the EIB via the Intelligent Energy Europe programme. ELENA helps to prepare cities and regions' sustainable energy projects to be 'ready for EIB funding' by covering a share of the cost of technical support needed to prepare, implement, finance investment programmes e.g. feasibility, market studies; business plans; energy audits; preparing tender documents. This enhances the capacity of cities and regions in EU to implement projects and investment programmes e.g. retrofitting of public/private buildings, sustainable building, energy-efficient district heating and cooling networks, environmentally-friendly transport, and LIFE could consider a similar type of assistance to local and regional authorities.

Source:http://www.eib.org/products/technical_assistance/elena/index.htm

JASPERS - Joint Assistance to Support projects in European Regions

JASPERS is a technical support facility for the twelve EU Member States which joined the EU in 2004 and 2007. It is designed to help them to better prepare projects which will be supported by EU funds. Through this joint initiative, the European Commission (DG Regional Policy), the European Investment Bank, in cooperation with the European Bank for Reconstruction and Development (EBRD) andKreditanstaltfürWiederaufbau (KfW), share their professional experience with the beneficiary Member States in order to help them to use EU Structural Funds more effectively.

*Source:*http://www.eib.org/attachments/thematic/jaspers_brochure_2006_en.pdf

2.2.2 Achieving critical mass

The introduction of the large Integrated Projects has the potential, by reducing the number, to undermine the critical mass and the related multiplier effects of the smaller projects, especially for EPG, given the breadth of the *acquis*.

Given their potential, 15 Integrated Projects per year would only cover three priority sectors (nature, water and waste); however, one could question whether this is enough to adequately

[64]Kettunen et al (2011)

address the range in the scale and number of challenges, which goes beyond the three priority sectors of the Baseline.

As a result the preferred option has the risk, of 'falling between two stools' – neither introducing enough Integrated Projects to make a difference nor funding enough of the more 'traditional' projects to maintain current levels of activity. This suggests that the option will not be effective without a larger budget and that the programme does not achieve critical mass.

Instead of starting with the budget, the funding requirement can be considered from the perspective of 'what will it take' to produce a step change in the impact of the programme.

Integrated Projects

The number of projects required relates to the relevant territorial 'units' for each environmental theme as the basis of establishing an adequate number of projects. Statistical relevance of between 15-25% has been used as criterion to determine critical mass.

Nature – The relevant unit is the NUTS 2 region, in which to ensure adequate nature protection and biodiversity measures. This also has the merit of linking directly to possible regional funding. There are 271 NUTS regions. Assuming that the minimum level of action is required, in the form of one Integrated Project for nature conservation, in 25% of regions over a 7 year programme period, the required number of projects would be 10.[65]

EPG – The relevant unit depends on the environmental theme. Priority areas for activity would include:

- Waste management – the appropriate unit is also probably the NUTS 2 region, given the nature of regional waste management plans. Perhaps 15% Integrated Projects activity over the programme would provide a minimum level of catalytic effect – say a minimum of 6-10 projects a year;
- Water management – the appropriate unit is the river basin district of which there are 110. Given the important issues associated with transposition and implementation of the Water Framework Directive (WFD) then a greater share of 'units' should be covered – say 25%. This would require a minimum of say 3-4 projects a year;
- Air quality management – activity in large cities to combat urban air pollution (e.g. particulates, low level ozone and nitrogen dioxide) would also benefit from the use of Integrated Projects. Building on the 2013 European 'Year of Air', 3 Integrated Projects a year would allow action in 20 of the most polluted EU cities.
- Marine environment: probably 1-2 Integrated project per sea basin (3-5 projects per year).

EPG would require a minimum of 13-15 projects a year if the use of Integrated Projects was to really tackle the institutional weaknesses that underpin the lack of adequate policy implementation and effective policy integration.

Top-down projects- under Governance strand

The purpose of the top-down projects is to enable greater national and cross-MS working on common policy issues, especially of compliance promotion and enforcement at the national

[65] 25% of 271, divided by 7 (assuming a 7 year programme period).

level, together with some specific awareness raising activity and dissemination actions (e.g., specific projects disseminating best practices developed by LIFE projects in a given sectors). The indicative range of 18 projects a year (6 Nature and 12 focusing on other environmental sectors) in the constant budget programme is probably of an appropriate scale. Over the programme each MS may on average have been involved in between 4 and 5 projects.

Traditional projects

The traditional LIFE projects require a substantial scale of activity across projects in order to generate scope for synthesis and replication and the generation of multiplier effects.

Nature – The current programme has about 90 projects a year, mainly relating to the Natura 2000 network. Whilst the introduction of the Integrated Projects reduces the need for the same number of projects; the minimum requirement would be to maintain half of the current traditional activity, 45 projects per year.

EPG - The current programme has about 90 projects over 10 environmental sectors, an average 9 per sector per year. This would appear to be, based on the MTE, the minimum number required in order to facilitate the creation of lessons and replication. Under the baseline, the number of sectors has been reduced to 6 to generate a stronger focus.[66] At the same time the intention is to increase the average size of projects and to secure stronger networking of project activity. Taking the number per sector required as the basis of a strong multiplier effect as no less than 10 projects per sector, with 6 sectors, a minimum of 60 projects would be required.

Taking the minimum requirements above, this translates into a budget requirement for action grants of €456m per year (Table 2.2).[67] The final envelop for the Programme would be €3,957 million (a 23% increase compared to the baseline).

Table 2.2. Indicative outline of the minimum annual number, size and types of projects funded by Action Grants with the preferred option to achieve a 'step change' (2011 prices)

	Type of project				
	Integrated	**Top-down**	**Traditional**	**TA**	**Totals**
Nature (No of projects)	10	6	45	10	71
EPG (No of projects)	13	12	50	13	88
CLIMA (No of projects)			40		40
Total Projects	**23**	**18**	**135**	**23**	**199**
Average EU contribution (€m)	10	1	1.5	0.25	
Total EU Spend (€m/y)	**230**	**18**	**202.5**	**5.75**	**456.25**

Source: Adapted from GHK's proposals

[66] Environmental sectors (excluding nature, biodiversity & soil) could be grouped into Air & Emissions, Climate Action (which is a sub-programme with earmarked resources), Green economy & Resource efficiency, Chemicals, Environment & Health (including noise), Water, Waste. Innovation and Strategic focus have been eliminated as independent themes.

[67] NGOs operating grants, Technical assistance and public procurement remain constant at €765 million for the whole programming period (€57 million a year for TA and public procurement for DG ENV, €39 million a year for TA and public procurement for DG CLIMA, and €13 million a year for operating grants for NGOs).

However, if 50% of the resources of the Environment sub-programme should go to address nature and biodiversity needs, as in the baseline, an increase in the Nature budget as presented in Table 2.2 above would be required. The final budget required each year would be €500m a year (see Table 2.3 below). The final envelop for the Programme would be €4,265 million (a 33% increase compared to the baseline).

Table 2.3. Indicative outline of the minimum annual number, size and types of projects funded by Action Grants with the preferred option to achieve a 'step change' (2011 prices)

	Type of project				
	Integrated	**Top-down**	**Traditional**	**TA**	**Totals**
Nature (No of projects)	11	12	63	10	97
EPG (No of projects)	13	12	50	13	88
CLIMA (No of projects)			40		40
Total Projects	**24**	**24**	**153**	**24**	**225**
Average EU contribution (€m)	10	1	1.5	0.25	4
Total EU Spend (€m/y	**240**	**24**	**229.5**	**6**	**499.5**

Source: Adapted from GHK's proposals

2.2.4. Summary of the impact of the option

The impact of the option is supposed to increase proportionally to the increase in the budget. If climate action budget was to remain constant, the increase will mostly affect the nature and environment part. The impacts on climate action would remain constant. Under the option of an annual budget of €456 million, environmental benefits between €898 and €1,369 million a year are expected. Under the option of annual budget of €500 million, environmental benefits of €1,030 and €1,500 million a year are expected.

However, these estimates do not take into account the benefits derived from increased focus (about 20% increase in benefits) or the benefits of using Integrated Projects in two additional sectors, in particular air and marine environment. The use of Integrated Projects for air could have large health benefits.

ANNEX 9 - CALCULATION OF EXTERNALISATION COSTS

This annex analyses the different management options for the LIFE Programme taking into account the conditions laid down in the MFF Communication. In the Communication of 29 June 2011 (MFF Communication), the Commission announced that the LIFE Programme should remain centrally managed, but that management tasks could be largely delegated to an Executive Agency. Whilst some aspects of this delegation were fixed in the MFF Communication – in particular, that it should be an existing Executive Agency - other details on the extent, conditions and terms of the delegation were left open and are dealt with in this Impact Assessment.

It should be noted that at the time of any delegation the Commission will publish a fuller cost benefit analysis going into further detail, and informed by negotiations with the Executive Agency. Therefore, the estimation of resources for both the Agency and the Commission, the cumulative impacts across the entire programme period as well as the impacts of the transitional arrangements will need to be a carefully developed, reviewed and validated at the time of preparing the detailed cost/benefit analysis.

1. Initial considerations

It is difficult to compare the costs of direct centralised management by the Commission with the costs of management by an Executive Agency (hereafter, called 'Agency'). Doing so requires assumptions to be made, in particular, on the performance by any Agency and on 'efficiency gains'. Many of these assumptions will be tested when negotiating a contract with an Executive Agency, but even the benefits of any improved performance will not be seen until later.

The Court of Auditors has already highlighted some of the problems with past analyses of an Agency option:

- Emphasis is placed mainly on savings from the use of cheaper contract staff rather than permanent staff but aspects of improved performance and efficiency gains are rarely considered;
- Costs of additional staff needed in the Commission to supervise agencies and at the agencies for horizontal functions, are not accurately included or not included at all;
- Comparison is often made using the single average unit cost for the various categories of contract staff but in practice they vary in grade and therefore cost. Analysis shows the composition of the Commission consists largely of lower grades compared to specialised personnel so this would lead to an overestimation of Commission costs in cost comparisons.

In this analysis the cost of additional staff to supervise agencies has been estimated, but potential performance and efficiency gains have only been partially considered, which may leave the Agency option in a less favourable light.

2. Assessment of the baseline management option (direct centralised management)

The current LIFE+ programme is entirely managed by the Commission, with the support of contracted technical assistance.

For the analysis, the following baseline data is used:

Average programme spend per year (EC contribution): €234m
Approximate number of projects commissioned per year: 200-230
Average length of time of a project: 4 years
Approximate number of projects operating per year: 600 (with a peak of over 700)
Average total project size: €2.4m
Average intervention rate: 50% with a possibility of up to 70% for NGOs operating grants and 75% for Nature projects focusing on priority habitats and species.

The **staff requirements** are 44 full-time equivalent (fte) posts, which represents the two LIFE Units of DG Environment. The posts cover the following specific functions: Management group (4 fte), LIFE Units' Technical Desk Officers (TDOs) (19 fte), LIFE Unit's Financial Desk Officers (FDO) (11 fte), LIFE Unit Administration (8 fte) and LIFE Unit Financial Administration (2 fte).

- Each TDO is responsible for approximately 40 projects.[68] This includes following project progress (evaluation of mid-term and final reports, correspondence, answering queries), project visits, handling amendments and extensions and communication/dissemination activities.

- Each FDO typically manages approximately 70 projects.

- The TDOs and FDOs are organised in country desks. Each TDO and FDO is responsible for the project portfolio within one or more countries.

The **44 posts** consist currently of 36 permanent and 8 contract staff. Based on DG BUDG figures for staff costs (average cost of DG staff in 2010 is €127,000 and €64,000 for permanent and contract staff respectively), this equates to **€5.1m in staff costs** (excluding overheads) per annum.

In addition, the LIFE Units are assisted by **external contractors** providing technical assistance with an average cost over the programme period of approximately **€10m per annum** (including wages, mission, training materials, communication activities etc**.)**. This covers around 80 fte posts, doing the following work under the supervision of the LIFE Units:

- Project Selection: a total of 55, mainly part-time, experts working on all stages of the evaluation and selection procedure, except eligibility;
- Project Monitoring: approximately 60 people monitoring the projects funded:
- Communication: 15 environment and communications experts responsible, for example, for the production and circulation of thematic and best practice publications, the development and maintenance of the LIFE website, maintaining the LIFE project database, and organising seminars and events.
- Information workshops: implementing information workshops on preparing and managing LIFE+ project proposals in collaboration with the Member States.

[68] COWI (2009) Ex-Post Evaluation of Projects and Activities Financed under the LIFE Programme.

Table 1: Annual management costs for the current LIFE+ programme

Staff[69]	No	cost per fte	total cost
Officials	*36*	*127.000*	*4.572.000*
Contract staff	*8*	*64.000*	*512.000*
Total Staff	44		5.084.000
TA	80	125.000	10.000.000
TOTAL COST			**15.084.000**

The number of full-time equivalent posts to manage all aspects of the programme is therefore approximately **125 full-time equivalent** posts. The total administrative cost is the sum of staff costs (excluding office overheads) and the cost of outsourcing (technical assistance). The current management costs (excluding overheads) amount to **just over €15 million (€15,084,000)** per annum, **representing 6.2%** of the total annual programme budget.[70]

3. Assessment of the option of full externalisation to an existing agency

Two possibilities are envisaged: either contracted technical assistance will be maintained, to support the Agency in its work, or technical assistance will be discontinued as Agency staff take over the corresponding tasks.

3.1. Without replacing technical assistance

The following assumptions are made:

- Based on the experience gained with the externalisation of the eco-innovation part of the CIP programme, the same number of staff currently managing the LIFE+ Programme within the Commission (**44 posts**) could be needed in the Agency (of whom 9 would be officials seconded from the parent DG to the Agency).[71]
- **Around 8 posts** would be needed for coordination and control tasks in the parent DGs (for governance, supervision and monitoring of the programme, including establishing links between the parent DGs and the Agency).
- There would be an additional staff requirement related to supplying additional administrative services (human resources etc.) to the Agency new staff of 44 posts. Applying a ratio of 1 administration job for every 5 new posts adds a **further 9 posts**.

This makes for a **total staff requirement of 61** (44+8+9) fulltime equivalent posts, at an annual cost of €5.0m. Additional overhead costs (e.g., office costs) would be associated with the 17 (8+9) additional posts. Assuming an overhead cost of €25,000 per post, this would add a further €0.4m, making a **total staff related cost of €5.4m**.

[69] Overview of average cost updated on 4/10/2010. Official= €127.000 (including administrative support); Temporary Agent= €127.000; Seconded National Expert= €73.000; Contract Agent= €64.000. Source DG BUDG http://www.cec/budg/pre/legalbasis/pre-040-020_preparation_en.html.

[70] Estimated to be €244 million (annual EC contribution to action grants and expenditure on technical assistance)

[71] Based on experience and conversations with EACI, a minimum of 6 staff need to be seconded to the Agency when transfer occurs. According to figures for existing agencies like EACI, the percentage used for seconded staff is 24% of the staff used in the parent DG. A 20% level is used here since it is expected that the number of projects financed will decrease as well as overall Commission staff (5% target).

Staff related costs under the Agency management option (without replacing technical assistance) would **be €5.4m per year.** Together with a technical assistance cost of **€10m per year**, Agency management costs would **represents €15.4m per annum, or 6.3% of the programme budget.**[72]. This is slightly more than the centralised management option.

Table 2: Annual management costs for full externalisation to an Agency

Staff	No	cost per job	total cost	
Officials (min 9 seconded)	9	127.000	1.143.000	
Contract staff - wages	35	64.000	2.240.000	
DG ENV – programme governance	8	127.000	1.016.000	
Admin staff @20%	9	64.000	563.200	
Total Staff cost	61		4.962.200	
Additional staff o'head - TA	17	25.000	420.000	
Total Cost			5.382.200	
TA			*10.000.000*	
TOTAL COST			15.382.200	6,3%

3.2. Replacing technical assistance

If the existing technical assistance provided by external contractors under the centralised option is replaced, it would require a broad range of geographical and thematic expertise, as well as full coverage of the EU languages. Although hiring new Agency employees to undertake this work entails some costs, it is likely that these employees could be found.

Assuming that such candidates could do the work of the technical assistance external contractors at the same level of effectiveness and efficiency, then at an annual staff cost of €64,000, the additional 80 fulltime equivalent contract posts would cost €5.1m. There is also a requirement for additional administrative posts. Assuming the same ratio of one administrative post to five new posts would add a further 16 posts. The total staff cost would be €6.1m. In addition, there would be overhead costs of €25,000 for the additional 96 posts, adding a further €2.4m. Since the staff would be based in Brussels, there would be the additional mission costs currently avoided by using contractor staff based in the Member States. These costs are estimated to be in the order of €0.7m based on 700 trips per year at a rate of €1,000 a trip. The costs of replacing the technical assistance activity by Agency activity would on this basis cost be **€9.2m**, a saving of €0.8m per year.

The estimated costs do not take account of the high mobility of staff in the Agency (2.5 year length of service on average)73 and the consequent need to re-invest in recruiting/training of new staff as well as the efficiency loss due to the non-productive months resulting from the turn-over of new staff. Based on a contract staff requirement of 115 (35+80) posts, the staff turnover over a 7 year programme, would require the recruitment and training of the workforce twice over (230 posts). Based on a cost of recruitment and training of say €10,000 a post, the staff turnover would cost **€330,000 a year** or **some €2.3m** over the programme period.

[72] Applied to current programme budget assuming that for some years the transitional costs will be standing still.

[73] Draft Impact Assessment of EACI, CSES, 2011.

On the other hand, there would also be cost savings if the work is brought in-house rather than the parent DG (or Agency) having to manage and supervise the contracting and undertaking of this technical assistance externally.

With staff related costs of €5.4m per year, costs of replacing technical assistance of €9.2m and a staff turn over costs of €2.3m, the total management cost by the Agency, with the replacement of external assistance, would amount to €15m per year, representing 6.1% of the programme budget.

The cost saving estimated above excludes other costs that are difficult to quantify:

- kick off costs necessary to transfer the activities and start the new business in the agency;
- costs associated with establishing a team of experts with the expertise that has been developed for the current programme;
- costs associated with developing any associated programme support (e.g. database and related reporting systems, such as a potential replacement for BUTLER, training and recruitment costs within the Commission for comparison;
- Potential productivity and efficiency gains within the Agency from managing a large programme over 7 years.

3.3. Summary of the cost comparison

The various cost estimates for the three options are summarised in the Table 3 below.

Table 3: Summary of the annual cost estimates (€m) of the different management options

Category of cost	Management options		
	Centralised Management	**Agency (with Technical Assistance)**	**Agency (without Technical Assistance)**
Staff costs (€m)	5.1	5.0	11.1
Additional overhead costs (€m)		0.4	3.1
Technical assistance (€m)	10.0	10.0	
Mission costs (€m)			0.7
Total cost (€m)	**15.1**	**15.4**	**15.0**
Total cost as % of programme	**6.2%**	**6.3%**	**6.1%**
Total saving (€m) compared with Centralised Management option		-0.3	0.1
Saving as % of Centralised Management option		-2.0%	0.9%

It should be repeated that there are a number of uncertainties that could affect the final costs of the different Agency options.

4. Analysis on a per project basis

As a form of sensitivity analysis, the calculations set out in section 3 can be tested to see if they change with the change in number of projects that is likely to occur with the introduction of Integrated Projects. This is done comparing central management with the Agency option of Agency where technical assistance is not replaced.

4.1 Number of projects started in the average year

The average number of projects being managed in any one year under the baseline option is 600 projects (between 200-230 projects are selected every year). However, this number will decline (under the preferred option of the Impact Assessment), as a consequence of the phasing-in of Integrated Projects, which are larger in size. Table 4 summarises the number of projects to be financed annually under the future programme (Governance and Communication projects are embedded into the two strands, especially in the category "Top-down").[74]

Table 4: Summary of number of projects per year

Projects / Strand	Integrated	Top-down	Traditional	Total
Nature	6	5	40	51
EPG	9	5	35	49
Climate action	0	0	40	40
Total Projects	15	10	115	140

Applying a complexity factor of "2" to Integrated Projects, it would mean that on average the equivalent of **155 traditional projects would start each year, and over time the equivalent of around 400 projects would be running at any one time**.

4.2 Costs under different options

The programme runs until 2024 as projects finish, but for simplicity the costs are only examined during the 7 years of the programme (this does not affect the result). To calculate the cost per project, the data for the baseline are used.

On average, the staff cost per project under direct central management are **around €8,500** and for Agency **is €9,000**.

Table 5: Estimation of staff cost per project

	EC	Agency
Avg no projects pa	600	600
Current staff cost (€m)	5,1	5,4
Current staff	44	61
Current days pa	9680	13420[75]
Cost per day (€)	527	402

[74] These are traditional projects funded under the Governance strand. Because these are expected to be smaller in size and clearly spelled out in the Call for proposals they are referred to as "Top Down".

[75] Staff no multiplied by annual days (@220 days per year).

	EC	Agency
Days per project	16	22[76]
Staff cost per project	**8500**	**9000**

A multiplier factor represents the length of the projects and therefore the total number of projects being looked after on average each year (when the programme has matured). A multiplier factor of 3 is applied to standard projects (since these last between 2-4 years) and 5 to Integrated Projects assuming their average life is longer.

Table 6: Comparative calculation of cost (per project calculation base)

EC	**Integrated**	**Top-down**	**Traditional**	
Staff	8500	cost per project		
Complexity factor	2	1	1	
Number started in a year	15	10	115	
Total	255.000	85.000	977.500	1.317.500
Average length of projects (multiplier)	5	3	3	
Total Staff cost	**1.275.000**	**255.000**	**2.932.500**	**4.462.500**
TA	16.667	cost per project		3
Total TA cost	**2.500.000**	**500.000**	**5.750.000**	**8.750.000**
TOTAL COST				**13.212.500**
AGENCY	**Integrated**	**Top-down**	**Standard**	
Staff	9000	cost per project		
Complexity factor	2	1	1	
Number started in a year	15	10	115	
Total	270.000	90.000	1.035.000	1.395.000
Average no of projects pa (multiplier)	5	3	3	
Total Staff cost	**1.350.000**	**270.000**	**3.105.000**	**4.725.000**
TA (cost per project)	15.333	cost per project		3
Total TA cost	**2.300.000**	**460.000**	**5.290.000**	**8.050.000**
TOTAL COST				**12.775.000**

Using the above basis of calculation, the Agency will provide some cost savings of about €0.4 million.

5. Advantages and disadvantages of the Agency option:

(a) The advantages of the Agency option

- The majority of the staff in the Agency (up to 75%) can be contract posts that are significantly cheaper.
- The recruitment of such contract staff of a high quality and technical capability is not likely to be difficult given past evidence.[77] The Agency employees could therefore undertake the bulk of work that is currently undertaken by the LIFE Unit staff and external contractors (under the option that includes technical assistance):

[76] Days divided by no. of projects.

[77] See Technopolis (2006), 'Cost Benefit Analysis of the externalisation of the certain tasks regarding the implementation of the Competitiveness and Innovation Framework Programme (2007-2013) through an executive Agency'.

- Management tasks – specific tasks relating to programme management such as financial and administrative management e.g. payment processing (and finding ways to improve the processing)[78];
- Programme implementation e.g., ensuring reports processed within deadlines and selection of projects takes place on time;
- Communication and dissemination activities;

- The recruitment of staff with a specific technical profile could also increase the effectiveness of technical monitoring and improve the communication of lessons learned to the parent DGs (provided the organisational arrangements are based on thematic expertise rather than geographical or a mixture of both).
- The use of contract posts in the Agency also 'frees up' the Commission's human resources in terms of 'saving' permanent posts and allowing for the re-allocation of them to core policy tasks, which in itself reduces the need for contract posts. In fact, the Agency option could free up 19 posts;[79] of which two thirds would be AST posts and one third AD posts. However, this would materialise only after a number of years and only if all ongoing projects would be transferred.

(b) The disadvantages of the Agency option

- Integrated Projects are to act as a catalyst for effective mainstreaming into the other EU financial instruments. This will require careful design and cooperation with the policy units in the parent DGs and other DGs to ensure their success.

- Integrated projects are also to provide examples of how integration is possible in practice. Therefore it is important to know whether this approach works and to identify at an early stage problems and to react rapidly. Close monitoring by the Commission and contact with the beneficiaries is needed to ensure this early detection and quick solution finding.

- If the level of the programme remains similar to current levels, or if the budget increase is associated with a similar or fewer numbers of projects but with a larger average size, and especially if technical assistance is used because of the importance of maintaining the current networks, the Agency option becomes less attractive on cost saving grounds.
- The preferred option for the programme is one which is based on a strategic programming approach, requiring enhanced cooperation and management to effectively contribute to policy design and implementation and high quality technical support to ensure replication of results is achieved. As a result, there is a risk that the Agency option would decrease the ability of this option to deliver the expected added value. For example, Integrated Projects for Nature will test the development and implementation of the Prioritised Action framework (PAFs) required by the Habitats Directive. It is essential that the Commission closely follows how these new frameworks are developed in different Member States and is able to quickly react to

[78] According to the European Court of Auditors Special Report No. 13, 'Delegating implementing tasks to Executive Agencies: a successful option?' (2009), the contracting time for the 'Public health' programme dropped from 345 days to 219 when managed by an Agency; payment period shortened from 503 to 91 days and approval time for technical/financial reports dropped from 90 to 42 days.

[79] 36 post minus 9 seconded and less 8 staff used in parent DGs for governance.

demands for advice. This is more effectively done if the monitoring and management of the project remain within the Commission.

- There is also a clear link between Integrated Projects and implementation and compliance of some of the most demanding legislation (Water Framework Directive or the Waste Framework Directive). In the case of the Water Framework Directive, the projects will be implementing plans that are directly assessed by the Commission to determine whether a Member States is meeting its obligations under the Directive. In addition, based on the experience with Nature projects, this type of project provides technical information that can be used for infringement cases or pilot cases. Therefore, strong policy link with technical units during design and implementation of these projects is necessary, and could not be done efficiently by an Agency.

- There will be around 600 open projects at the end of the LIFE+ programme period, which will not be completed until 2017-2018. These will also need to be managed and provided with technical assistance [by the parent DGs or by the Agency?]. Transitional arrangements could be complicated for them (although they could also allow for a more constant workflow for the Agency if transferred.

6. Hybrid solution

Given the need to ensure that Integrated Projects feed back into policy design, provide more effective information for policy implementation and maximise their demonstration value, one option which would address these objectives would be to keep Integrated Projects under direct central management.

Table 7 shows the number of projects 'live' at any one time. Note that the assumption is that Integrated Projects are evenly spread over the programme, whereas they may be more weighted towards the second half as Member States will need time to develop proposals for this new concept.

Table 7: Cumulative number of projects over time and related costs

Cumulative	Integrated	Top-down	Traditional	Cost	
2014	15	10	115	3.805.000	4%
2015	30	20	230	7.610.000	8%
2016	45	30	345	11.415.000	13%
2017	60	30	345	12.170.000	13%
2018	75	30	345	12.925.000	14%
2019	75	30	345	12.925.000	14%
2020	75	30	345	12.925.000	14%
2021	60	20	230	9.120.000	10%
2022	45	10	115	5.315.000	6%
2023	30	0	0	1.510.000	2%
2024	15	0	0	755.000	1%
Average annual open projects[80]	75	30	345	90.475.000	100%
Total number over programme[81]	*105*	*70*	*805*		

[80] Total number of each project type over 7 years.

[81] Annual number of project type x 7.

Cumulative	Integrated	Top-down	Traditional	Cost	
Average Project Cost	50.333	25.167	24.333		
Total annual cost	**3.775.000**	**755.000**	**8.395.000**	**12.925.000**	
Total programme cost				90.475.000	7

Table 8: Calculation of management cost for the hybrid option

EC	Integrated	Top-down	Traditional	
Staff	8500	cost per project		
Complexity factor	2	1		
Total	255.000	85.000		
Average no of projects pa (multiplier)	5	3		
Total Staff cost	**1.275.000**	**255.000**		
TA	16.667	cost per project		3
Total TA cost	**2.500.000**	**500.000**		
TOTAL	**3.775.00**	**750.000**		**4.525.000**
AGENCY		**Top-down**	**Traditional**	
Staff	9000	cost per project		
Complexity factor			1	
Total			1.035.000	
Average no of projects pa (multiplier)			3	
Total Staff cost			**3.105.000**	
TA (cost per project)		cost per project		3
Total TA cost			**5.290.000**	
TOTAL			**8.395.000**	**8.395.000**
				12.920.000

The average annual cost of €12.9m is reached in 2018 (see Table 8 above).

7. Conclusion

Considering the arguments against a full externalisation option, and the above calculations demonstrating a low cost decision factor, the preferred option is a hybrid between full externalisation and full integration.

The estimation of these resources for both the Agency and the Commission, the cumulative impacts across the entire programme period as well as the impacts of the transitional arrangements will need to be a carefully developed, reviewed and validated at the time of preparing the detailed cost/benefit analysis for any transfer to an Agency. Similarly, the mid term evaluation of the new programme will need to revisit the analysis to assess whether Integrated Projects should be managed directly or by an Agency.

ANNEX 10: OBJECTIVES AND MONITORING FRAMEWORK

General Objective: Provide solutions in order to achieve environmental objectives by developing, updating and implementing EU environmental policy.-

Specific and *Operational* Objectives	Types of activities	Expected outputs	Output indicators	Expected results	Result indicators	Impacts indicators
1. To improve the scope of EU environmental and climate policy and legislation						Attributable environmental improvements from improved targeting and/or design of policy instruments
– To identify, test and develop policy proposals to current and emerging environmental and climate problems	Public procurement and technical studies defining and scaling problems and identifying possible policy options Public procurement / grant funding of the demonstration of the feasibility of policy options	Challenges to the operation of existing approaches Expanded knowledge base, including for forests Demonstration of new/updated policy approaches Testing of new financial instruments	No. of reports providing analysis/solutions, by theme, Directive, MS No. of policy options/ instruments developed and tested, by theme, Directive, MS	Improved environmental monitoring and problem definition Policy proposals that improve the scope of EU policy to deal with environmental and climate problems	Expanded sets of environmental and climate indicators, periodicity & quality of data by theme, Directive, MS Increase in knowledge base of environmental problems e.g. number of new tools or users of tools or studies available. New policy proposals by theme, Directive, MS	
– To facilitate and improve the contributions of environmental and climate NGOs and civil society in policy making and review	Funding of environmental and climate NGOs	Increased participation of NGOs and civil society in policy making and review	No., size, type of NGOs (+ subset of indicators required for NGO outputs82) – n. of contributions, amendments to policy making; participation in public consultations; n. position papers.	Improved participation of citizens and NGOs in the decision-making process.	Uptake of NGOs and civil society proposals for amendments in the legislative acts.	
2. To improve the implementation of EU environmental and climate policy and legislation, (including EU commitments to international agreements						
– To identify, test and develop policy	Public procurement and technical studies	Challenges to the operation of existing approaches	No of reports providing analysis of existing	Take-up of new or updated approaches and	Expanded and improved capacity for	Attributable environmental and

[82] Additional work is required to fine-tune the NGO indicators to better reflect their role in helping to avoid regulatory capture as well as promoting civil engagement

Specific and *Operational* Objectives	Types of activities	Expected outputs	Output indicators	Expected results	Result indicators	Impacts indicators
approaches to improve MS and private sector capacity to transpose, implement monitor and enforce environment and climate legislation. – To facilitate knowledge sharing on successful environmental and climate policy and practice. – To improve support for international commitments and management of third country problems. – To increase effectiveness of MS and third countries activities to reduce environmental externalities adversely affecting the EU	on transposition, implementation, monitoring and enforcement problems (including in the context of international commitments) Grant funding of the demonstration of updated and improved policy approaches Grant funding of good practice demonstration for subsequent dissemination Grant funding of mutual and peer learning activities and networks Grant funding of targeted training initiatives	Expanded institutional capacity to implement policy (new skills, expanded knowledge base, new and extended networks of competent authorities) Expanded knowledge base, including for forests Demonstration of updated policy approaches and of good practice policy implementation/enforcement Dissemination of good practice (multiplier effects)	institutional weaknesses in relation to policy implementation, and related solutions by theme, Directive, MS Participation in peer learning networks and replication activities (by MS, themes, number and type of actors) Participation in training activities (by MS, themes and actors) Dissemination activity of updated and good practice policy approaches, by type of activity (workshops, publications, etc,) and by theme and type and number of actors N. of projects/ measures or approaches replicated and transfer Third country involvement in research, demonstration and dissemination activities	good practices that improve monitoring, implementation and enforcement of EU environmental and climate policy in MS Improved capacity to manage environmental and climate policies <u>Sub-target</u> 10% of RBD adequately managed (or 15% of national branches). 15% of Regions have adequate implementation of waste legislation At least 15% of N2000 brought into adequate management 25% projects/measures or approaches replicated and/or transferred Increased EU contribution to securing international commitments	implementing EU environmental and climate policies at MS and regional/local levels (changes in No. & quality of relevant responsible authority staff) Reported changes and improvements in transposition and implementation procedures Reduced no. of reported infringements of EU legislation Improved quality of European Commission inputs to international working	climate improvements from increased effectiveness of policy instruments, especially through improved levels of implementation (attributable reductions in env. and cliamte problems due to capacity improvements) - Increased resilience to climate change; - Improved resource efficiency; - Improved environmental quality; - Enhanced EU environmental assets - Improved conservation status
To improve the contributions of environmental NGOs and civil society to implementation,	Grant funding of environmental and climate NGOs Grant funding of	Increased awareness on environmental and climate problems Increased participation of NGOs and civil society on policy	No., size, type of NGOs (+ subset of indicators required for NGO outputs) – n. of projects where NGOs participate	Increased participation of citizens and NGOs in the decision-making process.		Attributable and specified climate improvements due to the improved quality of policy approach /

Specific and *Operational* Objectives	Types of activities	Expected outputs	Output indicators	Expected results	Result indicators	Impacts indicators
policy making and review. To support and raise awareness, communication, and dissemination among civil society on environmental and climate aspects	dissemination of project results and awareness raising campaigns Public procurement of dissemination and awareness raising campaigns Enhanced dissemination obligations in grant funded projects	implementation. Increased dissemination of knowledge among different stakeholders	N. of projects where civil society and private sector organisations participate N. dissemination activities carried out, per sector, MS, n. of persons reached,, n. publications, media appearances etc N. of complaints at national and EU level per sector and per MS from civil society and NGOs	Increased awareness and communication on environmental and climate problems (compared to eurobarometre results) Increased empowerment of civil society		management and use of new approaches Attributable reductions in international env. and climate problems
3. To improve the effective contribution of other EU policies to environmental and climate objectives at implementation level						
– To identify and undertake demonstration activities capable of informing opportunities for improved sectoral performance of environment and climate in achieving environmental and climate objectives and upholding the potential of the climate and environmental policies. – To raise awareness of	Grant funding of demonstration and dissemination of new or updated approaches to improve environmental and climate performance of key sectors Enhanced dissemination obligations in grant funded projects Dissemination of project results, including funding of specific projects, publications and conferences or	Increased awareness of the need and scope for integration Expanded institutional capacity (new skills, expanded knowledge base, new and extended networks of responsible authorities, better coordination among authorities in a MS or region dealing with different sectors to increase integration) Demonstration of new or updated approaches to improve environmental and climate performance of key Grant funding of demonstration and dissemination of key sectors. Dissemination within sectors of new/updated approaches to improve environmental or climate integration	No. of reported policy proposals for improved integration of env. & climate objectives in sectoral activities, by sector and sub-sector No. of new and updated approaches demonstrated that improve integration and enable economic actors to improve env. & climate performance, by type of actor, sector and MS. No. of dissemination activities of updated and good practice approaches to integration, by type of activity (workshops,	Take up of new or updated approaches that improve sectoral environmental and climate performance. <u>Sub-target</u>: At least 25% of new or updated approaches taken up by the market and economic sectors and responsible authorities	No. of updated approaches that have been used by economic actors to improve environmental and climate performance by actor, sector, MS and type and number of actors	Attributable reductions in environmental and climate problems as a result of take-up of demonstrated successful approaches.

Specific and *Operational* Objectives	Types of activities	Expected outputs	Output indicators	Expected results	Result indicators	Impacts indicators
policy makers and economic and social actors of the opportunities for better integration	workshops targeting a specific sector	–multiplier effects	publications, etc.) by sector and type and number of actors.			
4. To develop solutions for subsequent mainstreaming in other EU financial instruments and MS practices to support the multiplier effect						
– To identify, test and develop technical and policy solutions to environmental and climate problems suitable for mainstreaming through other EU / MS financial instruments	Grant funding of innovative and demonstrative solutions to environment and climate problems capable of being mainstreamed Activities for dissemination as above.	Demonstration of new or updated approaches/ techniques to improve environmental and climate performance capable of being mainstreamed Applications for EU funding based on demonstration projects (multiplier effect)	No. of reported technical and policy solutions capable of being mainstreamed, by theme, sector and MS Dissemination activity of project results potentially capable of being mainstreamed (workshops, publications, etc.) by theme, sector and type and number of actors. Application submitted for mainstream funding based on demonstration results, by value, by theme and sector. No. tested approaches incorporated in national and regional programmes linked to other EU instruments.	Increased mainstream funding for environment and climate solutions <u>Sub-targets</u>: At least 25% approaches incorporated into national/regional programmes. Increased uptake of other EU funds for environment and climate related by 50%	No. of projects receiving mainstream funding (under EARDF, ERDF, CF, EFF) to roll-out and diffuse the take-up of demonstrated solutions under LIFER, by value, theme, sector No. of measures and projects receiving mainstream funding complementing integrated projects. No. of MS/Regions that replicate integrated project approaches.	Attributable reductions in environmental and climate problems as a result of subsequent application of solutions from mainstream funding
5. To contribute to responsibility sharing in the protection of natural assets and to stop biodiversity loss						Attributable and

Specific and *Operational* Objectives	Types of activities	Expected outputs	Output indicators	Expected results	Result indicators	Impacts indicators
– To recognise the effort sharing of MS on the basis of the geographic distribution of environmental resources – To increase effectiveness of protection and management activities in MSs with unequal amounts of natural assets [EPV says I think this is feasible because of IP]	Funding of best practice and demonstration activities in Natura2000 (N2K); Funding of best practice and demonstration protection of biodiversity and ecosystem services outside N2K, including species and habitats IUCN/EU Red Lists	Challenges to the operation of existing approaches New and expanded networks of stakeholders enabling conservation measures Expanded knowledge base of good practice conservation measures Expanded use of nature conservation measures within N2K sites and wider eco-system management New and demonstrative approaches to nature and biodiversity conservation	No of sites, by area and type of habitat subject to restoration and/or improved management No of approaches demonstrated No species subject to conservation activities	Improved conservation status of and reduced degradation of EU significant environmental natural assets level of protection of EU significant environmental assets Contribute to reaching Biodiversity Strategy targets <u>Sub-targets:</u> At least 15% of N2000 brought into adequate management 25% of habitats targeted reached favourable conservation status 25% of species targeted achieved favourable conservation status	Improved quality of management of N2K sites and networks (by area, habitat, and MS) Quality of approaches to biodiversity and conservation demonstrated to be effective and efficient No. of species and habitats that reach favourable conservation status No. of water bodies that reach good ecological status	specified environmental improvements due to the improved quality of management and use of new approaches
6. To contribute to responsibility sharing in addressing transboundary problems affecting EU internal and external borders						
– To recognise the risk sharing principle for MS on the basis of transboundary problems experienced – To increase effectiveness of MS	Funding of transboundary projects, including third country participation when required Dissemination activities as above	Challenges to the operation of existing approaches Expanded knowledge base of cross-border problems Expanded institutional capacity to implement policy across internal and external EU borders	No of reports providing analysis of existing institutional weaknesses in relation to transboundary pollution, and related solutions, by theme and MS No. policy/ technical proposals and approaches	Reduced significance of transboundary problems Increased cooperation across internal and external EU borders	No. and quality of updated approaches for dealing with transboundary problems demonstrated to be effective and efficient No. of approaches for dealing with	Attributable and specified environmental improvements due to the improved quality of policy approach/ management and use of new approaches to transboundary problems.

Specific and *Operational* Objectives	Types of activities	Expected outputs	Output indicators	Expected results	Result indicators	Impacts indicators
and third countries activities to reduce environmental externalities adversely affecting the EU.		Demonstration and dissemination of new or updated approaches to address transboundary problems.	for addressing transboundary problems tested and demonstrated by theme and MS Third country involvement in research, demonstration and dissemination activities by theme No. of networks or cooperation mechanism created		transboundary problems replicated in other EU and non-EU countries No. of networks and cooperation mechanisms improved or consolidated	
7. To contribute to the efforts to mitigate climate change						
– To improve the knowledge base and building it into effective mitigation actions. – To mainstream mitigation efforts into local and regional structures. – To develop pilot mitigation projects	Funding of projects concerning mitigation activities.	Expanded knowledge base of good practices for mitigation activities Demonstration of new approaches to climate mitigation	No of projects addressing mitigation activities No of pilot projects on mitigation activities	Reduced levels of greenhouse gas emissions. Improved levels of energy efficiency. Take-up of technologies that facilitate mitigation	Tones of GHG reduced Renewable energy production by demonstrated technologies Energy saved	Attributable and specified climate improvements due to the improved quality of policy approach / management and use of new approaches
8. To support efforts leading to adaptation to climate change						Attributable and specified climate improvements due to the improved quality of management and use of new approaches
– To build the knowledge base on adaptation to climate change. – To develop strategies	Funding of projects concerning adaptation activities.	Expanded knowledge base of good practices for mitigation activities Demonstration of new approaches to climate adaptation Increased capacity in evaluating	No of projects addressing adaptation activities No. of local and regional adaptation strategies No. of new approaches	Improved resilience to climate change. Improved climate proofing of investments Innovative adaptation	Increased adapted capacity	

Specific and *Operational* Objectives	Types of activities	Expected outputs	Output indicators	Expected results	Result indicators	Impacts indicators
for mainstreaming adaptation into local and regional governance structures. – To strengthen climate "proofing" of investments. – To develop innovative adaptation pilot projects.		impacts and planning adaptation	developed to facilitate adaptation in specific fields Reduced vulnerability	measures		

ANNEX 11: INTEGRATED PROJECTS

1. Main lessons learned from current and previous Programming period

The recent mid-term evaluation for the period 2007-2009[83] concludes that LIFE is an efficient successful financial instrument crucial to the needs of environmental policy. It is a catalyst for the implementation of some of the most demanding Directives, preparing the ground for continued management through other funds. LIFE is therefore considered as the reference EU instrument for environmental financing.

However, one of the aspects highlighted by the mid-term evaluation is that **building synergies between LIFE and other EU funds has been a challenge**. There are many examples of mainstreaming EU and domestic resources towards strategic environmental goals at territorial level. However, the widely implementation of this approach based on positive complementarity remains a challenge in practice. This partially derives from the way prioritisation is made at national or regional level. Competing priorities for limited funding result in many cases in a lower prioritisation given to environmental funding, especially for nature conservation and biodiversity. Also, there seems to be underdeveloped capacity to manage funds available.

LIFE brought positive exceptions to the above. For example, many **agri-environmental measures** were tested in LIFE and afterwards incorporated into Rural Development Programmes. Other LIFE projects allowed development of **water resources management policies**, paving the way for investments in water infrastructure co-financed by the ERDF or the CF. Such constructive synergies allowed additional mobilisation of funds for environmental purposes. A more constructive approach to complementarity between different EU instruments based on these positive experiences should therefore be promoted for the next programming period.

LIFE is a small instrument and cannot be used to solve all environmental problems. Domestic funds and other EU funds remain the core funding instruments for environmental protection. However, LIFE has an enormous **catalyst effect** and its individual projects traditionally have a disproportionately large impact. For that reason, a new tool is proposed in the MFF Communication, i.e., Integrated Projects which are meant to mobilise both national and EU funds to implement environmental action plans as part of wider development programmes. They also have the potential to mobilise funds from financial institutions and the private sector. Therefore, **Integrated Projects should be used to demonstrate to regional and national authorities the benefits of investing in the environmental sector and push them to develop strategic frameworks and methods to use different funds in an integrated way.** This would help to make complementarity of EU funding a reality.

2. Concept and characteristics of Integrated Projects

Integrated Projects are demonstration projects for the sustainable implementation of environmental action plans. An Integrated Project is similar to a traditional LIFE project but it covers a larger portion of the territory or a region (it could also be national), where the applicant, namely the authority responsible for the environmental sector concerned, aims at implementing a sectoral environmental action plan by carrying out the necessary

[83] http://ec.europa.eu/environment/life/about/documents/com2010_516midterm_eval.pdf.

environmental measures required to achieve the environmental objective (as specified in the environmental action plan), generating the necessary capacity to manage the specific environmental sector at the most appropriate territorial/administrative level in a durable way.

The characteristics (and pre-conditions) of a LIFE Integrated Project are:

- A multi-annual environmental action plan for a specific sector should already be in place, such as Prioritised action framework under the Habitats Directive or a river basin management plan under the Water Framework Directive;
- The above plans identify the overall financial needs and sources of finance, including LIFE, required to implement the plan and thus to achieve the environmental objective;
- The LIFE project supports a series of specific activities and measures included in the environmental action plan (these constitute the Integrated Project and are specified in the project proposal). These specific activities are individually clearly defined with a financing plan, timelines and expected outcomes, as traditional LIFE projects;
- When submitting the Integrated Project proposal, the applicant includes a financial plan, indicating how the measures included in the overall environmental action plan should be resourced, including LIFE Integrated Project funds but also other regional, national and/or EU funds;
- The applicant must demonstrate that the Integrated Project itself delivers environmental outcomes also as a self-standing part of the overall environmental action plan and that it contributes to the outcomes of the overall plan.
- Priority will be given to Integrated Projects having a cross-border dimension related to environmental impacts and protection, or internal market aspects e.g., in the area of waste and resources or ecosystem services, to economic and employment impact.

These projects will be inclusive: involvement of all relevant stakeholders (public, private and civil society) in the particular sector and their funds will be required.

It is foreseen that Integrated Projects will require an indicative EU contribution of €10million per project (whereas traditional projects are expected to require around €1.5m).

Box 1: Two theoretical examples of LIFE "Iintegrated Projects"

1. Natura2000

Region X has 10 Natura2000 sites under its jurisdiction so it develops a Regional Programme for Natura2000 covering all the sites. Such program covers all aspects related to the management of the sites, and all the features needed to guarantee the connectivity and the functionality of the network thus covering aspects like green infrastructures and ecosystem services. This programme identifies a range of management and conservation needs which are translated into different activities that require financial support.

These activities include *inter alia* restoring four sites (removal of alien species, reforestation, creation of ponds etc), recurring management once the restoration is finalised, create corridors between the sites, stop agriculture in one site, leasing hunting rights in another site, installing waste water treatment systems for houses' discharges affecting a river and ground waters connected to five sites, soil decontamination in three sites, conditioning two sites for visitors (interpretative paths, visitors centres, observation towers and spots, parking facilities), training farmers to adopt more sustainable agricultural practices in three sites and buffers around, compensation payments etc.,

Region X identifies the financial needs for the implementation of these activities and submits a proposal for a LIFE integrated project. This project clearly specifies the activities or group of activities among those included in the programme that will be financed by LIFE (e.g. the restoration and connectivity activities, capacity building, awareness raising). In addition, it presents evidence on how it will use other funds (e.g. from EARDF, ERDF, private) to implement the complementary measures included in the programme (compensation payments, correction of power lines, infrastructure etc).

2. Implementation of the Water Framework Directive (WFD) at a transboundary scale

A River Basin Competent Authority Y has a transboundary European river basin under its responsibility. It develops a River Basin Management Plan according to the requirements of the WFD. Such Plan covers all aspects related to water management in the river basin, aiming at ensuring "good status" for all waters in the river basin. The plan identifies more specific objectives (ecological status, quantitative status, chemical status, etc.) and identifies the range of measures that will be needed to achieve those objectives which are translated into different activities requiring financial support.

These measures include *inter alia* reducing pollution from agriculture through promotion of environmentally sensitive farming practices (reduction of pesticides use, promotion of water saving, suspension of certain farming activities, etc); installing waster water treatment plants in two agglomerations and green filters in specific areas to avoid percolation in ground waters; elimination of invasive alien species and developing early detection systems; decontamination of soil, developing biological monitoring methods and chemical monitoring, prevention and limitation of input of pollutants to groundwater and surface water from industry, mining and quarrying activities and diffuse pollution; promotion of sustainable drainage schemes for flood risk, floods vulnerability assessment and flood mapping and restoring floodplains etc.

Competent Authority Y identifies, together with Competent Authorities from other States belonging to the same river basin district and other interested parties (eg. representatives from hydropower industry, farmers' associations etc.) the financial needs for the implementation of these measures and activities and submits, a proposal for a LIFE integrated project. This project clearly specifies the measures/activities or group of measures/activities among those included in the River Basin Management Plan (and programme of measures) that will be financed by LIFE (e.g. removal of obstacles for river connectivity to improve fish migration, development of monitoring methods, awareness raising, partnerships etc.). In addition, it presents evidence on how it will use other available funds (e.g. from ERDF, EARDF, public, private) to implement the complementary measures included in the programme (compensations payments, infrastructure etc).

The potential contribution of Integrated Projects to the practical integration of environmental objectives can be exemplified by the experience of INTERREG projects, since Integrated Projects share the same objective as some INTERREG projects that seek to better integrate economic, social and environmental objectives. Some INTERREG projects therefore provide possible illustrations of the integration benefits that might follow from Integrated Projects. It should be noted that INTERREG projects do not seek to combine different funding sources and therefore do not have the requirement and potential impact as Integrated Projects do.

Below are summarised two examples of INTERREG projects which have had a particular focus on integrating environmental objectives with wider economic development objectives. These projects illustrate the potential benefits from integrating economic, social and environmental objectives as the basis of co-ordinated action and learning.

Box 2: Successful examples of Integrated Management from INTERREG

TIDE (Tidal River Development)

The TIDE project covers the estuaries of the Rivers Elbe (DE), Humber (UK), Scheldt (BE/NL) and Weser (DE) and brings together experts, scientists, policy-makers and managers representing economic, social and environmental interests in the four estuaries. TIDE aims to promote the economic objectives of port development, alongside environmental protection and social benefits to the wider population through the development and use of ecosystem services. TIDE seeks to integrate the physical needs for economic development with ecological and environmental needs based on the definition of ecosystem services. In this case study the ecosystem service approach is used and thought of as: defining benefits that estuary ecosystems can provide, defining services required to realise these benefits and assessing what management techniques are needed to provide for these services.

The project aims to realise its objectives through principles of shared management and four work packages have been designed, one assigned to each partner. Work package integration is leading to shared experiences and promotion of knowledge transfer between sites and partners. All partners contribute to the different work packages although one partner initiates each package by producing a guidance document and a central team co-ordinates the different partners. The 4 work packages are designed to cover the following different themes:

- Improve Knowledge on Estuary Functioning
- Realise Integrated Management Planning / Governance
- Mitigation and Compensation Measures
- Transnational Exchange & Capacity Building.

The integrated partnership model is achieved primarily through the work package integration and also through general cooperation and sharing of knowledge and solutions by partners. The benefits of this method include:

- Provision of a forum for issues to be discussed between port authorities and conservation bodies.
- Scope to learn lessons drawn from previous projects
- Knowledge sharing between partners, breaking down previously polarised views
- Identifying and establishing the strategic management themes for estuaries to be assessed alongside estuary specific themes.

Sources: TIDE, Tidal River development - http://www.northsearegion.eu/files/repository/20091028105326_TIDE_Flyer_8s_K07_Druck.pdf; TIDE Times, Issue 01 2010, Hamburg Port Authority &s.Pro sustainable projects GmbH -http://tide-project.eu/downloads/TIDE_Times_Issue_01.pdf; Stakeholder interviews

NATURESHIP

The Natureship project is part of the Central Baltic Interreg IVA Programme. The participating regions of the Programme are situated in Estonia, Finland (including Åland), Latvia and Sweden. The emphasis of the Natureship project is for a novel approach on planning and management of traditional rural landscapes and selected coastlines. The aim of the project is to create and restore an optimal ecosystem service network based on integrated sustainable coastal planning. The project builds on the earlier co-operation between partners on the Interreg IIIA project RUOKO (reed strategy in Finland and Estonia), in which an attempt was made to optimise ecosystem services. This team was then expanded to draw on other relevant knowledge such as the County Administrative Council of Gotland who had mapped the Gotland coastal area, covering data relevant for ecosystem services. The different partners each took responsibility for different theme areas of the project including:

- Integrated coastal planning
- Landscape and habitat monitoring and evaluation with retrospective land cover and land use change detection using remote sensing and GIS
- Management and species of traditional rural biotopes
- City meadows
- Conservation and management of calcareous habitats in the coastal cultural Landscape
- Evaluation of ecosystem services as a tool for coastal zone
- Management
- Ecosystem services and management of coastal lagoons.

NATURSHIP highlighted a number of win-wins, reflecting the holistic and proactive objectives that can be funded under Interreg. The project has a strong focus on ecosystem services, protecting natural resources through planning and management whilst providing a safe and healthy environment. In addition the project will also assess how to achieve cost-effective planning and management of traditional rural biotopes in order to enhance public and biodiversity values.

Sources: http://www.centralbaltic.eu/documents/doc_view/4-programme-document-?tmpl=component&format=raw; Evaluation of the Central Baltic Interreg IVA Programme 2007-2013, Final mid[term evaluation report, Deabaltika, 24 November 2010; Stakeholder interviews.

3. Added value and impact of Integrated Projects

The MFF Communication suggests that integrated instruments could be used to maximise their leverage role by combining different funding sources. LIFE, which is the specific instrument for the environment (as a contributor funder) would guide the implementation process in an Integrated Project by providing a specific environmental focus and expertise and by ensuring that the total funds mobilised have the most positive environmental impact. The main benefits of Integrated Projects would therefore be:

- Environmental priorities would become embedded into all the project activities as a requirement;
- Administrative cost savings; because of a larger size and potential higher effectiveness of the projects[84], replacing some smaller projects with associated reductions in the costs of applications, and monitoring and evaluation;
- As a result of their scale, Integrated Projects provide a greater ability to create employment opportunities linked to continuing environmental management both during the project lifetime and in the post-funding period work ensuring sustained results;
- Because of their scale, Integrated Projects can establish a structured relationship with and develop project pipelines for the relevant EU funds, thereby promoting the mobilisation of much larger resources to support environmental objectives. This should help to tackle the current under spending by the Structural Funds in the fields of biodiversity and environment,
- Opportunity to build capacity on a wider scale with a wider spectrum of stakeholders;
- Integrated Projects provide a major role for regional and local authorities as potential lead beneficiaries, which are also often the environmental competent authorities as well as being responsible for leading projects funded by Rural Development, the Operational Programmes for Structural Funds, and the future Natura 2000 Prioritised Action Frameworks.[85]

The box below provides an early illustration of how an Integrated Project might be used to support capacity building.

Box 3: LIFE Integrated Project: Example of use for capacity building

NATURA 2000 in Slovenia - management models and information system

The Slovenian delegate to the Habitats Committee recently presented their national Management Plan for Natura 2000. They are now considering the idea of an integrated project, building on a previous LIFE project to exemplify the catalytic power of LIFE.

A previous LIFE project led to a transnational co-operation between different actors and different sectors (forestry, fisheries and water management). This capacity could now be used in an Integrated Project. Slovenia is currently in the process of implementing legislation to ensure that integrated projects are feasible.

Potential benefits:

- Rural development funds could help in aspects of forestry and agricultural, cohesion funds could be used to undertake sustainable tourism, environmental protection and nature conservation activities, whilst LIFE funding would help with capacity building, awareness raising and training.
- Combining these activities and funding is considered to provide a real opportunity to bring together economic, social and environmental objectives leading to enhanced results.

Practicalities:

One single regulation and one set of guidelines would be required to cover administrative and reporting aspects across all

[84] The larger size of Integrated Projects responds to the call for larger projects made in the ex-post assessment of the LIFE III Programme.

[85]Noted as a benefit of Integrated Projects by the Committee of the Regions (2011) DRAFT OPINION of the Commission for the Environment, Climate Change and Energy on THE EU LIFE PROGRAMME.THE WAY FORWARD.

funding instruments. To ensure Integrated Projects are feasible it is essential that there is a strong project design phase with rigorous and detailed preparation which agree priorities across funding instruments.

A further example describes LIFE projects that could be considered as precursors of Integrated Projects. The case studies below in Box 4 and 5 highlight potential benefits of Integrated Projects, as outlined by the beneficiaries and also the challenges in developing and managing such projects. Integrated Projects have not been fully tested. Since the administrative capacity varies between MS and between projects, it will be important to encourage MS and regions to learn from each other and to develop mutual learning networks.

Box 4: Projects that could have been a LIFE Integrated Project

LIFE Integrated Projects: PM10 control in urban areas

Four Austrian LIFE projects are interconnected and all have PM10 control in urban areas as a main objective. Each project has been used as a further step in developing a more holistic approach and contributing to a long term plan. The four projects could theoretically have been combined into a single integrated project, which drew on several funding sources.
Potential benefits

- The larger project would have greater impacts;
- The project would enable partners from different sectors to work together and allow a more effective; combination of different priorities such as climate change, health and air pollution;
- Integrated projects would help to achieve economic development alongside environmental protection;
- Greater scope for innovation through the co-ordination and synergy between environmental and economic objectives and activities.

Practicalities

An Integrated Project could follow-on from current LIFE projects, building on achievements to date. In the case of PM10 projects, they have created new knowledge and techniques which an integrated project could develop over a larger geographical scale, combining LIFE funds which would focus on practical solutions with DG RTD funds to further scientific knowledge and structural funds to invest in necessary infrastructure.

In addition, to ensure the up-take of integrated projects, it will be necessary to have just one application process in which you can apply for different combination of relevant funds and one monitoring and evaluation process rather than separate processes for each fund.

Furthermore clear clarification, guidance, provision of relevant definitions and frequently asked questions would help in the application process. The project suggested a two-step application approach, the first step establishing feasibility and eligibility, would be useful as applications for integrated projects are likely to require significant resources. The two step approach ensures that the applicant is developing a suitable project before submitting a completed application.

The example below describes a LIFE project that has successfully combined different funding sources.

Box 5: LIFE Integrated Project: An example of multiple funding

Protection and usage of aapa mires with a rich avifauna

LIFE project actual costs: €2.6m; ERDF project cost: €0.6m

The aim of this project was to prepare conservation and management plans for five areas within the central Lapland aapa mire zone, so that ecotourism and recreational use can be organised on a sustainable basis.

The project was considered successful in combining the resources gained from different EU sources (LIFE for planning and ERDF for construction of the tourism infrastructure) and national funds (for construction of barns on the hay meadows). The funds were managed efficiently. The EC payments were made in time and did not cause any problems or delays in the implementation process.

The project manager of this LIFE project noted the following (*perscomm*):

- Administratively the project was well set-up with clear roles and responsibilities for all parties. Objectives and results were separated for purposes of effective monitoring and evaluation;
- It was not difficult to align the project to the different objectives of different funding sources as the various project objectives were clear. In addition different project managers were required to clearly state their expectations in the preparation phase;
- The use of various funding sources provided the opportunity to make environmental objectives more ambitious. The beneficiary also stated that integrated projects can create positive publicity and enhance the status of Natura 2000;
- The combination of funds has not resulted in significant additional administrative costs. If the project objectives are mutually supportive, the overall benefit is greater than any additional costs.

By combining funds the projects can implement measures that the LIFE fund would have been unable to support such as service structures. Implementation of the service structure, in Lapland has increased interest in Natura 2000 areas and brought positive publicity to the project and to the LIFE programme more generally.

The success in combining funds has provided confidence in the approach; and it will be used in the future, with the expectation that this will allow greater integration of environmental project activity in wider development activity, engaging more stakeholders and building capacity, improve the end results and contribute to sustainability.

The table below highlights potential risks based on the reflections of public authorities that have considered the use of Integrated Projects. They were collected as part of the Impact Assessment, and provide possible solutions that could be further developed.

Table 6: Summary of Reflections on Integrated Projects from LIFE Beneficiaries

Potential Challenge	Possible Solution
Structural funds have a decentralised management opposed to LIFE's centralised management which could limit the ability to effectively manage Integrated Projects and transfer lessons.	LIFE as a centrally managed programme based on annual calls, could approve 'potential' Integrated Projects, or 'Hub Projects' allowing the project to subsequently link with other partners and funds in the decentralised programmes. The hub project would negotiate with the other programmes before application, and contract following approval from LIFE. The monitoring and evaluation requirements would be established and managed by LIFE. If the links fail to be made, the project continues as standalone LIFE project (albeit potentially larger than the average).
Other instruments will need to revise their legal basis to recognise the use of Integrated Projects and to include them as an eligible activity under the main funding instruments	Discussions between DGs have taken place to discuss and develop the idea. It will be important to test the feasibility of any proposed model with beneficiaries and NCPs, perhaps through a workshop or seminar.
There is a lack of capacity on the ground to put together proposals for Integrated Projects.	Technical assistance funding could be made available. Best practice examples will need to be developed and provided to prospective applicants.
Different eligibility criteria of the different funding instrument may pose problems for potential beneficiaries	Although the current LIFE programme is addressing some of the gaps in the eligibility criteria, the Commission could streamline eligibility criteria further and make explicit what activities and which type of beneficiaries and activities can be funded through Integrated Projects. Alternatively, it could, through adequate cross-reference in the statutory basis of the different instruments, allow the requirements of the Integrated Project to take precedence, allowing other eligibility criteria to be excluded.
Different funding instruments may be working with different timetables and also different timing cycles (e.g. structural funds operate an n+2 cycle)	A robust planning stage with defined roles and responsibilities and detailed delivery plans will be required. The LIFE Unit could contribute to the planning of, for example, Operational Programmes for Structural Funds, commenting on draft Proposals. Since projects will be larger and longer, there is greater scope for some flexibility. An n+2 type rule would potentially prevent projects requiring structural funds being approved in the last three years of the MFF given an average life of say 5 years. Again direct involvement may be required by the LIFE Unit, or may require the suspension of such rules under the precedence granted to Integrated Projects

Potential Challenge	Possible Solution
Multiple monitoring and evaluation requirements associated with the different funds could make the administration complex and costly	The LIFE monitoring, evaluation and reporting system could be extended in agreement with other instruments to include the completion and distribution of relevant monitoring and evaluation reports to national/local programme committees

Source: Interviews with beneficiaries from five LIFE projects and discussions with DG Environment officials

Consultation responses from a survey carried out by the Committee of the Regions (CoR)[86] with local and regional authorities found that the majority considered that Integrated Projects were both highly desirable and feasible. 85% of the respondents like the idea of 'Integrated Projects', contrary to only 10% who disagree with the concept; 5% of respondents did not express an opinion. About three quarters of the respondents consider Integrated Projects quite feasible, while 21% finds those projects very feasible; only 5% believe that such projects are not feasible.

The box below summarises the main findings of the consultation with respect to Integrated Projects

Box 7: Consultation views from local and regional authorities on Integrated Projects (IPs)

The main finding of the consultation, with local and regional authorities, in relation to Integrated Projects, is that they are both desirable and feasible. The main benefits and problems are summarised below.

The benefits foreseen from the use of Integrated Projects include:

- addressing a wide variety of problems, notably in the fields of 'freshwater management', 'nature and biodiversity' and 'resource use and waste' (except where a sole and specific focus on the environment is required);
- enhancing coordination in environmental issues especially when involving international cooperation;
- promoting coordination between sectoral policies and between different territorial areas;
- enabling the optimisation of resources and increased value for money; and
- creating opportunities for the implementation of large-scale actions, bringing together both a large number of experts/technicians and adequate funds.

Problems foreseen for the use of Integrated Projects include:

- the lack of necessary staff capacity to support Integrated Projects at the local level;
- concerns that such projects are too complex and would fail to achieve high quality standards;
- concerns over the increased coordination requirements between the different agencies governing IPs, calling for consensus at a high governance level;
- the need to simplify financial reporting procedures; and
- the difficulties faced by public bodies lacking resources to co-finance IPs.

Source: Committee of the Regions Consultation: LIFE Impact Assessment: Assessment of Territorial Impacts of the EU Life+ instrument (Table 1) and text

Survey replies received from 40 respondents from 12 MS

4. Critical mass evaluation

Given the resources allocated to the Environment sub-programme of the future LIFE, an analysis of 'what will it take' to produce a step change in the impact of the programme has been made. The number of Integrated Projects required relates to the relevant territorial 'units' for each environmental theme. A statistical relevance of 15-20% of the relevant territorial unit has been used to determine the number of projects required in a specific sector to have enough examples applicable to different administrative and regional characteristics

[86] Assessment of Territorial Impacts of the EU Life+ instrument, Committee of the Regions, 2011.

(including levels of capacity development) so that different experiences can be widely disseminated among Member States and regions.

Since Integrated Projects aim at implementing environmental action plans, only those sectors where EU legislation requires some planning or programming (i.e., programmed-base Directives) could be considered for Integrated Projects funding. This is the case for Prioritised Action Framework under the Habitats Directive, a River Basin Management Plan under the Water Framework Directive, waste minimisation plan under the Waste Framework Directive, air pollution abatement plan to meet the air quality requirements of the CAFÉ legislation and the Programme of measures under the Marine Strategy Directive. It can also derive from EU recommendations such as sustainable urban plan, integrated coastal zone management plans etc.). These sectors are also those that require a planned and large territorial scale action. This is the reason for selecting the sectors outlined below. Urban has been embedded into the Air sector and Integrated Coastal Zone Management into the Water Framework Directive (which covers transitional waters) and the Marine Strategy Directive (which covers Coastal waters).

Integrated Projects would gradually be introduced in the Climate Action sub-programme in the area of mitigation and adaptation, in order to allow time build up capacity needed for such projects.

Integrated Projects in Nature – The relevant unit is the NUTS 2 region, given than regions tend to be responsible for the management of Natura2000. This also has the merit of linking directly to possible regional funding. There are 271 NUTS 2 regions. Assuming the minimum level of action required, one Integrated Project for nature conservation, in say between 15-25% of the regions over a 7-year programme period would be needed. This means between 6 and 10 Nature Integrated Projects per year.[87]

Integrated Projects in Environment – The relevant unit depends on the environmental theme.

- Waste management – the appropriate unit is also probably the NUTS 2 region, given the nature of regional waste management plans. 15% Integrated Project activity over the programme would provide a minimum level of catalytic effect – say a minimum of 6-10 projects a year;
- Water management – the appropriate unit is the river basin district of which there are 110 river basin districts and 176 national branches. Given the important issues associated with transposition and implementation of the Water Framework Directive (WFD), and the interest in ensuring cross-compliance with the WFD as a condition of regional funding, then a greater share of 'units' should be covered – 15-25%. This would require a minimum of say 3-4 projects a year;
- Air quality management – activity in large cities to combat urban air pollution (e.g. particulates, low level ozone and nitrogen dioxide) would also benefit from the use of Integrated Projects. Building on the 2013 European 'Year of Air', 3 IP projects a year would allow action in 20 of the most polluted EU cities. This could be combined with other urban elements
- Marine environment – probably 1-2 Integrated project per sea basin (3-5 projects per year).

[87] 25% of 271, divided by 7.

The Environment strand would therefore require a minimum of 13-15 Integrated Projects a year, if the use of these projects was to really tackle the institutional weaknesses that underpin the lack of adequate policy implementation and effective policy integration in the entire *acquis*.

Given that these projects are larger in size (EU contribution €10 million per project), this would imply that traditional projects could not be financed. These traditional projects cannot be phased out since they address particular needs. Firstly, these projects address the needs of stakeholders that are not necessarily public authorities. In many cases, environmental projects are aimed at demonstrating ways to achieve a more effective implementation of the legislation by the addressee of environmental legislation, which could be a SME or another type of private operator. In addition, not all environmental activities require a planned and large territorial scale action. For example, some activities aiming at halting the loss of biodiversity, while being part of the EU Biodiversity strategy, require small scale interventions that can create projects 'blueprints' to be scaled up and continued through other funds. Finally, not all public authorities would be ready at the beginning of the programming period to submit an Integrated Project in some cases due to lack of capacity.

Based on the experience under LIFE+, between 8-10 traditional project per environmental sector would be required to achieve critical mass and create multipliers. If environmental sectors are grouped in 6 sectors (biodiversity, water, natural resources and waste, environment health, which would include noise and chemicals, emissions, which would include air and IPPC, and green economy) around 56 to 60 traditional projects per year are required in addition to information projects.

Therefore, Integrated Projects would concentrate on the sectors (1) where implementation and integration problems are more significant, (2) are more linked to achieving Europe 2020 resources efficiency targets; and (3) have more possibility to link to, and therefore mobilise, other EU funds.

(1) Sectors where implementation or integration problems are more significant

As to implementation problems, a good indicator is infringement cases. Nature conservation, waste and water legislation accounts for 59% of the infringement case load for the environment sector, with the sectors "impact assessment" and air contributing the bulk of the remainder (27%). Other sectors, such as Marine, are still in a development phase.[88] The last few years have seen a marked increase in cases in the air sector.

Implementation problems often reflect integration problems. For example, the high percentage of cases concerning nature protection legislation can be explained by the fact that many infrastructure developments proposed in Member States that lead to complaints are those affecting in some way Natura 2000 sites or EU protected species. As shown above when analysing consistency with other EU funds and the Zero option, Nature conservation also has problem of absorption capacity in other EU programmes, partially because authorities do not always perceive the socio-economic benefit of nature conservation.

The overall percentage share of waste and water cases reflects the fact that they have entered crucial implementation phases. The waste sector also has problems of absorption capacity in other EU programmes. As in the case of Nature, the capacity to develop and prepare investments, and to channel large amounts of EU funding, is still lacking in some Member States. There is a risk that some funds from the 2007-2013 programming period will not be spent in time.

[88] http://ec.europa.eu/environment/legal/law/statistics.htm.

Nature, water and waste are entering crucial implementation phases. In the near future, the Habitats Directive will move from designation to active management and restoration; similarly, under the Water Framework Directive (WFD), the river basin management plans will need implementation to achieve the objective of good environmental status. Air legislation will be revised in 2013, which implies that in the period 2014-2020 will also enter its crucial implementation phase. The Marine legislation will enter as well the crucial implementation phase, since by 2020 Member States should have achieved or maintain a good environmental status.

Management and implementation costs for Natura2000, water and waste are very high i.e., €5.8 billion per year for Natura2000, €30 billion per year for water, €7-12 billion per year for municipal waste compared to Air which requires about €1 billion per year (see Annex 5).

(2) Sectors that are more linked to achieving Europe 2020 resource efficiency targets and direct environmental benefits

The Resource efficiency roadmap indentifies biodiversity, water, waste, air and soil as the main environmental sectors that are essential to shift towards a more resource efficient economy. Of these, biodiversity, water, waste and air are suitable for Integrated Projects.

As to direct environmental benefits, as shown in section 2.2.2(a) and Annex 7, Nature, water and waste are the sectors with more direct environmental benefits. In addition, air provides many socio-economic benefits linked to health. Not enough information about marine projects exists as to determine the environmental benefits generated.

(3) Sectors that have more possibility to link to, and therefore mobilise, other EU funds.

Mainstreaming of nature, water and waste is much consolidated and has been improved under the MFF Communication proposals thereby providing more opportunities for providing examples for integrated funding to solve the significant absorption capacity problems identified. Air has also improved mainstreaming due to its health impacts, and many links with climate change (especially in urban areas). The new European Maritime and Fisheries policy has also improved the integration of Nature Directives and the Marine Strategy Framework Directive.

Additional criteria:

(4) The maturity of the sector (i.e., the development of plans and programmes is required by the legislation and they are already in place), including the success of environmental sectors in LIFE.

Nature, water and waste are probably the most mature environmental sectors in terms of planning and programming. Management plans for Natura2000, River Basin Management Plans and Waste management plans have already been developed. The Habitats Directive will require a programme approach applied to the network (and not only to a site) through Prioritised Action Frameworks. The Water Framework Directive's River Basin Management Plans already foresees an integrated approach, and there is an increasing call for overreaching waste strategies.

As to the consolidation of the sectors in LIFE, Nature, water and waste are the traditionally successful sectors: 50% of resources are allocated to Nature, and water and waste applications amount to almost 70% of all LIFE Environment applications, with an average of 50-60 applications for water and 80-100 for waste compare with 12 applications for air. Marine applications tend to be done in the context of the Habitats Directive.

(5) The stakeholders' opinion could also be used to discriminate between one or another sector. As seen in Box 9 above, nature, water and waste are the sectors signalled by stakeholders. Air is also mentioned but to a lesser extent

5. Expected progression over the programming period for the sub-programme for Environment

A progressive decrease in the number of traditional Action grant LIFE projects financed (and a parallel decrease in the budget dedicated to such projects) is expected during the Programme implementation**.** In parallel, an increase in the number of Integrated Projects is foreseen (see projections below). For the nature component, the start will be easier since the current LIFE+ Regulation is financing the elaboration of Prioritised Action Framework that will serve as a basis for the Integrated Projects. For water and waste a slower start is expected i.e., fewer projects in the beginning of the programming period.

Figure 5.1. Integrated Projects covered (water, waste, nature)

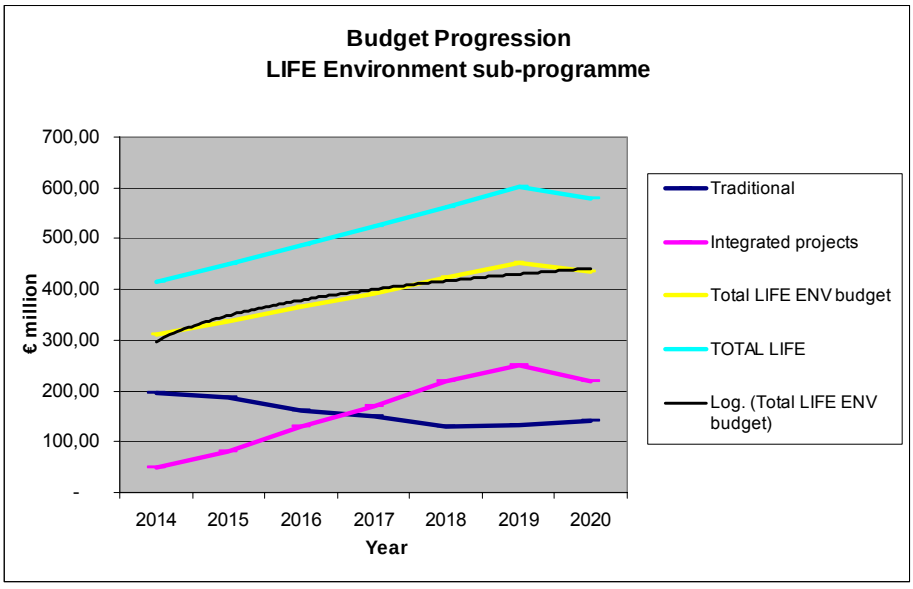
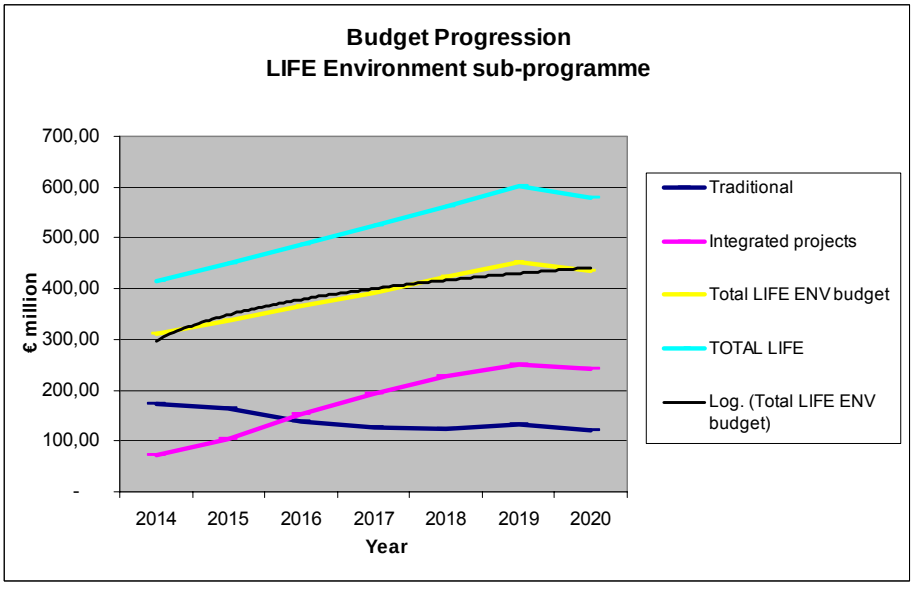


Figure 5.2 Integrated Projects covered (water, waste, nature, air; targets reduced)



The table below summarises foreseen evolution of the number and budget for Integrated Projects over the programming period, in order to reach the critical mass threshold.

Table 5.1 Possible evolution scenarios for IP in the Programming period (water, waste, Nature)- current prices

Year	NAT-IP	Budget (€ million)	ENV IP	Budget (€million)
2014	3	30	2	20
2015	4	40	4	40
2016	6	60	7	70
2017	8	80	9	90
2018	10	100	12	120
2019	10	100	15	150
2020	10	100	12	120
	51	**510**	**61**	**610**
(Benchmark)	49		56-63	
Critical mass	7/year		8-9/year	
budget				

Table 5.2. Possible evolution scenarios for IP in the Programming period (water, waste, nature and air)- current prices)

Year	NAT-IP	Budget (€ million)	ENV IP	Budget (€million)
2014	3	30	5	42.5
2015	4	40	7	62.5
2016	6	60	10	92.5
2017	8	80	12	112.5
2018	10	100	13	127.5
2019	10	100	15	150.0
2020	10	100	15	142.5
	51	**510**	**77**	**730**
(Benchmark)	49		83-98	
Critical mass	7/year		12-14/year	
budget				

Figure 1 Programmatic approach and integrated projects in practice: Natura 2000 example

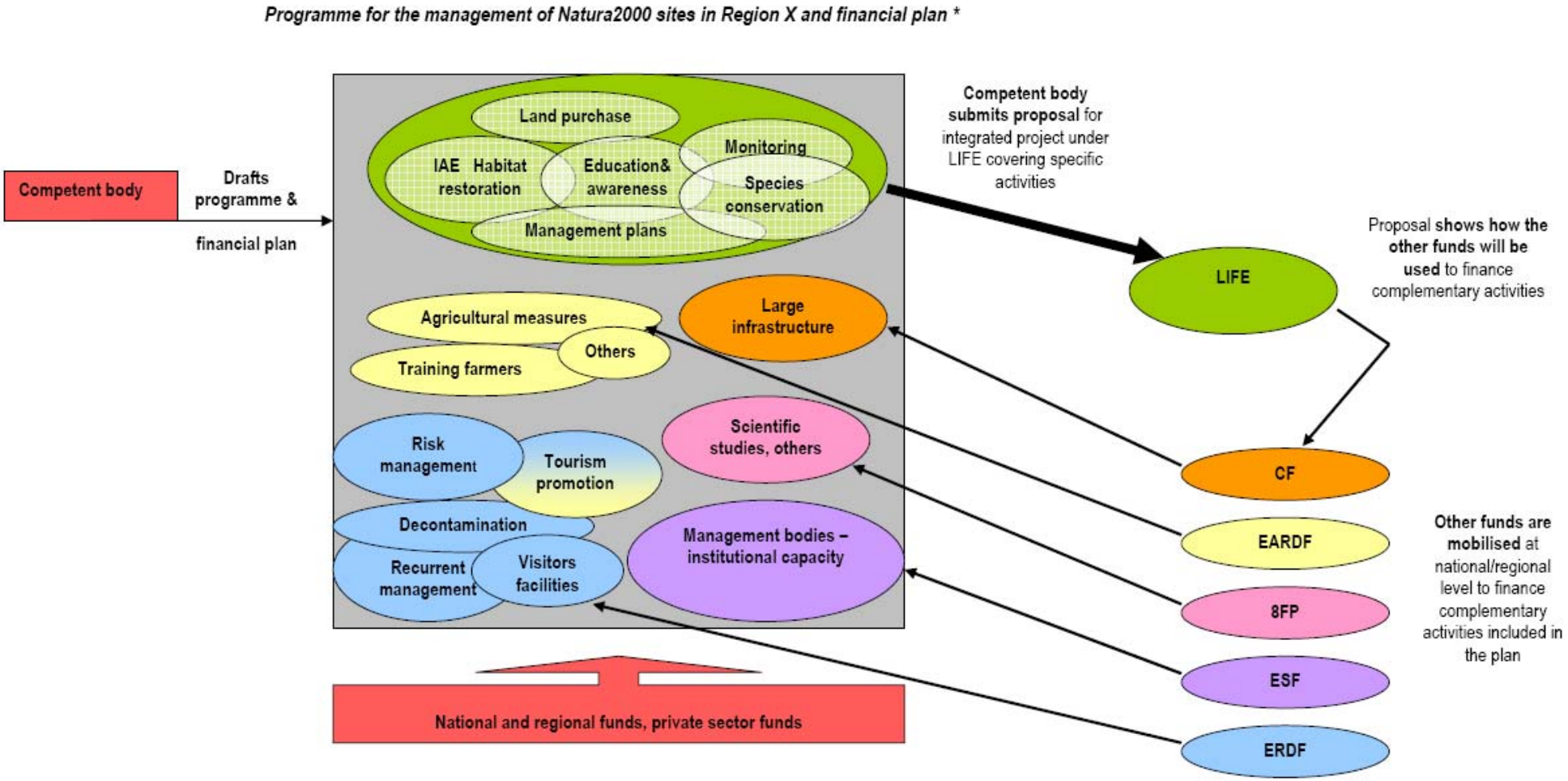
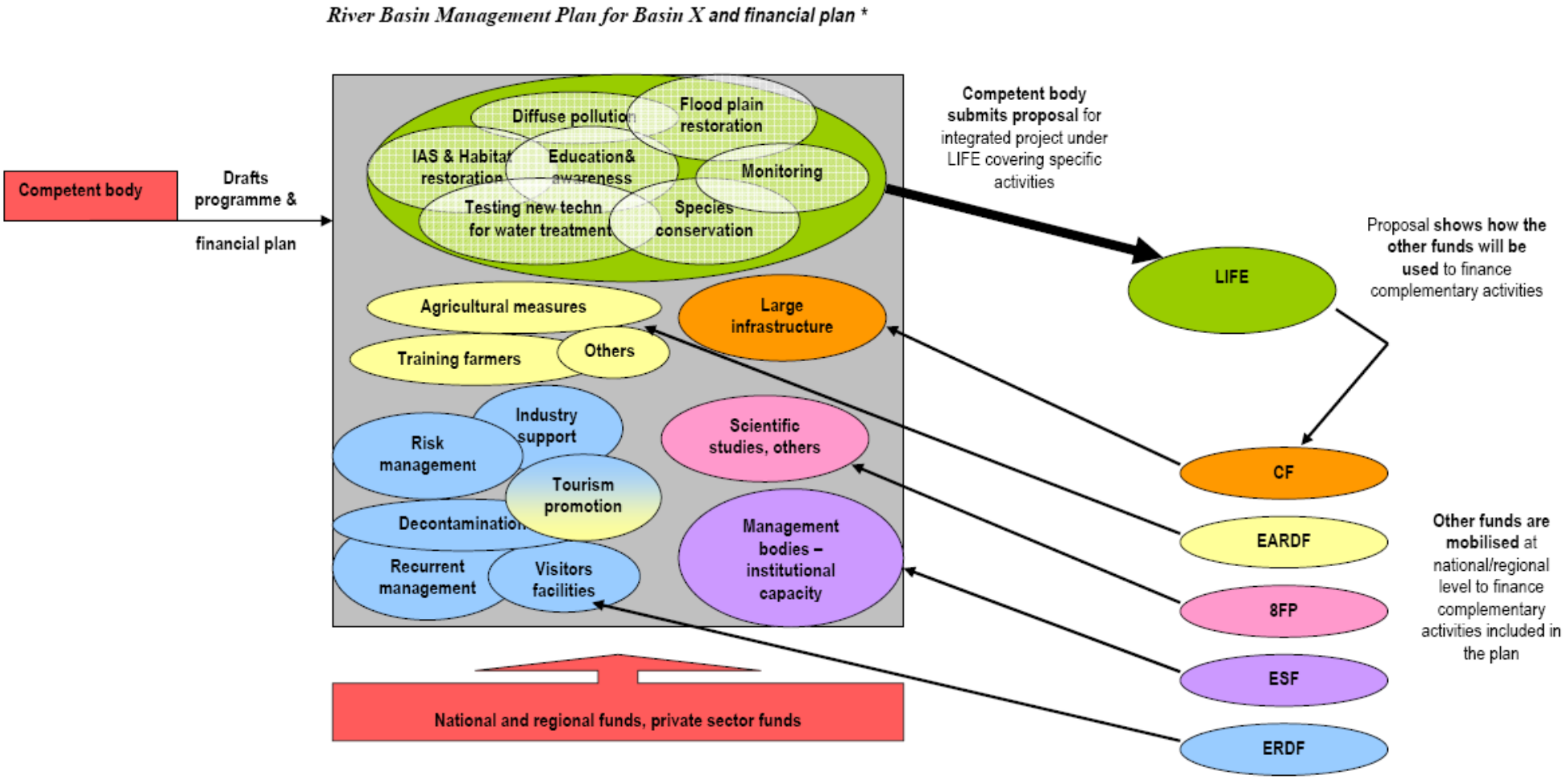


Figure 2: Programmatic approach and integrated projects in practice: River Basin Management Plans (Water Framework Directive)



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