



# Handbook on SEA for Cohesion Policy 2007-2013

February 2006

Greening Regional Development Programmes Network

 PROJECT PART-FINANCED  
BY THE EUROPEAN UNION

North East South West  
 INTERREG IIC

  
GRDP  
Greening Regional  
Development Programmes

# Table of Contents

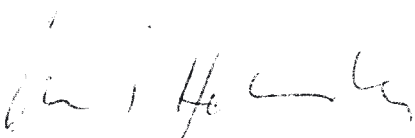
Foreword by the GRDP Project	2
Acknowledgements	3
<b>1 INTRODUCTION</b>	<b>4</b>
1.1 Objectives and purpose of this Handbook	4
1.2 Nature of this Handbook	4
1.3 Relationship to previous guidance and experience	5
1.4 User guide	5
1.5 Key definitions	6
<b>2 SEA AND THE COHESION POLICY PROGRAMMING PROCESS</b>	<b>7</b>
2.1 Which Cohesion Policy programming documents are subject to SEA Directive?	7
2.2 Logical linkages between the programming process, SEA, ex-ante evaluations, and partnership consultations	7
<b>3 GENERAL PRINCIPLES FOR MANAGEMENT OF THE SEA DURING PROGRAMMING FOR COHESION POLICY FUNDING</b>	<b>9</b>
3.1 Treatment of alternatives within SEA	9
3.2 Internal management of the SEA process	9
3.3 Consultations with relevant environmental authorities and concerned public	10
<b>4 RECOMMENDED STEPS IN THE SEA PROCESS</b>	<b>12</b>
4.1 Determination of the environmental issues, objectives, and indicators that should be considered within SEA	12
4.2 Evaluation of the current situation and trends and their likely evolution if the programming document is not implemented	16
4.3 Assessment of development objectives and priorities	18
4.4 Assessment of proposed measures and eligible activities	20
4.5 Assessment of the cumulative effects of the entire programming document	25
4.6 Evaluation of selection criteria for activities or projects to be implemented through the programming document	26
4.7 Evaluation of the monitoring system for the programming document	30
4.8 Compilation of the Environmental Report and its submission for consultations with environmental authorities and the public	31
4.9. Decision-making and information on the decision	33
<b>5 CONCLUDING COMMENTS ON THE MOST COMMON MYTHS ABOUT SEA</b>	<b>34</b>
5.1 Concern that SEA requires detailed analyses which may not be appropriate for a given programming document	34
5.2 Concern that SEA does not enable assessment of economic and social impacts and does not facilitate consideration of sustainability issues	34
5.3 Concern that SEA poses significant additional costs and prolongs the planning process	34
<b>6 KEY DOCUMENTS, REFERENCES, GUIDANCE</b>	<b>36</b>
6.1 Key documents for Cohesion Policy Programming and SEA	36
6.2 SEA References and Guidance	36
Annex I Examples of alternatives at the level of objectives/priorities and at the level of measures and eligible activities	37
Annex II Example of environmental objectives and indicators used in SEA practice	39
Annex III Contents of the Environmental Report as outlined in Annex I of the SEA Directive	41
Annex IV SEA Review Checklist	42

# Foreword by the European Commission

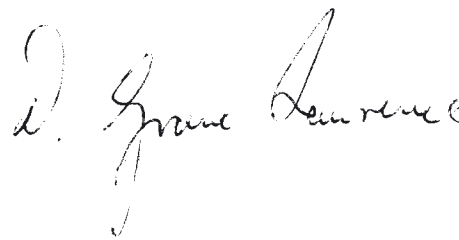
The Strategic Environmental Assessment (SEA) Directive came into force in 21 July 2004. There was an exemption for the application of the SEA Directive for Structural Funds plans and programmes in the 2000-2006 programming period. Instead, these plans were subject to an ex-ante environmental evaluation.

The new round of the Structural and Cohesion Fund Operational Programmes will run from 2007-13. Many of these Operational Programmes may require assessment under the SEA Directive, particularly if they include projects covered by the Environmental Impact Assessment (EIA) Directive. Moreover, Member States may find it useful to apply SEAs to the National Strategic Reference Frameworks.

Therefore, we welcome this Handbook, and encourage regional environmental authorities to use it when preparing their future Operational Programmes.



Elisabeth Helander  
Director, DG REGIO



D. Grant Lawrence  
Director, DG ENVIRONMENT

# Foreword by the GRDP Project

The GRDP project, or Greening Regional Development Programmes, is a European-wide network funded by the EU Interreg III C programme. The aims of the project are to:

- share best practice and experience, and improve knowledge of environmental integration within regional development programmes, such as the Cohesion Policy programmes;
- spread best practices in partner regions and beyond;
- develop and disseminate tools and guidance to help organizations involved in development programmes to consider the environment and integrate it in their work;
- develop a sustainable network of institutions throughout the EU devoted to integration of environment into regional development programmes over the long term.

The GRDP partnership is comprised of 17 “legal” partners and 18 “associate” partners. The partners represent a variety of public institutions, including national, regional and local authorities, national and regional environmental authorities, and research organisations. The partnership overall covers eight EU Member States.

As part of its work, the GRDP partnership has reviewed and analysed good practices, practical solutions, and challenges in integrating the environment into regional development. This work has shown that one of the best opportunities for integration of environment into programmes and funding plans is sound, rigorous and participatory environmental

assessment of proposed plans and programmes. Based on this, the GRDP partnership has declared that “Member States should be encouraged to share and adopt good practices for Strategic Environmental Assessments of National Strategic Reference Frameworks, Operational Programmes, and other regional development programmes. It is crucial that environmental objectives be considered at the earliest possible stage of programme development.”<sup>1</sup>

To this end, in support of the development of SEA expertise in individual GRDP countries, and in answer to requests from the partners for guidance on the environmental assessment of Cohesion Policy plans and programmes, the GRDP partnership has pooled its resources and prepared this Handbook.

The Handbook is meant to provide information, resources and procedural guidance to those who require it in order to carry out Strategic Environmental Assessment (SEA) for Cohesion Policy programming documents. The Handbook also illustrates the benefits that sound environmental assessment can provide to Cohesion Policy plans and programmes, and by extension to regional development overall. Its main message is that environmental assessment, specifically SEA, is a key tool for “greening” plans and programmes, and for improving their overall logic, consistency and chances for success within the overall Cohesion Policy objectives.

<sup>1</sup>GRDP Partners’ Declaration, available at <http://www.grdp.org>

# Acknowledgements

This Handbook was developed by the GRDP partnership through a collaborative process, drawing on the experience and expertise of the entire partnership. The concept and framework for the Handbook were designed by a team of experts from the Environment Agency for England and Wales, the Spanish Environmental Authorities Network in co-operation with Terra, and the Regional Environmental Center for Central and Eastern Europe (REC).

The primary authors of the text are Jiri Dusik, Ausra Jurkeviciute and Jennifer McGuinn from the REC's Environmental Assessment Team.

The concept and design for the Handbook were discussed at an informal meeting of some GRDP partners in Madrid, Spain in July 2005. The first draft of the Handbook was reviewed and discussed by stakeholders and potential users on 15 September 2005 at a workshop in Patras, Greece, and again at the GRDP Inter-Regional Seminar in Debrecen, Hungary on 29-30 September 2005.

The Handbook was inspired by Jose Alvarez Diaz, formerly of the Spanish Network of Environmental Authorities and other Spanish GRDP partners. We would also like to thank David Aspinwall, George Kremlis and Jonathan Parker of DG Environment for providing support to this initiative.

A large number of institutions, individuals, and GRDP partners provided invaluable advice, comments, feedback and suggestions for the Handbook during the drafting process. In particular, we would like to acknowledge the following persons for their comments and suggestions: Gottfried Lamers and Ursula Platzer-Schneider, Federal Ministry of Agriculture, Forestry, Environment and Water Management, Austria; Franz Prettenenthaler, Joanneum Research, Austria; Belin Mollov and Yavor Stoyanov, Ministry of Regional Development and Public Works, Bulgaria; Plamen Peev, Noblex Group, Bulgaria; Jana Svobodova, the Czech Republic; Elio Manti, Task Force, National Environmental Authority, Italy; Fiamma Bernardi, Piemonte Region, Environmental Authority, Italy; Katuscia Grassi and Giacomini Patrizia, Environment and Soil Protection Department, Marche Environmental Authority, Italy; Marie Briguglio, Krista Falzon and Sergei Golovkin, Malta Environment and Planning Authority, Malta; Robert Droop, Ministry of the Environment, the Netherlands; Lola Manteiga and Carlos Sunyer, Terra, Spain; Donna Sibley and Lucia Susani, Environment Agency for England and Wales, United Kingdom; Brian Shipman, Cornwall County Council, United Kingdom; Riki Therivel, Levett-Therivel Sustainability Consultants, United Kingdom; and Sarah Sing, Land Use Consultants, United Kingdom.

Finally, we wish to express our gratitude to the Interreg IIIIC programme for financing this initiative within the GRDP project.

## 1

# Introduction

## 1.1 Objectives and purpose of this Handbook

EU Cohesion Policy provides around one-third of the European Community budget to increase economic and social cohesion throughout the EU. The primary objective for the upcoming funding period will be to promote growth and jobs, in accordance with the Lisbon Strategy and as defined in the Community Strategic Guidelines 2007-2013. A key feature of Cohesion Policy is its reliance on an effective programming system, which determines how the funds will be spent for a period of seven years. In all EU Member States – some more than others – the use of Cohesion Policy funds will affect national or regional development directions, so that the programming process is an important development planning mechanism. It is therefore critical to integrate environmental protection and innovation within these plans and programmes from the start, both to take advantage of the benefits which environmentally-driven growth can bring to a society and to stimulate further sustainable development in the EU.

For the 2007-2013 period, the programming system will be simplified to include a national framework document at the political level and national and regional programmes at the operational level. For the first time in Cohesion Policy history, the requirements of Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (hereinafter SEA Directive) will apply to plans and programmes prepared for Cohesion Policy funding.

The overall objective of the Handbook is to promote and enable the use of Strategic Environmental Assessment (SEA) for the integration of environmental concerns and considerations into plans and programmes prepared for Cohesion Policy 2007-2013. Within this objective, the Handbook aims to:

- recommend a practical procedure and methodology for undertaking SEA within the programming process for Cohesion Policy;

- clarify the purpose and process of SEA and explain its role within the Cohesion Policy programming process;
- enable authorities to understand SEA as a tool to strengthen the programming process and not as a burden or a complication;
- promote the use of public consultations to strengthen the evaluation and the programming process overall.

The Handbook is meant for use by different stakeholders in the programming process in the EU Member States: planning or development authorities in charge of the Cohesion Policy programming process; competent environmental authorities; and the SEA expert teams which carry out the assessments of plans and programmes.

## 1.2 Nature of this Handbook

This Handbook is purely advisory and does not serve as interpretative guidance for the transposition or implementation of the SEA Directive in EU Member States. The focus of the Handbook is strictly on the preparation of the programming documents required for Cohesion Policy funding and is not meant to serve as guidance for SEA of other types of plans and programmes.

The recommended approach provided in the Handbook is fully compliant with the requirements of the SEA Directive. The authors have attempted to make the approach general and flexible enough to be relevant across the 25 EU Member States. Users of the Handbook will need to amend the actual process to meet the requirements of their relevant national legislation and the specifics of the programming process in their countries.

Because the approach is a recommended one, it proposes some actions which go beyond the requirements of or are not specifically mentioned in the SEA Directive. In these cases the Handbook will note that the approach extends beyond the strict requirements of the SEA Directive and will provide the rationale behind the proposed steps.



### 1.3 Relationship to previous guidance and experience

The Handbook builds upon the guidance outlined in the *Handbook on Environmental Assessment of Regional Development Plans and EU Structural Funds Programmes* (European Commission DG Environment, 1998).

The Handbook also makes use of more recent practical experience in applying SEA to Cohesion Policy programmes from around the EU. This includes:

- The Spanish methodology contained in: *Environmental Assessment of Structural Programming 2007-2013: Guide for Planning Managers*, (Ministry of Environment of Spain, Draft November 2004)
- Experience with SEA of Structural Funds programming documents for the period 2004-2006 in the new EU Member States (e.g. SEA of National Development Plans in the Czech Republic, Poland, Slovenia, Estonia in

2003 and assessment of selected operational programmes in Hungary, Bulgaria and the Czech Republic in 2003)

- Lessons learned from the UNEP pilot project on Integrated Assessment and Planning for Sustainable Development, undertaken for the National Development Plan of the Czech Republic, 2005
- The UK guidance manual: *A Practical Guide to the Strategic Environmental Assessment Directive*, Office of the Deputy Prime Minister, September 2005
- Recent work on application of SEA and sustainability assessments in local development planning in the UK

### 1.4 User guide

The Handbook consists of six chapters and four annexes. Table 1.1 provides an overview of the Handbook and includes a few descriptive comments on each section.

Table 1.1. Organisation of the Handbook

	Title	Comments
Chapter 1	Introduction	Provides an introduction to the Handbook
Chapter 2	SEA and the Cohesion Policy Programming Process	Provides an overview of the Cohesion Policy programming process and its connection with the SEA Directive
Chapter 3	General Principles for Management of the SEA during the Programming for Cohesion Policy Funding	Describes the key responsibilities of the public authorities in charge of the programming process and gives an overview of the consultation and communication mechanisms
Chapter 4	Recommended Steps in the SEA Process	Outlines the recommended steps for SEA during programming of EU Cohesion Policy. The aim, rationale, proposed approach, recommendations and examples of inputs and outputs are provided for each step
Chapter 5	Concluding comments on the most common myths about SEA	Comments on common concerns and myths related to SEA
Chapter 6	Key Documents, References, Guidance	Provides internet links to key documents for SEA and Cohesion Policy and other guidance documents which may be useful
Annex I	Examples of alternatives at the level of objectives/priorities and at the level of measures and eligible activities	Adapted from guidance prepared in the UK, this provides examples of how to distinguish alternatives
Annex II	Example of environmental objectives and indicators used in SEA practice	Suggests some objectives and indicators that are recommended for use in SEA practice in the UK
Annex III	Contents of the Environmental Report	Taken directly from Annex I of the SEA Directive, provides overview of what the SEA Environmental Report shall contain
Annex IV	SEA Review Checklist	A checklist to ensure the SEA meets the requirements of the Directive and is effective

## 1

## 1.5 Key definitions

The following section defines important acronyms and terms used in the Handbook.

Term or acronym	Definition
CF	Cohesion Fund, a structural instrument that helps Member States to reduce economic and social disparities and to stabilise their economies since 1994. It finances large scale infrastructure projects in the environment and transport sectors.
EC	European Commission.
Environmental Report	The part of the programming document which contains the information produced within the SEA process. The general content of the Environmental Report is specified in Annex I of the SEA Directive and it should include information that may reasonably be required, taking into account: <ul style="list-style-type: none"> <li>■ current knowledge and methods of assessment;</li> <li>■ the contents and level of detail in the plan or programme;</li> <li>■ its stage in the decision-making process;</li> <li>■ the extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment.</li> </ul>
ERDF	European Regional Development Fund, one of the Structural Funds. The principal objective is to promote economic and social cohesion within the European Union through the reduction of imbalances between regions or social groups.
ESF	European Social Fund, one of the Structural Funds, aimed at realising the strategic objectives of EU employment policy.
GRDP	INTERREG IIIC project "Greening Regional Development Programmes".
Programming document	National Development Plan, National Strategic Reference Framework and Operational Programmes.
The public	One or more natural or legal persons and, in accordance with national legislation or practice, their associations, organisations or groups <sup>2</sup> .
SEA	Strategic environmental assessment.
SEA Directive	Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.
Relevant environmental authorities	Authorities which, because of their specific environmental responsibilities, are likely to be concerned by the environmental effects of implementing Cohesion Policy programming documents. These authorities may also include authorities in charge of matters related to environmental health.

<sup>2</sup>This definition is based on Article 2, item (d) of the SEA Directive



# SEA and the Cohesion Policy Programming Process

## 2.1 Which Cohesion Policy programming documents are subject to the SEA Directive?

The programming system for Cohesion Policy 2007-2013 is set forth in the proposed Council Regulation laying down general provisions on the ERDF, the ESF, and the CF<sup>3</sup>. This new programming system has been simplified from the system used for previous funding periods; only two types of programming documents are required for submission to the European Commission (EC). In contrast to the current period, programming for the Cohesion Fund will also follow this programming system where transport and environmental infrastructure projects are considered.

The programming system consists of two planning stages:

- National Strategic Reference Framework (NSRF): this document contains the development strategy for the Member State and constitutes the framework for preparing the thematic and regional programmes. Unlike the Community Support Frameworks negotiated with the Commission for the 2000-2006 period, this document does not have the role of a management instrument.
- Operational Programmes (OPs): these programmes will specify the activities of the Cohesion Policy funds at priority level only, highlighting the most important operations.

The SEA Directive will be applicable to these programming documents in the same way as to any other plan or programme. Member States are responsible for determining whether their NSRFs (and related optional programming documents, such as National Development Plans) and OPs are subject to SEA. The criteria for determining whether an individual programming document requires an SEA are defined in Articles 2 and 3 of the SEA Directive.

Specific approaches for the elaboration of Cohesion Policy programming documents will differ across the Member States. It is useful to note that the SEA Directive<sup>4</sup> enables Member States to carry out environmental assessments at different levels of detail, depending upon the contents of

sequential programming documents (NSRFs, OPs) and their stage in the decision-making process.

This Handbook recommends that Member States undertake SEA at the appropriate stage(s) within the programming process which will enable them to assess the environmental effects of development objectives and priorities for Cohesion Policy interventions, as well as proposed measures and eligible actions to be funded.

The Handbook offers a generic SEA approach that does not complicate the programming process and will enable SEA that is compliant with the Directive for both NSRFs and OPs.

## 2.2 Logical linkages between the programming process, SEA, ex-ante evaluations, and partnership consultations

The term “strategic environmental assessment” (SEA) used in this Handbook means the preparation of an environmental report; the carrying out of consultations; the taking into account of the environmental report and the results of the consultations in decision-making; the provision of information on the decision, as stated in the SEA Directive<sup>5</sup>. In addition, the term SEA as used in this Handbook refers to monitoring the cumulative environmental effects of the programming document during its implementation, in accordance with the basic requirements defined in the SEA Directive.

The Cohesion Policy programming process analyses and proposes development interventions. The SEA process examines individual outputs of the planning process and it may propose any necessary amendments to maximize the environmental benefits of development proposals and to minimize their negative environmental impacts and risks. As such, the programming process and the SEA process follow a very similar logic, and this is the basis for the approach recommended in this Handbook.

In essence, both processes should:

- determine the key issues that are to be considered during elaboration of the programming document;

# 2

- analyse the context of the programming document and likely future trends if the programming document is not implemented;
- identify an optimal set of specific development objectives and priorities;
- identify optimal measures which will best enable achievement of the objectives;
- propose an optimal monitoring and management system;
- provide for early and effective consultations with the relevant authorities and the concerned public, including citizens and organized stakeholder groups<sup>6</sup>;
- inform decision-makers about the programming document and its likely impacts;
- notify relevant authorities and the public about the final programming document and the reasons for its adoption.

Table 2.1 outlines the typical steps of the programming process and the SEA process, and illustrates their interdependency. The table shows that the two processes can be carried out in parallel. The lead process is the programming process, and the SEA fits into the logic and steps of the programming process. Given the similarities in

the logic of the programming process and of SEA, both processes can be seen as mutually reinforcing tools within one robust planning system for more sustainable development.

Early and iterative application of SEA, as outlined in Table 2.1, improves and strengthens the quality of the overall programming process and the resulting documents. The proposed SEA steps should be carried out in such a way that they do not set back the programming process, but provide added value through additional assessment of the process.

Both processes can also deploy a single consultation system for relevant authorities and the concerned public. Experience has demonstrated that joint consultations on a programming document and an SEA or other assessment process are beneficial to all concerned parties, since those who are consulted may be easily confused by parallel consultations for the same programming document.

Table 2.1. Logical links between steps of the programming process and SEA

Typical programming steps	Logically corresponding SEA steps
Determine the overall objectives of the programming document and the main issues it should address	Determine environmental issues, objectives and indicators that should be considered during the SEA process
Possible consultations with other relevant competent authorities	Compulsory consultations with environmental authorities Consultations with concerned public recommended
Analysis of the development context	Evaluate the current situation and trends and their likely evolution if the programming document is not implemented
Propose development objectives and priorities	Assess proposed development objectives and priorities
Propose measures and eligible actions	Assess proposed measures and eligible actions Assess cumulative effects of the entire programming document
Propose evaluation criteria and monitoring system	Evaluate proposed evaluation criteria system Evaluate proposed monitoring system
Compile the proposed programming document and hold consultations with authorities and stakeholders	Compile the Environmental Report and hold consultations with environmental authorities and the public
Formal decision on the programming document and inform public about the decision	Take into account Environmental Report and results of consultation in decision-making  Inform environmental authorities and the public on how the outcomes of the SEA have been taken into account

<sup>6</sup>Proposed Council Regulation laying down general provisions on the European Regional Development Fund, the European Social Fund, and the Cohesion Fund. For a web link to this and other Cohesion Policy legislative proposals, see Chapter 6.

<sup>4</sup>SEA Directive, Article 4, paragraph 3 and Article 5, paragraph 2

<sup>5</sup>SEA Directive, Article 2, point b

<sup>6</sup>Some Member States may not require public consultations within the Cohesion Policy programming process; in such cases the consultations required under the SEA Directive could enable further public participation in the programming process.

# General principles for management of the SEA during programming for cohesion policy funding

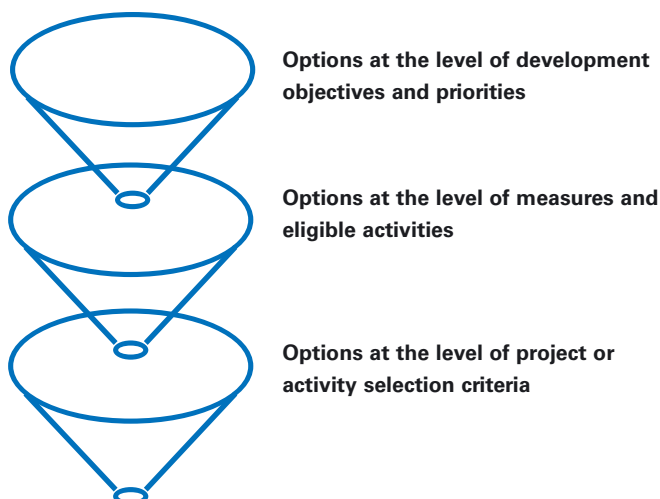
## 3.1 Treatment of alternatives within SEA

The SEA Directive requires description and evaluation of reasonable alternatives<sup>7</sup> and an explanation of the reasons for the final choice “in light of the other reasonable alternatives dealt with.”<sup>8</sup>

The Cohesion Policy programming process consists of a sequence of plans and programmes. This Handbook treats the assessment of alternatives as a sequential process, which examines options at several levels:

- proposed development objectives and priorities (i.e. options for meeting development demands);
- proposed measures and eligible activities (i.e. technological means, location and timing/sequencing); and
- selection criteria for proposed activities or projects, possibly including Terms of Reference (ToRs) for subsequent environmental assessments.

Scheme 3.1 below illustrates the hierarchy of these alternative options. Annex I to this Handbook gives examples of proposals that SEA may provide when assessing alternative options.



Scheme 3.1: Hierarchy of alternative options and considerations in the programming process

## 3.2 Internal management of the SEA process

It is assumed that all the projects funded will meet all the relevant international and domestic legal obligations, including planning requirements, the Habitats Directive, and others. The SEA Directive stipulates<sup>9</sup> that the SEA has to be carried out during the preparation of the programming document and must be completed before its adoption. SEA is therefore an integral part of the programming process. For reasons of transparency, the outcomes of the SEA are reported in a consolidated Environmental Report.<sup>10</sup> The report may be part of the draft programming document; in any case it must be clearly distinguishable.

SEA should be carried out in close collaboration with the planning team and may proceed in a very similar (if not the same) manner as the overall ex-ante evaluation of the programming document. It should be an interactive process producing judgements and recommendations by SEA experts. The SEA experts should maintain close contact with programming teams during the assessment, and consult with environmental authorities when the scope of the SEA is determined.

Box 3.1 presents examples of possible arrangements for effective participation of the SEA teams in development planning in selected EU Member States.

### Box 3.1. Position of experts undertaking SEA within the programming process

Pilot SEAs were carried out during elaboration of the programming documents for EU Structural Funds in 2004-2006 in the Czech Republic, Estonia, Hungary and Poland. SEA experts were able to:

- access all draft documents produced within the programming process;
- hold regular meetings with the programming teams to seek clarifying information, and discuss proposed changes to the programming documents on the basis of SEA analyses;

*continued overleaf*

## 3

- participate in the meetings of programming or monitoring committees as observers, with the right to request information and raise comments;
- hold operative consultations with relevant environmental authorities;
- request meetings with the authorities in charge of the programming process as-needed.

In the NUTS 2 South West region in the United Kingdom, the programming authority for the Regional Spatial Strategy set up a steering group consisting of the programming team, the SEA experts, the statutory environmental authorities, and key stakeholders from the environmental, economic and social sectors. The group was involved in all stages of the SEA process and ensured that the SEA was integrated with the Sustainability Appraisal, and that the programming authority understood the implications of both processes (and vice versa).

Of course, public authorities in charge of the programming process should have the final responsibility for the contents of the final programming document. These authorities need, however, to take the SEA Environmental Report and corresponding consultations with authorities and the public into account.<sup>11</sup> They also have to explicitly inform the consulted environmental authorities and the public on how the outcomes of the SEA were taken into account in the decision-making process.<sup>12</sup>

### 3.3 Consultations with relevant environmental authorities and concerned public

#### Consultations with environmental authorities

The SEA Directive requires the identification of authorities to be consulted within the SEA. The authorities are those which, by reason of their specific environmental responsibilities, are likely to be concerned by the environmental effects of implementing the programming document<sup>13</sup> (hereinafter relevant environmental authorities.) This Handbook also recommends that relevant environmental authorities also include authorities with health responsibilities, which are likely to be concerned by the health effects linked to possible environmental effects of implementing the programming document.<sup>14</sup> This is in line with the requirements of the UNECE SEA Protocol<sup>15</sup> signed by all EU Member States (including the 10 now new members) and the European Community in 2003.

The SEA Directive requires two mandatory consultations with relevant environmental authorities. The first occurs during determination of the scope of the SEA and the second is during the review of the proposed draft programming document and the accompanying Environmental Report.

Consultations during the SEA scoping are of specific importance, since they should clarify several important issues, as outlined in Box 3.2 below. It is evident that many of these questions may not be answered at the beginning of the SEA process, since information about specific features of the programming document will be gradually generated as the programming process unfolds. In this regard, it is important to recognise that the SEA Directive does not treat SEA scoping as a distinct procedural step – scoping can be carried out through iterative consultations with relevant environmental authorities during several subsequent stages of the programming process.

*Box 3.2. Usual issues to be discussed when determining the scope and the level of detail of the SEA assessment (SEA scoping)*

- a Which study areas have to be covered?
- b Which environmental issues - including relevant environmental objectives - have to be examined within SEA?
- c Which periods of time have to be covered?
- d Which assessment depth is required?
- e Which data and information are needed (and available)?
- f Which methods come into consideration?
- g Which alternatives and options should be considered?
- h Which entities and experts should be involved in review of the Environmental Report?

In order to ensure that such consultations are carried out effectively and do not overburden programming teams, the authorities in charge of the programming process may request the experts that carry out the SEA to carry out the scoping consultation on their behalf. In this case, the SEA experts may annex outcomes of various scoping consultations to the Environmental Report. This type of arrangement ensures the transparency of an iterative scoping.

The final consultation of the draft programming document and accompanying Environmental Report by relevant environmental authorities can take place with a single review process. This will help save time for everyone involved.

Besides these consultations, this Handbook recommends some additional consultations with relevant environmental authorities and, where appropriate, the concerned public. These recommendations are purely advisory and are in line with the principles of good SEA practices. They have been included to emphasize the possible benefits of such interactive consultations. It must also be pointed out that not all of the consultations need to be carried out in a very formal and time-consuming manner. When appropriate, many of the recommended additional SEA consultations can be quick, casual and informal.

### Consultations with the public

The SEA Directive requires identification of and consultation with the public affected or likely to be affected by, or having an interest in, the programming document. This includes relevant non-governmental organisations such as those promoting environmental protection and other concerned organisations.<sup>16</sup>

The Directive requires consultations with the public only at the final stage of the process: on the proposed draft programming document and the accompanying Environmental Report. This Handbook, however, recommends additional consultations with the concerned public. These recommendations are based on the principles of effective SEA practice and are purely advisory. Additional consultations are not meant to complicate the SEA procedures, but to provide benefit to both the SEA and planning processes.

The SEA Directive does not specify any mechanism for public consultations. It only stipulates that the public needs to be “given an early and effective opportunity within appropriate time frames to express their opinion.”<sup>17</sup>

When arranging consultations, the programming authorities should keep in mind that consultations for SEA may differ significantly from project-level consultations, which often raise considerable public interest. On the contrary, the majority of SEAs carried out in the EU so far seem to attract only limited public interest. They often are confined

to consultations with well-organised groups that have a strong interest in the programming process (e.g. major NGOs, think-tanks, associations of municipalities, chambers of commerce, etc). The choice of consultation techniques should take this fact into account.

Information about the preparation of a programming document and SEA can be placed in national and regional newspapers, in a publicly accessible place (e.g. in the premises of the administration), and/or on the websites of the programming authority and/or relevant environmental authorities. A dedicated SEA webpage may be established to inform stakeholders, collect feedback, and enable the participation of stakeholders in drafting and/or commenting.

The formal public hearings which are frequently used in project-level environmental impact assessment (EIA) may not provide the most effective means for consultations within the SEA process. Public hearings are usually meant to expose conflicts between parties, using a question-and-answer style. Since SEA is generally a much broader and more complex process, the key to successful consultations is to generate constructive dialogue, or a problem-solving debate. This will best enable participants to clarify the trade-offs which the programming document must make, and to decrease uncertainties about the planning process and its intended results. Such consultations are usually facilitated workshops or conferences.

Other more appropriate tools for soliciting feedback include:

- dedicated email addresses or hotlines for collecting comments;
- a person with the relevant qualifications from the planning team who shall be responsible for providing additional verbal clarifications on the spot;
- public exhibitions;
- consultative groups comprising representatives of relevant environmental authorities and the concerned public.

The choice of appropriate tools depends on the time available, the nature of the issues for review and the complexity of the documents to be consulted.

<sup>17</sup>SEA Directive, Article 5, paragraph 1

<sup>18</sup>SEA Directive, Article 9, paragraph 1, point b

<sup>19</sup>SEA Directive, Article 4, paragraph 1

<sup>20</sup>SEA Directive, Article 5

<sup>21</sup>SEA Directive, Article 8

<sup>22</sup>SEA Directive, Article 9

<sup>23</sup>SEA Directive, Article 6, paragraph 3

<sup>24</sup>These may include authorities that supervise or undertake health impact assessments or other health assessments (i.e. national institutes of public health, departments of hygiene, etc.)

<sup>25</sup>Protocol on Strategic Environmental Assessment to the UNECE Convention on EIA in Transboundary Context

<sup>26</sup>SEA Directive, Article 6, paragraph 4

<sup>27</sup>SEA Directive, Article 6, paragraph 2

## 4

# Recommended steps in the SEA process

This chapter presents a set of procedural steps which are recommended for carrying out SEA for Cohesion Policy programming documents. These recommended steps are compliant with the requirements of the SEA Directive and correspond to the typical steps taken by planners during elaboration of Cohesion Policy programming documents. There are nine recommended steps; each will be treated in detail in a sub-section of this chapter. The nine steps are:

1. Determination of the environmental issues, objectives and indicators that should be considered within SEA
2. Evaluation of the current situation and trends and their likely evolution if the programming document is not implemented
3. Assessment of specific development objectives and priorities
4. Assessment of proposed measures and eligible activities
5. Assessment of cumulative effects of the entire programming document
6. Evaluation of selection criteria for activities or projects to be implemented through the programming document
7. Evaluation of the monitoring system for the programming document
8. Compilation of the Environmental Report and its submission for consultations with environmental authorities and the public
9. Decision making and information on the decision

This Handbook elaborates these SEA steps by explaining the following:

- the aim of each step;
- the rationale behind each step, including the relevant SEA Directive requirements;
- the proposed approach;
- the recommended consultations; and
- practical tips summarising what to do and what to avoid.

For each step, the Handbook also includes examples of possible inputs and outputs taken from actual SEA practice. The formats used need not be followed strictly – other assessment formats can be used if they are more appropriate or user-friendly.

## 4.1 Determination of the environmental issues, objectives, and indicators that should be considered within SEA

### Aim

This step aims to:

- define the relevant environmental issues, which should be considered within the SEA;
- based on the identified issues, set relevant environmental objectives that should be considered within the programming document and the SEA process;
- where possible, suggest suitable environmental indicators (or specific questions) that will guide analyses within the SEA process.

### Rationale

The SEA Directive requires identification of:

- any existing environmental problems which are relevant to the programming document, including in particular those relating to Natura 2000 network;<sup>18</sup>
- the environmental protection objectives, established at international, Community or Member State level, which are relevant to the programming document.<sup>19</sup>

Determining these relevant environmental issues and objectives is an important starting point that will influence all of the key steps in the SEA process. The issues identified will guide:

- the evaluation of the environmental situation;
- the assessment of specific development objectives and priorities of the programming document;
- the assessment of direct and indirect impacts of proposed measures and eligible activities;
- the assessment of resulting cumulative effects of all proposed measures and eligible activities;
- the evaluation of proposed management system; and
- the evaluation of proposed monitoring system.



## Proposed approach

SEA experts should, in cooperation with relevant environmental authorities, identify key environmental issues that are relevant to the programming document. Box 4.1 provides a list of environmental issues and concerns which should be considered at this stage.

When determining the relevant environmental issues, it is important to consider the specific environmental issues that should be considered under the SEA Directive<sup>20</sup> as well as other wider environmental concerns that may be pertinent to Cohesion Policy, such as issues covered by the Goteborg Strategy. Examples of such issues and concerns are given in Box 4.1.

### *Box 4.1. Environmental issues and concerns that should be considered under the SEA Directive*

#### Environmental issues:

- biodiversity, fauna and flora;
- population and human health;
- soil;
- water;
- air and climatic factors;
- material assets;
- cultural heritage, including architectural and archaeological heritage;
- landscape.

#### Other environmental concerns:

- energy efficiency;
- use of renewable and non-renewable resources;
- adaptation to climate change;
- transport demands, accessibility and mobility, etc.

Once the key environmental issues have been identified, the SEA needs to identify and describe the relevant environmental protection objectives established at international, EU, and/or Member State level. These may be derived from current or forthcoming:

- legal or regulatory frameworks;
- environmental strategies, policies, action plans;
- sustainable development strategies;
- sector strategies and policy documents (e.g. environmental objectives under energy policy, transport strategy, etc).

It is important to keep in mind that there is no single set of universally applicable environmental objectives. For each plan or programme, specific environmental objectives have to be identified, reflecting the current state of the environment and development. Identification of the relevant environmental objectives may therefore be quite a

demanding process, given the sheer number of relevant issues and objectives, their overlaps and frequent inconsistencies. This task should start with the identification of a comprehensive long list of all possible issues and objectives. This list should be critically reviewed and then reduced to a manageable short list of main issues.<sup>21</sup>

With a more complicated SEA, the internal consistency of the SEA issues and objectives should be checked, to ensure that they do not contradict each other and will provide a sound evaluation framework.

For comprehensive programming documents which cover numerous development sectors, it may be useful to identify initially all of the relevant environmental objectives for the entire programming document, and then check whether the list is comprehensive by examining the relevance of each environmental objective to each development priority addressed in the programming document (refer to the example in Table 2.1, *Logical links between steps of the programming process and SEA*).

### *Box 4.2. The identification of environmental objectives in SEA of programming documents for the Structural Funds 2004-2006: lessons from selected new EU Member States*

The SEA experts for the National Development Plan of **Estonia** (2003) attempted to use the objectives set in the Environmental Strategy of Estonia as the main review framework for the SEA. Even though these objectives were formally adopted and still valid, they did not provide clear benchmarks for the integration of environmental issues into development planning within the country. After lengthy reviews, the SEA experts concluded that the objectives could not be used to obtain measurable indicators. Instead, they established a set of ad hoc environmental objectives for the National Development Plan that offered a more appropriate evaluation framework for the SEA.

The SEA experts for the Regional Operational Programme in **Hungary** (2003) intended to appraise this document against formal environmental objectives established by National Programme for the Protection of the Environment, National Nature Conservation Plan, National Environmental Health Action Programme, National Regional Development Concept and the National Agro-Environmental Programme. However, a close scrutiny of these guiding documents revealed that the various plans, including those for the environment, had no common

*continued overleaf*

## 4

approach and were rooted in different assumptions. The SEA experts finally selected a set of 32 quantitative environmental policy objectives for the state of the environment and various impact factors.

The SEA experts for the National Development Plan of Poland (2003) reviewed more than 100 plans, programmes and policies, national legal acts and international treaties signed by Poland, in order to define the main government commitments that were relevant for the plan. This review identified more than 250 specific commitments regarding desired changes in the environment and resource management that were considered relevant for the National Development Plan. Detailed scrutiny of these commitments resulted in the selection of 52 key criteria that were used for initial assessment of the National Development Plan. The SEA experts eventually reduced this list to a more manageable list of 24 criteria to evaluate the plan.

Adapted from Dusik and Sadler (2004)<sup>22</sup>

The selected environmental objectives should be measurable wherever possible. It should be possible to analyse possible positive or negative effects of the proposed interventions on these objectives. Many SEAs therefore complement the determination of relevant environmental objectives with the identification of appropriate indicators that will help in describing the current and future trends and will facilitate assessment of the positive or negative effects of the programming document. An example of commonly used environmental objectives and indicators for SEA in the United Kingdom is provided in Annex II to this Handbook.

When choosing the relevant indicators, SEA experts should also consider data availability. However, a lack of data for certain indicators may not automatically prevent their future use within the SEA. The fact that data are not readily available should be pointed out and an informed judgement should be made on whether to use this indicator, or whether other indicators with more readily available information should be selected.

If clear and relevant indicators are not available, SEA may benefit from well-formulated specific questions that help to examine past and future trends and analyse the impacts of the programming document.

As with the objectives, there is no fixed set of indicators or specific questions to be asked. The only important concern is that the selected indicators and questions are appropriate

for the relevant objective and are commensurate to the level of the proposed development interventions.

### Recommended consultations

The relevant environmental issues and objectives should be defined in such a way that they can be accepted by the programming team as an adequate benchmark for measuring and maximizing the environmental performance of the programming document. Ideally, some or all of the environmental issues and objectives identified by the SEA experts may become integrated into the programming document as its own horizontal environmental objectives.

The SEA Directive specifically requires consultations with the relevant environmental authorities when determining the scope and the level of detail of the assessment process<sup>23</sup> and the analyses performed within this task should clearly be subject to such consultations.

Lastly, consultations at this stage may also be extended to other key stakeholders in the programming process and the SEA. Consultations with stakeholders can enhance the quality and overall acceptability of the entire SEA process. Stakeholders may also recommend relevant studies or additional data sources that can be used within the later stages of the SEA process.

### Practical tips

- Ensure that the relevant environmental issues and objectives cover all the main issues, since gaps at this stage may misguide the entire SEA process.
- When identifying environmental objectives, consider plans and programmes that relate directly to the programming document<sup>24</sup> as well as other environmental strategies and legislative and regulatory requirements and targets.
- Where possible, try to reach consensus on the relevant environmental issues and objectives with environmental authorities, the planning team and possibly other key stakeholders. In an ideal situation, the relevant objectives selected within SEA should be integrated as horizontal environmental objectives for the entire programming document.
- Do not select too many issues and objectives, beyond those which cover the main issues.
- Select objectives that are adequate for the scale and level of detail of the programming document. Environmental objectives for the general programming document for the entire country will probably be more general than environmental objectives for a detailed programming document which defines specific measures and multiple projects in a specific territory.

## Example of possible inputs and outputs

Table 4.1. Relevant environmental issues, objectives and indicators for the entire programming document

Issues	Relevant programme objectives	Reference point/source for the given objectives	Indicators or guiding questions to analyse impacts on the relevant objective	Relevance to overall development objective # 1: Transport	Relevance to overall development objective #2: Business Promotion
Environmental issues that need to be considered under the SEA Directive					
Biodiversity including fauna and flora	Increase total protected areas by 8% as compared to 2000	Biodiversity Conservation Action Plan	<ul style="list-style-type: none"> <li>■ Condition and extent of valuable natural areas</li> <li>■ Habitat fragmentation</li> </ul>	Yes	Yes
Air quality	To improve local air quality and decrease greenhouse emissions	Environmental Policy	<ul style="list-style-type: none"> <li>■ Days with moderate or high air pollution compared to national average</li> <li>■ CO<sub>2</sub> equivalent emissions compared to national and international targets</li> </ul>	Yes	Yes
Soil	To restore and protect land and soil	Environmental Action Plan	<ul style="list-style-type: none"> <li>■ Condition and extent of abandoned brownfield sites</li> <li>■ Urban sprawl</li> <li>■ Quality of agricultural land and soils</li> </ul>	Yes	Yes
Landscape	To avoid damage to, and improve the quality of landscape	National Sustainable Development Strategy	<ul style="list-style-type: none"> <li>■ Damage to distinctiveness and attractiveness of landscape</li> </ul>	Yes	Yes
Examples of other environmental issues that may arise from review of relevant environmental objectives					
Energy efficiency	To improve efficiency in the use of energy resources	Energy Policy	<ul style="list-style-type: none"> <li>■ Energy demand per unit output or per capita</li> <li>■ Share of energy generated from renewable sources</li> </ul>	Yes	Yes
Use of natural resources	To ensure the prudent use of natural resources and the sustainable management of existing resources	Sustainable Development Strategy	<ul style="list-style-type: none"> <li>■ Will it reduce the demand for raw materials?</li> <li>■ Use of recycled and secondary materials</li> <li>■ Will it promote sustainable use of renewable natural resources?</li> </ul>	Yes	Yes
Sustainable mobility	To encourage sustainable travel and reduce road congestion	Transport Policy	<ul style="list-style-type: none"> <li>■ Use of cars for business travel and freight transport</li> <li>■ Levels of congestion</li> <li>■ Total number of people using public transport</li> <li>■ Will it improve inter-modal connectivity?</li> <li>■ Will it encourage walking and cycling?</li> </ul>	Yes	Yes
Eco efficiency	To support uptake of environmental management, green purchasing and eco-design in the business sector and within public authorities	Environmental Policy	<ul style="list-style-type: none"> <li>■ Uptake of environmental management, green purchasing and eco-design.</li> </ul>	Yes	Yes

## 4

## 4.2 Evaluation of the current situation and trends and their likely evolution if the programming document is not implemented

### Aim

This step aims to:

- present information on the state of the environment and natural resources relevant to the programming document;
- describe interactions between these trends and the main development sectors which are the subject of the programming document;
- outline the likely evolution of these trends without implementation of the programming document;
- provide this information for the purpose of the planning process as well as for the SEA.

### Rationale

The SEA Directive requires identification of:

- the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the programming document<sup>25</sup> with a particular emphasis on the future developments arising from other relevant plans and programmes;<sup>26</sup>
- the environmental characteristics of areas likely to be significantly affected.<sup>27</sup>

Proper understanding of the current situation and trends and their likely evolution if the programming document is not implemented facilitates an informed judgement of the positive or negative effects of the programming document.

SEA requires consideration of long-term trends and a strategic approach to data collection. While this demand might seem minor, it actually poses a quite significant change of approach to the assessment of the current situation. It requires, especially in the case of large scale programming documents, focused analytical thinking.

### Proposed approach

The challenge of this analysis is to ensure that:

- it focuses on trends for the relevant environmental objectives identified in step 4.1. and does not overburden evaluation of the situation with irrelevant information;
- it is flexible enough to allow for the addition of new issues and considerations if needed during subsequent review;
- it describes both past and current trends;
- it outlines the likely evolution of those trends, if the proposed programming document were not implemented.

In order to ensure that the assessment of the current situation stays focused, it is recommended to concentrate on the main environmental issues, objectives and indicators that have been identified in step 4.1. If these issues, objectives and indicators were properly determined, they will provide good guidance for the situation evaluation.

The description of the past and current trends can be made on the basis of data available from existing monitoring systems (see Box 4) or through expert judgements (in cases where data are lacking). SEA experts should not embark on collecting raw data at this stage, unless very clear key issues are identified for which no data are available.

#### Box 4. Possible sources of information

- Progress reports on existing legislation
- State of the environment reports
- Data from monitoring of relevant policies, strategies, plans or programmes on EU, national, regional or local levels
- Special research projects

The description of the likely future trends if the proposed programming document is not implemented is obviously constrained by numerous uncertainties. These include availability of data on future economic development, technological progress or advancements in regulatory frameworks that collectively influence future trends. The SEA Directive takes such constraints into account and requires provision of information that may be reasonably obtained, within the boundaries of current knowledge and available methods of assessment.<sup>28</sup> SEA experts are only required to outline the future trends as best as they can. They are also required to accomplish this task while taking into account and acknowledging any available studies and considering:

- past trends;
- the key driving forces behind these trends;
- major uncertainties.

Lastly, the data on the current and future environmental trends serve not just to inform future SEA steps but may also strengthen the analysis of the overall development context during the elaboration of the programming document. In cases where the SEA process is carried out ex-ante, information gathered or generated during this step can be provided to the planning team and may strengthen the programming process.

## Recommended consultations

The outcomes of these analyses should be properly presented to the programming team so that they may consider them in the situation analysis and future stages of the programming process. The SEA Directive does not require consultations with relevant environmental authorities and the public within this step. It may be useful, however, to inform stakeholders about data and documentation needs, and to request additional information from them.

## Practical tips

- Analyze the past and current trends in meeting environmental objectives identified in the preceding step.
- Use expertise within environmental authorities and key stakeholders to identify and interpret relevant data and predict trends.
- Consider developments under plans and programs that relate to the programming document.
- Share information with the planning team.
- Keep the focus when collecting information.
- Do not collect excessive details or use information just because it is there.

## Example of possible inputs and outputs

Table 4.2. Example of possible approach to evaluation of past trends, current situation and future trends if the programming document was not implemented

Relevant environmental objectives	Indicators or questions about possible impact or monitoring indicators	Data sources on current trends and their likely evolution	Current state of the environment and trends	Likely evolution if the programming document is not implemented
Increase the total protected area by 4% as compared to 2005	<ul style="list-style-type: none"> <li>■ Condition and extent of valuable natural areas</li> <li>■ Habitat fragmentation</li> </ul>	State of Environment report, Biodiversity assessment, Natura 2000 documentation	Natural ecosystems that could be declared protected areas amount for 25% of the territory. 9% of these ecosystems have been declared protected areas but the most important bio-corridors that connect them have been damaged.	Natural ecosystems that could be declared protected areas will decrease by approximately 5% in the next 6 years, mainly because of recently adopted Forestry Policy and approved future projects for wind-farming, aquaculture and tourism. No plans for rehabilitation of bio-corridors exist.
To improve efficiency in the use of energy resources	<ul style="list-style-type: none"> <li>■ Energy demand per unit output or per capita</li> <li>■ Share of energy generated from renewable sources</li> </ul>	Research study by AMX, Annual reports of the Ministry of Energy	The energy demand per GDP unit has decreased by 70% in the past decade. It remains however 20% above the EU average. The share of renewable energy sources in the national energy supply has increased from 2% to 4% in the past decade.	Given the completed restructuring of the economy, further decrease in energy efficiency will be minor and any gains will be offset by the growing energy demands from transport and rapidly increasing household use. The share of renewable energy sources may increase to 8% over the next 6 years depending on the level of state support.
To avoid damage to, and improve the quality of landscape	<ul style="list-style-type: none"> <li>■ Damage to distinctiveness and attractiveness of landscape</li> </ul>	No report available	The dominant features of the territory are hilly woodlands and extensive network of lakes. Interviews carried out by the assessment team show dissatisfaction with visual impacts of recently installed communication masts.	Distinctiveness and attractiveness of this landscape is likely to be further damaged by the recently approved expansion of road networks and general approval of water sports on all major river bodies. This may significantly change the type of visiting tourists and poses threats to further viability of traditional tourism that this territory is known for.

## 4

### 4.3 Assessment of development objectives and priorities

#### Aim

This step aims to:

- assess the positive and negative effects of the development objectives and priorities contained in the programming document on the relevant environmental objectives;
- consider alternative options at the level of proposed development objectives and priorities.

#### Rationale

In addition to the identification of relevant environmental protection objectives, the SEA Directive requires an analysis of the way those objectives and any environmental considerations have been taken into account during the preparation of the programming document.<sup>29</sup>

For Cohesion Policy programming, this may be carried out through an assessment of the consistency between proposed development objectives and priorities of the programming document, and the relevant environmental objectives. This assessment should not only generate information but should also proactively suggest opportunities for enhanced integration of environmental considerations into the objectives and priorities of the programming document

#### Proposed analytical approach

This step should assess synergies and conflicts between the relevant environmental objectives and the specific development objectives and priorities proposed in the

programming document. It should suggest opportunities for adaptation of the proposed development objectives and priorities in the programming document with a view to advancing sustainable development.<sup>30</sup>

This assessment should involve the consideration of several alternative development objectives and priorities, and recommendation of the option most consistent with the relevant environmental objectives.

#### Recommended consultations

The outcomes of these analyses should be properly presented to the programming team so that they may consider them in determining the objectives and priorities of the programming document situation analysis and future stages of the programming process. Consultations with relevant authorities are advised.

#### Practical tips

- Describe all significant positive or negative effects of the proposed development objectives and priorities on the relevant environmental issues and objectives.
- Suggest novel ways of achieving development and environmental goals simultaneously.
- Provide recommendations for the programming process.
- Actively engage the planning team in these assessments.
- Acknowledge any major uncertainties.



## Example of possible inputs and outputs

Table 4.3.1. Example of possible assessment approach for development objectives and priorities: large-scale infrastructure projects

Proposed development objective or priority # 1: Improve transport infrastructure		
Relevant environmental objectives	Relevant indicators or guiding questions.	Comments
Increase the total protected area by 4% compared to 2005	<ul style="list-style-type: none"> <li>■ Condition and extent of valuable natural areas</li> <li>■ Habitat fragmentation</li> </ul>	Negative impacts can be expected if new transport infrastructure does not avoid ecosystems that are considered for status of protected areas. Ensure that new infrastructure does not - in its overall impact - increase habitat fragmentation.
To improve local air quality and decrease greenhouse emissions	<ul style="list-style-type: none"> <li>■ Will it maintain and improve local air quality?</li> <li>■ Will it reduce greenhouse gas emissions?</li> </ul>	Given the current arrangements for consideration of environmental issues in the permitting process, it is expected that most new transport infrastructure will have either positive or no impacts on the local air quality. Any measures that will enhance road and air transport will however increase greenhouse emissions.
To improve efficiency in the use of energy resources	<ul style="list-style-type: none"> <li>■ Energy demand per unit output or per capita</li> <li>■ Share of energy generated from renewable sources</li> </ul>	Transport infrastructure that further encourages road and air transport will worsen energy efficiency in the economy. This is an important strategic concern. Priority support should be given to measures that decrease demand for transport (i.e. home work, teleconferencing, etc.) and promote use of alternative fuels.
To encourage sustainable travel and reduce road congestion	<ul style="list-style-type: none"> <li>■ Use of cars for business travel and freight transport?</li> <li>■ Levels of congestion</li> <li>■ Total number of people using public transport</li> <li>■ Will it improve inter-modal connectivity?</li> <li>■ Will it encourage walking and cycling?</li> </ul>	Significant adverse impacts can be expected if transport does not encourage inter-modal shift for freight transport and business-related transport and does not limit use of cars in cities. Priority support should be given to development of integrated transport systems, public transport and measures that advance cycling and walking.
<b>Proposed reformulation of development objective or priority:</b> Develop energy-efficient transport system that improves mobility and decreases environmental pressures from transport		

# 4

Table 4.3.2. Example of possible assessment approach for development objectives and priorities: multiple smaller-scale non-infrastructure projects (based on actual Member State Operational Programme)

Proposed development objective or priority # 2: SME and micro-business support		
Relevant environmental objectives	Relevant indicators or guiding questions.	Comments
To improve efficiency in the use of energy resources	<ul style="list-style-type: none"> <li>■ Energy demand per unit output or per capita</li> <li>■ Share of energy generated from renewable sources</li> </ul>	Negative impacts can be expected if businesses are not encouraged to reduce the energy demand of production and promote use of alternative sources of energy.
To restore and protect land and soil	<ul style="list-style-type: none"> <li>■ Condition and extent of abandoned brownfield sites</li> <li>■ Quality of agricultural land and soils</li> </ul>	Priority support should be given to measures that enable businesses to tackle their energy use. Negative impacts can be expected if businesses are not encouraged to land contamination, soil and flood risk issues. Priority support should be given to measures that revitalize city centres and brownfield sites.
To ensure the prudent use of natural resources and the sustainable management of existing resources	<ul style="list-style-type: none"> <li>■ Will it reduce the demand for raw materials?</li> <li>■ Use of recycled and secondary materials</li> <li>■ Will it promote sustainable use of renewable natural resources?</li> </ul>	Negative impacts can be expected if businesses are not encouraged to reduce the resource demand of production and promote use of recyclates. Priority support should be given to measures that enable businesses to tackle their resource use.
To support uptake of environmental management, green purchasing and eco-design	<ul style="list-style-type: none"> <li>■ Uptake of environmental management, green purchasing and eco-design</li> </ul>	Negative impacts can be expected if businesses are not encouraged to adopt environmental management systems, green purchasing, eco-design and e-commerce.
Proposed reformulation of development objective or priority: Resource efficient SME and micro-business support		

## 4.4 Assessment of proposed measures and eligible activities

### Aim

This step aims to:

- assess the positive and/or negative effects of specific proposals contained in the programming document on the relevant environmental objectives and indicators;
- consider alternative options at the of level proposed measures and eligible activities;
- propose measures to prevent, reduce and as fully as possible offset any significant adverse effects of implementing the programming document on the environment or sustainable development.

### Rationale

The SEA Directive requires:

- assessment of the likely significant positive or negative effects of the programming document on the environment;<sup>31</sup>

- the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the programming document;<sup>32</sup>
- an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken, including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.<sup>33</sup>

### Proposed approach

This assessment should first describe the likely significant positive or negative effects of the proposed measures on the relevant environmental objectives and indicators. These effects should not be limited to direct effects but should also include possible secondary effects and short, medium and long-term permanent and temporary effects as well as transboundary effects.<sup>34</sup> The analysis should also refer to cumulative effects of the proposed measures, analysed in the next step.

In order to ensure the clarity and transparency of these assessments, SEA experts are advised to explain the key features of the identified impacts (e.g. their probability, scale, frequency/duration, reversibility and any transboundary dimension.) Very often symbols are also used to facilitate summary and easy reading of the results of these assessments. If symbols are used, as in the example in Table 4.4.1, they should be accompanied with summary descriptive text, to ensure clarity.

In addition to generating information about the environmental effects of the proposed measures, this assessment may also identify opportunities for modifications to the proposed measures that will minimize their adverse effects and maximise positive effects.

Once the specific impacts and optimising measures have been identified for all the environmental issues that are relevant to the measure, this information can be used for the formulation of:

- recommended changes to the formulation of proposed measures (e.g. alternative locations, alternative technologies or alternative sequencing/timing);
- conditions for the implementation of the given measure (e.g. specific conditions for implementation, preliminary advice on the scope of any environmental assessment of detailed project proposals or monitoring requirements).

It is noted that some Cohesion Policy programming documents define development interventions only briefly, leaving details for the selection of specific projects for

implementation to other processes and documents. In this case, it will not be possible to carry out analyses in as much detail as outlined in the example of possible inputs and outputs below. Instead, SEA experts should focus their attention on a detailed evaluation of the management system proposed for the programming document. They should also elaborate detailed systems for environmental evaluation of specific projects that seek support from Cohesion Policy funds. One recommended approach for development evaluation system is outlined in the SEA step “Evaluation of selection criteria for activities or projects to be implemented through the programming document” (see sub-chapter 4.6.)

#### Recommended consultations

The outcomes of these analyses should be properly presented to the programming team so that they consider them in the design of measures and eligible activities. Consultations with relevant environmental authorities are advised.

#### Practical tips

- Describe all significant positive and negative effects of the proposed measures and eligible activities on the relevant environmental objectives and indicators.
- Consider direct and indirect effects.
- Take into account the opinions and expertise of all the experts who prepare the SEA and try to actively engage the planning team in this assessment.

#### Example of possible assessment approach for measures and eligible activities

Table 4.4.1. Assessment Legend

Impact character	Symbols	Explanation
Probability	!!	Very probable
	!	Probable
Scale	--	Large-scale negative
	-	Negative
	++	Large-scale positive
	+	Positive
Frequency/duration	>>	Frequent to Constant / Long-term to Permanent
	>	Occasional / Short-term
Reversibility	IR	Irreversible
	R	Reversible
Transboundary dimension	TR	Possible transboundary effect
Uncertainty	?	Possible impact totally depends on the implementation arrangements described in our accompanying comments.

# 4

- Identify alternative options (based on location, character and extent of the measure) in cases where negative environmental effects are anticipated and to enhance positive effects.
- Propose conditions for implementation, if the measure cannot be amended.
- Acknowledge any major uncertainties.

Table 4.4.2 gives an example of proposed measures under the development objective #1 “Improve transport infrastructure.” Positive and negative impacts of the hypothetical measure “Development of the new port

facilities in location XYZ” are analysed and comments are given on possible actions, further analysis or other considerations during the implementation of the measure.

Recommended changes or modifications of the measure are provided at the bottom of each measure analysis table. These are summarised as alternative locations, alternative technologies or alternative sequencing and timing. Finally, there are proposed conditions for implementing the measure. Conditions can be in the form of preliminary advice on the scope of any environmental assessment of the detailed project proposals or monitoring requirements, etc.

## Example of possible inputs and outputs

### 4.4.2. Assessing measures proposing large-scale infrastructure projects

Development objective # 1: Improve transport infrastructure Measure # 1.1: Development of new port facilities in XYZ			
Relevant environmental indicators	Likely significant impacts		Measures to minimize negative and to maximize positive effects
	Symbols	Summary description:	
Condition and extent of valuable natural areas  Habitat fragmentation	!! -- >> IR	Almost certain large-scale negative permanent and irreversible impact on 15 ha of wetland in AAA. Probable large scale negative impact on river XXX that serves as a regional bio-corridor.	If port moves to XYZ_A, only 6ha of wetland would be lost. Consider compensating this loss through a man-made wetland along river XXX. Investigate the possibility of expanding river banks to allow for natural development of wetlands.
Energy demand per unit output or per capita Share of energy generated from renewable sources	?	This proposal may either limit or enhance future development of off-shore wind farms - depending on consideration given to this issue.	Ensure that port developments will not prevent possible future offshore wind-farming. Consider possible combined development of offshore wind farms together with port facilities.
Use of cars for business travel and freight transport? Levels of congestion Will it improve inter-modal connectivity?	!! -- >> IR	This proposal may significantly increase road-base freight transport and worsen the existing congestion problems.	Ensure that freight transport to/from the port is moved to rail.
Others...	...	...	...
<p><b>Recommended changes to the measure:</b> (Alternative locations, alternative technologies or alternative sequencing/timing) The measure should be reformulated to “Development of new port facilities in XYZ_A that are linked to rail network and compensation for the loss of natural habitat.” Due to likely significant environment impacts, this measure should not be included in priority projects.</p>			
<p><b>Conditions for implementation:</b> (Specific conditions for implementation, preliminary advice on the scope of any environmental assessment of detailed project proposals) Eligible activities will likely need EIA which should investigate the following issues:</p> <ul style="list-style-type: none"> <li>■ loss of wetland and its compensation through expanding river banks to allow for natural development of wetlands along river XXX;</li> <li>■ feasibility of moving all freight transport to/from the port by rail;</li> <li>■ impacts of possible combined development of offshore wind farms together with port facilities;</li> <li>■ others ...</li> </ul>			

#### 4.4.3. Assessing measures proposing multiple smaller-scale non-infrastructure projects (based on actual Member State Operational Programme)

Development objective # 2: SME and micro-business support Measure # 2.3: Develop competitive business			
This measure aims to increase the turnover of SMEs through the provision of high quality business support services. Support is available for actions that deliver workspace, loans/grants, business advice and training.			
Relevant environmental indicators	Likely significant impacts		Measures to minimize negative and to maximize positive effects
	Symbols	Summary description:	
Condition and extent of valuable natural areas Habitat fragmentation	? -- >> IR	Impacts cannot be determined at this point. However development of workspace may have negative permanent impacts on valuable natural areas.	Provide advice to applicants on the impact of the activity on valuable natural areas and how this can be reduced. New workspace should incorporate measures to promote biodiversity and wildlife corridors where possible.
Uptake of environmental management, green purchasing and eco-design	? +	Impacts cannot be determined at this point. However businesses may easily adopt environmental management, green purchasing and eco-design.	Provide advice to applicants on the opportunities for the activity to promote environmental management, green purchasing and eco-design and how this can be reduced. Require applicants to implement environmental management, green purchasing and eco-design.
Energy demand per unit output or per capita Share of energy generated from renewable sources	?	Impacts cannot be determined at this point. Development of energy-intensive processes or inefficient workspace may increase energy demand. There are opportunities to implement energy saving schemes and use renewable energy sources.	Provide advice to applicants on the impact of the activity on energy use and how this can be reduced. Require applicants to implement energy saving schemes in both construction and use. Require applicants to develop – where feasible – renewable energy sources.
Condition and extent of abandoned brownfield sites Urban sprawl	?	Impacts cannot be determined at this point, however development of workspace may be on greenfield sites.	Provide advice to applicants on the impact of the activity on greenfield sites and how this can be reduced. Priority support should be given to upgrading of existing facilities and reuse of brownfields.
Others...	...	...	...
<b>Recommended changes to the measure:</b> (Alternative locations, alternative technologies or alternative sequencing/timing) None			
<b>Conditions for implementation:</b> (Specific conditions for implementation, preliminary advice on the scope of any environmental assessment of detailed project proposals) Activities implemented under this measure should be meet the following criteria: <ul style="list-style-type: none"> <li>■ should provide an analysis of the environmental impacts of the activity, and the means by which any adverse environmental impacts are reduced or removed;</li> <li>■ new workspace should incorporate measures to promote biodiversity and wildlife corridors where possible;</li> <li>■ should implement environmental management, green purchasing and saving schemes;</li> <li>■ should require applicants to implement energy saving schemes in both construction and use and require applicants to develop – where feasible – renewable energy sources;</li> <li>■ should upgrade existing facilities and use brownfield sites for development rather than triggering greenfield developments;</li> <li>■ others....</li> </ul>			

## 4

## 4.5 Assessment of the cumulative effects of the entire programming document

### Aim

This step aims to:

- assess the cumulative effects of all proposed measures in the programming document on the relevant environmental issues, objectives and indicators;
- assess the cumulative effects of incremental changes caused by other past, current or reasonably foreseeable actions with the impacts of relevant measures within the programming document;
- adjust the assessment of individual measures if it becomes clear that their overall impact is more significant or minor than originally foreseen;
- adjust the arrangements for delivery of the programme, including both people (capacity) and processes;
- provide inputs for final proposals for modifications to the programming document.

### Rationale

The SEA Directive requires not only assessment of the individual impacts of specific proposals in the programming document, but also the resulting cumulative effects.<sup>35</sup> One of the main benefits of SEA is that it enables the identification of environmental effects for multiple proposals and facilitates their systematic consideration at a strategic level.

Cumulative effects are effects that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the proposal. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.<sup>36</sup>

### Proposed approach

This analysis uses information generated by the preceding assessments of individual measures in the programming document, carried out in step 4.4.

The analysis collects all of the effects of the proposed development measures on the relevant environmental objectives and indicators, and enables the consideration of whether significant cumulative environmental effects are likely to occur.

Any identified cumulative effects can be summarised and used as recommendations for final adjustments to the programming document through:

- additional measures to prevent, minimise or offset the negative effects of the proposed individual measures in the programming document;
- new measures with beneficial effects which will compensate the overall negative effects of the programming document on the given environmental issue, objective or indicator;
- changes to the arrangements for delivery of the programme, either through the provision of specific environmental advice to applicants or through the project evaluation and monitoring processes.

### Recommended consultations

The outcomes of these analyses should be properly presented to the programming team so that they consider them in the design of measures and eligible activities. Consultations with relevant environmental authorities are advised.

### Practical tips

- Describe all positive and negative effects of all proposed measures and eligible activities in the programming document that impact the relevant environmental objectives or indicators.
- Outline the likely cumulative effects of the proposed measures and eligible activities on the relevant environmental objectives, and consider whether the programming document in its entirety will help achieve the relevant environmental objectives or whether it will create new barriers to their attainment.
- Adjust the assessments of individual measures and eligible measures as necessary.
- Acknowledge any major uncertainties.
- Propose options to minimize, reduce or offset any significant adverse effects of the programming document on the relevant environmental issue or objective.
- Where there are uncertainties, consider what arrangements need to be in place in the programme delivery team to ensure that likely environmental impacts of projects can be assessed and addressed.
- Propose options to maximise any positive effects of the programming documents on the relevant environmental issues and objectives.
- Actively engage the planning team in this assessment.



### Example of possible inputs and outputs

Table 4.5.1. Possible approach for summarising cumulative effects of individual measures and eligible activities proposed in the programming document. Example 1.

<b>Relevant environmental objective:</b> Increase the total nature protected area by 8% as compared to 2000			
<b>Relevant indicators:</b> Condition and extent of valuable natural areas Habitat fragmentation			
<b>Current trends in the attainment of this environmental objective and their likely evolution if the programming document is not implemented</b>			
<ul style="list-style-type: none"> <li>■ Natural ecosystems that could be declared as protected amount for 25% of the territory. 9% of these ecosystems have been declared protected areas but the most important bio-corridors that connect them have been damaged.</li> <li>■ Natural ecosystems that could be declared as protected will decrease by approximately 5% in the next 6 years, mainly because of recently adopted Forestry Policy and approved future projects for wind-farming, aquaculture and tourism. No plans for rehabilitation of bio-corridors exist.</li> </ul>			
Expected cumulative effects of the relevant measures with impact on the given objective			
Measures and eligible activities	Individual impacts of specific measures		Comments
	Symbols	Summary description:	
Measure # 1.1. Development of new port facilities in XYZ	!! -- >> IR	Almost certain large-scale negative permanent and irreversible impact on 15 ha of wetland in AAA. Probable large scale negative impact on river XXX that serves as a regional bio-corridor.	If this facility moves to XYZ_A, only 6ha of wetland would be impacted. This loss can be compensated by a man-made wetland along river XXX.
Measure # 2.3: Develop competitive business	?! -- >> IR	Impacts cannot be determined at this point, however development of workspace may have large-scale negative permanent impacts of valuable natural areas.	Provide advice to applicants on the impact of the activity on valuable natural areas and how this can be reduced. New workspace should incorporate measures to promote biodiversity and wildlife corridors where possible.
Others...	...	...	...
<b>Cumulative impact of all measures and eligible activities in the programming document with likely effects on this environmental objective</b>			
<ul style="list-style-type: none"> <li>■ If all proposed measures and eligible activities in the programming document are implemented, another 160 ha of natural ecosystems will be lost. In addition, three important bio-corridors will be irreversibly damaged. This sharply contradicts the relevant environmental objective.</li> <li>■ If recommended changes to all measures and eligible activities are adopted, only 50 ha of natural ecosystems will be lost and only 2 important bio-corridors will be temporarily damaged.</li> </ul>			
<b>Recommendations</b>			
<ul style="list-style-type: none"> <li>■ To compensate for this damage (which will occur in either case), the programming document must strengthen its nature protection component by enabling measures and eligible activities that lead to establishment of new protected areas.</li> </ul>			

# 4

## Example of possible inputs and outputs

Table 4.5.2. Possible approach for summarising cumulative effects of individual measures and eligible activities proposed in the programming document. Example 2.

<b>Relevant environmental objective:</b> To improve efficiency in the use of energy resources.			
<b>Relevant indicators:</b> Energy demand per unit output or per capita Share of energy generated from renewable sources			
<b>Current trends in the attainment of this environmental objective and their likely evolution if the programming document is not implemented</b>			
<ul style="list-style-type: none"> <li>■ Energy use in the production of goods and services will remain at current levels or worse.</li> <li>■ The proportion of renewable energy generated in the region will remain at less than 1%.</li> </ul>			
<b>Expected cumulative effects of the relevant measures with impact on the given objective</b>			
Measures and eligible activities	Individual impacts of specific measures		Comments
	Symbols	Summary description:	
Measure # 1.1. Development of new port facilities in XYZ	?	This proposal may either limit or enhance future development of off-shore wind farms – depending on consideration given to this issue.	Ensure that port developments will not prevent possible future off-shore wind-farming. Consider possible combined development of offshore wind farms together with port facilities.
Measure # 2.3: Development of facilities for tourism	! + >>	Activity to increase the efficient use of energy in the provision of goods and services and to develop renewable energy sources through development of the environmental technology sector will have positive effects.	Provide advice to applicants on the opportunities to incorporate energy efficiency and/or develop renewable energy sources in all activity.
Others...	...	...	...
<b>Cumulative impact of all measures and eligible activities in the programming document with likely effects on this environmental objective</b>			
<ul style="list-style-type: none"> <li>■ If all proposed measures and eligible activities in the programming document are implemented, an additional 1% of energy generated in the region will be from renewable sources.</li> <li>■ If recommended changes to all measures and eligible activities are adopted, an additional 4% of energy generated in the region will be from renewable sources.</li> </ul>			
<b>Recommendations</b>			
<ul style="list-style-type: none"> <li>■ Arrangements for programme delivery must include specific advice for project applicants as to how energy efficiency and renewable energy development can be incorporated in activity.</li> <li>■ Targets should be set for individual applicants, and progress in delivering this monitored.</li> </ul>			

### 4.6 Evaluation of selection criteria for activities or projects to be implemented through the programming document

#### Aim

This step aims to:

- ensure that the process for selection of specific projects during implementation of the programming document

enables adequate evaluation of the positive or negative effects of the projects on the environment;

- facilitate environmentally suitable implementation of the programming document.

## Rationale

The SEA Directive requires description of the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment from implementing the programming document.<sup>37</sup>

This requirement poses a particular challenge for Cohesion Policy programming documents. These documents may formulate only very general development interventions. The implementation of these plans and programmes will depend largely upon the management system for selection and monitoring of the actual activities (or projects), which are specified and chosen only after the programming document has been finalized and approved. In such cases the SEA can suggest specific project evaluation criteria to ensure the selection of projects which will contribute, to the greatest extent possible, to the relevant environmental objectives and indicators.

These evaluation/selection criteria should help to:

- assess positive or negative effects of proposed activities (or projects) on the relevant environmental issues, objectives and indicators;
- formulate detailed measures within the activities to prevent, reduce and as fully as possible offset any significant adverse effects on the environment.

In an ideal situation, such evaluation/selection criteria should become an integral part of the management system for implementation of the programming document.

## Proposed approach

Environmental evaluation/selection criteria for proposed activities or projects may be set out in the form of simple environmental evaluation sheets which summarize key environmental effects for decision-making on the proposed projects. The evaluation sheets may also be used as scoring sheets during the project evaluation process.

In principle, activity or project-level evaluations should enable analysis of the likely significant positive or negative effects of the proposed projects on the relevant environmental objectives and indicators - either for the entire programming document or for the specific measure. For this reason, the evaluations may be based on the same assessment logic as the one applied for the proposed measures and eligible activities in sub-chapter 4.4. The main difference is that activity or project-level evaluations can be more detailed.

In addition to evaluation/selection criteria, the SEA may also address the mechanism or system for carrying out the process. The main factor here will be to ensure that the programming authority has access to the necessary environmental expertise to carry out activity or project evaluation and selection. The SEA should not suggest unrealistic arrangements.

## Recommended consultations

The outcomes of these analyses should be properly presented to the programming team so that they consider them in the design of measures, eligible activities, and evaluation criteria. Consultations with relevant environmental authorities are advised.

## Practical tips

- Analyse the environmental criteria and indicators proposed for the selection of specific projects during implementation of the programming document, and suggest their completion through indicators that reflect the relevant environmental issues and objectives for the programming document or for the specific measures.
- Ensure that the proposed evaluation system enables the consideration of positive and negative effects and that this information is provided in a format which can influence decision-making on activity or project proposals.
- Address means for the practical undertaking of environmental evaluations (i.e. ensure that programming authority has access to necessary environmental expertise).
- Actively engage the planning team, proponents of the programming document and relevant environmental authorities when formulating the proposed evaluation system.

## 4

## Example of possible inputs and outputs

Table 4.6.1. Example of environmental evaluation of proposed capital activity

Measure # 2.3: Develop competitive business		
Proposed activity: Office Workspace in the locality EEE		
Relevant indicators	Summary of effects:	Comments
Condition and extent of valuable natural areas Habitat fragmentation	<b>Adverse impact of a regional character:</b> EIA report for this proposal indicates that 250m of important biotope AAA will permanently damaged. This biotope is part of a regional bio-corridor BBB.	This activity can only be supported if the recommendations from the Environmental Impact Assessment and Planning Conditions are met.
Damages to distinctiveness and attractiveness of landscape	<b>No significant impact</b> Workspace development is an extension on an existing urban area.	
Uptake of environmental management, green purchasing and eco-design	<b>Positive impact</b> The workspace will be marketed at businesses in the environmental technology sector.	Make sure that this happens by post-project monitoring.
Energy demand per unit output or per capita	<b>Positive impact</b> The workspace is designed to minimise the use of energy.	Make sure that this happens by post-project monitoring.
Share of energy generated from renewable sources	<b>Positive impact</b> Heating of the workspace (central heating, kitchens etc) will arranged by solar panels and a wood burning boiler. The building manager promises to actively inform visitors about benefits of such system.	Make sure that this happens by post-project monitoring.
Use of cars for business travel an freight transport	<b>No significant impact</b> The location is served by public transport. Parking on site will be limited and businesses will be encouraged to develop Green Travel Plans.	
Others ...	...	...
<b>Conclusion:</b> This proposal can be supported only once the design of the workspace has been altered to avoid damage to the biotope AAA and bio-corridor BBB.		
<b>Conditions for implementation, should financial support be awarded:</b>		
<ul style="list-style-type: none"> <li>■ no damage to biotope BBB and bio-corridor CCC occurred;</li> <li>■ marketing to environmental technology sector;</li> <li>■ workspace deisgned to reduce energy use by 40% over current legal standards;</li> <li>■ heating system will be arranged by solar panels and corn burning furnace;</li> <li>■ the building manager actively informs visitors about benefits of its heating system based on renewable energy sources, EMS and about other measures that were taken to protect the environment and enhance eco-efficiency of the facility;</li> <li>■ others...</li> </ul>		

### Example of possible inputs and outputs

Table 4.6.2. Example of environmental evaluation of proposed revenue activity

Measure # 2.3: Develop competitive business		
Proposed activity: Provision of marketing advice to micro businesses		
Relevant indicators	Summary of effects:	Comments
Condition and extent of valuable natural areas Habitat fragmentation	Not applicable	
Damages to distinctiveness and attractiveness of landscape	Not applicable	
Uptake of environmental management, green purchasing and eco-design	<b>Positive impact</b> The opportunities for accessing new markets or increasing the share of existing markets by developing green credentials and eco-products will be emphasised. Businesses will be encouraged to use electronic forms of marketing rather than mailshots etc.	Make sure that this happens by post-project monitoring.
Energy demand per unit output or per capita	Not applicable	Make sure that this happens by post-project monitoring.
Share of energy generated from renewable sources	Not applicable	Make sure that this happens by post-project monitoring.
Use of cars for business travel and freight transport	<b>No significant impact</b> Training will be located in a venue that can be accessed by public transport	
Others ...	...	...
<b>Conclusion:</b> This proposal should be supported.		
<b>Conditions for implementation, should financial support be awarded:</b> ■ set targets for projects and monitor progress.		

# 4

## 4.7 Evaluation of the monitoring system for the programming document

### Aim:

This step aims to ensure that:

- information on the significant effects of activities and projects on the relevant environmental objectives and indicators for the programming document is recorded;
- any unforeseen adverse effects are identified in order to be able to undertake appropriate remedial actions.

### Rationale

The SEA Directive requires:

- presentation of the monitoring measures in the environmental report;<sup>38</sup>
- informing the relevant authorities and the public about the measures concerning monitoring once the programming document has been adopted.<sup>39</sup>

### Proposed approach

As a general rule, the SEA should use the monitoring arrangement proposed for the programming document, to avoid confusion or duplication. SEA experts should analyse the proposed environmental monitoring system for the programming document. They may recommend incorporation of new indicators based on the relevant environmental issues, objectives and indicators for the programming document.

The proposed monitoring arrangements should be realistic and may use information generated during the environmental evaluation of the proposed projects (see step 4.6.)

### Recommended consultations

The outcomes of these analyses should be properly presented to the programming team so that they consider them in the design monitoring system for the programming document. Consultations with relevant environmental authorities are advised.

### Practical tips

- Try to use the relevant environmental issues, objectives and indicators identified within the SEA as a basis for improvements to the proposed environmental monitoring system for the programming document.
- Some monitoring tools, e.g. periodic reports, may be introduced.
- Ensure that the proposed monitoring arrangements are realistic.
- Do not be afraid to use simple approaches.
- Actively engage the planning team, proponents of the programming document and relevant environmental authorities when formulating proposed monitoring system.

### Example of possible inputs and outputs

Table 4.7. Example of the overall environmental monitoring system for the entire programming document

Environmental indicators	Cumulative effects on the environmental indicator predicted within SEA	Projects that were implemented through the programming document				Total real effects of the plan
		Project 001	Project 002	Project 003	Project ...	
Decrease/increase of protected areas and their buffer zones	50 ha	- 5ha	-3ha	0	....	...
Energy generated through solar, wind, biomass energy sources (MW)	100 MW	0	0	30 MW	....	...
Others...	...	...	...	...	...	...



## 4.8 Compilation of the Environmental Report and its submission for consultations with environmental authorities and the public

### Aim

This step aims to:

- compile the Environmental Report in accordance with the requirements of the Annex 1 to the SEA Directive;
- consult the relevant authorities and the public on the programming document and its accompanying environmental report.

### Rationale

The Environmental Report should contain the information required in the SEA Directive Annex I, also included in Annex III to this Handbook.

### Proposed approach

The SEA steps outlined in this Handbook should enable the SEA team to develop most of the information which needs to be included in the Environmental Report. The only additional information which needs to be compiled at the stage is:

- a non-technical summary of the Environmental Report outlining the main conclusions of the SEA and any outstanding issues for consideration by relevant authorities;
- an explanation of the overall development context of the programming document (an outline of the contents, main objectives of the programming document and its relationship with other relevant plans and programmes).

### Recommended consultations

The draft programming document and the Environmental Report should be made available to the relevant authorities and the concerned public before the adoption of the programming document. Authorities and the public need to be given an early and effective opportunity and appropriate time to express their opinions on the draft programming document and the accompanying Environmental Report.<sup>40</sup>

Sub-chapter 3.3 of this Handbook outlines some basic issues that may be taken into account when the programming authorities design consultation arrangements.

### Practical tips

- Present all analyses that were undertaken within the SEA and summarize the results of the assessment in a non-technical summary that also explains how the outputs of the SEA process were considered by the planning team.
- Highlight any conclusions and open issues for consideration.
- Acknowledge uncertainties and difficulties that came about during SEA.
- Use plain language so that the report is understandable to decision-makers, relevant authorities and the public.
- Do not use complicated jargon or acronyms.

## 4

## Example of possible inputs and outputs

Table 4.8. Possible contents of an SEA Environmental Report

Structure of the Report	Content	Addressed within this Handbook
Non-technical summary	A non-technical summary outlining the main conclusions of the SEA and any outstanding issues for consideration by relevant authorities	Sub-chapter 4.8
Overall development context of the programming document	An outline of the contents and the main objectives of the programming document and its relation to other relevant plans and programmes	Sub-chapter 4.1 and 4.2
Environmental context of the programming document	The environmental protection objectives, established at international, EU or Member State level, which are relevant to the plan or programme	Sub-chapter 4.1
	Any existing environmental problems relevant to the plan or programme, including, in particular, those relating to any areas of particular environmental importance, such as areas designated under Directives 79/409/EEC and 92/43/EEC	Sub-chapter 4.1
Relevant trends	The relevant aspects of the current state of the environment and its likely evolution if the programming document is not implemented	Sub-chapter 4.2
	The environmental characteristics of areas likely to be significantly affected	Sub-chapter 4.2
Integration of environmental objectives into the programming document	The way in which the environmental protection objectives, established at international, EU or Member State level and relevant to the plan or programme, and any environmental considerations have been taken into account during the preparation of the programming document	Sub-chapter 4.3
Likely significant effects	The likely significant effects on the environment, including biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage and landscape, and the interrelationship between the above factors	Sub-chapter 4.4 and 4.5
Measures to prevent, reduce or offset negative effects	An outline of the reasons for selecting the alternatives dealt with The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme	Sub-chapters 4.3, 4.4, 4.5 and 4.6
Uncertainties	Description of how the assessment was undertaken, including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Sub-chapter 4.3 and 4.4
Monitoring	A description of the measures envisaged for monitoring	Sub-chapter 4.7

## 4.9 Decision-making and information on the decision

### Aim

This step aims to ensure that:

- the Environmental Report and the opinions of those consulted are taken into account in finalising and adopting the programming document;
- an explanation is given of how they have been taken into account;
- reasons are given for choices in the adopted programming document, in the light of other reasonable options considered.

### Rationale

The SEA Directive requires that the opinions expressed through consultations with relevant environmental authorities and the public on the proposed programming document and its accompanying Environmental Report, as well as the Environmental Report itself, be taken into account during the preparation of the plan or programme and before its adoption.<sup>41</sup>

Once the programming document is adopted, the relevant environmental authorities and the public consulted within the SEA need to be informed and the following items must be made available to them:<sup>42</sup>

- the programming document as adopted;
- a statement summarizing how environmental considerations have been integrated into the programming document; how the Environmental Report and the opinions expressed during consultations with relevant environmental authorities and the public have been taken into account; and the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with; and
- the measures decided concerning monitoring.

### Proposed approach

The SEA Directive leaves the detailed arrangements concerning these requirements to be determined by the individual Member States. Therefore this Handbook only reminds readers of these provisions and does not suggest any specific approach for their implementation.

Annex IV to this Handbook outlines some basic questions that may be asked should anyone need to check quickly whether the main requirements of the entire SEA process were met.

<sup>18</sup>SEA Directive, Annex 1, item (d)

<sup>19</sup>SEA Directive, Annex 1, item (e)

<sup>20</sup>SEA Directive, Annex 1, item (f)

<sup>21</sup>For example, the UK Environmental Agency recommends that standard SEAs are focused on 15-25 key environmental issues.

<sup>22</sup>Dusik J. and B. Sadler (2004), Reforming Strategic Environmental Assessment Systems: Lessons from Central and Eastern Europe, In: Impact Assessment and Project Appraisal, volume 22, number 2, June 2004

<sup>23</sup>SEA Directive, Article 5, paragraph 4

<sup>24</sup>SEA Directive, Annex 1, item (a)

<sup>25</sup>SEA Directive, Annex 1, item (b)

<sup>26</sup>SEA Directive, Annex 1, item (a)

<sup>27</sup>SEA Directive, Annex 1, item (c)

<sup>28</sup>SEA Directive, Article 5, paragraph 2

<sup>29</sup>SEA Directive, Annex 1, item (e)

<sup>30</sup>SEA Directive, Article 1

<sup>31</sup>SEA Directive, Annex 1, item (f)

<sup>32</sup>SEA Directive, Annex 1, item (g)

<sup>33</sup>SEA Directive, Annex 1, item (h)

<sup>34</sup>SEA Directive, Annex 1, item (f)

<sup>35</sup>SEA Directive, Annex 1, item (f)

<sup>36</sup>Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions, European Commission, DG XI, May 1999

<http://europa.eu.int/comm/environment/eia/eia-studies-and-reports/volume1.pdf>

<sup>37</sup>SEA Directive, Annex 1, item (g)

<sup>38</sup>SEA Directive, Annex 1, item (i)

<sup>39</sup>SEA Directive, Article 9, paragraph 1, item (c)

<sup>40</sup>SEA Directive, Article 6

<sup>41</sup>SEA Directive, Article 8

<sup>42</sup>SEA Directive, Article 9

## 5

# Concluding comments on the most common myths about SEA

Since SEA is a new tool, there may be many questions about its benefits and costs. The most common concerns and myths are outlined below and commentary is provided on them, based on practical lessons from the GRDP partners.

## 5.1 Concern that SEA requires detailed analyses which may not be appropriate for a given programming document

This concern is very relevant. However, the SEA Directive explicitly states that SEA shall include information which may reasonably be required taking into account:

- current knowledge and methods of assessment;
- the contents and level of detail in the programming document and its stage in the decision-making process;
- the extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment.<sup>43</sup>

The SEA Directive also states that where programming documents form a part of a hierarchy, Member States shall take this fact into account with a view to avoiding duplication of assessments.<sup>44</sup> The Environmental Report should include information that may reasonably be required taking into account the contents and level of detail in the plan or programme and its stage in the decision-making process.<sup>45</sup> In short, this means that the level of detailed information and analysis provided in the SEA should correspond to that of the programming document, and this should be determined as part of the scoping process and consultations.

## 5.2 Concern that SEA does not enable assessment of economic and social impacts and does not facilitate consideration of sustainability issues

This concern is based on the false understanding that the SEA Directive automatically limits SEA to mere assessment of environmental issues. While the SEA Directive requires assessment of environmental issues and effects associated

with the programming document, it does not set limits on the consideration of social and economic aspects or of general sustainability issues. In fact, there are many logical links between the assessments required under the Directive and other assessments that may be performed within the programming process. The SEA approach presented in this Handbook has many similarities with the ex-ante evaluation for the programming process within the 2000-2006 Cohesion Policy funding period, as shown in Table 5.1 on the following page.

## 5.3 Concern that SEA poses significant additional costs and prolongs the planning process

These concerns typically derive from SEA approaches that are based on separate and ex-post assessments. Such practices naturally result in two phenomena:

- Delays are caused by the simple fact that SEA starts too late in the formulation of the programming document and its completion requires additional time which may prolong the entire planning process.
- SEA is more costly since the SEA experts may need to separately gather data that could have been otherwise easily generated or obtained within the overall planning process. SEA experts may also need to carry out additional consultations with the planning team, relevant authorities and the concerned public. These consultations may require organisation, which increases the cost of the SEA as well as the overall cost of the planning process.

It should be noted that the above issues occur in cases where the SEA is not appropriately managed. If the SEA is properly linked to the planning process and is carried out in an ex-ante manner as required in the SEA Directive and as the principles of good SEA practice suggest, delays associated with SEA are naturally minimal.

Conducting the SEA “ex-ante,” or during the planning process, enables the planning and SEA experts to optimise and share the data generated. Experience among GRDP partners indicates that such assessments may typically account for 10-20% of the costs (or an equivalent

Table 5.1. Similarities between the SEA steps presented in this Handbook and usual steps within ex-ante evaluations of Cohesion Policy programming documents

SEA Steps	Typical Ex-ante Evaluation Steps
Determination of the environmental issues, objectives and indicators that should be considered during the SEA process	Analysis of the previous evaluation results (that determines the critical factors affecting implementation and effectiveness of the policy and the types of problem in terms of policy evaluability and monitoring)
Evaluation of the current situation and trends and their likely evolution if the programming document is not implemented	Analysis of the strengths, weaknesses and potential of the state, region or sector concerned <sup>46</sup>
Assessment of development objectives and priorities	Assessment of the rationale and the overall consistency of the strategy
Assessment of proposed measures and eligible activities Assessment of cumulative effects of the entire programming document	Evaluation of expected socio-economic impacts and justification of the policy and financial resource allocation
Evaluation of proposed management system Evaluation of proposed monitoring system	Evaluation of the implementation and monitoring arrangements
Compilation of Environmental Report	Compilation of Report from Ex-ante evaluation

percentage of workdays) incurred during the planning process. These “costs” can be regarded as marginal compared to the future costs of environmentally unsustainable development interventions. It is also important to note that the SEA can be carried out in-house, if expertise is available, by the programme planning team.

Lastly, if the programming authority does not understand the SEA process, and does not integrate it with their programme development, then it will probably not make much use of the environmental solutions identified by the SEA. Indeed, in such case, SEA does become a costly waste of time.

To conclude on a positive note, this Handbook refers to findings of a recent study on the first year of application of the SEA Directive in the UK. The study surveyed 201 authorities which conducted SEA or sustainability appraisal. This review concludes that authorities seemed to be responding remarkably positively to the Directive requirements and distils some interesting recommendations from practice (see Box 5.1 right).

*Box 5.1. Key messages from authorities that undertook SEA or sustainability appraisal*

- Leave enough time (20 responses)
- Start early, plan ahead, and make sure that the SEA is linked to the plan-making process (13)
- Go to seminars, read the guidance, look at other examples, network with other authorities who have already gone through the process (13)
- Don't be over-ambitious, and especially keep the SEA framework (the 'test questions' against which the plan is assessed) simple (10)
- Involve other people in the local authority and other authorities (10)
- Get consultants to do the SEA (10)
- Do the SEA in-house, appoint an SEA/sustainability appraisal officer, get work study students to help you (9)
- Be clear about key findings; the SEA is meant to influence the plan; be constructive and honest (5)
- Don't panic! It does get easier the second time around (3)

Taken from Therivel and Walsh (2005)<sup>47</sup>

<sup>43</sup>SEA Directive, Article 5, paragraph 2

<sup>44</sup>SEA Directive, Article 4, paragraph 3

<sup>45</sup>SEA Directive, Article 5, paragraph 2

<sup>46</sup>This should include an appraisal of the environmental situation of the region (or territory)

concerned, which should address its main strengths and weaknesses to understand the opportunities for, and threats to, economic development in terms of the environmental assets and liabilities of the area.

<sup>47</sup>Therivel, R. and F. Walsh (2005) "The Strategic Environmental Assessment Directive in the UK: One Year On," submitted to Environmental Impact Assessment Review, available at [www.levett-therivel.co.uk](http://www.levett-therivel.co.uk).

## 6

# Key documents, references, guidance

## 6.1 Key documents for Cohesion Policy Programming and SEA

Proposals for the new Structural Funds regulations for the period 2007-2013:

[http://europa.eu.int/comm/regional\\_policy/sources/docgener/informat/reg2007\\_cs.pdf](http://europa.eu.int/comm/regional_policy/sources/docgener/informat/reg2007_cs.pdf)

Draft Community Strategic Guidelines:

[http://europa.eu.int/comm/regional\\_policy/sources/docgener/informat/reg2007\\_cs.pdf](http://europa.eu.int/comm/regional_policy/sources/docgener/informat/reg2007_cs.pdf)

SEA Directive: <http://europa.eu.int/eur-lex/>

Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment (EIA) in a Transboundary Context:

<http://www.unece.org/env/eia/documents/protocolenglish.pdf>

## 6.2 SEA References and Guidance

### European Commission

The European Commission DG Environment maintains a page on studies, reports and guidance documents related to the implementation of SEA in the EU. This site contains the *Handbook on Environmental Assessment of Regional Development Plans and EU Structural Funds Programmes* (EC DG Environment, 1998), as well as the EC guidance on the implementation of the SEA Directive.

<http://europa.eu.int/comm/environment/eia/sea-support.htm>

The BEACON (Building Environmental Assessment CONsensus on the Trans-European transport network) Project; The SEA Manual: A Sourcebook on Strategic Environmental Assessment of Transport Infrastructure Plans and Programmes

<http://www.isis-it.com/download/sea%20manual%20-%2021-10-05.zip>

### International Association of Impact Assessment

Conference material: International experience and perspectives in SEA, 26-30 September 2005, Prague, Czech Republic. A special thematic meeting of the International Association for Impact Assessment.

[http://www.iaia.org/Non\\_Members/Conference/SEA%20Prague/sea\\_prague\\_main\\_page.htm](http://www.iaia.org/Non_Members/Conference/SEA%20Prague/sea_prague_main_page.htm)

### Spain

Environmental Assessment of Structural Programming 2007-2013: Guide for Planning Managers, (Ministry of Environment of Spain, Draft November 2004):

[http://www.mma.es/polit\\_amb/fondos/redauto/pdf/guide\\_eae.pdf](http://www.mma.es/polit_amb/fondos/redauto/pdf/guide_eae.pdf)

### United Kingdom

Strategic Environmental Assessment and Sustainability Appraisal of the South West Regional Economic Strategy: Draft Reports

<http://www.southwestrda.org.uk/downloads/sub-section.asp?subsectionid=13&lang=>

SEA guidance on the Environment Agency for England and Wales: [http://www.environment-agency.gov.uk/aboutus/512398/830672/?version=1&lang=\\_e](http://www.environment-agency.gov.uk/aboutus/512398/830672/?version=1&lang=_e)

A Practical Guide to the Strategic Environmental Assessment Directive, September 2005, Office of the Deputy Prime Minister, London.

[http://www.odpm.gov.uk/embedded\\_object.asp?id=1143292](http://www.odpm.gov.uk/embedded_object.asp?id=1143292)

The Strategic Environmental Assessment Directive: Guidance for Planning Authorities, October 2003, Office of the Deputy Prime Minister, London.

<http://www.odpm.gov.uk/index.asp?id=1143289>

Sustainability Appraisal of Regional Spatial Strategies and Local Development Frameworks, November 2005, Office of the Deputy Prime Minister.

<http://www.odpm.gov.uk/index.asp?id=1161341>

### New EU Member States

SEA of National Development Plans in the Czech Republic, Poland, Slovenia, Estonia in 2003 and assessment of selected operational programmes in Hungary, Bulgaria and the Czech Republic in 2003.

<http://www.rec.org/REC/Programs/EnvironmentalAssessment/SEAActivities.html> under "National Activities"



# Annex I

## Examples of alternatives at the level of objectives/priorities and at the level of measures and eligible activities

This text is based on significant adaptation of the Appendix 7 of UK ODPM Guidance.<sup>48</sup> An internet link to the original source is provided in the footnote and in Chapter 6.

NB: Clearly not all of these options are applicable in all cases. Some alternatives may not be practical, or may not

be appropriate to a particular stage or level of planning. Nevertheless, the suggestions in the table could suggest a wider, and more sustainable, range of alternatives than may be considered in traditional economic development planning.

Interventions that may be proposed within EU Cohesion Policy	Alternatives at the level of objectives (demand-related alternatives)	Alternatives at the level of measures and eligible activities		
		Means of delivery	Location	Timing/sequencing
Transport and accessibility	<p>Reduce the need to travel by:</p> <ul style="list-style-type: none"> <li>■ supporting community-scale infrastructure and services</li> <li>■ reducing the need for work-related travel (e.g. homeworking, teleconferencing)</li> </ul> <p>If extra traffic capacity is unavoidable:</p> <ul style="list-style-type: none"> <li>■ design at minimum necessary capacity</li> <li>■ do not discourage other modes (walking, cycling and public transport)</li> </ul>	<p>Encourage walking and cycling</p> <p>Support good public transport, matched to journey desires (e.g. provide sites for modal interchange, protect rail corridors)</p>	<p>Minimise noise, land take and visual intrusion</p> <p>Locate bike stands and bus stops more conveniently than parking</p>	<p>Have walking/cycling infrastructure and public transport services in place before development comes into use</p>
Housing	<p>Promote energy-efficient forms of housing</p> <p>Encourage rebuilding at higher densities</p>	<p>Use existing building stock (convert redundant non-domestic buildings, loft conversions)</p> <p>Use existing infrastructure in new construction</p>	<p>Focus new housing on brownfield sites and away from floodplains</p> <p>Avoid housing developments that are remote from social services and infrastructure</p>	<p>Match timing of housing development with provision of public service</p> <p>Secure protection and improvements of communal open spaces before development begins</p>
Waste	<p>Encourage waste prevention, reuse, recycling and environmentally friendly waste treatment</p>	<p>Introduce environmental management systems at enterprises</p>	<p>Locate waste management sites near source of waste and/or users of waste as resource</p>	<p>Require preparation of waste management plans before development of waste management infrastructure</p>

# Annex I

Interventions that may be proposed within EU Cohesion Policy	Alternatives at the level of objectives (demand-related alternatives)	Alternatives at the level of measures and eligible activities		
		Means of delivery	Location	Timing/sequencing
		<p>Use waste as a resource by providing facilities for storing recyclable products (e.g. architectural salvage yards, sites for storage of recycled aggregates)</p> <p>Provide recycling facilities at housing and employment sites.</p> <p>Use materials efficiently in construction.</p> <p>Use recycled materials in construction.</p>		
Energy	Decrease use of primary energy sources (i.e. reduce demand for energy and generate energy from renewable sources)	<p>Promote best available energy efficiency technologies in building construction and operation (use materials with low embodied energy, low energy lighting and appliances, high insulation standards and insulation of windows)</p> <p>Promote renewable energy, energy from waste, and combined heat and power</p>	<p>Site housing to optimize solar gain</p> <p>Small-scale, renewable energy installations to minimise transmission loss</p>	
Water		<p>Promote use of water-saving devices, e.g. low-flow showers, low-flush toilets</p> <p>Promote rainwater collection systems, effluent recycling</p>	Consider several smaller facilities rather than one large one	

<sup>49</sup>A Practical Guide to the Strategic Environmental Assessment Directive, September 2005, Office of the Deputy Prime Minister, London.  
[http://www.odpm.gov.uk/embedded\\_object.asp?id=1143292](http://www.odpm.gov.uk/embedded_object.asp?id=1143292)

# Annex II

## Example of environmental objectives and indicators used in SEA practice

The table below suggests some objectives and indicators that are recommended for use in SEA practice in the UK.<sup>49</sup> These objectives can be modified to take into account local circumstances and concerns. A plan or programme concerned with minerals, for example, could include more

objectives for soil and water quality, maintenance of the hydrological regime, and mineral reserves, and could express them in more detailed terms.

Elements of the environment defined by the SEA Directive	Possible relevant objectives (to be adapted to regional/local circumstances by deletions, additions and refinements)	Possible indicators (to be adapted to regional/local circumstances by deletions, additions and refinements) that can be used in quantifying the baseline, prediction and monitoring
Biodiversity, fauna and flora	<ul style="list-style-type: none"> <li>■ avoid damage to designated wildlife and geological sites and protected species</li> <li>■ maintain biodiversity, avoiding irreversible losses</li> <li>■ restore the full range of characteristic habitats and species to viable levels</li> <li>■ reverse the long term decline in farmland birds</li> <li>■ ensure the sustainable management of key wildlife sites and the ecological processes on which they depend</li> <li>■ provide opportunities for people to come into contact with and appreciate wildlife and wild places</li> </ul>	<ul style="list-style-type: none"> <li>■ reported levels of damage to designated sites/species</li> <li>■ achievement of Biodiversity Action Plan targets</li> <li>■ reported condition of nationally important wildlife sites, Sites of Special Scientific Interest, etc.</li> <li>■ achievement of "Accessible Natural Greenspace Standards"</li> <li>■ number/area of Local Nature Reserves</li> </ul>
Population and human health	<ul style="list-style-type: none"> <li>■ create conditions to improve health and reduce health inequalities</li> <li>■ promote healthy living</li> <li>■ protect and enhance human health</li> <li>■ reduce and prevent crime, reduce fear of crime</li> <li>■ decrease noise and vibration</li> <li>■ increase opportunities for indoor recreation and exercise</li> </ul>	<ul style="list-style-type: none"> <li>■ size of population</li> <li>■ changes in demography</li> <li>■ years of healthy life expectancy / infant mortality rate</li> <li>■ mortality by cause</li> <li>■ recorded crimes per 1,000 population</li> <li>■ fear of crime surveys</li> <li>■ number of transport/pedestrian/cyclist road accidents</li> <li>■ number of people affected by ambient noise levels</li> <li>■ proportion of tranquil areas</li> <li>■ percentage of population living in most deprived areas/reliant on key benefits/income deprived</li> <li>■ general resident perception surveys</li> </ul>
Water and soil	<ul style="list-style-type: none"> <li>■ limit water pollution to levels that do not damage natural systems</li> <li>■ maintain water abstraction, run-off and recharge within carrying capacity (including future capacity)</li> <li>■ reduce contamination, and safeguard soil quality and quantity</li> </ul>	<ul style="list-style-type: none"> <li>■ quality (biology and chemistry) of rivers, canals and freshwater bodies</li> <li>■ quality and quantity of groundwater</li> <li>■ water use (by sector, including leakage), availability and proportions recycled</li> <li>■ water availability for water-dependent habitats, especially designated wetlands</li> </ul>

# Annex II

Elements of the environment defined by the SEA Directive	Possible relevant objectives (to be adapted to regional/local circumstances by deletions, additions and refinements)	Possible indicators (to be adapted to regional/local circumstances by deletions, additions and refinements) that can be used in quantifying the baseline, prediction and monitoring
	<ul style="list-style-type: none"> <li>■ minimize waste, then re-use or recover it through recycling, composting or energy recovery</li> <li>■ maintain and restore key ecological processes (e.g. hydrology, water quality, coastal processes)</li> </ul>	<ul style="list-style-type: none"> <li>■ amount/loss of greenfield / brownfield land and proportion available for reuse</li> <li>■ number of houses affected by subsidence, instability, etc.</li> <li>■ housing density</li> <li>■ waste disposed of in landfill</li> <li>■ contaminated land</li> <li>■ flood risk</li> </ul>
Air	<ul style="list-style-type: none"> <li>■ limit air pollution to levels that do not damage natural systems</li> <li>■ reduce the need to travel</li> <li>■ reduce respiratory illnesses</li> </ul>	<ul style="list-style-type: none"> <li>■ number of days of air pollution</li> <li>■ levels of key air pollutants / by sector and per capita</li> <li>■ achievement of Emission Limit Values</li> <li>■ population living in Air Quality Management Area</li> <li>■ access to key services</li> <li>■ distances travelled per person per year by mode of transport</li> <li>■ modal split</li> <li>■ traffic volumes</li> </ul>
Climate Factors	<ul style="list-style-type: none"> <li>■ reduce greenhouse gas emissions</li> <li>■ reduce vulnerability to the effects of climate change e.g. flooding, disruption to travel by extreme weather, etc.</li> </ul>	<ul style="list-style-type: none"> <li>■ electricity and gas use</li> <li>■ electricity generated from renewable energy sources and CHP located in the area</li> <li>■ energy consumption per building and per occupant</li> <li>■ carbon dioxide (CO2) emissions</li> <li>■ flood risk</li> </ul>
Cultural heritage and landscape	<ul style="list-style-type: none"> <li>■ preserve historic buildings, archaeological sites and other culturally important features</li> <li>■ create places, spaces and buildings that work well, wear well and look well</li> <li>■ protect and enhance the landscape everywhere and particularly in designated areas</li> <li>■ value and protect diversity and local distinctiveness</li> <li>■ improve the quantity and quality of publicly accessible open space</li> </ul>	<ul style="list-style-type: none"> <li>■ percentage of Listed Buildings and archaeological sites 'at risk'</li> <li>■ number and proportion of vacant dwellings</li> <li>■ building functionality: use, access, space</li> <li>■ building impact: form and materials, internal environment, urban and social integration, character and innovation</li> <li>■ percentage of land designated for particular quality or amenity value, including publicly accessible land and greenways</li> <li>■ proportion of population within 200m of parks and open spaces</li> <li>■ percentage of residents rating improvement/other in activities for teenagers, cultural facilities including for children and sport, leisure and parkland facilities</li> </ul>

<sup>49</sup>A Practical Guide to the Strategic Environmental Assessment Directive, Office of the Deputy Prime Minister, September 2005 <http://www.odpm.gov.uk/index.asp?id=1143289>

# Annex III

## Contents of the Environmental Report as outlined in Annex I of the SEA Directive

- a** an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes;
- b** the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;
- c** the environmental characteristics of areas likely to be significantly affected;
- d** any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;
- e** the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;
- f** the likely significant effects<sup>50</sup> on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;
- g** the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;
- h** an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;
- i** a description of the measures envisaged concerning monitoring in accordance with Article 10;
- j** a non-technical summary of the information provided under the above headings.

<sup>50</sup>These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

# Annex IV

## SEA Review Checklist

The following checklist is adopted from the “Quality Assurance checklist” found in Appendix 4 of the UK document *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*.<sup>51</sup> This checklist can help to ensure that the requirements of the SEA Directive are met, identify problems in the SEA Environmental Report, and show how effectively the appraisal has integrated environmental considerations into the programming document. The checklist may be applied at any stage of the SEA process to check the quality of the work carried out up to that point.

### Objectives and context

- The purpose of the programming document and its objectives are made clear.
- Links with other related plans, programmes and policies are identified and explained.
- Relevant environmental issues stipulated by the SEA directive and highlighted in the relevant European, national or sub-national policy documents are considered
- Relevant environmental objectives are clearly set out and linked to indicators or specific questions on which the SEA will focus.
- Conflicts between relevant environmental objectives and the objectives of the programming document are identified and described.

### Determining the scope of the SEA

- The relevant environmental authorities are consulted in appropriate ways and at appropriate times on the content and scope of the SEA Report.
- The assessment focuses on significant issues.
- Technical, procedural and other difficulties encountered are discussed; assumptions and uncertainties are made explicit.
- Reasons are given for eliminating issues from further consideration.

### Baseline information

- Relevant aspects of the current state of the environment and their likely evolution without the programming document are described.
- Characteristics of areas likely to be significantly affected by the programming document are described.
- Difficulties such as deficiencies in information or methods are explained.

### Assessment of options

- Realistic alternatives for priorities, measures and conditions for implementation are considered.
- The environmental effects (both adverse and beneficial) of each alternative are identified, compared, and the reasons for choosing them are documented.
- Reasons are given for selection or elimination of alternatives.
- Difficulties such as deficiencies in information or methods are explained.

### Mitigation measures

- Measures envisaged to prevent, reduce and offset any significant adverse effects of implementing the plan are indicated.
- Issues to be taken into account in development consents are identified.

### The Environmental Report

- The report is clear and concise in its layout and presentation.
- The report uses simple, clear language and avoids or explains technical terms.
- The report uses maps and other illustrations where appropriate.
- The report explains the methodology used.
- The report explains who was consulted and what methods of consultation were used
- The report identifies sources of information, including expert judgement and matters of opinion.
- The report contains a non-technical summary.



# Annex IV

## **Consultations with relevant environmental authorities and the public**

- Consultations on the SEA are an integral part of the process.
- The relevant environmental authorities and the public are consulted in ways which give them an early and effective opportunity within appropriate time frames to express their opinions on the draft programming document and the Environmental Report.

## **Decision-making and information on the decision**

- The Environmental Report and the opinions of those consulted are taken into account in finalising and adopting the programming document.
- An explanation is given of how they have been taken into account.
- Reasons are given for choices in the adopted programming document, in the light of other reasonable options considered.

<sup>61</sup>Sustainability Appraisal of Regional Spatial Strategies And Local Development Documents, November 2005, Office of the Deputy Prime Minister.  
<http://www.odpm.gov.uk/index.asp?id=1161341>

**The GRDP partnership works in association with:**

Bristol City Council, UK

Castilla and Leon Regional Development Agency, Spain

Department of Environmental Protection and Reclamation, Programming Waste Management,

Piemonte Region, Italy

Natural England, UK

Eszak Alföld Region, Hungary

Learning and Skills Council for Devon and Cornwall, UK

Ministry of Regional Development and Public Works, Bulgaria

Ministry of Environment, Secretariat of the Spanish Environmental Authorities Network, Spain

North Great Plain Regional Development Agency, Hungary

Objective 1 Partnership Office, Cornwall and the Isles of Scilly Programme, UK

Objective 2 Programme for the South West of England, UK

Regional Environment Authority of Campania, Italy

Regional Environment Authority of the Calabria Region, Italy

Regional Environment Authority of the Piemonte Region, Italy

Regional Ministry of Environment and Sustainable Development of Galicia, Spain

South West of England Regional Development Agency, UK

United Nations Development Programme, Bulgaria

**The GRDP partnership is:**



Cornwall County Council, UK



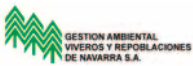
Development Agency of Langhe Monferrato Roero - Consortium, Italy



Devon County Council, UK



Environment Agency for England and Wales, UK (lead partner)



Environment Management, Nurseries and Afforestations of Navarra, Spain



Federal Ministry of Agriculture, Forestry, Environment and Water Management, Austria

lebensministerium.at



Italian Environmental Authority for Structural Funds, Italy



Local Urban Ecology Agency of Barcelona, Spain



Malta Environment and Planning Authority, Malta



Marche Environmental Authority, Italy



Med.O.R.O. - Organization for Research, Orientation and Territorial Development in the Mediterranean, Italy



Ministry of Tourism, Environment and Territorial Policies, La Rioja, Spain



Municipality of Wroclaw, Poland

WROCLAW

REPUBBLICA ITALIANA



Regional Environmental Authority for Structural Funds, Sicily region, Italy

Assessorato Territorio ed Ambiente



The Regional Environmental Center for Central and Eastern Europe (REC), Hungary

REGIONAL ENVIRONMENTAL CENTER



University of Debrecen, Centre for Environmental Management and Policy, Hungary

University of Debrecen  
Centre for Environmental Management and Policy



Western Greece Region, Greece

ΠΕΡΙΦΕΡΕΙΑ ΔΥΤΗΡΗΣ ΕΛΛΑΔΟΣ  
REGION OF WESTERN GREECE



### **Contact**

GRDP project team

Environment Agency

Manley House, Kestrel Way

Exeter EX2 7LQ, UK.

Tel : +44 (0)1392 442170

Email: [Agata.Payne@environment-agency.gov.uk](mailto:Agata.Payne@environment-agency.gov.uk)

Visit our website: [www.grdp.org](http://www.grdp.org)