UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

Resource Manual

to Support Application of the UNECE Protocol on Strategic Environmental Assessment

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ABBREVIATIONS AND ACRONYMS

Aarhus Convention	United Nations Economic Commission for Europe Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, done at Aarhus (Denmark), 1998
CBA	Cost-benefit analysis
EC	European Commission
ECE	United Nations Economic Commission for Europe (also sometimes informally abbreviated as UNECE)
EIA	Environmental Impact Assessment
EIA Directive	European Union Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, as amended by European Council Directive 97/11/EC of 3 March 1997
Espoo Convention	United Nations Economic Commission for Europe Convention on Environmental Impact Assessment in a Transboundary Context, done at Espoo (Finland), 1991
EU	European Union
GIS	Geographic Information System
HIA	Health Impact Assessment
LCA	Life-cycle assessment
MCA	Multi-criteria analysis
NGO	Non-governmental organization
OECD	Organization for Economic Cooperation and Development
REC	Regional Environmental Centre for Central and Eastern Europe
SEA	Strategic Environmental Assessment
SEA Directive	EU Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment
SEA Protocol	Protocol on Strategic Environmental Assessment to the Espoo Convention
SWOT	Strengths, Weaknesses, Opportunities, Threats
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WHO	World Health Organization
WTA	Willingness to accept
WTP	Willingness to pay

INTRODUCTION TO THE MANUAL

0.1 PREAMBLE

1. The United Nations Economic Commission for Europe (ECE) Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) was adopted in Kyiv in May 2003. The Protocol entered into force in July 2010 and, as of mid-2011, 22 States and the European Union are Parties to the Protocol.. Information on the latest status of the Protocol is available from the ECE website http://www.unece.org/env/eia/sea_protocol.html. The Protocol is not limited to States in the ECE region; any Member State of the United Nations may accede upon approval to the Protocol.[1]

2. This *Resource Manual to Support Application of the Protocol on Strategic Environmental Assessment* (the Manual) was developed as decided by the Meeting of the Signatories to the Protocol in June 2004.

3. The Manual does not constitute formal legal or other professional advice, but instead provides guidance to those applying the Protocol or supporting others in doing so.

[1] For an explanation of these terms, see the *United Nations Treaty Handbook*, available from http://treaties.un.org/pages/Publications.aspx?pathpub=Publication/TH/Page1_en.xml.

0.2 PURPOSE, TARGET AUDIENCE AND STATUS

4. The Manual:

   - Highlights the main requirements of the Protocol on Strategic Environmental Assessment (SEA Protocol).
   - Outlines the key issues for applying the Protocol in practice.
   - Provides materials for training and capacity-development programmes supporting application of the Protocol.

5. The Manual is expected to be used by:

   - Those who want to learn about the Protocol and the theory of its application, including Government and other officials working on the application of the Protocol, practitioners carrying out Strategic Environmental Assessments (SEAs) and stakeholders wishing to participate in the SEA process.
   - Those who want to advise and train others on the Protocol's requirements and the application of SEA.

6. This dual audience is reflected in the structure of the Manual (see below).

7. The ECE region includes the member States of the European Union (EU). EU Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, commonly referred to as the SEA Directive, was to be implemented by July 2004. The mandatory provisions of the Protocol are broadly equivalent to those of the SEA Directive and the authors have tried to indicate differences in the course of this Manual. In 2003, the European Commission (EC) produced a publication to help EU member States with the implementation of the SEA Directive: *Implementation of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment*. The elements of this Manual that focus on the application of SEA in practice may also be of use to those applying the SEA Directive.

8. **However, this Manual does not serve as formal interpretative guidance for the SEA Protocol or for the SEA Directive**.

9. Reference is also made in this Manual to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters.

10. The Manual has been produced in English and Russian. As French is one of the official languages of ECE, the Manual will be translated into French, provided additional resources become available. It is hoped that the Manual will be made available in other languages, either in this form or as adapted by countries to match their individual needs (see section 0.4 below).

0.3 STRUCTURE

11. The Manual is divided into two parts, reflecting the dual nature of the target audience:

- **Part A** for those applying the Protocol.
- **Part B** for trainers and others developing capacity to apply the Protocol.

12. These two parts each comprise a series of chapters that are autonomous but interlinked and that reference other resources, with each chapter being accompanied by an electronic presentation available on the website of the Convention. The two-part structure is set out below.

Part A: Application of the Protocol

- Chapter A1 introduces SEA aims and outlines the concepts, roles and evolution of SEA.

A series of four chapters provide assistance with the application of the Protocol to plans and programmes:

- Chapter A2 identifies linkages between SEA and plan- and programme-making processes.
- Chapter A3 describes how to determine whether SEA is required under the Protocol.
- Chapter A4 describes the SEA of plans and programmes under the Protocol.
- Chapter A5 provides an overview of basic applicable tools that may be used in the practical undertaking of SEA.

And for policies and legislation:

- Chapter A6 describes how the Protocol may be applied to policies and legislation.

Part B: Trainers' Guide

- Chapter B1 outlines the broad concept of capacity development for the Protocol.
- Chapter B2 offers a set of tasks that can be used to design practical work on case studies within SEA training and capacity-development programmes.

13. Annexes provide additional materials for the above chapters.

14. In addition to the SEA Protocol, this Manual refers to the following resources:

International instruments and guidance

- ECE Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention).
- ECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention).
- EU Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (SEA Directive).
- *Implementation of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment* (EC Guide).

- *Health Impact Assessment as part of Strategic Environmental Assessment*, World Health Organization (WHO).[2]

Examples of SEA practices

- This resource will grow as countries supply examples.

15. The above-mentioned resources, recommended reading and further useful resources relevant to each section of the Manual are to be provided on the Manual website (http://www.unece.org/env/eia/sea_manual/welcome.html).

[2] C. H. Breeze and K. Lock, eds., *Health impact assessment as part of strategic environmental assessment: A review of health impact assessment concepts, methods and practice to support the development with adequate coverage of health of the SEA Protocol* (WHO, 2001). Available from http://www.who.int/hia/network/en/HIA_as_part_of_SEA.pdf.

0.4 REVISION AND ADAPTATION OF THE MANUAL

16. This Manual will be revised and developed as decided by the Signatories and, later, by the Parties to the Protocol.

17. The Manual is being made available in electronic form through websites and on CD-ROMs. This allows the flexibility of adding links to new resources as they become available. These new resources are expected to include guidance, methods, reviews, case studies and examples of good practices.

18. In addition, adaptation of the Manual for different contexts is encouraged. For example, in 2005, national versions of an earlier draft of this Manual were developed in Georgia, Ukraine and the Republic of Moldova.

19. Those wishing to adapt the Manual for their specific use are encouraged to pay attention to the following issues:

    - Before adapting the Manual, one should analyse thoroughly the current environmental assessment systems for plans, programmes, policies and legislation operating in the given context and then adapt the Manual accordingly.

    - Adaptation can be more than just translation of the Manual, with the inclusion of additional chapters and sections and important issues for the local context, as well as the exclusion of materials considered unnecessary.

    - Examples from a particular region or country can be used to make the Manual more understandable and more relevant to the target audience.

    - Both the Protocol and the SEA Directive are legal instruments, in the countries where they are in force, and care should be taken to avoid representing their provisions incorrectly.

20. The adapted materials should acknowledge the Manual and the copyright holders.

PART A: APPLICATION OF THE PROTOCOL

Chapter A1

A BRIEF INTRODUCTION TO STRATEGIC ENVIRONMENTAL ASSESSMENT

A1.1 INTRODUCTION TO THE CHAPTER

The Protocol refers throughout to "the environment, including health". To avoid repetition, the Manual refers only to the environment, but this should always be understood to include health. For more information on health issues, please see annex A1.1.

1. This chapter provides a short introduction to strategic environmental assessment (SEA), beginning by answering the question "what is SEA?" (section A1.2), what is it supposed to achieve and how it compares with environmental impact assessment (EIA), the widely used tool for the environmental assessment of projects.
2. The Chapter then looks at the costs and benefits of SEA (section A1.3) and at some guiding principles for SEA (section A1.4).
3. Finally, the Chapter looks at some broader considerations (section A1.5), including:
   - SEA as a sustainability tool.
   - Links between SEA and other assessment tools.
   - SEA at more strategic levels of decision-making.

A1.2 WHAT IS SEA?

4. Various definitions of SEA are enshrined in law or policy or referenced in the literature on the topic. As generally understood, SEA is a systematic and anticipatory process, undertaken to analyse the environmental effects of proposed plans, programmes and other strategic actions and to integrate the findings into decision-making.

5. In this Manual, the term "SEA" has a specific meaning that is consistent with the definition contained in the SEA Protocol. It refers to:

> *the evaluation of the likely environmental, including health, effects, which comprises the determination of the scope of an environmental report and its preparation, the carrying-out of public participation and consultations, and the taking into account of the environmental report and the results of the public participation and consultations in a plan or programme* (art. 2, para. 6).

A1.2.1 What is the purpose of SEA?

6. The purpose of SEA, broadly stated, is to ensure that environmental considerations inform and are integrated into strategic decision-making in support of environmentally sound and sustainable development. In particular, the SEA process assists authorities responsible for plans and programmes, as well as decision makers, to take into account:

- Key environmental trends, potentials and constraints that may affect or may be affected by the plan or programme.
- Environmental objectives and indicators that are relevant to the plan or programme.
- Likely significant environmental effects of proposed options and the implementation of the plan or programme.
- Measures to avoid, reduce or mitigate adverse effects and to enhance positive effects.
- Views and information from relevant authorities, the public and — as and when relevant — potentially affected States.

A1.2.2 What is the added value of SEA compared with EIA?

7. SEA has evolved largely as an extension of EIA principles, processes and procedures, and this is certainly the case with respect to the SEA Protocol (see annex A1.2 for key legal and policy milestones in the development of the field). But it also offers a number of advantages compared to the EIA of projects. These follow from SEA application to the higher level of plan and programme making, which sets a framework for projects subject to EIA and potentially many other actions that may have an impact on the environment. At this level, SEA facilitates consideration of the environment in relation to fundamental issues (why, where and what form of development) rather than addressing only how an individual project should be developed. The potential for environmental gain is much higher with SEA than with EIA.

8. In that regard, the specific value added by SEA of plans and programmes includes:

- The opportunity to consider a wider range of alternatives and options at this level compared with the project stage.

- The ability to influence the type and location of development that takes place in a sector or region, rather than just the design or siting of an individual project.
- An enhanced capability to address cumulative and large-scale effects within the time and space boundaries of plans and programmes, as opposed to the project level.
- Facilitating the delivery of sustainable development through addressing the consistency of plan and programme objectives and options with relevant strategies, policies and commitments.
- Streamlining and strengthening project EIA by "tiering" (see box A4.3) this process to the SEA report and thereby avoiding questions (whether, where and what type of development should take place) that have been decided already with environmental input.

A1.3 BENEFITS AND COSTS OF SEA[3]

A1.3.1 Benefits of SEA

9. The immediate benefits of SEA application can be found in information that assists sound decision-making and in the consequent gains achieved in environmental protection and sustainable development. In addition, there are other, secondary benefits that are integral to the participatory approach and transparent procedures followed in accordance with the SEA Protocol. When properly implemented, the SEA process should:

- Provide for a high level of environmental protection.
- Improve the quality of plan and programme making.
- Increase the efficiency of decision-making.
- Facilitate the identification of new opportunities for development.
- Help to prevent costly mistakes.
- Strengthen governance.
- Facilitate transboundary cooperation.

SEA provides for a high level of environmental protection

10. Provision of a high level of environmental protection is the stated objective of the SEA Protocol (art. 1); it is the reason why SEA is undertaken. A high level of environmental protection may be subject to different interpretation but, at a minimum, SEA should ensure avoidance of irreversible and severe effects, safeguard protected areas and sites, and maintain critical habitats and other areas that are important for the conservation of biodiversity.

SEA improves the quality of plan and programme making

11. Whether undertaken in parallel to or as an integral part of plan and programme making, SEA has the potential to improve or reinforce the quality of the plan or programme, leading to better outcomes. It does so in a number of ways, but particularly by helping to ensure that the process is focused, rigorous, open to alternatives and considers the full range of potential effects and opportunities for achieving more sustainable forms of development.

SEA increases the efficiency of decision-making

12. SEA helps to streamline decision-making by enabling environmental issues to be taken into account consistently at the different stages or tiers of decision-making. Time efficiency (and as a consequence cost-effectiveness) is expected to be improved by better and more consistent decision-making at the plan or programme level, leading to fewer appeals and less discussion at the operational or EIA level. Ultimately, SEA supports project-level decisions, as these can be based on previously optimized plans and programmes. The shared use of information produced at different stages of the planning hierarchy may also increase the efficiency of decision-making.

[3] Based on REC and UNDP (2003), *Benefits of a Strategic Environmental Assessment, Briefing paper*, available from http://archive.rec.org/REC/Programs/EnvironmentalAssessment/pdf/BenefitsofSEAeng.pdf; and on Organization for Economic Cooperation and Development (OECD)/Development Assistance Committee (2006), *Applying Strategic Environmental Assessment: Good Practice Guidance for Development Cooperation*, available from http://www.oecd-ilibrary.org/content/book/9789264026582-en.

SEA facilitates the identification of new opportunities for development

13. SEA facilitates the improved consideration of environmental limits in the formulation of plans and programmes. It helps in considering alternatives and encourages the search for win-win options that open opportunities for new developments within the carrying capacity of ecosystems. SEA thus supports a shift in decision-making towards genuine sustainable development.

SEA helps to prevent costly mistakes

14. SEA provides early warning signals about environmentally unsustainable development options. A sound application of SEA may therefore limit the risk of costly remediation of avoidable harm or corrective actions, such as relocating or redesigning facilities. SEA also helps in saving human and financial resources in the development of plans and programmes as unsustainable options can be disregarded early on.

SEA strengthens governance

15. SEA increases the overall transparency of strategic decision-making and allows the early consideration of the opinions of key stakeholders in the plan- or programme-making process. Properly undertaken and accountable SEA enhances the credibility of plans and programmes. It may mobilize public support for implementation — a plan or programme may be more effective when the values, views, opinions and knowledge of the public have become part of the decision-making process.

SEA facilitates transboundary cooperation

16. SEA can provide an important arena for regional cooperation to address difficult issues concerning, for example, shared protected areas, waterways, transport connections and transboundary pollution.

A1.3.2 Costs of SEA

17. An EC study on the costs and benefits of EIA[4] indicated that introducing SEA to regional and local land-use planning usually increased planning costs by 5 to 10 per cent. This study also found examples of good SEAs that increased planning costs by less than 5 per cent, but the costs depend on the amount and detail of alternatives elaborated and their assessment. A more recent study on the first year of application of the SEA Directive in the United Kingdom,[5] which surveyed 201 authorities that had conducted SEAs, concluded that most SEAs required approximately 70–80 person days to complete (roughly half for scoping and half for the environmental report). At the same time, the majority of respondents consulted in this study agreed or strongly agreed with the statement that "SEA was an effective use of time and resources".

18. The main costs associated with the operation of an SEA system occur during the initial applications of SEA, when appropriate approaches and tools are tested and developed and when basic data sets are compiled. Subsequent SEAs tend to be less costly, as they can build on previous experience and may require only standard analytical work and process management. (Indeed,

[4] European Commission (1996), *A study on costs and benefits in EIA/SEA*. The publication is out of print, but a summary is available from http://ec.europa.eu/environment/eia/eia-studies-and-reports/eia-costs-benefit-en.htm.

[5] R. Therivel and F. Walsh (2005), "The Strategic Environmental Assessment Directive in the UK: One Year On", submitted to *Environmental Impact Assessment Review*.

respondents to the above-mentioned study indicated that they expected future SEAs to take considerably less time.) These costs can be regarded as marginal compared with the overall costs of implementation of plans and programmes.

A1.4 GUIDING PRINCIPLES FOR APPLICATION OF SEA

19. In this Manual we are looking at the specific requirements of applying the SEA Protocol and, to a lesser extent, the SEA Directive. Nonetheless, a number of more general guiding principles for the application of SEA are available and may be of value. These include various statements in national guidance materials or in the literature of the field. In addition, reference can be made to the performance criteria for a good quality SEA process developed by the International Association for Impact Assessment (see annex A1.3).

20. Despite some differences, there is a measure of agreement on the basic principles of SEA and the actions that need to be taken for its effective application. These include the following:

- SEA should be **undertaken by the authority responsible for a plan or programme**. Ideally it should be integrated into and customized to fit the logic of the plan- or programme-making process.
- SEA should be **applied as early as possible in the decision-making process,** when all the alternatives and options remain open for consideration.
- SEA should **focus on the key issues** that matter in the relevant stages of the plan- or programme-making process. This will facilitate the process being undertaken in a timely, cost-effective and credible manner.
- SEA should evaluate a **reasonable range of alternatives**, recognizing that their scope will vary with the level of decision-making. Wherever possible and appropriate, it should identify the best practicable environmental option.
- SEA should **provide appropriate opportunities for the involvement of key stakeholders and the public**, beginning at an early stage in the process and carried out through clear procedures. Ideally, it should employ easy-to-use consultation techniques that are suitable for the target groups.
- SEA should be **carried out with appropriate and cost-effective methods and techniques of analysis**. It should achieve its objectives within the limits of the available information, time and resources, and should gather information only in the amount and detail necessary for sound decision-making.

21. These guiding principles should be applied in concert as a package in order to meet the aims and deliver the benefits of SEA as described above. If applied in this way, they should assist in undertaking a good quality process that satisfies the spirit of the SEA Protocol and helps delivery of its specific requirements. The legal provisions, of course, must be paramount in governing SEA process design and application.

A1.5 SOME BROADER CONSIDERATIONS

22. In concluding, it should be noted that there are interpretations of the role and scope of SEA that extend beyond the framework of the SEA Protocol, although these are by no means universally shared. These are briefly introduced here because they are the focus of ongoing debate in the field and because of process developments under way or proposed in certain countries and international organizations.

A1.5.1 SEA as a sustainability tool

23. A major and controversial issue concerns whether SEA should explicitly address the sustainability implications of plans and programmes (or other strategic actions) or continue to focus only on their environmental effects. With regard to the former position, there are then a number of critical questions as to how such an approach could be undertaken. For present purposes, there are two broad schools of thought on these issues (and many shades of opinion in between):

(1) SEA should address only or primarily environmental effects and concentrate on implementing what has been agreed to already in accordance with legal requirements and widely accepted principles of good practice. In this way, the process can best contribute to sustainable development. This might be termed the mainstream or majority position and is probably held by many SEA administrators and practitioners. A variant is to consider certain social aspects as well within the context of the environment. Some social aspects are already considered part of the environment, e.g. health and material assets (housing).

(2) SEA should make an explicit, "best effort" attempt to address the sustainability implications in addition to environmental effects, while recognizing the limitations of such an approach. In this context, arguments have been put forward to reorient SEA in two main directions, namely towards:

- Ensuring environmental sustainability of proposed plans, programmes and other strategic actions, for example through the evaluation of impact significance within a framework of precautionary principles, on the one hand, and safe-minimum or threshold criteria on the other, including provision to ensure damage (residual impact) is compensated or made good. This approach, developed in an international study of environmental assessment effectiveness, remains a minority position, although facets are applied nationally and internationally.

- Sustainability assessment or appraisal of the environmental, economic and social effects of proposed plans, programmes and other strategic actions, for example, as now implemented in the United Kingdom as part of regional and local land-use planning[6] and in the internal EC process of impact assessment of policy and regulatory initiatives. The United Kingdom approach has been initiated as part of a major reform of planning that also implements the provisions of the SEA Directive. As such, it might be followed closely as a "road test" of how the relationship between SEA and sustainability assessment can be given practical effect.

[6] United Kingdom, *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents* (London, Office of the Deputy Prime Minister, 2005). Available from http://www.communities.gov.uk/documents/planningandbuilding/pdf/practicalguidesea.pdf.

A1.5.2 Logical links between SEA and related assessment tools

24. Despite recent developments, sustainability assessment of plans and programmes presents a number of institutional and methodological challenges that are largely outside the scope of this Manual. However, the framework of the SEA Protocol provides a number of potential links with socio-economic assessment, recognizing these follow a similar analytical logic even though they have a different substantive focus. The SEA Protocol is also consistent with the basic principles of integrated assessment and planning for sustainable development as outlined in the framework developed by the United Nations Environment Programme (UNEP).[7] A series of pilot projects to test this framework has highlighted windows of opportunity for linking various assessment tools. These are broadly outlined in table A1.1 below, which illustrates how SEA might be linked to socio-economic or sustainability assessment. In the present context, of course, the SEA process undertaken as part of such an approach must conform fully to the fundamental purpose and requirements of the SEA Protocol.

A1.5.3 SEA at more strategic levels of decision-making

25. The issue of whether and how SEA should be applied at more strategic levels of decision-making continues to be a subject of debate. Strong arguments have been made in the literature for SEA to be applied to all types of strategic proposals, beginning at the highest level of policy formulation, and particularly where this sets a context or framework for plans and programmes. However, there is no consensus on this position. Many SEA practitioners have noted there are practical and institutional barriers that stand in the way of this course of action, generally and in particular countries. There are also various shades of opinion on how SEA should be applied to policymaking, recognizing the often iterative, flexible nature of this process compared to plan and programme making.

26. The SEA Protocol encourages but does not oblige the Parties to ensure that the environment is integrated to the extent appropriate in policy- and law-making and to consider its principles and elements in doing so (for further information see chapter A6). A number of ECE member States, as well as the EC, already have SEA systems or near-equivalent appraisal-type processes that apply to policies and legislation. Experience at this level is less than that for the SEA of plans and programmes, but it is not inconsiderable. SEA practice at the policy level in selected countries is described in a volume prepared on behalf of the Czech Ministry of Environment, as additional information to this Manual.[8] The volume also includes a brief notional review of how the key elements of the SEA Protocol might be applied to policy and legislation, as well as other possible approaches. This material and particularly the reviews of national experience in seven ECE member States may be of interest to those who want to place the requirements of the SEA Protocol in a broader context.

[7] UNEP (2004) *Integrated Assessment and Planning for Sustainable Development: Guidelines for pilot projects*, UNEP, Geneva, available from http://www.unep.ch/etb/events/Events2005/midTermReview/IAPGuidePilPro.pdf.

[8] B. Sadler, ed., *Strategic Environmental Assessment at the Policy Level — Recent progress, current status and future prospects* (Prague, Czech Ministry of Environment, 2005). Available from http://www.unece.org/env/eia/documents/PolicySEA/SEA of Policies volume.pdf.

Table A1.1: Logical linkages between usual tasks in SEA, social and economic assessments and sustainability assessments[9]

SEA	Social and economic assessments	Sustainability assessment
Environmental baseline	Economic and social baseline	Evaluation of sustainability of current development trends and patterns
Determination of relevant environmental objectives and evaluation of how they were considered in the plan or programme making	Determination of relevant economic and social objectives and evaluation of how they were considered in the plan or programme making	Determination of relevant sustainability objectives and principles and evaluation of how they were considered in the plan or programme making
Assessment of environmental impacts of proposed options and inputs into their optimization	Assessment of economic and social impacts of proposed options and inputs into their optimization	Assessment of economic, social and environmental impacts of proposed options with reference to relevant sustainability objectives (aspirations) and limits (bottom lines), suggesting win-win options or options that optimize trade-offs
Outline of measures for mitigation of significant adverse effects and their monitoring during implementation of the plan or programme	Outline of measures for mitigation of significant adverse effects and their monitoring during implementation of the plan or programme	Outline of measures for mitigation of significant adverse effects and their monitoring during implementation of the plan or programme

[9] For an extensive discussion of such linkages, see the OECD publication, *Applying Strategic Environmental Assessment,* supra note 3.

Chapter A2

INTEGRATION OF SEA INTO PLAN AND PROGRAMME MAKING

A2.1 INTRODUCTION TO THE CHAPTER

The Protocol refers throughout to "the environment, including health". To avoid repetition, the Manual refers only to the environment, but this should always be understood to include health. For more information on health issues, please see annex A1.1.

1. This chapter looks at how the SEA of a plan or programme may be integrated into, or otherwise linked to, the plan- or programme-making process.
2. This chapter therefore examines key issues for the application of the Protocol within the specific plan- or programme-making context. It comprises three parts:

   - Section A2.2 provides a general description of a typical plan- or programme-making process. It then turns to the key elements of SEA in the Protocol, including an examination of why integration of SEA into plan and programme making is needed for the effective application of the Protocol. (The benefits of integration are discussed further in chapter A6 on policies and legislation.) The section ends by highlighting the logical links between plan- or programme-making processes and SEA. These links are seen as opportunities for coordinating the two processes and, ultimately, for integration of SEA into plan and programme making.
   - Section A2.3 looks at how these links may be identified in a practical, rather than a theoretical, plan- or programme-making process. It also looks at some practical reasons for seeking to integrate SEA into plan or programme making.
   - Finally, section A2.4 discusses three options for integration: no integration, partial integration and full integration.

A2.2 PLAN AND PROGRAMME MAKING, SEA AND THE LINKS BETWEEN THEM

3. This section looks first at the usual tasks in plan and programme making, then at the key elements of the SEA of plans and programmes. The section concludes by examining the logical links between the plan- and programme-making tasks, on the one hand, and the SEA elements, on the other. Section A2.3 and section A2.4 examine these links further, looking at how the SEA may be integrated into plan and programme making.

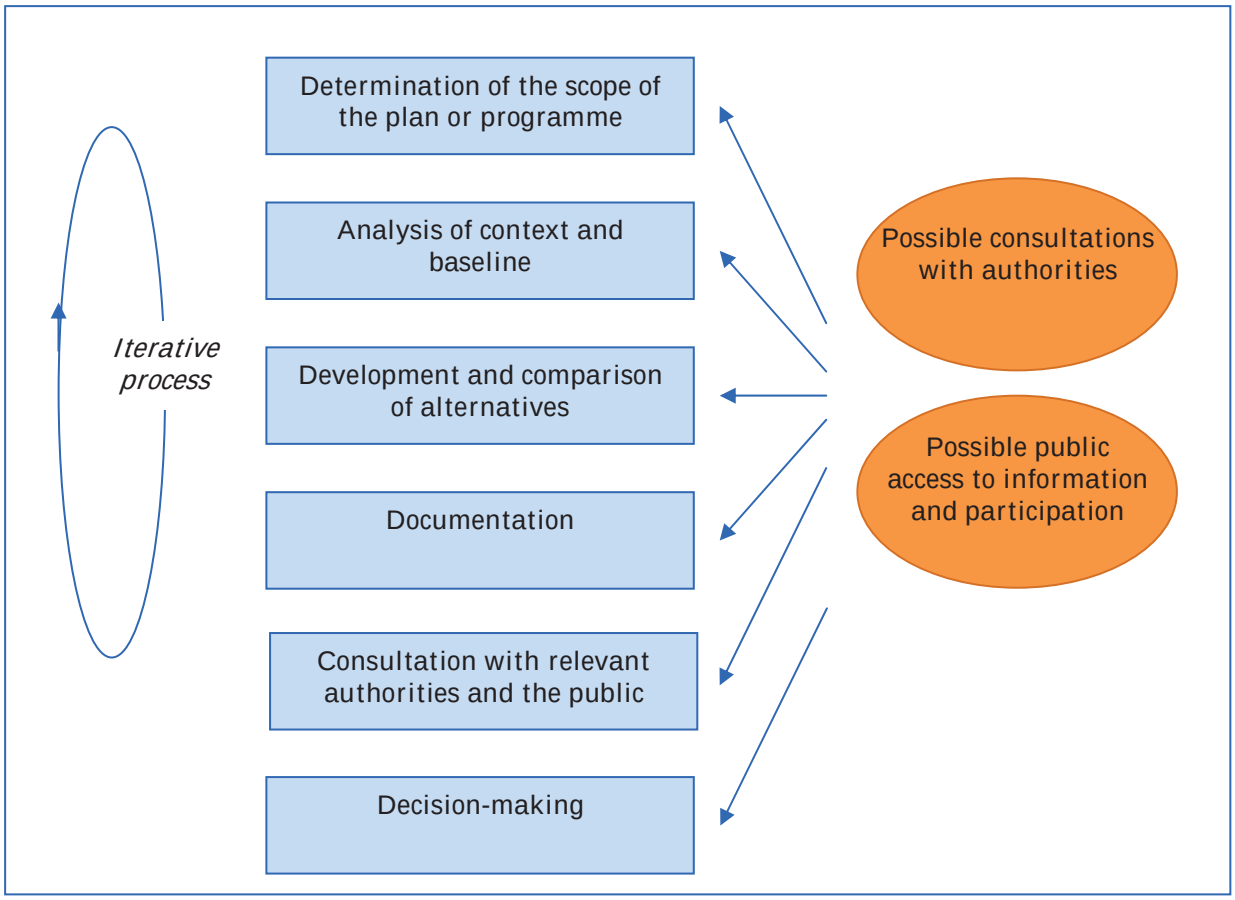
A2.2.1 Usual tasks of plan and programme making

4. Plan and programme making is usually an iterative process involving the following tasks (see figure A2.1 below):

   - The **scope of the plan or programme is normally clarified** during initiation, when the expected nature of the respective plan or programme, its broad objectives and the issues to be addressed are determined.
   - The **analysis of the context and baseline** usually includes the review of current development trends that should be taken into account, constraints and opportunities for future development, and other specific issues to be addressed in the plan or programme.
   - The **development and comparison of alternatives of the plan or programme** often takes place through consideration of optional objectives of the plan or programme, optional priorities proposed in the plan or programme, options for activities proposed to implement these objectives or options for implementation arrangements (i.e., criteria for support to eligible actions, terms of reference for subsequent assessments, etc.).
   - **Documentation**, which may include defining the roles and responsibilities for implementation of the plan or programme and designing monitoring arrangements.
   - **Consultation** with relevant authorities and the public.
   - The draft plan or programme is then finalized for **decision-making**.

5. These tasks are only illustrative and may not occur as distinct steps. Indeed, they may be merged or further split based on the logic of the specific plan- or programme-making process and its formal procedural stages. The specific logic, tasks and formal stages in the plan- or programme-making process can be determined through an analysis of the plan- or programme-making process, as outlined in subsection A2.3.1 below.

Figure A2.1: Usual tasks in plan and programme making



A2.2.2 Elements in the SEA of plans and programmes

6. The Protocol sets out a process for carrying out the SEA of plans and programmes in its articles 6 to 12:

   - *Scoping* to determine the content of the environmental report (art. 6).
   - *Environmental report* (art. 7).
   - *Public participation* (art. 8).
   - *Consultation* with environmental and health authorities (art. 9).
   - *Transboundary consultations* (art. 10).
   - *Decision* on the adoption of the plan or programme (art. 11).
   - *Monitoring* of effects (art. 12).

7. Though the description in this Manual is sometimes in terms of a process, in practical terms, the above will be **elements** integrated within a plan- or programme-making process (as described later in this chapter), rather than a separate, parallel process.

8. This integration is necessary if SEA is to be a proactive instrument that influences the development of the plan or programme, as required by the Protocol:

   - The preamble of the Protocol declares that "strategic environmental assessment should have an **important role in the preparation and adoption** of plans, programmes, and, to the extent appropriate, policies and legislation".

- *Article 1* states that the objective of the Protocol is "to provide for a high level of protection of the environment, including health, by ... ensuring that environmental, including health, considerations are **thoroughly taken into account in the development of plans and programmes**".
- *Article 2.6*[10] defines SEA as a process that stretches beyond evaluation of the likely environmental effects to include "**taking into account** of the environmental report and the results of the public participation and consultations **in a plan or programme**".
- *Article 11* requires each Party to ensure that, when a plan or programme is adopted, due account is taken of the conclusions of the environmental report. However, the term "conclusions of the environmental report" is not defined. The environmental report is likely to include a number of conclusions, for example: on the environmental baseline relevant to the plan or programme; on the environmental objectives in the plan or programme; on measures to prevent, reduce or mitigate negative effects; on reasons for selecting alternatives of the plan or programme; and on monitoring. It is difficult to see how all these various conclusions can be taken into account in a single decision at the end of the plan- or programme-making process, that is, in the formal decision-making that concludes the development of the plan or programme. Therefore, it is suggested that the various conclusions of the environmental report be considered during the development of the plan or programme, as and when they become available, as well as due account being taken when adopting the plan or programme. The provisions of the SEA Directive are clearer in this respect, as its article 8 requires that the environmental report and the results of consultations must be taken into account "during the preparation of the plan or programme and before its adoption or submission to the legislative procedure".

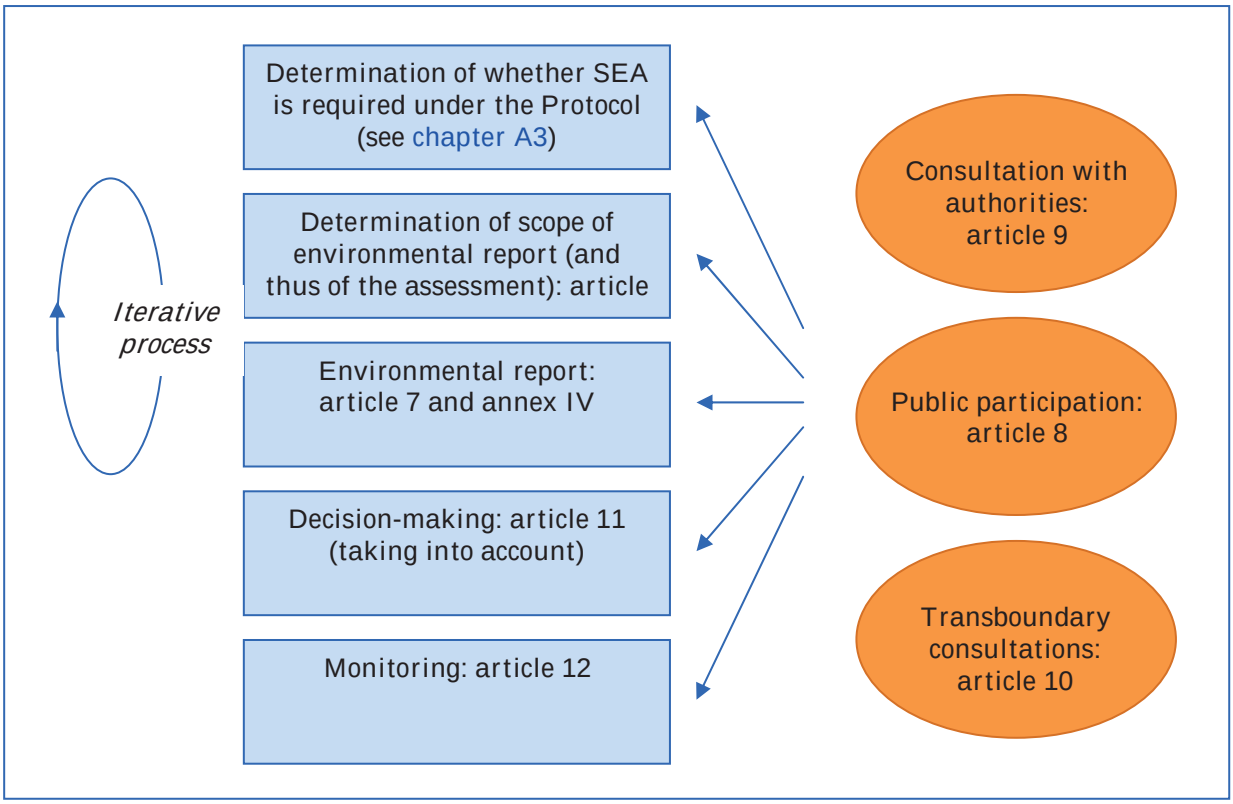
9. The elements in the SEA are summarized in table A2.1 below and illustrated in figure A2.2, following. These elements are described in greater detail in chapter A4, which looks at the SEA of plans and programmes. This chapter examines how these elements may be integrated into plan and programme making.

[10] In this Manual, the term article X.Y (or art. X.Y) is used to reference article X, paragraph Y.

Table A2.1: SEA elements

Element	Description
Scoping	The first element is, having determined that a plan or programme is to be subject to SEA, to determine the scope of the environmental report. Determining the scope of the report implies also defining the scope of the analyses that will lead to the preparation of the report. Scoping provides an opportunity to focus the report on the important issues to maximize its usefulness to the public, authorities and decision makers. It does not preclude changes in the scope of the report if the need for them were to become apparent at a later stage. Environmental and health authorities have to be consulted in scoping, and the public may be provided with opportunities to participate.
Environmental report	The second element is the preparation of the environmental report (in line with the scope). The report will provide the public and the authorities consulted with information on the environmental effects of the plan or programme.
Public participation	The third element is the participation of the public. This may have already begun during scoping or even during the determination of whether SEA is required under the Protocol for a plan or programme (see Chapter A3). The draft plan or programme and the environmental report must be made available to the public, and the **public concerned** must be consulted and given the opportunity to express its opinion on the draft plan or programme and the environmental report.
Consultation	The fourth element is the consultation with the environmental and health authorities, which must be allowed the opportunity to express their opinion on the draft plan or programme and the environmental report. Consultation and public participation may occur at the same time. (The public and the authorities are consulted together under article 6 of the SEA Directive.)
Transboundary consultations	If it appears that the plan or programme may have significant transboundary effects (on another Party to the Protocol), or if a potentially affected Party so requests, the affected Party or Parties should be notified and invited to enter into consultations. Those transboundary consultations, which may be done at the same time as the public participation and the consultation with the authorities, must lead to an opportunity for the concerned public and the environmental and health authorities in the affected Party to express their opinion on the draft plan or programme and the environmental report.
Decision-making	The sixth element is the taking of a decision on the adoption of a plan or programme. This decision has to take into account the environmental report and the opinions expressed by the public concerned and the authorities, both domestic and of any affected Party. The decision maker has to produce a statement summarizing how that information was taken into account and why the plan or programme is being adopted in the light of reasonable alternatives. The adopted plan or programme, the decision and the justification must be made publicly available.
Monitoring	The final element is monitoring. SEA does not stop with the decision to adopt a plan or programme. The significant environmental effects of implementation have to be monitored to, among other things, identify unforeseen adverse effects and enable appropriate remedial action to be taken. Monitoring results have to be made available to the authorities and to the public.

Figure A2.2: Elements in SEA of plans and programmes



A2.2.3 Logical links between plan and programme making and the requirements of the Protocol

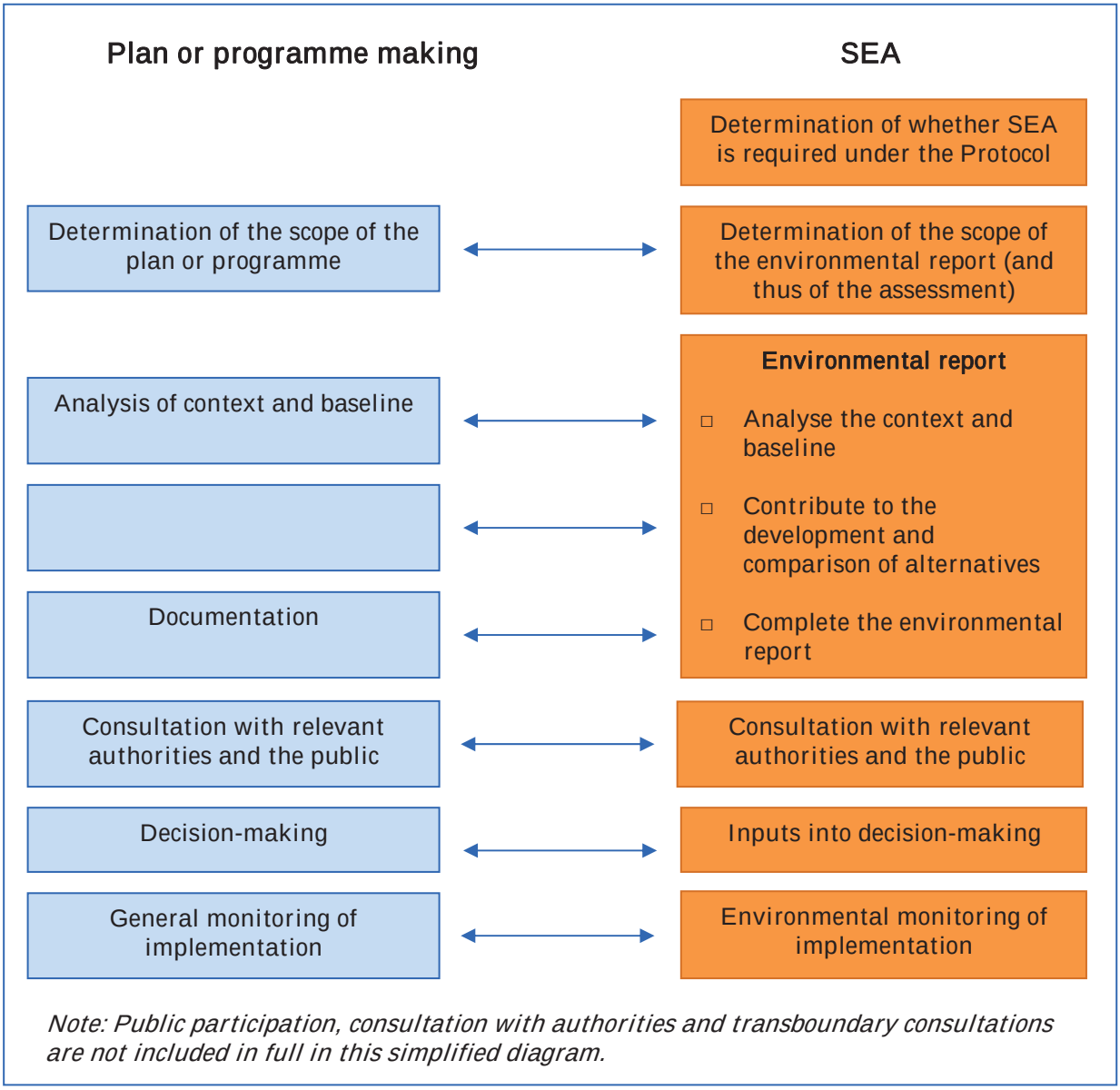
10. The simplified and idealized scheme below (figure A2.3) shows potential logical links between SEA and tasks that are often performed within the plan- or programme-making process. However, this scheme is only illustrative since many plan- and programme-making processes do not employ such a clear sequence of tasks — indeed they may skip some tasks or may include additional tasks not found in this scheme. In addition, the scheme does not include consultations and public participation in full, since these may occur as an integral part of the plan or programme formulation or may be carried out as distinct procedural stages within the SEA process.

11. Even though the drawing up of a plan or programme and the SEA naturally differ in purpose — i.e., the purpose of the plan or programme making is to develop the plan or programme, whereas the aim of the SEA is to analyse the plan or programme and recommend its improvement — both processes often employ similar analytical thinking. In essence, both the development of the plan or programme and the carrying out of the SEA should:

- Determine the key issues that should be considered during plan or programme making.
- Analyse the context of the plan or programme and likely future trends if the plan or programme is not implemented.
- Propose optimal alternatives.
- Propose optimal monitoring and management systems.

- Inform the relevant authorities, the public and decision makers about the plan or programme and its likely impacts.

Figure A2.3: Logical links between plan- and programme-making tasks and SEA elements



Note: Public participation, consultation with authorities and transboundary consultations are not included in full in this simplified diagram.

12. Table A2.2 below outlines the main logical links that may exist between plan or programme making and undertaking SEA.

13. Plan- and programme-making and assessment systems have evolved differently in **Eastern Europe, the Caucasus and Central Asia**. An examination of the relationship between SEA according to the Protocol, on the one hand, and plan- and programme-making and assessment systems in that subregion, on the other, is presented in a publication by the United Nations Development Programme (UNDP), the Regional Environmental Centre for Central and Eastern Europe (REC) and ECE.[11] (The plan- and programme-making systems in Western Europe are also highly diverse.)

[11] J. Dusik, A. Cherp, A. Jurkeviciute, H. Martonakova and N. Bonvoisin, *SEA Protocol: Initial Capacity Development in Selected Countries of the Former Soviet Union* (REC, 2006). Available from http://www.unece.org/env/eia/documents/SEA_CBNA/UNDP-REC-UNECE_SEAbulletin_no.2_en.pdf.

Table A2.2: Logical links between plan or programme making, SEA, consultations with authorities and public participation

Step	Usual tasks in plan or programme making	Logically corresponding tasks in SEA	Consultations with authorities, public access to information and public participation within SEA
		Requirement to carry out SEA can be determined either by reference to legal obligation (e.g., list of plans and programmes that always require SEA) or through case-by-case review of whether the plan or programme requires SEA under the Protocol (see chapter A3).	Consult the relevant environmental and health authorities and inform the public.
Determination of the scope	Scope of the plan or programme (which is often clarified in its formal initiation) may be determined by law, etc., by specific guidance or through consultations to define: • Broad objectives of the plan or programme • Links between the plan or programme and other plans and programmes • General issues to be addressed in the plan or programme.	Scope of SEA may be defined by identifying: • Likely contents and the main objectives of the plan or programme and its link with other plans or programmes (and possibly also policies)[12] • Environmental problems that are relevant to the plan or programme[13] • Environmental objectives established at international, national and other levels that are relevant to the plan or programme[14] • Alternatives to deal with and, in outline, the reasons for their selection[15] • Initial list of environmental impacts that should be assessed.[16]	Identify authorities to be consulted and public to participate. Consult relevant environmental and health authorities. *Optionally:* Consult public.

[12] SEA Protocol, annex IV, para. 1.
[13] SEA Protocol, annex IV, para. 4.
[14] SEA Protocol, annex IV, para. 5.
[15] SEA Protocol, annex IV, para. 8.
[16] SEA Protocol, annex IV, para. 6.

Step	Usual tasks in plan or programme making	Logically corresponding tasks in SEA	Consultations with authorities, public access to information and public participation within SEA
Analysis of context and baseline	Review relevant plans and programmes and baseline information (characteristics of relevant development trends). Determine constraints and opportunities for future development.	Focus the baseline analyses on issues identified during the scoping process and analyse: • The characteristics of the environment in areas likely to be significantly affected.[17] • The current state of the environment and its likely evolution should the plan or programme not be implemented.[18] *Optionally:* Further develop the scope of the assessment to follow.	*Optionally:* Consult authorities and public on context and relevant issues and record comments.
Development and comparison of alternatives	Development and comparison of options usually considers: • Specific objectives of the plan or programme to be achieved. • Actions to implement these objectives. • Measures to optimize implementation of selected actions.	Describe how the environmental objectives and other environmental considerations have been taken into account in the alternative options. Assess (by various methods, see chapter A5) the expected environmental effects, including likely significant transboundary effects.[19] SEA can contribute to development and comparison of options by evaluating relevant alternative options of the plan or programme on the basis of their likely significant environmental effects. Such assessment can identify optimal options and describe measures to prevent, reduce or mitigate any significant adverse effects.[20] It may also suggest preferred alternatives among those that are being considered.	*Optionally:* Consult authorities and public on alternatives and record comments.

[17] SEA Protocol, annex IV, para. 3
[18] SEA Protocol, annex IV, para. 2
[19] SEA Protocol, annex IV, paras. 6 and 10.
[20] SEA Protocol, annex IV, para. 7.

Step	Usual tasks in plan or programme making	Logically corresponding tasks in SEA	Consultations with authorities, public access to information and public participation within SEA
Documentation	Preparation of the draft plan or programme, including: • Proposed implementation and monitoring arrangements. • Summary description of the draft plan or programme. • Documentation of the draft plan or programme.	Preparation and issue of the environmental report accompanying the draft plan or programme: • Recording how alternatives were developed. • Recording how assessment was carried out, including difficulties encountered. • Defining measures for monitoring of environmental effects of the implementation of the plan.[21] Summarizing the information in a non-technical summary.[22]	
Consultation with relevant authorities and the public	Consultation	Public participation, consultation with relevant authorities and transboundary consultations.	Make draft plan or programme and environmental report available to the public and the authorities. Consult authorities and public concerned on the draft plan or programme and environmental report. Notify and consult affected Parties as appropriate. Receive comments to be taken into due account in decision-making.

[21] SEA Protocol, annex IV, para. 9.
[22] SEA Protocol, annex IV, para. 11.

Step	Usual tasks in plan or programme making	Logically corresponding tasks in SEA	Consultations with authorities, public access to information and public participation within SEA
Decision-making	Taking environmental report and comments from authorities and the public into account during formal decision-making on the plan or programme.		Inform the relevant authorities (including environmental and health authorities) and the public.
Monitoring	Monitoring of implementation of the plan or programme.	Environmental monitoring.	Make monitoring results available to the public and the authorities.

A2.3 PRACTICAL APPROACHES TO INTEGRATING SEA INTO PLAN AND PROGRAMME MAKING

14. Section A2.2 looks at theoretical situations. This section turns to practical plan- and programme-making processes, and to some practical reasons for seeking to integrate SEA into plan or programme making.

A2.3.1 Determining effective links between SEA and plan or programme making

Review of the plan- or programme-making process

15. As pointed out in the section A2.2, each plan- or programme-making process is different — some of these processes operate on the basis of clearly defined procedures (e.g., spatial planning, river basin management, coastal zone management), but other plan- and programme-making processes (e.g., waste management, energy planning) may operate on the basis of less structured approaches.

16. Optimal points for entry of SEA into plan- and programme-making processes cannot be effectively established, therefore, without detailed knowledge of the very specific plan- and programme-making systems within which SEA needs to operate. This knowledge can be gained through review of the plan- or programme-making process, which may be done on two levels:

- The review of procedures (e.g., procedural and methodological requirements for a specific plan- or programme-making discipline) can provide useful insights on the level of specific plan- and programme-making regimes. This may be useful for design of, for example, specific SEA guidelines for a particular plan- or programme-making procedure.
- The review of a process used to draw up a specific plan or programme (e.g., a forestry plan) can provide useful insights for the design of a specific SEA approach in drawing up a range of other plans and programmes.

Suggested focus of the review

17. In order to determine the entry points for SEA into a specific plan- or programme-making process, it may be useful to review:

- The formal or informal plan- or programme-making logic and the sequence of the key plan- or programme-making tasks.
- Any environmental analyses that are normally performed within the specific plan- or programme-making process.
- Consultation with environmental and health authorities within the plan or programme making.
- Access to information and any provisions for public participation during the plan or programme making.

18. Such a review may offer useful insights for the design of customized SEA processes that build effectively on the existing plan- or programme-making tasks rather than replacing or duplicating them.

A2.3.2 Practical reasons for integrating SEA into plan and programme making

19. Integration of SEA into the development of plans and programmes is based on practical reasons, which extend beyond the legal obligations for early and effective use of SEA in the plan or programme making described in chapter A4.

20. The complexity of decision-making calls for the use of effective instruments that assist rather than complicate the development of plans and programmes. Generally speaking, SEA processes will be regarded as effective and efficient if they:

- **Enable effective consideration of environmental issues in the development of plans and programmes.** The capacity of SEA to facilitate the integration of environmental issues into plan or programme making largely depends of the timelines and form of SEA inputs into the plan or programme making. SEAs that provide early and operative inputs in the relevant stages of the plan or programme making are naturally going to be more efficient than ex post[23] or separate assessments.

- **Assist in the identification of conflicting views and interests and thus increase the credibility of decision-making.** This tends to facilitate rational debate and problem solving, as well as building trust between stakeholders.

- **Do not unnecessarily prolong plan or programme making.** Application of the Protocol requirements poses certain time demands, which can be minimized by careful organization of the SEA during the plan- or programme-making process.

- **Are not unreasonably costly.** The preparation of environmental reports and consultations with authorities and with the public defined by the Protocol will incur additional costs. Additional costs may be limited if SEA is carried out in conjunction with the plan or programme making and builds on data gathering, analyses and consultation that may already occur within the plan- or programme-making process.

21. The above overview indicates how important it is to coordinate SEA properly with the development of the plan or programme. The goal is to ensure that SEA provides early and effective inputs into plan or programme making and to ensure that environmental considerations **are thoroughly taken into account in the development of plans and programmes** (see art. 1 (a) of the Protocol).

22. In reality, SEA practitioners may be confronted with numerous challenges in achieving effective coordination, and ultimately integration, of SEA and plan or programme making.

A2.3.3 Issues for consideration

23. The proper use of logical links between plan- or programme-making tasks, on the one hand, and SEA tasks, on the other, can help to achieve one of the objectives of the Protocol: "to ensure that environmental, including health, considerations are thoroughly taken into account in the development of plans and programmes" (art. 1 (a)).

[23] "Ex post" means "based on or determined by actual results, rather than expectations; calculated retrospectively". It is the opposite of "ex ante", which means "based on predicted or expected results; forecast, anticipated". Source: *Oxford English Dictionary* (United Kingdom, Oxford University Press, 2011).

24. Apparent logical links between the development of the plan or programme and SEA will only be realized if practical links occur on the following levels:

- Development of the plan or programme and the preparation of the environmental report.
- Consultation with the authorities.
- Public participation.

25. Links between the development of the plan or programme and the preparation of the environmental report may result practically in:

- Joint use of data.
- Joint inputs into the development of relevant alternatives.
- Addressing plan- and programme-making and environmental issues during comparisons of alternatives, in modelling (if any), etc.

26. Links in consultation with the authorities may result practically in:

- Joint consultative processes for public authorities.
- Joint evaluation of comments obtained, etc.

27. Links in public participation may result practically in:

- A single system to facilitate public access to documentation.
- A single system for consultations with the public.
- A single system for the evaluation of comments obtained, etc.

A2.4 OPTIONS FOR APPLYING THE PROTOCOL DURING PLAN AND PROGRAMME MAKING

28. This section outlines some possible situations that may occur in the practical undertaking of SEA during the development of plans and programmes. It is understood that, in reality, there may be options that combine different elements of these extreme situations. The overview below is thus illustrative — its purpose is to outline the strengths and weaknesses of each option and its contribution to meeting obligations under the Protocol.

A2.4.1 Problematic application: SEA that is ex post and separated from the plan or programme making

29. It sometimes occurs that SEA is ex post and separated from the plan or programme making; this will occur if SEA begins only after formulation of the draft plan or programme (see figure A2.4). This situation might be caused by several factors:

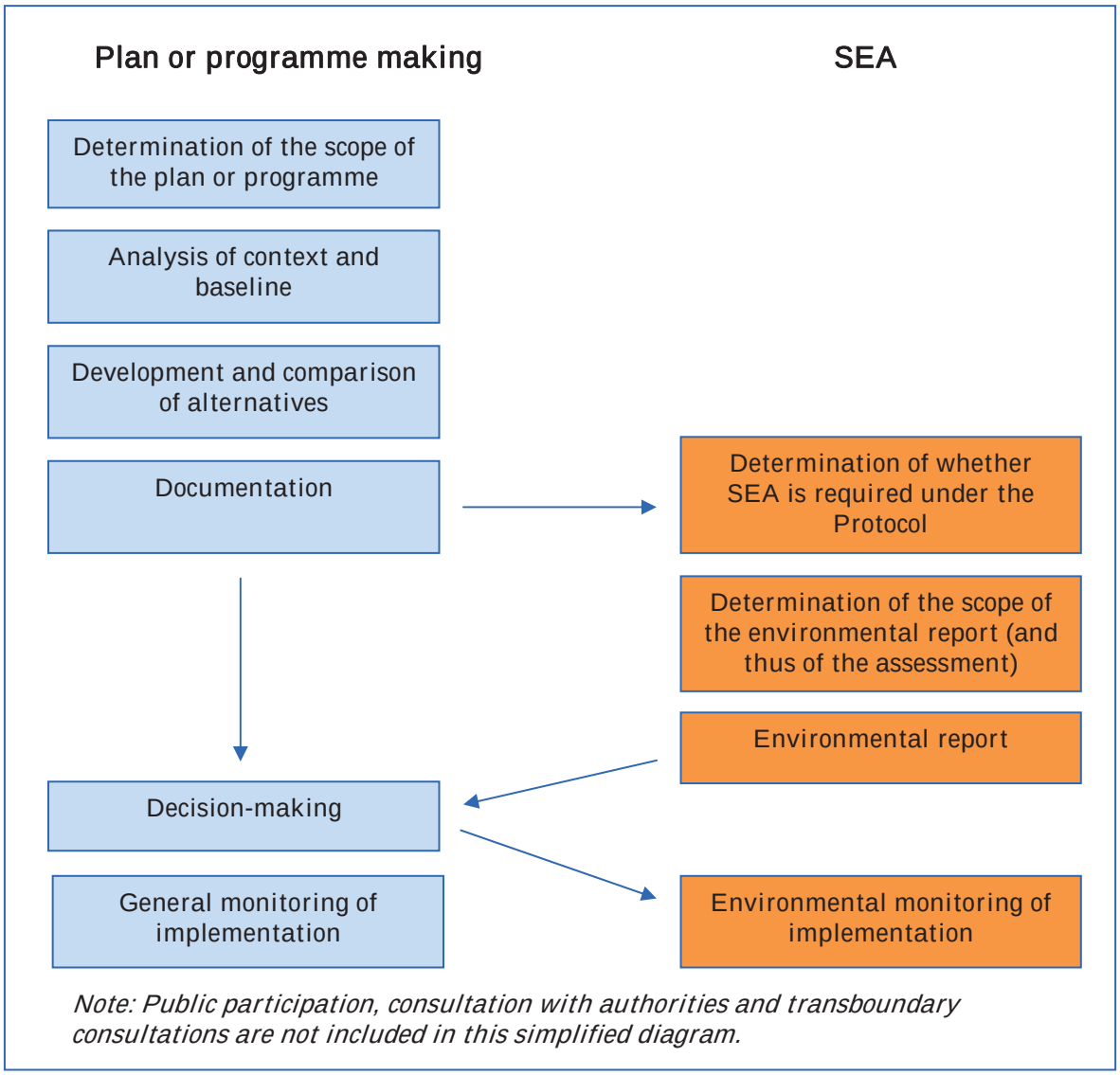
- Case-by-case determination of whether SEA is required for a given plan or programme requires a too-detailed description of the proposed plan or programme. Very detailed demands for the description of the nature of the proposed plan or programme for determining the significance of its likely environmental effects may lead the responsible authority to submit only an advanced (or completed) draft of the plan or programme for case-by-case determination of whether SEA is required. In practice, the determination of likely significant effects of the plan or programme should be possible during its initiation, which normally defines the nature of the plan or programme and its broad objectives.

- Responsible authorities or developers of the plan or programme do not wish to undertake SEA early, because they may be unaware of the numerous benefits of early application of SEA. In practice, there may be political reasons for this or a simple lack of appreciation of the value of SEA. However, such instances tend to be very limited and may be prevented by awareness-raising about the benefits of SEA in preventing conflicts and in cost and time savings.

- Persons in charge of SEA do not wish or are not ready to assess incomplete plans and programmes. This situation may occur in countries or institutions with limited practice in SEA. Cases have been observed of persons in charge of SEA intentionally postponing beginning SEA with the argument that it is impossible to assess impacts of non-existent or vaguely defined proposals. This may be caused by attempts to apply rigidly approaches used in project-level EIA, without their necessary adjustment to the scale of issues that are normally addressed in a plan or programme and to the nature of the plan- or programme-making process.

30. Such SEA may be perceived as a final quality check that aims to provide information to the decision-making on the draft plan or programme.

Figure A2.4: SEA that is ex post and separated from the plan or programme making: overall approach



Note: Public participation, consultation with authorities and transboundary consultations are not included in this simplified diagram.

31. However, SEA separated from the plan- or programme-making process has several widely perceived weaknesses:

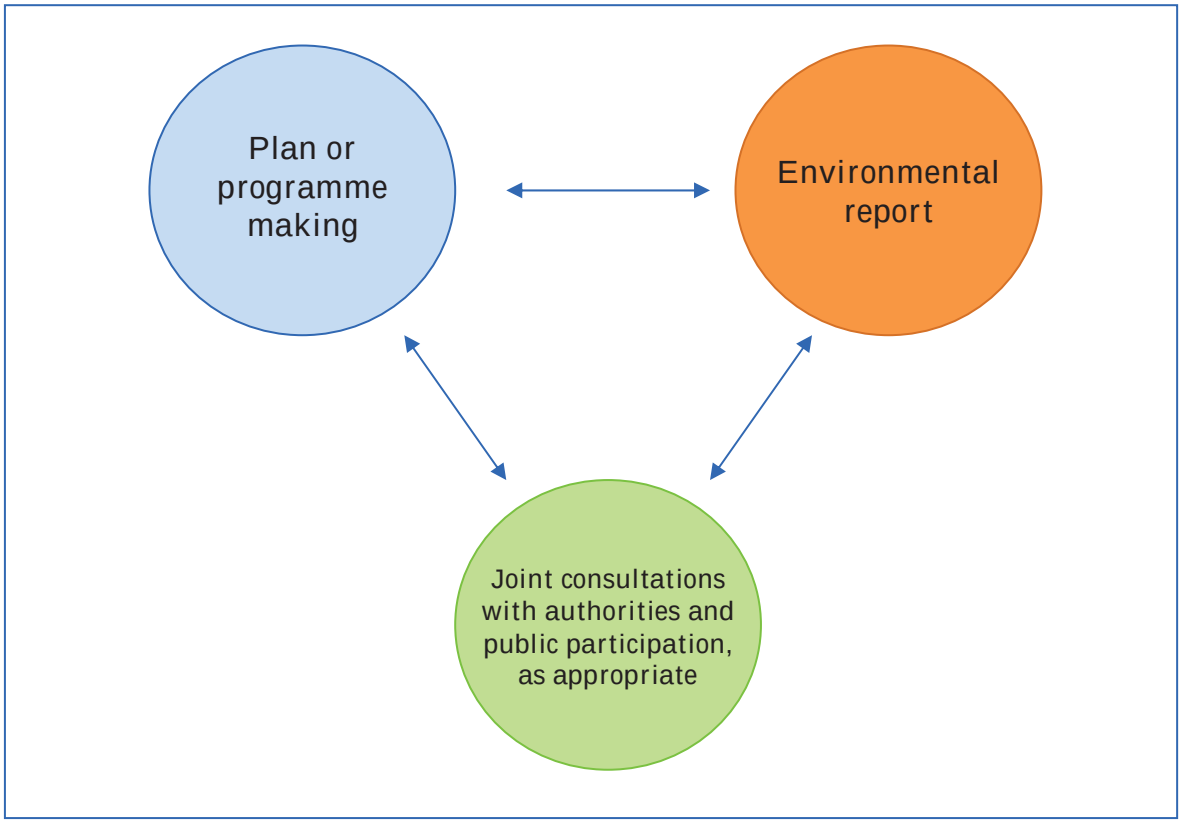
- Separated and ex post SEA **does not influence the development of the plan or programme**. Such SEA examines only the end product of plan or programme making and does not influence important choices that are made in plan or programme making. The responsible authority is less likely to adopt any of the SEA recommendations as the plan or programme making may be more advanced. Such SEA will likely produce the least environmental benefit.
- SEA that starts after completion of the draft plan or programme **may duplicate effort** in the development of alternatives, their analyses and comparison.
- The separation of consultations within SEA from consultations within the plan- or programme-making process may lead to **duplication in the commenting process** and may also **confuse participating authorities and the public**.

- Such SEA usually **significantly delays the plan- or programme-making process**. Determination of whether SEA is needed, scoping the assessment, preparing the environmental report, carrying out consultations with authorities and public participation may also require considerable time, which may prolong the plan- or programme-making process.
- Lastly — and **most importantly** — this approach may conflict with several provisions of the Protocol (see preamble, objective and definition of SEA) and there is a risk that it **will not provide SEA in accordance with the Protocol and the SEA Directive**.

A2.4.2 SEA partially integrated into plan or programme making

32. SEA partially integrated into plan or programme making (see figure A2.5) is based on the assumption that initiation of the specific plan or programme normally provides a sufficient basis for the determination of whether SEA is needed and for scoping.

Figure A2.5: SEA partially integrated into plan or programme making: overall approach



33. Initiation of the plan or programme usually clarifies legal, administrative or regulatory requirements for the development of the plan or programme and outlines its nature and the intended focus of its objectives. This information should normally provide a sufficient basis for the determination of whether SEA is required for the given plan or programme and for scoping of the key issues that should be analysed within the SEA. Determination of whether SEA is required and early scoping during initiation of the plan or programme making create favourable conditions for undertaking SEA during the plan or programme making.

34. SEA partially integrated into plan or programme making runs in parallel to the development of the plan or programme. The SEA team and the plan- or programme-making team work separately while maintaining close links in order to ensure due account of the SEA in the plan or programme making.

35. This approach utilizes logical links between the development of plans and programmes and SEA and enables the SEA team to:

    - Address the same issues at the same time as the plan- or programme-making team.
    - Generate, analyse and compare alternative viewpoints and options.
    - Create favourable conditions for taking due account of SEA at each step of the plan or programme making.

36. Draft versions of the plan or programme and of the environmental report can also be made available for comments by the authorities and by the public (concerned) through a single commenting or review system that combines requirements for consultation within the plan- or programme-making process and within SEA.

37. The SEA team may also explain within the final environmental report how the conclusions of the SEA were reflected in the draft plan or programme and may indicate any outstanding issues, thus helping authorities to meet their obligations under article 11.2: Parties are required to provide the public, the relevant environmental authorities and any consulted Parties "with a statement summarizing how the environmental, including health, considerations have been integrated into it, how the comments received in accordance with articles 8 to 10 have been taken into account and the reasons for adopting it in the light of the reasonable alternatives considered". Such an overview may also be helpful in the review of the environmental report and of the draft plan or programme by the authorities and the public.

38. Partial integration of SEA into plan- or programme-making results in several benefits:

    - It significantly **reduces delays**, since SEA is undertaken in parallel with the development of the plan or programme.
    - It **saves resources** required to undertake SEA, since the SEA team is able to participate in data gathering and to contribute to analyses that are normally performed within the plan- or programme-making process. (See section A1.3 for a more detailed discussion of the costs and benefits of SEA.)
    - Frequent consultations between the SEA team and the plan- or programme-making team facilitate **early consideration of different viewpoints** and minimize the risk of late surprises and conflicts. This debate helps not only the plan- or programme-making team (which may consider inputs from the SEA) but also the SEA team (which can get immediate feedback on its proposals).
    - **Consultations** between teams that prepare the plan or programme and the SEA may, as deemed appropriate, also **extend to relevant environmental and health authorities and to the public (concerned).** Such consultations, once organized, enable periodic scoping and review of key issues that are relevant for each respective stage of the plan- or programme-making process. Such consultations may also become more effective in gathering and addressing inputs from relevant authorities and the public than initial scoping consultations, or than concluding reviews

of the draft plan or programme and of the environmental report at the end of the plan- or programme-making process.

- Lastly — and **most importantly** — this application supports several provisions of the Protocol (see preamble, objective and definition of SEA) and **may provide SEA in accordance with the Protocol and the SEA Directive**.

39. At the same time, it is useful to note possible weaknesses of such an application of SEA. This approach generally increases demands on the SEA team, since experts preparing the environmental report have to follow the entire plan- or programme-making process, which, in reality, may not proceed as a linear process and may not always proceed according to the original schedule but instead become quite lengthy. If the SEA team intends to provide inputs into all major stages in the drawing up the plan or programme, it needs to be ready to adapt its workplan to any changes in the plan- or programme-making process. (This may pose difficulties if SEA tasks are subcontracted to external bodies.)

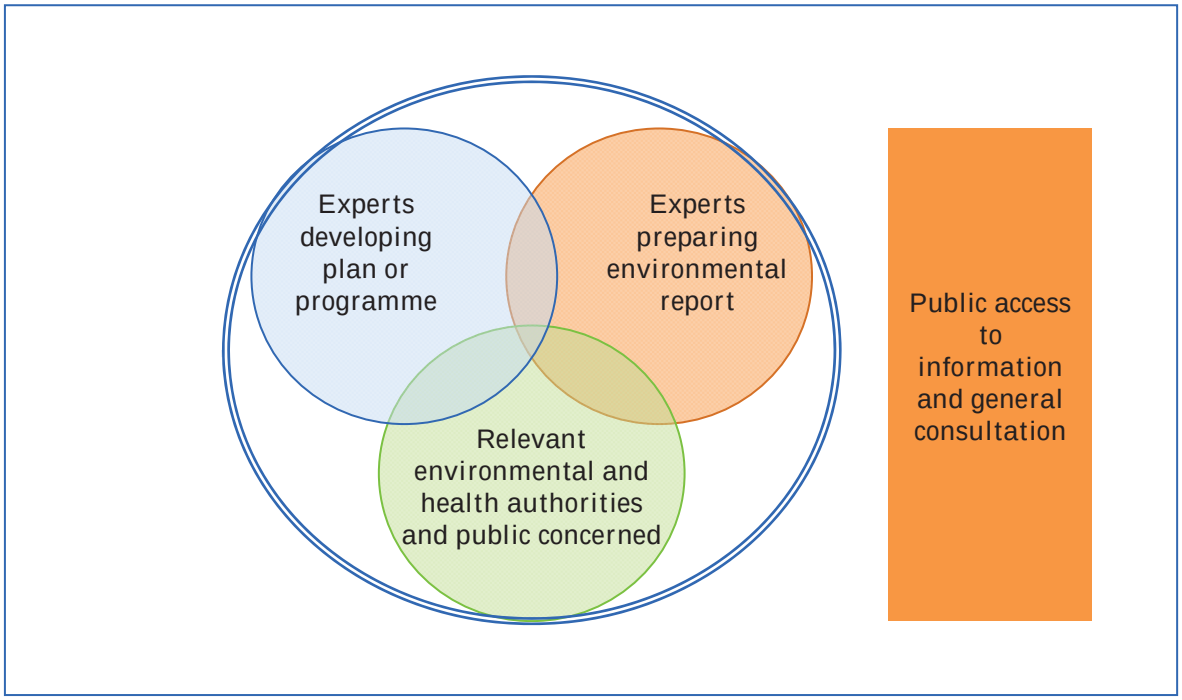
A2.4.3 SEA fully integrated into plan and programme making

40. SEA that is fully integrated into plan or programme making (figure A2.6) is based on the notion that SEA experts and plan- or programme-making experts can work together as part of one team that develops the plan or programme. This approach to plan or programme making and SEA is typically carried out through joint working groups or plan- or programme-making round tables, which may include representatives of relevant authorities and the public concerned. Such joint work enables the free flow of information between all concerned parties (plan- or programme-making experts, SEA experts and representatives of relevant authorities and the public concerned), who receive the same information at the same time, share their knowledge and concerns, develop and analyse key options and thus jointly draw up the draft plan or programme. The preparation of the environmental report and consultations with the relevant authorities and public concerned thus become inseparable parts of the plan- or programme-making process.

41. Interim documents that reflect outcomes of these consultations can be provided for wider public review as they become available. However, the wider public is not allowed to participate directly in the core plan- or programme-making and assessment process, because of management and logistical reasons.

42. This mode of work enables ongoing consultations and review of interim documents produced within the plan- or programme-making process. The information produced within the environmental report can be integrated fully into the respective plan or programme. The final environmental report explains how various analyses were carried out within the integrated plan or programme making and SEA and can provide supplementary information that would not otherwise have been directly included in the plan or programme.

Figure A2.6: SEA fully integrated into plan or programme making: overall approach



43. Full integration of SEA into the plan or programme making typically brings about the same benefits as partial integration of SEA into plan or programme making. This mode of work reduces delays, since analyses performed within SEA become an integral part of the plan- or programme-making process. It may also reduce costs for the SEA, since the plan- or programme-making experts and SEA experts jointly gather data for and contribute their inputs to the development of the plan or programme. Their joint work allows them to share immediately their concerns and thus by definition prevents any late surprises. Lastly, it creates favourable conditions for meeting the obligations of the Protocol and the SEA Directive.

44. An additional benefit of such an approach lies in the fact that joint work by all parties in the plan- or programme-making process creates an optimal environment for cooperation, and it helps build trust between stakeholders that may normally have different attitudes and values. This may be an important factor for fostering the participatory nature of the plan- or programme-making process.

45. Possible concerns with full integration of SEA into plan or programme making derive from a fear that SEA experts in the overall plan- or programme-making team may become fully co-opted in the plan- or programme-making process, or may be marginalized (have only limited influence) or may make trade-offs that will not be publicly disclosed. The rationale behind these concerns is:

- Outcomes of any collective work are normally heavily influenced by the composition of the team. This approach will work only if SEA experts and plan- or programme-making experts are willing to cooperate.
- If SEA experts, together with representatives of relevant environmental and health authorities and the public concerned, form a minor part of the entire team or working group that draws up the plan or programme, there might be a risk that their views will not be duly respected in the internal debates. This approach will function only if the teamwork is properly facilitated to ensure that the plan- or programme-making process is not

dominated by any particular interest group within this integrated plan- or programme-making team.

- The last concern relates to the fact that such teamwork may result in internal agreements and trade-offs that are not transparent to outside stakeholders. SEA experts may also be expected to defend the conclusions of the entire team. In this regard, it is important to emphasize that the SEA experts are required to produce an environmental report that must outline all significant issues (impacts, proposals for consideration of alternatives, etc.) that were addressed in the SEA process. This report can be produced as a separate document or a clearly distinguishable part of the plan or programme. It should, irrespective of final internal agreements reached within integrated teams, record all significant issues and trade-offs that were discussed within the SEA.

46. While these concerns may not be relevant for well-governed and transparent plan- or programme-making processes, they may be valid for other some less developed plan- or programme-making regimes.

A2.4.4 Conclusion on integration of SEA into plan or programme making

47. There is no single best approach to conducting SEA in relation to plan or programme making. However, it appears that SEA that is ex post and separated from plan or programme making tends to be least effective and is unlikely to provide a sufficient basis for meeting the obligations of the Protocol.

48. Partial or full integration of SEA into plan or programme making seem to offer suitable frameworks for application of the Protocol. The choice of approach depends on the specific conditions in each plan- or programme-making process. Sometimes partial integration would be more effective then full integration; on other occasions the reverse may be true.

Chapter A3

DETERMINING WHETHER PLANS AND PROGRAMMES REQUIRE SEA UNDER THE PROTOCOL

A3.1 INTRODUCTION TO THE CHAPTER

The Protocol refers throughout to “the environment, including health”. To avoid repetition, the Manual refers only to the environment, but this should always be understood to include health. For more information on health issues, please see annex A1.1.

1. This chapter provides a description of how to determine whether SEA is required under the Protocol for a given plan or programme. Chapter A4 takes this discussion forward by examining how the SEA may be undertaken.
2. This chapter begins with an overview of the legal requirements (section A3.2). This is followed by a detailed description of a series of tests to determine whether SEA is required (section A3.3). The Chapter concludes with a discussion of possible practical arrangements (section A3.4).

A3.2 LEGAL OBLIGATIONS

Key provisions

3. To determine whether SEA is required under the Protocol, it is necessary to determine whether the plan or programme being considered falls within the Protocol's **definition** of a plan or programme (art. 2.5), and within the "**field of application**" of the Protocol (art. 4). For certain plans and programmes (see below) it will be necessary to determine the **significance** of its likely environmental effects (art. 5, Screening). Articles 4 and 5 combined are broadly equivalent to article 3 (Scope) in the SEA Directive.

4. The key provisions of the Protocol with regard to the determination of whether SEA is required under the Protocol for a given plan or programme are:

- Article 2.5, Definition of "plans and programmes".
- Article 4, Field of Application concerning Plans and Programmes.
- Annex I, List of projects as referred to in article 4, paragraph 2.
- Annex II, Any other projects referred to in article 4, paragraph 2.
- Article 5, Screening.
- Annex III, Criteria for determining of the likely significant environmental effects referred to in article 5, paragraph 1.

A3.2.1 Articles 2.5 and 4, and annexes I and II

5. The first requirement in order for plans and programmes to be subject to SEA under the Protocol is that they must meet the conditions of both subparagraphs in the definition of plans and programmes (art. 2.5). In other words, they must be both "subject to preparation and/or adoption by an authority or prepared by an authority for adoption, through a formal procedure, by a parliament or a government" and "required by legislative, regulatory or administrative provisions". Further requirements are laid down in article 4, which specifies for which plans and programmes satisfying article 2.5 an SEA is required. Article 4 contains a set of criteria that have to be considered; when these criteria are met an SEA has to be carried out. (The corresponding provisions in the SEA Directive are in article 3, paragraphs 1–4 and 8–9.)

6. Many so-called plans and programmes will not require SEA, while some so-called policies, strategies, projects, concepts, laws, regulations and so on, will. This section will help you determine whether what is being considered is a plan or programme within the meaning of the Protocol, and whether an SEA is required.

7. It is useful to bear in mind the following when considering whether SEA is required under the Protocol:

- The term "plan or programme" is not sufficient qualification.
- Not all plans and programmes will require SEA, but only those plans and programmes meeting a number of conditions.
- Some so-called policies, strategies and concepts that have the features of plans or programmes defined by the Protocol will require SEA. It is even possible that some laws and regulations might fall within the field of application of the Protocol, again provided that they meet its conditions.

- Detailed tests may be needed to define what is a plan or programme that requires SEA.

8. A number of questions are asked about any candidate plan or programme, or a modification to a plan or programme (see para. 23), to determine whether an SEA is required under the Protocol, beginning with the following:

   - Is the sole purpose of the plan or programme to serve **national defence or civil emergencies**, or is it a **financial or budget** plan or programme? If so, no SEA is required.

   - Is the plan or programme being prepared for agriculture, forestry, fisheries, energy, industry including mining, transport, regional development, waste management, water management, telecommunications, tourism, town and country planning or land use? If not, SEA is not automatically required but see paragraph 11 below.

9. If the answer to the first question is no and to the second it is yes, then two more questions are asked:

   - Does the plan or programme set the framework for future development consent for projects listed in annex I to the Protocol?

   - Does the plan or programme set the framework for future development consent for any other project listed in annex II to the Protocol, and does the relevant project require EIA under national legislation?

10. If the answer to either of these questions is yes, then normally an SEA is required under the Protocol. However, if the plan or programme determines the use of a **small area at a local level** or is a **minor modification** to a plan or programme (art. 4.4), an SEA will be required only if the plan or programme is likely to have significant environmental effects according to article 5 (Screening).

11. In addition to those plans and programmes requiring SEA as determined above, a plan or programme will, in accordance with article 4, paragraph 3, of the Protocol, require SEA if it sets the framework for the future development consent of projects and if it is likely to have significant environmental effects according to article 5.

A3.2.2 Article 5 and annex III

12. The determination of significant effects is provided for in article 5 and may be done:

    - By a case-by-case examination.

    - By specifying types of plans and programmes.

    - By a combination of the above two.

    (The broadly corresponding provisions in the SEA Directive can be found in its article 3, paragraphs 5–7.)

13. The criteria set out in annex III (similar to annex II of the SEA Directive) have to be taken into account in this determination.

14. Relevant environmental and health authorities must be consulted during any **determination of significant effects** (art. 5.2), and the public may be provided with opportunities to participate (art. 5.3). However, a large number of plans and programmes will not be subject to the determination of significant effects, as it will already be clear that they are, or are not, subject to SEA.

15. Under article 5.4, authorities have to make publicly available the outcome of any determination of significant effects (i.e., application of art. 5), whether during preparation of lists of types of plans and programmes (see below) or during a case-by-case examination. The information to be made available comprises:

    - The outcome of the testing, i.e., whether the plan or programme, or plan or programme type, is to be subject to SEA.
    - The reasons why an SEA is not required, if this is the conclusion.

16. This process of determining whether SEA is required may be made more efficient by reference to a **list of types** of plans and programmes always (or generally) subject to SEA. The creation of lists is discussed in section A3.4 below.

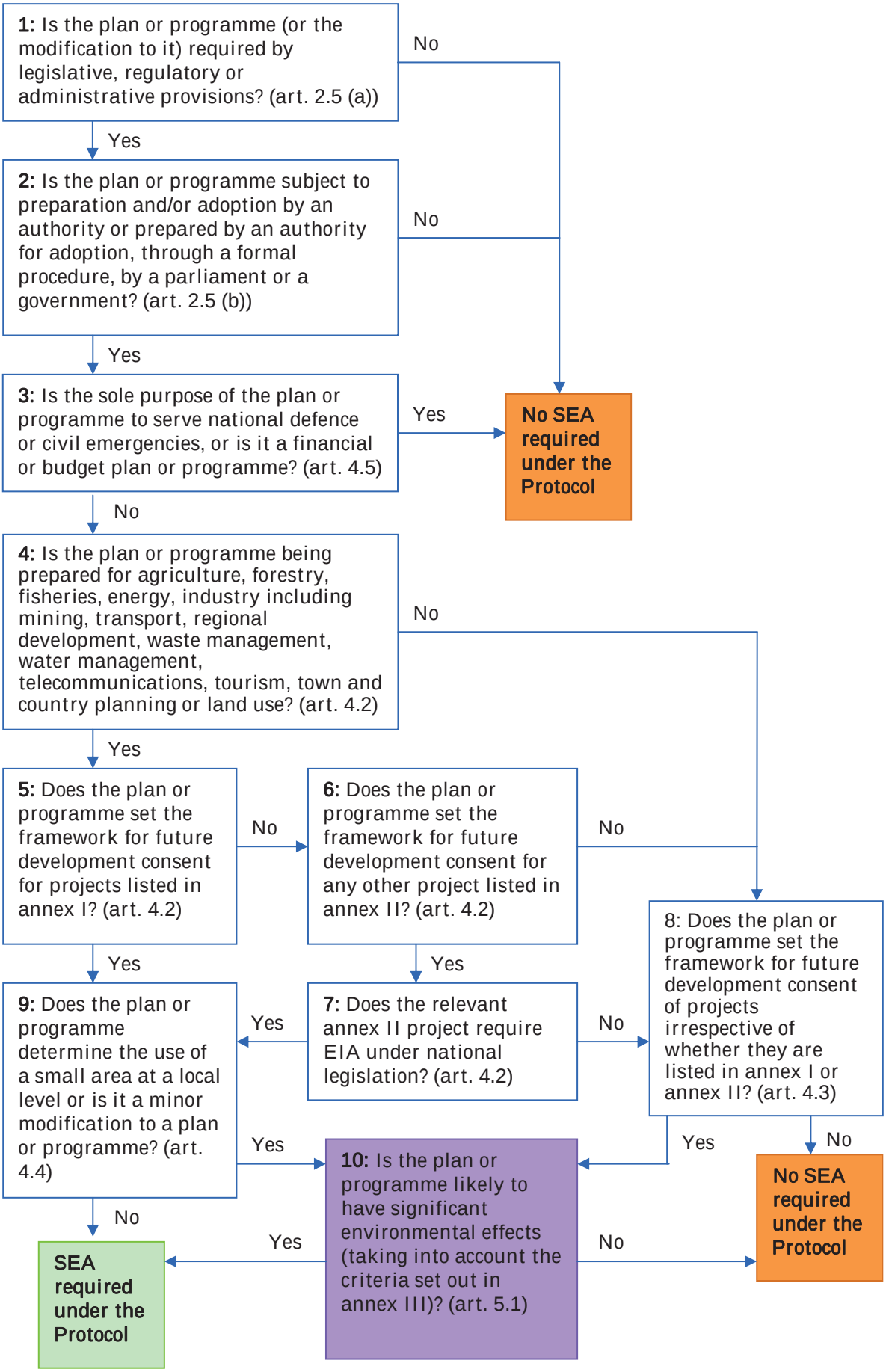
A3.3 DETAILED DESCRIPTION OF TESTS

17. This subsection includes a breakdown of the method of determination of whether a candidate plan or programme should be subject to SEA, listing nine tests that are set out in the Protocol's field of application (art. 2.5 and art. 4). A tenth test (determination of significant effects, art. 5) may be necessary to determine whether a plan or programme is likely to have significant environmental effects.

18. Figure A3.1 on the next page illustrates how the relevant provisions may be used to build a complete method for the determination of whether a particular plan or programme is subject to SEA. Each of the tests shown in the figure is presented in detail in this section.

Definition of a plan or programme (art. 2.5)	
Test 1	Is the plan or programme (or the modification to it) required by legislative, regulatory or administrative provisions? (art. 2.5 (a))
Test 2	Is the plan or programme subject to preparation and/or adoption by an authority or prepared by an authority for adoption, through a formal procedure, by a parliament or a Government? (art. 2.5 (b))
Exemption from application (art. 4.5)	
Test 3	Is the sole purpose of the plan or programme to serve national defence or civil emergencies, or is it a financial or budget plan or programme? (art. 4.5)
Mandatory application (art. 4.2)	
Test 4	Is the plan or programme being prepared for agriculture, forestry, fisheries, energy, industry including mining, transport, regional development, waste management, water management, telecommunications, tourism, town and country planning or land use? (art. 4.2)
Test 5	Does the plan or programme set the framework for future development consent for projects listed in annex I? (art. 4.2)
Test 6	Does the plan or programme set the framework for future development consent for any other project listed in annex II? (art. 4.2)
Test 7	Does the relevant annex II project require EIA under national legislation? (art. 4.2)
Non-mandatory application (art. 4.3 and 4.4)	
Test 8	Does the plan or programme set the framework for future development consent of projects irrespective of whether they are listed in annex I or annex II? (art. 4.3)
Test 9	Does the plan or programme determine the use of a small area at a local level or is it a minor modification to a plan or programme? (art. 4.4)
Determination of significant effects (art. 5.1)	
Test 10	Is the plan or programme likely to have significant environmental effects (taking into account the criteria set out in annex III)? (art. 5.1)

Figure A3.1: Guide to determining whether a particular plan or programme should be subject to SEA under the Protocol



Test 1	Is the plan or programme (or the modification to it) required by legislative, regulatory or administrative provisions? (art. 2.5 (a))

19. If a candidate plan or programme fails this first test, no SEA is required under the Protocol. If the test is passed, continue with test 2.

20. We first need to consider how **plans and programmes** may be identified. It is clear that the name is not a sufficient indication: what is called a plan or programme may not be one within the definition used by the Protocol and so the Protocol would not apply to it.

21. Similarly, plans and programmes are not always named as such: policies, projects, guidelines and strategies are some of the many labels attached to plans and programmes. An open mind is necessary at first when deciding what is a plan or programme. Here are some pointers derived from the EC Guide:

    - Recognize the wide scope and broad purpose of the Protocol.
    - Consider the extent to which an act is likely to have significant environmental effects.[24]
    - Consider any formal statement that goes beyond aspiration and sets out an intended course of future action.
    - Examples of plans include:
        - A document that sets out how it is proposed to carry out or implement a scheme or a policy
        - Land use plans and development criteria
        - Waste management plans
        - Water resource plans
        - Transport plans.
    - A programme may comprise a set of projects in a given area, for example, a scheme for regeneration of an urban area, comprising a number of separate construction projects.

22. It is not necessary to differentiate between plans on the one hand and programmes on the other: the Protocol treats them identically.

23. The Protocol also applies to **modifications** to plans and programmes. A good example of such a modification is where an existing land-use plan is revised regularly (perhaps every five years); the preparation of the revised plan would usually be subject to SEA. It is possible that a modification to a plan or programme for minor reasons (for example, changes to individual projects that do not significantly change the environmental effects of the plan or programme) may be exempt from SEA on these grounds but, as always, such an exemption should be examined carefully. In any case, the fundamental test is whether the modification is likely to have significant environmental effects.

24. A modification to a plan or programme may lead to significant environmental effects not yet assessed. Such effects may arise because of the nature of the modification or because of a change in the state of the environment.

[24] Para. 3.4 of the EC Guide.

25. Parties might also wish to consider a situation where their knowledge (of activities, the environment or effects) has developed since the original plan or programme was developed or where the original plan or programme was not subject to SEA because it predated the entry into force of SEA legislation.

26. Throughout this Manual references to plans or programmes include modifications to them.

27. The plan or programme (or modification) must be required by **legislative, regulatory or administrative provisions**. Parties might therefore choose not to subject to SEA any plan or programme that is not mandatory under such provisions. "Administrative provisions are formal requirements for ensuring that action is taken which are not normally made using the same procedures as would be needed for new laws and which do not necessarily have the full force of law" (EC Guide, para. 3.16). Thus, though administrative provisions are not themselves legally binding, plans or programmes required by an administrative provision do fall within the definition in the Protocol. The United Kingdom's practical guide to the SEA Directive[25] states:

> Characteristics of "administrative provisions" are likely to be that they are publicly available, prepared in a formal way, probably involving consultation with interested parties. The administrative provision must have sufficient formality such that it counts as a "provision" and it must also use language that plainly requires rather than just encourages a plan or programme to be prepared.

Test 2	Is the plan or programme subject to preparation and/or adoption by an authority or prepared by an authority for adoption, through a formal procedure, by a parliament or a government? (art. 2.5 (b))

28. If a candidate plan or programme fails this second test, no SEA is required under the Protocol. If the test is passed, continue with test 3.

29. A plan or programme must be **subject to preparation and/or adoption by an authority**. Pointers that may be drawn from the EC Guide (para. 3.11–3.13) on this expression include:

    - Either preparation or adoption by an authority is adequate to satisfy this test.
    - A plan or programme may be prepared by one authority but adopted by another, but still satisfy this test.
    - An authority may be defined as:

      A body, whatever its legal form and regardless of the extent (national, regional or local) of its powers, which has been made responsible, pursuant to a measure adopted by the State, for providing a public service under the control of the State, and it has for that purpose special powers beyond those which result from the normal rules applicable in relations between individuals (EC Guide, para. 3.12).[26]

[25] *A Practical Guide to the Strategic Environmental Assessment Directive* (United Kingdom, Office of the Deputy Prime Minister, 2005), para. 2.6. Available from http://www.communities.gov.uk/publications/planningandbuilding/practicalguidesea.

[26] See also the opinion of the European Court of Justice in *Foster and others v. British Gas*, case C-188/89. Available from: http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!CELEXnumdoc&lg=en&numdoc=61989J0188.

- An authority may include, for example, a privatized utility company when it is preparing plans that in "non-privatised regimes would be carried out by public authorities", but not when it is drawing up plans for its own commercial purposes not related to that public authority role.

30. As an alternative to a plan or programme being "subject to preparation and/or adoption by an authority", it may be "**prepared by an authority for adoption through a formal procedure, by a parliament or a government**" (SEA Protocol, art. 2.5 (b)), as is normally the case in some States. The Protocol qualifies both parliament and government by the indefinite article "a", making it clear that there may be several parliaments or governments within a State, at different levels (e.g., national, regional, provincial, local). (See also EC Guide, para. 3.14.)

Test 3	Is the sole purpose of the plan or programme to serve national defence or civil emergencies, or is it a financial or budget plan or programme? (art. 4.5)

31. If a candidate plan or programme satisfies this third test, no SEA is required under the Protocol. If the test is failed, continue with test 4.

32. Key pointers to this test derived from the EC Guide (see paras. 3.62–3.63) include:

- The exemption is for those plans and programmes the **sole** purpose of which is to serve national defence or civil emergencies. The exemption is not for plans and programmes having elements that serve such a purpose.
- Civil emergencies would include man-made and natural disasters. The plan or programme would be prepared in response to a particular emergency that had already occurred, but not as a preventative measure (e.g., forest-fire prevention planning).
- Budgetary plans might include budgets at different government or authority levels. Financial plans might include project financing or finance distribution.

Test 4	Is the plan or programme being prepared for agriculture, forestry, fisheries, energy, industry including mining, transport, regional development, waste management, water management, telecommunications, tourism, town and country planning or land use? (art. 4.2)

33. A candidate plan or programme that has reached this test falls within the definition of a plan or programme provided in article 2.5 of the Protocol. Tests 4, 5 and 6 together implement article 4.2 of the Protocol. If this test 4 is failed, continue with test 8, as it does not mean that the plan or programme is not subject to SEA: article 4.3 may determine that it may nonetheless be subject to SEA. If this test 4 is passed, continue with test 5.

34. This test asks whether the plan or programme is within one of the listed sectors. The terms "town and country planning" and "land use planning" are used in different States and might be used interchangeably. (See EC Guide, para. 3.31.)

Test 5	Does the plan or programme set the framework for future development consent for projects listed in annex I? (art. 4.2)

35. It is now asked whether the candidate plan or programme sets the framework for projects listed in annex I. If this test is failed, continue with test 6 to see if the project is in annex II; if this test is passed, continue with test 9.

36. The plan or programme must set the framework for future development consent for projects. Pointers that may be drawn from the EC Guide (paras. 3.23–3.28) on this expression include:

- "The meaning of '**set the framework for** future development consent' is crucial to the interpretation of the Directive, although there is no definition in the text. The words would normally mean that the plan or programme contains criteria or conditions that guide the way the consenting authority decides an application for development consent. Such criteria could place limits on the type of activity or development which is to be permitted in a given area; or they could contain conditions which must be met by the applicant if permission is to be granted; or they could be designed to preserve certain characteristics of the area concerned (such as the mixture of land uses which promotes the economic vitality of the area)" (para. 3.23).

- The same expression is used in annex III (para. 2), together with a list of ways in which a framework might be set: location, nature, size and operating conditions or by allocating resources. The EC Guide suggests that the corresponding list in the Directive is "indicative and not exhaustive". The "resources" might be natural, human or financial, though the exclusion of financial and budget plans and programmes (art. 4.5) should not be forgotten. The EC Guide also suggests "a generalised allocation of financial resources would not appear to be sufficient to set the framework" (para. 3.25). Rather, the resource allocation would condition how consent was to be granted, for example by defining a course of action or limiting solutions, if it were to be considered as setting the framework.

- As the EC Guide notes, "land use plans generally contain criteria determining what kind of development can take place in particular areas and are a typical example of plans which set the framework for future development consent" (para. 3.26). Such a plan would need to define one or more precise or non-trivial conditions relating to future development consents.

- Plans or programmes might either define conditions in this way or directly, once adopted, give consent for projects. For example, an urban regeneration programme might comprise a number of construction projects complying with the conditions of the programme.

- Sectoral plans and programmes might define locational or technological conditions of future development projects, for example, defining where in broad terms transport infrastructure is to be developed or what form of transport is to be employed.

37. The list in annex I to the Protocol is broadly similar, but not identical, to the corresponding list for the SEA Directive (annex I to EU Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, as amended by European Council Directive 97/11/EC of 3 March 1997 (EIA Directive)). (EU member States also have to

apply the Habitats Directive[27] test, as discussed in para. 3.32 of the EC Guide.)

Test 6	Does the plan or programme set the framework for future development consent for any other project listed in annex II? (art. 4.2)
Test 7	Does the relevant annex II project require EIA under national legislation? (art. 4.2)

38. These two tests may be considered together. If either test is failed, continue with test 8. If both tests are passed, continue with test 9.

39. Test 6 is similar to test 5, and the list in annex II to the Protocol is similar, but again not identical, to the corresponding list for the SEA Directive. However, test 7 introduces an important difference between the Protocol and the Directive: those projects listed in annex II to the Protocol that do not require EIA under national legislation do not need to be included. In contrast, all projects in the corresponding list for the SEA Directive are included, irrespective of whether national legislation requires EIA.

Test 8	Does the plan or programme set the framework for future development consent of projects irrespective of whether they are listed in annex I or annex II? (art. 4.3)

40. If a candidate plan or programme has failed tests 4, 6 or 7 it will nonetheless be subject to SEA if it passes this test 8 and the test for significant environmental effects (test 10). If it now fails test 8, no SEA is required under the Protocol.

41. Article 4.3 broadens the scope of the Protocol to include plans and programmes that set the framework for future development consent of projects **and** have significant environmental effects. This provision includes projects in sectors not included in article 4.2 (test 4) as well as projects that are in those sectors but are not listed in the annexes (tests 5, 6 and 7).

Test 9	Does the plan or programme determine the use of a small area at a local level or is it a minor modification to a plan or programme? (art. 4.4)

42. If this test is failed, an SEA is required under the Protocol. Even if this test is passed, a plan or programme is not automatically exempt, as it would still require determination of significant effects (test 10).

43. Key pointers to this test derived from the EC Guide (see paras. 3.33–3.36) include:

- The meaning of small "will call for the careful exercise of judgement" and may have different meanings in different countries and within different locations in a country. For example, "small" may be interpreted differently with regard to an historic town than for reclaimed agricultural land. The EC Guide gives an example of a "building plan" that sets specific conditions on construction within a limited area.

[27] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

- "Local level", rather than just "local", might imply a local authority level. "A small area at a local level" might be interpreted to prevent exemption (i.e., test 9 being passed) for the whole of a local authority area.
- "Minor modifications" should be considered in terms of the likelihood of such changes having significant environmental effects, not in terms of the degree of change to a plan or programme.
- Significance of effects is the **overriding** criterion under tests 8 and 9.

Test 10	Is the plan or programme likely to have significant environmental effects (taking into account the criteria set out in annex III)? (art. 5.1)

44. It is only necessary to test for significant environmental effects of a plan or programme that falls within the definition in the Protocol (art. 2.5, tests 1 and 2), **and** that has not already been identified as clearly subject to SEA by reference to a list of types of plans and programmes, **and** that either:
    - Is within one of the specified sectors and is listed in annex I or annex II (and required by national legislation) (art. 4.2, tests 4–7), but determines the use of a small area at a local level or is a minor modification (art. 4.4, test 9), or
    - Sets the framework for future development consent of projects irrespective of whether they are listed in annex I or annex II (art. 4.3, test 8).
45. Key features of this test (art. 5) are:
    - An analysis against significance criteria (in annex III, similar to annex II of the SEA Directive).
    - Mandatory consultation with authorities.
    - Optional public participation.
    - Making the outcome publicly available.
46. Whereas the earlier tests (1–9, field of application) may be carried out internally, within an authority, test 10 (determination of significant effects) requires at least consultation with the environmental and health authorities. Test 10 also explicitly provides for public participation, but this provision is not mandatory (and is not a requirement of the SEA Directive). Detailed descriptions of public participation and of consultation with authorities are provided in chapter A4, and in sections A4.3 and A4.4, respectively.
47. The Protocol requires that the result of any determination of significant effects be made publicly available, again in contrast with the earlier tests. This is discussed in paragraph 15 above and paragraph 55 below.
48. This test has to take into account the criteria for characteristics of the plan or programme and for its effects (or "significance criteria") provided in annex III:
    - Contribution to sustainable development.
    - Degree to which it sets a framework for projects.
    - Influence on other plans and programmes.
    - Relevant environmental problems.

- Nature of effects, including whether transboundary.
- Risks.
- Effect on valuable or vulnerable areas.

49. All the criteria might be considered as a group and expert judgement might then be applied to determine which criteria are relevant and to apply them. If it is not possible to determine whether a plan or programme is likely to have significant effects, it is recommended that an SEA be undertaken as a precautionary measure.

50. The EC Guide advises that, for the equivalent provision in the SEA Directive, when applying qualitative criteria or thresholds to types of plans or programmes based on the relevant significance criteria, "it is advisable to avoid [significance testing systems] ... based only on the size or financial thresholds of projects, or on the physical area covered by the plan or programme" (para. 3.47).

51. The EC Guide also provides an example of why such an approach is not recommended:[28] "Even a small-scale project can have significant effects on the environment if it is in a location where the environmental factors ... are sensitive to the slightest alteration. Similarly, a project is likely to have significant effects where by reason of its nature, there is a risk that it will cause a substantial or irreversible change in those environmental factors, irrespective of its size" (para. 3.60).

52. The significance criteria in annex III are discussed in table A3.1 below. Other criteria might also be employed to determine significance. The "environmental receptors" identified in article 2.7 and the information referred to in annex IV might be useful in this regard, for example, whether effects are likely to be cumulative or permanent. In addition, the SEA Directive includes two extra criteria not specified in the Protocol, but which might be of help in determining significance:

    - The cumulative nature of the effects.
    - The value and vulnerability of the area likely to be affected due to:
        - Special natural characteristics or cultural heritage
        - Exceeded environmental quality standards or limit values
        - Intensive land use.

53. The significance criteria in annex III are not listed in order of importance, but they may be grouped: broadly speaking, paragraphs 1 to 4 relate to the characteristics of a plan or programme, whereas paragraphs 5 to 8 relate to its effects.

54. If the application of a criterion indicates that a plan or programme is likely to have important effects, there is no need to continue with the significance determination — this criterion would be enough to trigger an SEA. However, for many plans and programmes it may be difficult to determine, with certainty, whether they are likely to have significant effects on the environment. The word "likely" provides for this situation, as it is only required to show that an effect can be expected with a reasonable degree of probability.

[28] Reporting the opinion of the European Court of Justice in a relevant case on EIA (*Commission v. Ireland*, 21 September 1999, case C-392/96). The opinion is available from http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!CELEXnumdoc&lg=en&numdoc=61996J0392.

Table A3.1: Guidance on annex III (significance criteria)

Paragraph in annex III	Guidance (from EC Guide)
1. The relevance of the plan or programme to the integration of environmental, including health, considerations in particular with a view to promoting sustainable development.	How far can the plan or programme envisaged contribute to reducing harm to the environment? A plan or programme having great scope to affect the environment will be a strong candidate for SEA. SEA may also improve the contribution of a plan or programme to sustainable development. (paras. 3.53–3.54)
2. The degree to which the plan or programme sets a framework for projects and other activities, either with regard to location, nature, size and operating conditions or by allocating resources.	The more precisely the framework is set by a plan or programme, the more likely it is that an SEA will be required. Plans or programmes that are legally binding might set the framework more strictly than non-binding plans or programmes. Plans or programmes whose only or main purpose is to set a framework for projects might also set a strong framework. (para. 3.51)
3. The degree to which the plan or programme influences other plans and programmes including those in a hierarchy.	If a plan or programme strongly influences another, any environmental effects it might have may be spread widely (or deeply). In a hierarchy, plans and programmes at the higher, general level might influence those at a lower, detailed level. Binding plans or programmes, which will be explicitly implemented by means of other plans or programmes, will probably have a strong influence. However, the relationships between different plans and programmes will have to be carefully considered in each case. (para. 3.52)
4. Environmental, including health, problems relevant to the plan or programme.	This would include cases where plans or programmes cause or exacerbate environmental problems, are constrained or otherwise affected by them, or contribute to solving, reducing or avoiding them. In any case, it will be necessary to identify the nature and seriousness of environmental problems relevant to the plan or programme. (para. 3.55)
5. The nature of the environmental, including health, effects such as probability, duration, frequency, reversibility, magnitude and extent (such as geographical area or size of population likely to be affected). 6. The risks to the environment, including health. 7. The transboundary nature of effects. 8. The degree to which the plan or programme will affect valuable or vulnerable areas including landscapes with a recognized national or international protection status.	Many uncertainties exist, and insufficient or missing data and inadequate knowledge may make it difficult to decide whether significant effects are likely. Even so, it is assumed that a rough estimation of the effects should always be possible. (para. 3.57) The nature and characteristics of the likely effects will influence their significance in the context within which they are being considered — e.g., is the probability or frequency of effects very low (accidental cause) or will the effects occur continuously? Moreover, the more complex (e.g., due to synergies and accumulation), the more widespread or the more serious the effects, the more likely it is that they should be considered “significant”. (para. 3.58) Equally important is the area likely to be affected by the plan or programme and consequently by its effects. Not only areas that have a designated protection status are required to be given attention. The particular value or vulnerability of the area likely to be affected may make it more likely that effects must be considered significant there. (para. 3.59)

A3.4 POSSIBLE PRACTICAL ARRANGEMENTS

Making the outcome publicly available

55. When making publicly available the outcome of any determination of significant effects, it may be useful to state how the plan or programme (or type) performed against the individual significance criteria.

56. The Protocol suggests making the information publicly available "by public notices or by other appropriate means, such as electronic media". Care should be taken to ensure that the information is available to a broad spectrum of the public.

Lists of types of plans and programmes

57. Though not a requirement of the Protocol, States might wish to prepare lists of types of plans and programmes that are subject to SEA, identifying types for which SEA is mandatory or providing an indicative list, for example. If a plan or programme is clearly identified on a positive (or other) list of types of plan or programme, there may be no need to continue with the detailed determination of whether the plan or programme is subject to SEA.

58. For example, a positive list may be prepared identifying types of plans and programmes that should always be subject to SEA. Examples of such types of plans and programmes could include regularly revised land-use or development plans (which in some countries are produced at various levels of government), waste management plans, and transport infrastructure plans and programmes.

59. Besides a positive list, a discretionary list might similarly be prepared, identifying those types of plans and programmes that should always be subject to case-by-case examination (art. 4), including, as appropriate, the determination of significant effects (art. 5).

60. If defining or using a negative list of types, care should be taken to ensure that a plan or programme affecting a sensitive area, or otherwise likely to have significant effects, is not wrongly exempted from SEA.

61. Typically, government or others may prepare one or more lists of types by applying article 4 (field of application) of the Protocol to common types of plans and programmes to determine whether they would be subject to SEA. The lists of types can then either be distributed as guidance or be included in national laws or regulations. Parties must provide for consultation with environmental and health authorities when first developing lists of types of plans and programmes. They may also consult with the public, but the Protocol does not explicitly require this. Many Parties may anyway require consultation on proposed national guidance, laws or regulations.

Chapter A4

SEA OF PLANS AND PROGRAMMES

A4.1 INTRODUCTION TO THE CHAPTER

The Protocol refers throughout to "the environment, including health". To avoid repetition, the Manual refers only to the environment, but this should always be understood to include health. For more information on health issues, please see annex A1.1.

1. This chapter comprises a description of the SEA elements to be integrated, as appropriate, within a plan- or programme-making process, as introduced in section A2.2:
   - Scoping and the environmental report (section A4.2).
   - Public participation (section A4.3).
   - Consultation with authorities (section A4.4).
   - Transboundary consultations (section A4.5).
   - Decision (section A4.6).
   - Monitoring (section A4.7).
2. For each element, legal obligations and possible practical considerations are presented.

A4.2 SCOPING AND ENVIRONMENTAL REPORT

3. This section provides an examination of scoping (art. 6) and the environmental report (art. 7) in SEA under the Protocol. The two provisions are dealt with here together, but countries might chose to apply them as more distinct elements in SEA.

4. Besides providing a summary of the relevant legal obligations, this section describes alternatives and other possible practical considerations.

A4.2.1 Legal obligations

5. **Scoping** (art. 6) is the first element in the SEA process for plans and programmes. (The corresponding provisions in the SEA Directive are in article 5.4.)

6. Scoping defines the information content in terms of both the topics to be considered and the depth or detail of the information to be presented on each topic. The aim of scoping is thus to ensure that the environmental report is correctly focused, providing enough information on what really matters and not cluttering the report with what does not. “An excessive account of information on insignificant effects or irrelevant issues makes the report difficult to digest and might lead to important information being overlooked” (EC Guide, para. 5.19).

7. Environmental and health authorities must be consulted during scoping (art. 6.2), and the public may be provided with opportunities to participate (art. 6.3).

8. The information to be included in the environmental report has to be **relevant** (art. 6.1) and in accordance with the **criteria** listed in article 7.2 (the SEA Directive does not include the last two criteria) (see below).

9. The second element of the SEA process is the preparation of the **environmental report** on a plan or programme subject to SEA (art. 7). (The corresponding provisions in the SEA Directive are in its articles 2 (c), 5.1, 5.2, 5.3 and 12.2.)

10. This element includes consultation with the authorities, public participation and possibly transboundary notification and consultations, as discussed later in this chapter.

11. The environmental report has to identify, describe and evaluate the likely significant environmental effects of implementing the plan or programme and its reasonable alternatives (art. 7.2). The resulting report will be used by the decision makers (see section A4.6) and will describe the monitoring arrangements (section A4.7).

12. The content of the report has to reflect the outcome of the scoping (art. 6), but will be based on the list in annex IV of the Protocol (the corresponding provisions in the SEA Directive are in its annex I) and take into account the four criteria specified (art. 7.2).

13. Finally, the environmental report must be of sufficient quality to meet the requirements of the Protocol (art. 7.3).

A4.2.2 Alternatives

14. An important feature of the environmental report is that it should deal in the same way with the draft plan or programme and its reasonable alternatives. This subsection examines the possible practical consideration of such

alternatives. Other possible practical considerations are discussed in subsection 4.2.3 below.

15. The preparation of plans and programmes usually involves the consideration of the following options (see figure A4.1):

    - Specific **objectives** (what the Protocol refers to as the "main objectives") and **priorities** to be pursued by the plan or programme. These options usually formulate optimal responses to development demands and suggest overall directions of desired development, e.g., development scenarios.

    - **Activities** to be undertaken to implement the agreed objectives and priorities of the plan or programme. These options may propose different means for attainment of the objectives through different technological options (i.e., technologies, processes or modes of delivery), different locations of proposed activities, or their different timing or sequencing.

    - Alternative **conditions** for implementation of proposed actions. These options define measures to be taken to ensure that the intended positive effects of the proposed plan or programme are maximized and that its adverse side effects are minimized (prevented, mitigated or offset). They may be defined, for example, in criteria for decision-making on proposed activities or in general terms of reference for subsequent environmental assessments of future plans, programmes or projects that are initiated by the plan or programme.

16. Not all alternatives considered within the specific plan- or programme-making process might necessarily be generated within that process. A plan or programme may, for instance, adopt objectives and priorities defined in higher-level plans, programmes or policies. It may also further develop options elaborated in related studies before the plan- or programme-making process (e.g., scenarios that are developed in periods between successive plans and are formally considered only in the next planning cycle). Whether or not such situations occur, SEA has to assess effects of the whole plan or programme (i.e., its objectives, activities to attain these objectives and conditions for their implementation) thus providing insights into the environmental effects of the plan or programme in its entirety.

17. Irrespective of their origin, all these alternatives can be analysed and mutually compared in terms of their:

    - Contribution to the attainment of relevant objectives of the plan or programme.

    - Their specific impacts.

18. SEA may provide operational inputs to the development of alternatives in key elements of the plan- or programme-making process where alternatives are discussed, that is:

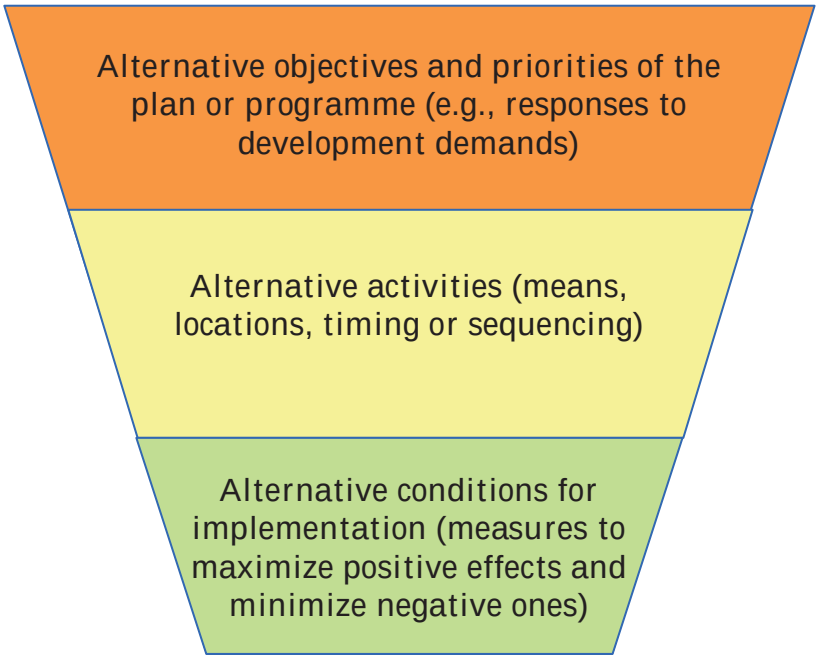
    - Clarifying the context and objectives of the plan or programme.

    - Elaborating alternative scenarios for future developments.

    - Defining alternative ways of reaching the objectives of the plan or programme.

    - Comparing alternative measures to prevent, mitigate or offset negative effects.

Figure A4.1: Alternative options that may be considered in plan- or programme-making



19. The Protocol treats the draft plan or programme and the alternatives the same, with the report having to cover reasonable alternatives in full. It is therefore suggested that all alternatives are treated equally — there is not one plan or programme plus a number of alternatives, but just a number of alternatives. The plan or programme might evolve thus:

    (1) Initial set of alternatives (which might be determined during scoping)

    (2) Select and revise – yielding preferred alternatives

    (3) Adopt — select final plan or programme.

20. It is therefore recommended to begin the consideration of alternatives in scoping.

21. The EC Guide comments that the SEA Directive "calls for a more comprehensive assessment of [alternatives] than does the EIA Directive" (para. 5.6). Additional guidance based on the EC Guide is presented in Box A4.1 below.

Box A4.1: Alternatives in SEA

The Protocol deals with alternatives in the same way as it deals with the draft plan or programme. As suggested by the EC Guide, "the essential thing is that the likely significant effects of the plan or programme and the alternatives are identified, described and evaluated in a comparable way" (para. 5.12). The EC Guide goes on to suggest that "it is essential that the authority or parliament responsible for the adoption of the plan or programme as well as the authorities and the public consulted, are presented with an accurate picture of what reasonable alternatives there are and why they not are considered to be the best option. The information referred to in [the annex] should thus be provided for the alternatives chosen".

The term "alternative" is not defined in the Protocol (or in the Directive). Various categories of alternative might be considered:

- An alternative plan or programme to that originally proposed, perhaps meeting the same set of objectives
- Alternative elements within a plan or programme, again perhaps meeting the same set of objectives.

Types of alternatives might also include alternative locations, land uses, technologies, timing, development paths or even sets of objectives.

In deciding what is reasonable, various constraints might be considered: geographical, financial or in terms of the objectives (e.g., an alternative that would clearly be incompatible with the objectives might not be considered reasonable). Alternatives must be realistic: "a deliberate selection of alternatives for assessment, which had much more adverse effects, in order to promote the draft plan or programme would not be appropriate for the fulfilment of the purpose of this paragraph. To be genuine, alternatives must also fall within the legal and geographical competence of the authority concerned" (para. 5.14).

A4.2.3 Other possible practical considerations

Responsibility for scoping and preparing the environmental report

22. The Protocol does not specify on whom the responsibility falls for preparing a draft plan or programme, and this would vary according to the specific plan or programme proposal and the administrative level it addresses. Responsibility for preparing the environmental report, and the screening and scoping that precede it, "would in many cases be the authority or natural or legal person responsible for preparing the plan or programme" (EC Guide, para. 5.8), but this may be determined in national legislation.

Suggested steps in scoping and preparing the environmental report

23. As noted in the EC Guide, the environmental report is an important tool for integrating environmental considerations into the preparation and adoption of plans and programmes, since it ensures that their likely significant effects on the environment are identified, described, assessed and taken into account in that process. The preparation of the environmental report and the integration of the environmental considerations into the preparation of plans and programmes form an iterative process that should contribute to more sustainable solutions in decision-making (para. 5.2). The EC Guide (reflecting article 4.1 of the Directive) thus identifies an iterative process.

24. The Protocol does not explicitly determine an iterative process or the need for draft reports, but it is suggested that the report preparation be an iterative process, between and within steps, with opportunities to return to earlier tasks as necessary:

Step 1 Determine the scope

Step 2 Analyse the context and baseline

Step 3 Contribute to the development and comparison of alternatives

Step 4 Prepare the environmental report

Step 5 Consult.

25. These suggested steps are elaborated in more detail below, identifying mandatory methodological and process tasks to be undertaken at some point in the SEA, so as to fulfil the obligations of the Protocol, together with extra optional tasks promoting good practice. The methodological tasks should result in the preparation and provision of information to be included in the environmental report in accordance with annex IV. **The methodological and process tasks are mandatory within the SEA as a whole, and not necessarily in the step indicated. The sequencing of the tasks is a recommendation** and, as noted above, the process is likely to be iterative with, for example, the scope continuing to be developed as the environmental report is prepared.

26. The steps described below indicate when public participation and consultation with the authorities might take place. The Protocol requires that both the public concerned and the authorities have the opportunity to express their opinion on the environmental report (art. 8.1 and art. 9.3), so this opportunity must be provided once the report has been finalized. However, the Protocol also requires that there be “early, timely and effective opportunities for public participation, when all options are open” (art. 8.1, with a similar provision for consultation with the authorities in art. 9.3) so, in some circumstances, it may be beneficial to provide additional opportunities at earlier stages of the report preparation on a voluntary basis.

Step 1: Determination of the scope

Methodological tasks	Process tasks	Extra, optional tasks
• Describe the contents of the plan or programme (annex IV, para. 1) • Identify main objectives of the plan or programme (annex IV, para. 1) • Identify other relevant plans and programmes and explain how they interact with the plan or programme (annex IV, para. 1) • Gather information on environmental, including health, problems relevant to the plan or programme (annex IV, para. 4) • Identify environmental, including health, objectives relevant to the plan or programme (annex IV, para. 5) • Outline reasons for selecting the alternatives dealt with (annex IV, para. 8)	• Analyse how the environmental objectives relate to proposed objectives of the plan or programme • Identify environmental and health authorities to be consulted (art. 9.1; see also section A4.4) • Consult authorities on information to be included in environmental report (art. 6.2; see also section A4.4) • Determine relevant information to be included in the environmental report (art. 7.1)	• Identify relevant policies and explain how they interact with the plan or programme • Identify likely effects to be assessed • Identify the concerned public to participate, including relevant non-governmental organizations (NGOs) (must be done by step 5) (art. 8.3; see section A4.3) • Provide for public participation in determining the relevant information to be included in environmental report (art. 6.3) • Informally notify and consult affected Parties as appropriate (see section A4.5)

27. This first step provides for scoping: the determination of the relevant information to be included in the environmental report. As noted above, scoping might be considered either as a separate element in the SEA process or as a first step in preparing the environmental report. This section presents the latter approach. In practice, scoping and report preparation are likely to be part of an iterative process.

28. Scoping might answer the following questions, among others:

- Which geographical areas have to be covered?
- Which environmental aspects (human health, flora, fauna, biodiversity, soil, etc.) have to be examined?
- Which periods of time have to be covered?
- Which methods (of data collection, effects assessment, public participation, consultation with authorities, etc.) have to be used and in what depth or detail?
- What are the data requirements?
- Which alternatives have to be considered?

29. To be able to answer the preceding questions, the scoping might also need to answer the following (as reflected in the step 1 table above):

- What are the main objectives of the plan or programme?
- What environmental objectives are relevant to the plan or programme, and how do they relate to the objectives of the plan or programme?

- What other plans and programmes are relevant and how might they interact with the plan or programme?
- What environmental problems are relevant to the plan or programme?

30. Neither the Protocol nor the SEA Directive explicitly requires the elaboration of objectives, but both require relevant information on objectives established at international, national and other levels to be included in the environmental report and on how they have been taken into account in the preparation of the plan or programme (annex IV, para. 5). Moreover, an assessment of how far the objectives are met by the measures under consideration is a recognized means of comparing alternatives within SEA. Two types of objective are proposed in the SEA process described in this chapter, both of which are important:

- The main objectives of the proposed plan or programme.
- Environmental objectives relevant to the plan or programme.

31. Box A4.2 and table A4.1 below provide a discussion on environmental objectives and related concepts. It may be useful to examine how these objectives interact with, and whether they are compatible with, the objectives of the plan or programme.

32. As discussed in chapter A5 on tools for SEA, various techniques may be used to define objectives and to develop plan or programme ideas, involving the authorities and the public at the earliest stage of plan or programme development. The authorities might guide the information gathering on other relevant plans and programmes; the state of the environment and its likely evolution, area characteristics and problems; and the stakeholders (authorities and the public).

33. In considering what **other plans and programmes** are relevant and how they might interact with the plan or programme, it may be useful to examine any hierarchy of plans and programmes (see box A4.3 below on “tiering”).

34. Scoping includes consultation with the authorities (see section A4.4) and, optionally, public participation (section A4.3). Practical guidance on tools for interacting with the authorities and for public participation is provided in chapter A5 of this Manual.

35. If significant transboundary effects appear likely, it is suggested that **informal** transboundary consultations might be begun during scoping so as to streamline the process (see subsection A4.5.2). There is the risk that if no such consultations take place during scoping, later consultations may identify additional issues, thus requiring that this element be revisited.

36. Finally, in step 1, the relevant information to be included in the environmental report needs to be determined. As noted at the start of this section, the Protocol guides this determination with a list of information (annex IV) and a series of criteria (art. 7.2), as discussed in two tables below, table A4.2 and table A4.3, respectively.

Box A4.2: Problems, concerns or issues; objectives; targets; and indicators or guiding questions

Environmental **objectives** may be derived from many different sources, such as sustainable development strategies, policies and legislation and from other plans and programmes. They may also be apparent from the context of the proposed plan or programme, in terms of local environmental **problems, concerns or issues**.

Development and environmental objectives may be supplemented by **targets,** and these in turn by either quantitative **indicators** or more qualitative **guiding questions** (i.e., open-ended, non-judgemental questions that focus inquiry on a specific topic and direct a search for understanding, but without being leading questions). For example, an objective might be to reduce greenhouse gas emissions, the target would be less carbon dioxide from electricity generation and one indicator would be household electricity use in kilowatt-hours per annum. The United Kingdom guidance on the application of the SEA Directive provides examples of environmental objectives and indicators. The Irish guidance on the Directive includes examples of indicators together with a list of further sources of environmental objectives: Irish — though typical of many countries, European Union and international. Sources might include those indicated in table A4.1. Further examples will be indicated on the Protocol website.[29]

It is important that objectives are identified for all relevant environmental concerns. The indicators can then be used in the report preparation (art. 7) to guide the collection of baseline information and to assess the effects of alternatives on the objectives. Further, the indicators can be monitored to assess the effectiveness of the plan and to identify unforeseen effects (art. 12).

Indicators should therefore be carefully selected to maximize their value in measuring the effects of alternatives on the objectives, while minimizing cost over the whole SEA process.

Box A4.3: Tiering

The SEA Directive, but not the Protocol, recognizes that plans and programmes may form part of a hierarchy of decisions and that there may be opportunities for savings by sharing information between processes related to these decisions — this is “tiering”. (See paras. 4.5–4.7 of the EC Guide for further information.) However, the validity of sharing information between decision-making processes within a hierarchy should be examined critically, given that decisions in a hierarchy are usually taken at different times, under differing conditions.

The Protocol, besides a reference to hierarchies in annex III (para. 3), does not consider the opportunities of tiering. It may nonetheless be useful to ensure that the development of alternative plans and programmes respects the position of the plan or programme in tiered decision-making. Some plans and programmes may include all elements of strategic planning, whereas other plans and programmes may be more limited by related plans and programmes.

[29] The European Environment Agency provides extensive information on numerous indicators. See http://www.eea.europa.eu/data-and-maps/indicators/.

Table A4.1: Some possible sources and examples of environmental objectives

	International	National	Other (subnational) levels
Legislation	United Nations global environmental agreements including: • Kyoto Protocol to the United Nations Framework Convention on Climate Change • Montreal Protocol on Substances that Deplete the Ozone Layer • Convention on Biological Diversity • Convention to Combat Desertification ECE regional environmental agreements European Union environmental directives	Objectives in: • Waste management legislation • Water quality legislation • Air quality legislation	Objectives in local decrees on waste, water and air
Policy	Plan of Implementation of the World Summit on Sustainable Development (Johannesburg Plan of Implementation) Agenda 21 Health for All by the Year 2000 Health for all policy for the twenty-first century (Health 21) London Declaration on Environment and Health	National sustainable development strategy National development plan National spatial strategy National climate change strategy National biodiversity plan National waste strategy National mineral strategy National energy strategy	Regional waste plan Regional minerals plan

Table A4.2: Report contents according to annex IV to the Protocol

Paragraph in annex IV	Guidance (from EC Guide, adapted)
1. The contents and the main objectives of the plan or programme and its link with other plans or programmes.	Information on the relationship with other relevant plans and programmes sets the plan or programme in a broader context. Such plans and programmes might be within the same hierarchy of decision-making (e.g., land-use plans at different administrative levels) or from different sectors but affecting the same or adjacent areas. (para. 5.20)

Paragraph in annex IV	Guidance (from EC Guide, adapted)
2. The relevant aspects of the current state of the environment, including health, and the likely evolution thereof should the plan or programme not be implemented. 3. The characteristics of the environment, including health, in areas likely to be significantly affected. 4. The environmental, including health, problems which are relevant to the plan or programme.	These three requirements (paras. 2–4) may overlap, but are coherent and aim at different aspects of the environmental conditions in areas covered by the plan or programme and on which it is likely to have significant environmental effects. Paragraphs 3 and 4 supplement the information collated under paragraph 2. Paragraphs 2 and 3 examine problems, values and assets, whereas paragraph 4 focuses on problems alone. It may be convenient to combine information collated under paragraphs 3 and 4. The word "relevant" (paras. 2 and 4) means relevant to the likely significant environmental effects of the plan or programme. (para. 5.21) In paragraph 2, the relevant aspects could be of a positive as well as of a negative nature. The information should be as up to date as possible. The description of the likely evolution of relevant aspects (without the plan or programme) is important as a frame of reference for assessment; it corresponds to the "zero-alternative" often applied in EIA. The description of the evolution should cover roughly the same time horizon as that envisaged for the implementation of the plan or programme. Effects of other adopted plans and programmes, or decisions made that would affect the area in question, should also be considered, as far as possible. (para. 5.22) In paragraph 3, the focus is on the areas that are of special interest for the assessment, namely the areas likely to be significantly affected by the plan or programme. A description of the characteristics of these areas is required. It would be appropriate to describe characteristics by reference to the environmental issues listed above. Examples of characteristics of areas include: especially sensitive, vulnerable to acidification, high botanical value or densely populated. Such areas could be found outside the area directly covered by the plan or programme. If an area is near to another Party, or if the effects are of a long-range nature, areas in other Parties and beyond could be significantly affected, in which case transboundary consultation will be needed. (para. 5.23) In paragraph 4, information is required on any existing problems relevant to the plan or programme, to provide for assessment of how these problems will affect the plan or programme or whether the plan or programme is likely to aggravate, reduce or otherwise affect existing problems. The relevance of problems may also lie in non-significant effects that, in combination with existing problems, could create significant effects. Even issues treated in the plan or programme that do not have any environmental effects may be relevant. The problems do not need to be of a significant nature and they do not need to be specially related to specific areas. Areas of particular environmental importance could be those with especially high environmental values, including areas designated under national legislation. (para. 5.24)

Paragraph in annex IV	Guidance (from EC Guide, adapted)
5. The environmental, including health, objectives established at international, national and other levels which are relevant to the plan or programme, and the ways in which these objectives and other environmental, including health, considerations have been taken into account during its preparation.	The environmental protection objectives to be dealt with should cover at least the relevant issues listed in the definition of environmental effects: "any effect on the environment, including human health, flora, fauna, biodiversity, soil, climate, air, water, landscape, natural sites, material assets, cultural heritage and the interaction among these factors" (art. 2.7). International and regional (ECE) objectives are often incorporated in objectives on national, regional and local levels and these could often be enough. **Objectives are those relevant to the plan or programme's likely significant effects or to issues that it raises**. Consultation with authorities can help to provide this information. (para. 5.25)
6. The likely significant environmental, including health, effects*/ as defined in article 2, paragraph 7. */ These effects should include secondary, cumulative, synergistic, short-, medium- and long-term, permanent and temporary, positive and negative effects.	The list of issues in the definition of effects (see above) is not exhaustive and other issues may be relevant. As a minimum, and in accordance with the scope, the notion of human health should be considered in the context of the other issues mentioned in the list and thus environmentally related health issues such as exposure to traffic noise or air pollutants are obvious aspects to study. (para. 5.26) A description of the relationship between the factors mentioned in the list is essential since it could show other and more severe significant effects than those resulting from a more isolated study of each single factor. Thus, significant effects on air and climatic factors may cause significant adverse effects on flora, fauna and biodiversity. Broad and comprehensive information on the factors and their interrelationship is needed. A description of positive effects is essential to show the contribution of the plan or programme to environmental protection and sustainable development. (para. 5.26)
7. Measures to prevent, reduce or mitigate any significant adverse effects on the environment, including health, which may result from the implementation of the plan or programme.	This is to ensure that the report discusses how the significant adverse effects it describes are to be mitigated. The measures envisaged are not specified further and they could be measures envisaged or prescribed in the plan or programme or measures discussed in the report. It should be remembered that mitigation measures may themselves have adverse environmental effects and these should be recognized. There exist methods of mitigation in connection with EIAs that could also be helpful for assessments of plans and programmes. (para. 5.27)

Paragraph in annex IV	Guidance (from EC Guide, adapted)
8. An outline of the reasons for selecting the alternatives dealt with and a description of how the assessment was undertaken including difficulties encountered in providing the information to be included such as technical deficiencies or lack of knowledge.	Information on the selection of alternatives is essential to understand why certain alternatives were assessed and their relation to the draft plan or programme. A description of the methods used in the assessment is helpful when judging the quality of information, the findings and the degree to which they can be relied upon. An account of the difficulties met will also clarify this aspect. When appropriate, it would be helpful to include how those difficulties were overcome. (para. 5.28)
9. Measures envisaged for monitoring environmental, including health, effects of the implementation of the plan or programme.	According to article 12 of the Protocol, the significant environmental effects of the implementation of the plan or programme shall be monitored and, since these effects are specified in paragraph 6, the report should contain a description of how that monitoring is to be undertaken. The description should refer to existing monitoring arrangements if these are to be used. It would also be helpful to describe here how the results of monitoring are to be made available in accordance with article 12. Monitoring arrangements will inevitably be tentative at this stage, but the report should provide a good indication of the eventual arrangements. (para. 5.29)
10. The likely significant transboundary environmental, including health, effects.	Not in SEA Directive as a separate item (nor in the EC Guide), but implicit. It is useful to provide this information as a separate section, even if duplicated from paragraph 6 above. This will ease translation for and discussion with other Parties.
11. A non-technical summary of the information provided.	The purpose of a non-technical summary is to make the key issues and findings of the report accessible and easily understood by the general public as well as by the decision makers. The summary may be part of the report (usually at the front) but it might also be helpful to make it available as a separate document to ensure a wider dissemination. An overall summary table may be helpful in simplifying the findings. (para. 5.30)

Table A4.3: Criteria to be taken into account in determining the content of the environmental report (art. 7.2)

Criterion	Notes
Current knowledge and methods of assessment	The assessment may be limited by our current level of understanding of the environment and of the effects of our activities on the environment.
Nature of plan or programme (contents and the level of detail of the plan or programme, and its stage in the decision-making process)	For more strategic decisions with few details, a detailed analysis may be neither possible nor desirable. For example, "the environmental report for a national plan might not need to assess the effects of the plan on, say, every river in the country; but the environmental report underpinning a town plan would certainly be expected to address its implications for rivers or other water bodies in or near the town" (EC Guide, para. 5.16).
The interests of the public	The public may expect the adequate and understandable assessment of certain topics that are important to the public, addressing the public's perspectives and interests.
The information needs of the decision-making body	A decision-making body is to examine the assessment, and that body may similarly require certain issues be dealt with and in a particular manner.

37. There is no requirement in the Protocol to prepare a **scoping report**. However, it may be useful to record the outcome of the scoping, perhaps as a scoping report, as this would provide the outline of what is to be done when preparing the environmental report. Authorities may choose to make a scoping report publicly available as a matter of good practice, and there may anyway be a requirement to make any such report publicly available under the Aarhus Convention (or the corresponding EU Directive 2003/4/EC).

38. Scoping need not be administratively distinct from the preparation of the environmental report, there being no requirement for a scoping report or for an administrative decision on the outcome of scoping. However, the consultation with the authorities on the scope of the environmental report will always be required. **It is not sufficient to integrate scoping into report preparation and to consult the authorities only once the report has been prepared.**

39. The responsible authority may choose to employ an **outside body** (public or private) **to undertake certain elements of the SEA**, though not the decision-making. The scoping report might provide the basis for the terms of reference for the contract with that body. Alternatively, the scoping might also be contracted out. Examples of terms of reference may be found in the EU development cooperation arm's *Environmental Integration Handbook*. [30]

40. Contracting out need not lead to a separation of SEA from the planning process, provided the SEA contractor works closely with the plan or programme makers (see chapter A2).

41. For further advice on project management, please see the UNEP *Environmental Impact Assessment Training Resource Manual* (second edition), topic 12 (EIA project management).[31]

[30] Available at http://ec.europa.eu/europeaid/infopoint/publications/europeaid/4a_en.htm.
[31] UNEP, June 2002. Available at http://www.unep.ch/etu/publications/EIAMan_2edition_toc.htm.

Step 2: Analysis of the context and baseline

Methodological tasks	Process tasks	Extra, optional tasks
• Gather information on current state of the environment, including health, and its likely evolution if the plan or programme is not implemented (annex IV, para. 2) • Gather information on characteristics of the environment, including health, in areas likely to be significantly affected (annex IV, para. 3)	(none)	• As appropriate, consult authorities and provide for public participation on context, objectives and baseline. • Informally notify and consult affected Parties as appropriate (see section A4.5). • Describe methodology for identification of authorities and public concerned. • Specify quality of the information gathered and how up to date it is.

42. The second step in the report preparation is an information-gathering exercise. Guidance on the information is provided in table A4.2 above regarding the report contents (annex IV). It will be useful to record difficulties encountered in gathering the information and the data limitations, as these will need later to be described in the environmental report.

43. There is no requirement in the Protocol that consultation and public participation occur at this early stage. The public and the authorities might help the responsible authority in assessing the information gathered so far, revising the scope as necessary and discussing objectives, but whether consultation and public participation are needed in all steps of report preparation will depend on the circumstances. Consultation and public participation are only required by the Protocol once the environmental report has been prepared (i.e., in step 5), and it may be considered unnecessary and inefficient to provide for consultation and public participation in all steps.

Step 3: Contribution to the development and comparison of alternatives

Methodological tasks	Process tasks	Extra, optional tasks
• Describe how the environmental, including health, objectives and other environmental, including health, considerations have been taken into account in preparing the plan or programme, including alternatives (annex IV, para. 5) • Assess alternatives by identifying, describing and evaluating (for methods, see chapter A5) likely significant environmental, including health, effects (art. 7.2 and annex IV, paras. 6 and 10) • Describe assessment methodologies (annex IV, para. 8) • Propose measures to prevent, reduce or mitigate adverse environmental, including health, effects (annex IV, para. 7)	(none)	• Propose measures to enhance environmental benefits. • Provide inputs to the development of alternatives, to maximize their contribution to environmental objectives and to take into account other environmental considerations including adverse environmental effects. • Record how alternatives developed. • As appropriate, consult authorities and provide for public participation on alternatives. • Consult affected Parties as appropriate (see section A4.5). • Describe why the methodologies selected were chosen and their limitations.

44. This third step in the report preparation is where the alternative plans or programmes will begin to take shape, with the context and baseline already having been determined and discussed with the stakeholders, as appropriate. How the alternatives are developed will need to be outlined in the report so it is important to keep records of the process. It is possible that the process will iterate through tasks in this step until the alternatives are sufficiently developed and assessed for them to be described in full in the environmental report.

45. One approach to the assessment of alternative plans or programmes (or elements within them) in this step might be to look at the objectives and to record in a matrix the compatibility of the alternatives with the objectives. More information on such an approach is presented in chapter A5 on tools for SEA. If alternatives are developed, refined and reduced in number, the assessment might become more detailed and eventually comprise the identification, description and evaluation of the likely significant effects of all the reasonable alternatives that remain. There are other means of developing alternatives.

46. Difficulties encountered predicting and evaluating effects need to be recorded.

47. Strictly, measures to prevent, reduce or mitigate effects might only be proposed for the selected plan or programme, but the identification of such measures for all the reasonable alternatives will provide information on the residual effects (i.e., the effects with the measures in place), thus providing for a more informed selection of the plan or programme.

48. It is suggested that public participation and consultation might occur in this step, if appropriate, to improve the alternatives under consideration.

Step 4: Prepare the environmental report

Methodological tasks	Process tasks	Extra, optional tasks
• Propose monitoring arrangements (annex IV, para. 9) • Identify and describe any difficulties, limitations, uncertainties and risks in the assessment of alternatives, including those arising from gaps in data (annex IV, para. 8) • Summarize the information in a non-technical summary (annex IV, para. 11)	• Prepare environmental report (art. 7.1)	• In proposing monitoring arrangements, address data gaps and data quality or quantity issues. • Revise selected alternatives and environmental report as necessary. • Record how SEA influenced development of the plan or programme and alternatives. • Record interactions between planning and SEA teams. • Propose follow-up actions, including recommendations for other plans, programmes or projects.

49. Everything should now be ready to be pulled together to form the environmental report. The non-technical summary must be available now, though early versions of it might have been distributed earlier to facilitate the public participation and consultation process, as appropriate.

50. The EC guide suggests that the environmental report be a "coherent text or texts" and that it might be structured on the headings used in the annex. If integrated into the plan or programme it should, however, "be clearly distinguishable as a separate part of the plan or programme, and be easy to find and assimilate for the public and authorities" (EC Guide, para. 5.4). The EC Guide also identifies the possibility of integrating the report within a sustainability assessment or appraisal, which might in turn be integrated within a plan or programme (para. 5.5).

Report quality

51. The remainder of this section looks at the quality of the environmental report, which has to be sufficient for the purpose of the Protocol (art. 7.3 and art. 12.2 of the Directive). See box A4.4 below for possible practical considerations.

52. Responsibility for assuring quality will depend on the institutional arrangements in a country. The same authority that prepared the environmental report might also be responsible for assuring its quality. The body responsible for preparing guidelines might also take on a role of quality control, or an independent commission might be set up or an existing audit commission have its mandate extended.

53. In considering the quality of the environmental report, the following issues might be borne in mind:

- Sufficient quality means that there is proper application of the provisions, in content and procedure, with complete and reliable information adequate for application of the Protocol.
- The individual authority has to decide whether the report is of sufficient quality, particularly measuring it against the requirements of article 7 and annex IV.

- If the report is not of sufficient quality, the report might be amended or augmented or part of the SEA repeated, depending on national SEA systems.
- If the report is not of sufficient quality, this may call into question the validity of any decision taken as a result of the SEA.
- The Protocol provides a minimum standard, but there are many options for going further, e.g., independent assessments, guidelines on procedural or substantive requirements, review by an independent institution, reliance on complaints or legal appeals.
- There are many methods to maintain quality, e.g., checklists of steps in the process. Table A4.4 below provides a checklist from the United Kingdom (designed as a quality assurance instrument for the whole SEA process, rather than just the environmental report).

Box A4.4: Quality — Possible practical considerations

The environmental report should contain complete and reliable information that will be adequate for the purposes of the Protocol. The Protocol does not elaborate what is sufficient quality but, since the SEA process and environmental report are both defined by the Protocol, a proper application of its provisions, both in content and procedure, would appear to meet the requirement for sufficient quality.

In most cases, it will be the individual authority that has to decide before it adopts a plan or programme whether a specific environmental report is of sufficient quality or, if not, what action needs to be taken to rectify the deficiencies. This might include amending or augmenting the environmental report or even repeating part or all of the SEA. In identifying what makes for satisfactory quality, the authorities responsible for the plan or programme will need to pay close attention to the requirements of the Protocol as set out in article 7 and annex IV. They will also need to pay close attention to the results of consultation with the authorities and of public participation. They will need to bear in mind that a defective report may call into question the validity of any acts or decisions taken in pursuance of it.

The procedural and substantive requirements of the Protocol, if properly implemented and applied, may be considered as a minimum standard for ensuring the quality of environmental reports. Parties may decide for themselves whether to take more measures and, if so, what these should be. Many measures that are used in EIA practice may be appropriate for the Protocol, for example: independent assessments (such as a review panel, or a Government commission which advises about the quality of the information in the environmental report); guidelines which prescribe procedural or substantive requirements for the planning authority to follow; an independent institution (to be used when determining the level of detail and scope of the environmental report); or simply reliance on legal appeals.

As well as ensuring that every procedural step of the SEA leading up to the environmental report is of sufficient quality, other methods may be considered to try to maintain the quality of the entire process, for example, by using checklists that demonstrate transparently whether every step in the process has been dealt with and dealt with properly.

(Source: adapted from EC Guide, paras. 6.2–6.6)

Table A4.4: Quality assurance checklist[32]

Objectives and context
• The plan's or programme's purpose and objectives are made clear. • Environmental issues and constraints, including international and EC environmental protection objectives, are considered in developing objectives and targets. • SEA objectives, where used, are clearly set out and linked to indicators and targets where appropriate. • Links with other related plans, programmes and policies are identified and explained. • Conflicts that exist between SEA objectives, between SEA and plan objectives and between SEA objectives and other plan objectives are identified and described.
Scoping
• Relevant authorities with environmental, including health, responsibilities are consulted in appropriate ways and at appropriate times on the content and scope of the environmental 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.
Alternatives
• Realistic alternatives are considered for key issues, and the reasons for choosing them are documented. • Alternatives include "do minimum" and/or "business as usual" scenarios wherever relevant. • The environmental effects (both adverse and beneficial) of each alternative are identified and compared. • Inconsistencies between the alternatives and other relevant plans, programmes or policies are identified and explained. • Reasons are given for selection or elimination of alternatives.
Baseline information
• Relevant aspects of the current state of the environment and their likely evolution without the plan or programme are described. • Environmental characteristics of areas likely to be significantly affected are described, including areas wider than the physical boundary of the plan area where it is likely to be affected by the plan. • Difficulties such as deficiencies in information or methods are explained.
Prediction and evaluation of likely significant environmental effects
• Effects identified include the types listed in the Protocol (human health, flora, fauna, biodiversity, soil, climate, air, water, landscape, natural sites, material assets and cultural heritage), as relevant; other likely environmental effects are also covered, as appropriate. • Both positive and negative effects are considered, and the duration of effects (short, medium or long term) is addressed. • Likely secondary, cumulative and synergistic effects are identified where practicable. • Interrelationships between effects are considered where practicable. • The prediction and evaluation of effects makes use of relevant accepted standards, regulations, and thresholds. • Methods used to evaluate the effects are described.

[32] Adapted from appendix 9 of *A Practical Guide to the SEA Directive* (United Kingdom, 2005).

Mitigation measures

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

The environmental report

- Is clear and concise in its layout and presentation.
- Uses simple, clear language and avoids or explains technical terms.
- Uses maps and other illustrations where appropriate.
- Explains the methodology used.
- Explains who was consulted and what methods of consultation were used.
- Identifies sources of information, including expert judgement and matters of opinion.
- Contains a non-technical summary covering the overall approach to the SEA, the objectives of the plan, the main options considered and any changes to the plan resulting from the SEA.

Consultation

- The SEA is consulted on as an integral part of the plan-making process.
- Relevant authorities with environmental, including health, responsibilities and the public likely to be affected by, or having an interest in, the plan or programme are consulted in ways and at times which give them an early and effective opportunity within appropriate time frames to express their opinions on the draft plan and environmental report.

Decision-making and information on the decision

- The environmental report and the opinions of those consulted are taken into account in finalizing and adopting the plan or programme.
- An explanation is given of how they have been taken into account.
- Reasons are given for choosing the plan or programme as adopted, in the light of other reasonable alternatives considered.

Monitoring measures

- Measures proposed for monitoring are clear, practicable and linked to the indicators and objectives used in the SEA.
- Monitoring is used, where appropriate, during implementation of the plan or programme to make good deficiencies in baseline information in the SEA.
- Monitoring enables unforeseen adverse effects to be identified at an early stage. (These effects may include predictions that prove to be incorrect.)
- Proposals are made for action in response to significant adverse effects.

Step 5: Consult

Methodological tasks	Process tasks	Extra, optional tasks
(none)	• Identify the concerned public to participate, including relevant NGOs (if not already done in step 1) (art. 8.3, see section A4.3). • Make environmental report available to authorities and the public (art. 8.2, see section A4.3; and art. 9.2, see section A4.4). • Formally notify affected Parties as appropriate (art. 10, see section A4.5). • Consult authorities and provide for public participation on environmental report and selected alternatives. • Consult affected Parties as appropriate. • Receive comments to be taken into due account in the decision. • Formally submit to decision maker (art. 11, see section A4.6).	• Describe consultation and public participation processes. • Record who comprised "the public" and "the public concerned".

54. Consultation (section A4.4) and public participation (section A4.3) must occur at this stage, with the authorities and the public concerned commenting on the report and the draft plan or programme alternatives. Their comments need to be taken into account in the decision on the plan or programme, and so should be recorded.

55. If likely transboundary effects have been determined, transboundary consultations must now be begun. An affected Party might also request that consultations take place. See section A4.5 below.

56. Finally, the report and the plan or programme alternatives might be amended if appropriate to take account of the comments received before being submitted to the decision makers. How these documents influence the decision-making process is discussed in chapter A2.

A4.3 PUBLIC PARTICIPATION

57. This section provides an examination of public participation in SEA under the Protocol (principally art. 8).

A4.3.1 Legal obligations

58. Article 8 requires that there are early, timely and effective opportunities for public participation, when all options are open, in the SEA of plans and programmes (art. 8.1). The timely public availability of the draft plan or programme and the environmental report is required (art. 8.2).

59. The **public concerned**, including relevant NGOs, has to be identified (art. 8.3). It is the public concerned, not the public in general, that must have the opportunity to express its opinion on the draft plan or programme and the environmental report (see section A4.2, step 4) within a reasonable time frame (art. 8.4).

60. In addition, the Protocol optionally provides for public participation in earlier stages:

- Determination of significant effects, when determining whether SEA required (art. 5) (see section A3.2).
- Scoping (art. 6) (see section A4.2, step 1).

61. Detailed arrangements for informing the public and consulting the public concerned have to be determined and made publicly available (art. 8.5). These arrangements have to take into account the paragraphs listed in annex V (see above). There is no equivalent to annex V in the SEA Directive.

62. There are further provisions relating to public participation in the preamble and in articles 1 (c) (objective); 2.6 and 2.8 (definitions); 3.2, 3.3, 3.6 and 3.7 (general provisions); 5.3 and 5.4 (screening); 6.3 (scoping); 7.2 (a) (environmental report); 10.4 (transboundary consultations); 11 (decision) and 12.2 (monitoring). The main provisions corresponding to the Protocol's article 8 in the SEA Directive are in articles 6.1, 6.2, 6.4 and 6.5. There are further provisions relating to public participation in the preamble and in articles 2 (b) and (d), 3.7, 7.2, 8 and 9.1.

63. The public's rights under the Protocol may be examined in more detail under three headings:

- General rights.
- Rights to information.
- Rights to participate.

General public rights

64. The Protocol provides a number of general rights for the public, besides rights to certain information and to consultation on the draft plan or programme and the environmental report. These are set out in article 3 and are similar to those expressed in article 3 of the Aarhus Convention:

- Relevant assistance and guidance from officials and authorities.
- Recognition of and support to relevant associations, organizations or groups (for example, NGOs).
- Exercising rights under the Protocol:

- Without being penalized, persecuted or harassed, and
- Without discrimination as to citizenship, nationality or domicile.

65. For the most part, EU law, other than the SEA Directive, provides similar rights.

66. Article 3 also includes provisions on how Parties are to transpose the Protocol into their national legislation.

Public rights to information

67. Rights to the following information are expressed in various provisions of the Protocol and are discussed where appropriate in this Manual:

- The conclusions of the determination of significant effects (art. 5.4) (see chapter A3).
- The draft plan or programme and the environmental report (timely availability) (art. 8.2 and art. 10.4) (see section A4.2).
- Detailed arrangements for informing the public and consulting the public concerned (art. 8.5) (in this section).
- Adoption of the plan or programme, etc. (art. 11.2) (section A4.6).
- Monitoring results (art. 12.2) (section A4.7).

68. The detailed arrangements for informing the public and consulting the public concerned have to be determined and made publicly available. Annex V to the Protocol sets out in detail what those arrangements might cover.

Public rights to participate

69. Besides having a right to be informed, the public concerned has a right to contribute to the decision-making process by expressing its opinion on the draft plan or programme and the environmental report, and to have its comments taken into account in decision-making on the plan or programme:

- Early, timely and effective opportunities must be provided for public participation, when all options are open (art. 8.1).
- There may possibly be public participation in the determination of significant effects and in scoping, but this is not mandatory (art. 5.3 and art. 6.3) (chapter A3 and section A4.2, respectively).
- The public concerned can express its opinion on the draft plan or programme and the environmental report within a reasonable time frame (art. 8.4 and art. 10.4) (sections A4.2 and A4.5 (for the public concerned in any affected Party), respectively).
- The opinions of the public concerned must be taken into account in decision-making (art. 11.1) (section A4.6).

A4.3.2 Possible practical considerations

70. The general rights for the public under the Protocol (art. 3) are, as noted above, similar to those expressed in the Aarhus Convention.

71. In addition, this section examines possible practical considerations in public participation under the Protocol by asking four questions about the public:

- Who are they?
- What are their general rights under the Protocol?

- How can information be made available to them?
- How can they participate?

Who is the public?

72. Who is the public? And who is the "public concerned" that must have "the opportunity to express its opinion on the draft plan or programme and the environmental report within a reasonable time frame" (art. 8.4)? The term "the public concerned" is not defined in the Protocol, though it is in the Aarhus Convention. Certainly, the public concerned may vary from one plan or programme to another.

73. The following possible practical considerations might be taken into account when identifying the public concerned:

- The Protocol requires that "the public concerned", including relevant NGOs, is identified (not chosen).
- The Protocol's definition of "the public" is identical to that in the Aarhus Convention and the SEA Directive, but differs from the Espoo Convention in its explicit inclusion of "associations, organizations or groups".
- The definition "refers to any natural or legal person" (EC Guide, para. 7.5). "In many cases, an **association, organization or group** of natural or legal persons will itself have legal personality, and will be directly covered by the definition. The language should be interpreted, therefore, to provide that associations, organizations or groups without legal personality (including NGOs) may, if national legal frameworks so provide, also constitute 'the public'" (EC Guide, para. 7.6).
- The Protocol specifies that "the public concerned", a term that is not defined (except that it must include relevant NGOs), has the opportunity to express its opinion on the draft plan or programme and the environmental report. The Aarhus Convention's definition of "the public concerned" is "the public affected or likely to be affected by, or having an interest in, the environmental decision-making; for the purposes of this definition, non-governmental organizations promoting environmental protection and meeting any requirements under national law shall be deemed to have an interest" (art. 2.5). The Directive follows the Aarhus Convention definition, though without using the term "public concerned". Parties might choose to employ this definition.
- The EC Guide may also be relevant: "The public affected or likely to be affected by, or having an interest in, the decision-making subject to this [legal instrument] can be described as a subset of the public in general.... This provision requires [States] to identify that subset, which is given the opportunity to express its opinion on the draft plan or programme and the environmental report.... The public identified may differ from one plan or programme to another. In some situations, for instance in the case of a country-wide plan or programme, the public with an interest or likely to be affected may be very similar to the public in general and the identification would have to take account of that" (EC Guide, para. 7.16).
- Relevant NGOs are by definition considered part of the concerned public. The EC Guide notes "NGOs may differ in their field of interest. Some are, for example, more active on the national level, and some are more active on the regional or local level or on specific issues, such as nature or waste. In identifying relevant NGOs ... States may tailor the identification to the nature and contents of the plan or programme concerned and the interests of the NGOs. NGOs with purely local concerns would need to be

identified even in the case of plans or programmes relating to distant localities, provided it was clear that their interests were affected by those plans or programmes" (EC Guide, para. 7.17).

74. It is important to consider all population groups that might be affected, either adversely or beneficially, by the plan or programme and to make efforts to involve the population groups likely to be adversely affected in public participation processes. These groups may include disadvantaged groups such as people having low incomes, the disabled, the homeless, refugees, etc.

What are the public's general rights?

*Each Party shall endeavour to ensure that officials and authorities assist and provide guidance to the public in matters covered by this Protocol (*art. 3.2).

75. Because officials are in the public service, it is reasonable to expect that they might help to activate the public's use of these instruments, by providing information, guidance and encouragement. The phrase "endeavour to ensure" may not be intended to soften the obligation but it is an acknowledgement that it is conceptually impossible for Parties to ensure that officials and authorities assist and provide guidance, because whether individual officers actually give assistance and guidance in a particular case is subjective. The phrase might be interpreted to require Parties to take firm steps towards ensuring that officials and authorities provide the assistance mentioned, i.e., Parties must provide means for assistance, opportunities for officials and authorities to provide such assistance, and must encourage officials and authorities to do so through official policies and capacity-building measures.[33]

76. The participation of the public in SEA is vital to give SEA legitimacy and value. Many States have experienced difficulty motivating public participation in SEA, so the effort required to provide "information, guidance and encouragement" should not be underestimated.

Each Party shall provide for appropriate recognition of and support to associations, organizations or groups promoting environmental, including health, protection in the context of this Protocol (art. 3.3).

77. Parties need to ensure that legitimate associations, organizations or groups (e.g., NGOs) may be formed. Some States require registration of such groups, whereas others explicitly recognize non-registered or ad hoc groups. The form of the support might vary, including direct support (e.g., grants) or indirect support (e.g., tax relief, or advantages in participation).

Each Party shall ensure that persons exercising their rights in conformity with the provisions of this Protocol shall not be penalized, persecuted or harassed in any way for their involvement. This provision shall not affect the powers of national courts to award reasonable costs in judicial proceedings (art. 3.6).

78. The provision is intended to prevent penalization, apart from through the courts, or persecution or harassment against persons participating as members of the public in SEA.

Within the scope of the relevant provisions of this Protocol, the public shall be able to exercise its rights without discrimination as to citizenship, nationality or domicile and, in the case of a legal person, without discrimination as to where it has its registered seat or an effective centre of its activities (art. 3.7).

[33] See *The Aarhus Convention: An Implementation Guide* (United Nations publication, Sales No. E.00.II.E.3), p. 43; available from http://www.unece.org/env/pp/acig.htm.

79. The provision is intended to prevent discrimination on the basis of citizenship, nationality or domicile.

How can information be made available to the public?

80. Making information available to the public may involve appropriate publicity arrangements and easy access to information, though only public availability is strictly required by the Protocol. Effective dissemination might be by public notice (e.g., in a newspaper) or individually (e.g., mailshots).

81. The Protocol explicitly suggests use of electronic media as a means of ensuring timely public availability of documents. However, given the need to provide effective opportunities for public participation, it might be inadequate to provide documents only via electronic media, as this may exclude important segments of the public such as the poor, the isolated (e.g., rural) and the elderly, who might not use the Internet.

82. Dissemination methods and means of making information publicly available are described in chapter A5 of this Manual.

How can the public participate?

83. Practical methods of public participation are dealt with in detail in chapter A5. Below some possible practical guidance on the relevant provisions of the Protocol is presented.

84. States have to give an opportunity to certain members of the public to express their opinion on the environmental report and the draft plan or programme. One of the reasons for public participation is to contribute to the quality of the information available to those responsible for the decisions that are made concerning the plan or programme. Public participation might sometimes reveal important new information that leads to substantial changes to the plan or programme, and consequently its likely significant environmental effects. If so, it might be necessary to consider a revision of the environmental report and, if the changes justified it, fresh public participation (EC Guide, para. 7.1, adapted).

85. The Protocol specifies that the opportunities for public participation be "when all options are open", i.e., at a stage when reasonable alternatives may be chosen to be put forward for adoption or submission to the legislative procedure.

86. The draft plan or programme and the report are made available to the public in general, but only the opinions of the concerned public must be taken into account.

87. Time frames for public participation need to take into account the requirement to give an "early and effective" opportunity for such participation (art. 8.1) and for the public concerned to have the opportunity to express its opinion "within a reasonable time frame" (art. 8.4). Experiences with consultation procedures for domestic and transboundary EIA may provide guidance (EC Guide, para. 7.9), e.g., EIA time frames might be used as a guide. It is recommended that time frames are laid down in legislation and that, for any given type of plan or programme, the same time frame be allowed for comments on the environmental report and on the draft plan or programme. The SEA Directive specifies that the draft plan or programme must be **accompanied** by the environmental report during consultation (art. 6.2), whereas the Protocol does not explicitly require that the two documents be made available together.

88. Different time frames may be appropriate for different types or complexity of plan or programme, but care should be taken to allow enough time for opinions to be properly developed and formulated on lengthy, complex,

contentious or far-reaching plans and programmes. Adequate time will also be needed for the planning authority to take these views into account before deciding on the plan or programme. Sometimes requests for more information may be made and the time frame for public participation may also need to take into account the time needed for the responsible authority to respond (EC Guide, para. 7.10, adapted).

89. It may be useful to combine public participation in SEA with public participation within the development of the plan or programme (as discussed in chapter A2). Combining public participation in the SEA and plan- or programme-making process may enable consideration of possible suggestions for reformulation of the plan or programme within a single commenting and review process.

A4.4 CONSULTATION WITH AUTHORITIES

90. This section provides an examination of the consultation with environmental and health authorities in SEA under the Protocol (principally art. 9).

A4.4.1 Legal obligations

91. Article 9 requires that the environmental and health authorities have an early, timely and effective opportunity to express their opinion on the draft plan or programme and the environmental report (art. 9.3).

92. Which environmental and health authorities are to be consulted has to be determined (art. 9.1), as do detailed arrangements for informing and consulting them (art. 9.4).

93. The consultation with environmental and health authorities occurs at a number of stages in the SEA process:

- Determination of significant effects, if required while determining whether SEA is required (art. 5.2) (see section A3.2).
- Scoping (art. 6.2) (see section A4.2).
- Environmental report (art. 9.3) (see section A4.2).

94. There are further provisions relating to consultation in articles 2.6 (definitions), 5.2 (screening), 6.2 (scoping), 10.4 (transboundary consultation), 11 (decision) and 12.2 (monitoring). The main provisions corresponding to the Protocol's article 9 in the SEA Directive are in articles 6.1, 6.2, 6.3 and 6.5. There are further provisions relating to consultation in the preamble and in articles 2 (b), 3.6, 5.4, 7.2, 8 and 9.1.

A4.4.2 Possible practical considerations

95. In applying the legal obligations for consultations, the following suggestions may provide for effective consultations (see box A4.5 below for details):

- Parties determine detailed arrangements for informing and consulting the authorities, with legislation providing a framework (art. 9.4).
- "Authorities" includes formal governmental or public authorities, defined by administrative or legal requirements.
- Designation may be by including them in legislation or by designating case by case, or for each plan or programme type (art. 9.1).
- Both the Protocol and the Directive require designation of the authorities to be consulted. In the interests of clarity, it may be useful to make a general determination in advance covering different types of plans and programmes; this advance determination is mandatory under the SEA Directive. It may also be useful to draft service agreements or terms of reference to clarify the responsibilities of the different institutions, including the environmental and health authorities, to be consulted during the SEA.
- The most appropriate form of consultation needs to be selected for each plan or programme, or for each plan or programme type.

96. There are many methods and techniques for consultation, e.g.:

- Seeking written comments.
- Steering groups.

- Focus groups.
- Advisory committees.
- Interviews.
- Internet-based discussions.

97. Chapter A5 provides information on such tools. See also subsection A4.3.2 above, which provides possible practical guidance on how the public can participate, much of which is equally valid for the consultation with authorities.

Box A4.5: Consultation with the authorities — Possible practical arrangements

The "authorities" covers formal governmental or public authorities, defined by administrative or legal requirements. They might include environmental or environmental health inspectorates (national, regional or local level), environmental or health research institutions performing a public task or units in government (national, regional or local) likely to be concerned by, or have expertise in, the effects of implementing the plan or programme in question. The phrase "specific environmental or health responsibilities" refers to their responsibilities as authorities (for example, to monitor the quality of the environment, provide health services, inspect sites or activities, carry out research, etc).

The "designation" of the authorities can be done in a general way by including them in the legislation implementing the Protocol. For example, a national environmental inspectorate could be designated as an authority to be consulted in all cases, or in specified types of case. Authorities can also be designated case by case, provided the implementing legislation is drafted so as to permit this type of designation.

For example, the legislation might designate several authorities, including environmental or health inspectorates or regional governmental units. In a case-by-case approach, the planning authority may then designate which of these authorities are to be consulted on individual cases, depending on the contents of each plan or programme.

Parties may also decide to designate authorities that have environmental or health responsibilities in a more general way, for instance, "neighbouring local authorities" with such responsibilities. This example seems a more intermediate approach between general and case-specific designation.

The organization of "the detailed arrangements" for informing the authorities and receiving reactions is left to the discretion of the Parties. The implementing legislation should provide for the framework for these arrangements. The arrangements may, for example, specify the ways in which the authorities may be informed and comments can be given. Parties also have the opportunity of exploring more modern arrangements for consultation such as Internet-based discussions, provided that these do not by their nature exclude certain authorities. There are many different methods and techniques for consultation, including seeking written comments on draft proposals, steering groups, focus groups, advisory committees or interviews. The most appropriate form of consultation needs to be selected for any given plan or programme.

(Source: adapted from EC Guide, paras. 7.11–7.20)

A4.5 TRANSBOUNDARY CONSULTATIONS

98. This section provides an examination of the transboundary consultations in SEA under the Protocol (principally art. 10).

A4.5.1 Legal obligations

99. Article 10 provides for transboundary consultations when a proposed plan or programme in one country (the Party of origin) is likely to have significant environmental effects on the territory of another country (the affected Party).

100. The Party of origin has to notify the affected Party if it considers that implementation of the proposed plan or programme is likely to have significant transboundary environmental effects, or if so requested by another Party likely to be significantly affected (art. 10.1). The first task is therefore to determine whether the plan or programme is likely to have significant transboundary environmental effects.

101. The SEA process presented in this chapter does not indicate precisely when transboundary notification and consultations are to take place; the Protocol simply requires notification "as early as possible before the adoption of the plan or programme" (art. 10.1).

102. The notification has to include (art. 10.2):

- The draft plan or programme.
- The environmental report, including information on possible transboundary environmental effects.
- Information on the decision-making procedure, including information on a time schedule for comments.

103. Consultations then follow if desired and indicated by the affected Party. The consultations have to address:

- The likely transboundary environmental effects of implementing the plan or programme (art. 10.3).
- The measures envisaged to prevent, reduce or mitigate adverse effects (art. 10.3).
- Detailed arrangements (art. 10.4) for informing the **public concerned** and authorities in the affected Party, and for giving them the opportunity to forward their opinion on:
    - The draft plan or programme.
    - The environmental report.

104. The opinions of the **public concerned** and the environmental and health authorities in the affected Party have to be taken into due account, and they have to be informed of how their comments were taken into account (art. 11).

105. There are further provisions relating to transboundary consultations in the preamble, in articles 2.3, 2.4 (definitions) and 11 (decision), and in annexes III, IV (para. 10) and V. The main provisions corresponding to the Protocol's article 10 in the SEA Directive are in article 7. There are further provisions relating to transboundary consultation in the preamble, in articles 2 (b), 8 and 9.1 and in annex II (para. 2).

A4.5.2 Possible practical arrangements

106. At the latest, transboundary effects may be identified during preparation of the environmental report, but if identified earlier then notification would best be begun earlier as well, during **scoping**; doing so may reduce delays in reaching the decision-making stage. However, such early notification would necessarily be **informal**, as the formal notification has to include, among other things, the environmental report. The following paragraphs provide additional suggestions on transboundary consultations, adapted from the EC Guide (paras. 7.26–7.29).

107. The Protocol requires that reasonable **time frames** be provided for consultation in transboundary situations. Compared with non-transboundary situations, these will need to be enough for contact to be made between the Parties concerned, the identification of and consultation with the public and environmental and health authorities in the affected Party, and consideration of the resulting comments by the appropriate authorities in the Party of origin. Practical matters such as the need to prepare translations may also lengthen the process.

108. Once the transboundary mechanism is triggered, the concerned Parties have to agree on more detailed arrangements to ensure the necessary consultation with the public concerned and the environmental and health authorities in the affected Party.

109. Transboundary (notification and) consultations may be arranged purely on an ad hoc basis. However, with EIA in a transboundary context (under the Espoo Convention) it has been found that the process can be accelerated and simplified through developing bilateral or multilateral agreements that provide a framework for transboundary consultations, specifying parameters including: contact points, a joint body, language considerations including translation arrangements, assigning costs, criteria of effect significance, public participation arrangements and dispute settlement procedures. The Espoo Convention's "Guidelines on good practice and bilateral and multilateral agreements"[34] provide advice on these matters. Bilateral and multilateral agreements that have been set up in the framework of the Espoo Convention may, suitably modified to cover plans and programmes, provide a pattern for these arrangements.

110. Finally, the Espoo Convention's *Guidance on public participation in EIA in a transboundary context* may also be useful in this regard.[35]

[34] See decision III/4 of the Meeting of the Parties to the Convention (ECE/MP.EIA/2004/5, appendix).
[35] ECE/MP.EIA/7; available from http://www.unece.org/env/eia/publications.html.

A4.6 DECISION

111. This section provides an examination of the decision in SEA under the Protocol (art. 11).

A4.6.1 Legal obligations

112. The decision maker decides which, if any, of the alternative plans or programmes, or alternative elements within a plan or programme, to adopt (art. 11; the corresponding provisions in the SEA Directive are in articles 8 and 9). And in adopting a plan or programme, the decision maker must take into account the conclusions of the environmental report, including the necessary measures to prevent, reduce or mitigate the adverse effects of the various plan or programme alternatives. The decision maker must also take into account (art. 11.1) opinions expressed by:

- The relevant environmental and health authorities.
- The public concerned.
- Any affected Parties.

113. Following adoption of a plan or programme, the relevant environmental and health authorities, the public (not just the public concerned) and any affected Parties must be informed of that decision (art. 11.2). The adopted plan or programme must be made available to them together with a statement:

- Summarizing how the environmental considerations (as presented in the environmental report) have been integrated into the adopted plan or programme.
- Summarizing how their opinions (as expressed by the public concerned in the case of the public) have been taken into account.
- Summarizing the reasons why the plan or programme has been adopted in the light of the reasonable alternatives considered.
- For EU member States, describing the monitoring measures decided upon (art. 9.1 (c) of the SEA Directive).

A4.6.2 Possible practical considerations

114. In adopting a plan or programme, the decision maker might wish to take into account, in particular:

- The compatibility with the plan or programme objectives and environmental objectives.
- The residual environmental effects.

115. The informing of the public and the information in the statement are compatible with the Aarhus Convention. No provision is made for confidentiality. As suggested by the EC Guide, “authorities must provide sufficient information about the conditions under which the environmental information is available and how it can be obtained. The facilities for doing this include, for example, information publications, announcements in government publications or on government websites, television or radio public service announcements, or as part of environmental information catalogues that describe how relevant information can be obtained” (para 7.31).

116. As noted earlier, some elements of the SEA process may be integrated within a plan- or programme-making process. So, ideally, various analyses performed within SEA should inform the entire plan- or programme-making process. The draft plan or programme might therefore explain how the SEA has influenced the plan- or programme-making process.

A4.7 MONITORING

117. This final section provides an examination of monitoring in SEA under the Protocol (art. 12).

A4.7.1 Legal obligations

118. Article 12 provides for the monitoring of the significant environmental effects of the implementation of the adopted plan or programme. (The corresponding provision in the SEA Directive is in article 10.) The Protocol requires that monitoring results be made available to the relevant environmental and health authorities and to the public (art. 12.2). The only explicit reason given for monitoring is to identify, among other things, unforeseen adverse effects and to enable remedial action to be taken (art. 12.1).

A4.7.2 Possible practical considerations

119. Monitoring has benefits other than those mentioned above and therefore monitoring might be used to:

- Compare predicted and actual effects, thus providing information on the implementation of the plan or programme.
- Provide experience to help improve future SEAs (i.e., as a quality control tool).
- Check that environmental conditions imposed by the authorities are being complied with.
- Check that the plan or programme is implemented as described, including the prescribed measures to prevent, reduce or mitigate adverse effects.

120. The Protocol does not suggest the who, what, where, when or how of monitoring — who is to undertake it, who is to make results available, what to monitor (except, in general terms, the significant environmental effects of the plan or programme), what to make available (raw results or analyses thereof), where to monitor, what frequency and for how long, when to make results available, and how to monitor (methods) and to make results available. Parties might wish to exploit existing monitoring and information access arrangements or to strengthen them specifically for SEA.

121. The nature of monitoring will vary between different types of plans and programmes. A regularly revised land-use plan might require monitoring of whether the predicted environmental effects were realized, as a means of improving the next version of the plan. However, it is often difficult to establish a cause-effect relationship at the plan and programme level. The results of monitoring might be made available at the start of the next plan-revision cycle. A transport infrastructure programme might be more focused on dealing with unexpected adverse effects of its implementation, taking immediate action through modifying the programme or its individual projects. The duration of monitoring for the latter example might be significantly longer than the former, and the making publicly available of monitoring results might be through a programme-specific website, for example.

122. Based on the EC Guide (para. 8.4) it is suggested that methods chosen should be those that are both available and suited to testing whether the assumptions and predictions made in the environmental assessment correspond with the environmental effects that occur when the plan or programme is implemented; a key consideration is also the ability of the

methods to provide early warning of unforeseen adverse effects of the plan or programme so that timely remedial action can be taken. It is also suggested that the nature of the environmental information (i.e., the detail and whether it is quantitative or qualitative) necessary for monitoring depends on the corresponding character and detail of the plan or programme and its predicted environmental effects.

123. Though the requirement is to identify **unforeseen** adverse effects, the monitoring can be based on the relevant significant environmental effects as identified in the environmental report. The meaning of "unforeseen" might therefore refer to the unforeseen magnitude or intensity of a foreseen effect, such as greater than expected changes in sulphur dioxide emissions arising from an energy sector plan. It would also be possible to include elements in the monitoring programme that might identify truly unforeseen effects. For example, occasional sampling of a broad range of environmental parameters might identify a change in a parameter that was not expected to be affected by the plan or programme.

124. The EC Guide suggests that "**implementation** means not only the realization of the projects envisaged in the plan or programme (including both their construction and operation) but also covers other activities (such as behavioural measures or management schemes) which form part of the plan or programme (or its implementation)" (para. 8.9).

125. The Protocol does not discuss what **remedial action** might be taken if an unforeseen adverse effect is observed. If it is decided to modify the plan or programme as a result, this may require a further SEA, if the requirements of articles 2 and 4 are met.

126. Finally, the significant effects to be monitored might include transboundary effects. The post-project analysis provision of the Espoo Convention (art. 7) might provide inspiration for how to monitor such effects. There is no requirement to share with the affected Party the results of any monitoring, but they should be in the public domain and the affected Party's assistance might well be required in setting up monitoring in its territory.

127. Chapter A5 on basic tools for SEA provides practical guidance on monitoring. The EC Guide provides more guidance on monitoring in its section 8 and appendix I. Also see the European Union Network for the Implementation and Enforcement of Environment Law (IMPEL) final report, *IMPEL PROJECT: Implementation of Article 10 of the SEA Directive 2001/42/EC*, available at http://ec.europa.eu/environment/eia/pdf/impel_final_report.pdf.

Chapter A5

OVERVIEW OF BASIC TOOLS FOR SEA

A5.1 INTRODUCTION TO THE CHAPTER

The Protocol refers throughout to "the environment, including health". To avoid repetition, the Manual refers only to the environment, but this should always be understood to include health. For more information on health issues, please see annex A1.1.

1. This chapter describes how to an assessment can be carried out that gives effect to the provisions and procedures of the Protocol on SEA (as described in chapters A2 to A4) and that meets emerging internationally accepted standards of good practice.
2. It is organized into three sections focusing on:

   - The relationship between SEA and plan and programme making, with particular reference to their basic approaches and methodological frameworks (section A5.2).
   - Analytical approaches and tools that can be employed to undertake an SEA in support of effective plan and programme making (section A5.3).
   - Participatory approaches and tools that can be employed to undertake an SEA in support of effective plan and programme making (section A5.4).

A5.2 ANALYTICAL AND PARTICIPATORY TOOLS IN SEA

A5.2.1 Introduction

3. The Protocol is a procedural framework that does not specify how analyses or consultations should be conducted. However, a number of requirements set out in the Protocol have methodological overtones or content.

4. In this respect, it should be noted that there is no single best methodology for conducting SEA and that there is a large range of analytical and consultative tools available for this purpose. These tools derive from three main sources:

   - Tools used in EIA with adaptations to undertake SEA at the required scale and appropriate level of detail.
   - Tools used in policy analysis, plan evaluation or the development of plans and programmes with adaptations to provide an analysis that meets the requirements of the Protocol.
   - Tools used in Health Impact Assessment (HIA) to take account of significant effects on human health, as required by the Protocol.

5. In all cases, SEA methodology and tools should be appropriate to the issues to be addressed in the given plan or programme and the choice of an approach should be determined as part of scoping.

6. As described in chapter A3, the Protocol applies to certain plans and programmes that set the framework for development consent. It seems likely, in that context, that EIA-derived methods can be used or modified to undertake SEA for plans or programmes that initiate specific land uses or projects, i.e., where a cause-effect chain can be readily identified. The following may be suitable in these circumstances:

   - Formal and informal checklists.
   - Matrices of impacts.
   - Impact networks.
   - Case comparisons and collective expert judgements.
   - Overlay mapping and Geographic Information Systems (GIS).
   - Predictive modelling.
   - Life-cycle assessment.
   - Multi-criteria analysis.

7. When the environmental effects of plans and programmes or particular components of them are indirect and generalized, tools used in policy appraisal or plan evaluation may be more suitable. Examples of policy-appraisal or plan-evaluation methods include:

   - Policy and legal reviews.
   - SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis, or other approaches to mapping of constraints and opportunities.
   - Scenario building.
   - Matrices of conflicts and synergies.
   - Decision trees.

- Trend analysis and extrapolation.
- Simulation modelling.
- Options appraisal.
- Comparative risk assessment.

8. It is important to recall that in many instances a single simple method of assessment may be appropriate for all environmental effects.

9. However, when the health effects of plans or programmes or particular components of them are important, tools used in HIA may be appropriate. Examples of HIA methods include:

   - Health hazard checklists.
   - Qualitative and quantitative risk assessment.
   - Surveys of health risk perception.
   - Methods and tools for risk characterization and risk communication.
   - Methodologies for rapid assessment of health risk and impacts and of the environmental determinants of health impacts.

10. In exceptional circumstances it may be useful to consider the application of the DPSEEA (Driving Forces - Pressures - State - Exposure - Effects - Actions) model in designing a system of health indicators within the decision-making context. However, it is important to recognize the limitations of the DPSEEA model, notably its complexity and lack of precision.

A5.2.2 SEA and plan and programme making from a methodological perspective

11. As noted in chapter A2, SEA and plan or programme making are mutually supportive processes with reciprocal functions. Given their close relationship, there are opportunities to design and adapt SEA analytical and consultative tools as an extension of those applied in the development of the plan or programme.

12. Examples of tools that can be adapted with minor modifications to analyse appropriate environmental issues include:

   - Tools for the determination of context and key issues (checklists, SWOT, matrices).
   - Tools for developing alternative options (scenario building or objectives-led planning).
   - Tools for assessment of impacts (modelling, GIS, etc.) or tools comparing options and presenting conclusions (multi-criteria analysis, cost-benefit analysis, etc.).

13. In this context, it is important first to examine critically which of the methods used in the development of the plan or programme can be extended to address relevant environmental issues and thus deliver information required by the Protocol.

14. The decision on the approach and methodology will have to be made case by case, respecting the nature of the plan or programme, taking into account data and scale considerations and looking to add value to decision-making and to strengthen the plan- or programme-making process. For example, in the SEA of land-use plans, the emphasis typically will be on resource and

environmental potentials and constraints of a particular area. This requires giving specific attention to local baseline conditions and to the ecological effects of proposed changes using tools such as GIS, habitat analysis or vulnerability mapping. By contrast, the SEA of sector plans or programmes may be concerned more with aggregate effects, for example on air quality or on carbon emissions in relation to Kyoto Protocol targets,[36] using simulation models for this purpose.

15. These examples underline the call made above for an adaptation of SEA to the context and characteristics of the planning process. The following rules can help to guide the selection of an optimal approach to integrating the use of SEA tools with those used to develop the plan or programme:

- Analyse the logic behind the development of the specific plan or programme and the analytical tools and stakeholder-involvement techniques applied.
- Determine the tools and techniques used in the plan- or programme-making process that may provide information required by the Protocol and consider how these may need to be adapted.
- Determine needs for additional analyses and consultations within the SEA process and choose appropriate tools.

A5.2.3 Selecting appropriate tools

16. Methods and tools used to conduct SEA have a major bearing on the quality of the information that is incorporated into plan and programme making and decision-making and on the effectiveness of this process.

17. As noted in the introduction to this section, there is no single best methodology for conducting a systematic and thorough analysis. Generally speaking, however, the simplest tool consistent with the task should be used in SEA. In many cases, of course, more advanced methods will need to be employed to generate information or predict the impact on the environment (e.g., traffic simulation models for a road-building programme). However, the "as simple as possible" rule still applies and it is important to avoid overcomplicating analyses.

18. It is also important to remember that selected tools must also be data and scale adapted to cope with the temporal and spatial dimensions of likely effects. They also have to be able to address uncertainties that may arise due to limited knowledge of cause-effect relations, insufficient data or unknown development trends that may significantly influence development of the given sector or territory.

19. The information provided through various tools should be decision-relevant, should help to clarify the trade-offs at stake and should recommend practicable options that can give the best environmental pay off with regard to mitigating adverse effects and enhancing positive effects.

[36] See http://unfccc.int/kyoto_protocol/items/3145.php.

A5.3 OVERVIEW OF BASIC ANALYTICAL TOOLS

20. This section provides a more detailed overview of analytical methods and tools that can be used in SEA. This framework draws on EIA-based, policy-appraisal and HIA methods. For ease of use, this overview is organized by key steps and tasks in the preparation of the environmental report, as suggested in section A4.2. This menu of tools is not exhaustive and can be adapted to the particular context of a proposal, depending on the logic of the plan- or programme-making process and the nature of the issues that should be addressed.

Determination of the scope

21. Scoping identifies and determines the important issues that need to be assessed. It normally moves from a long list of concerns to a short list of potentially significant issues.

22. The following methods can be used to scope the environmental dimensions of specific plans and programmes and to identify issues that require attention or that might be affected significantly when implementing the proposal:

- Policy and legal reviews, which help determine those environmental objectives and targets that are relevant to the plan or programme.
- Collective expert judgements, which can determine — based on personal experience and case comparisons — possible impacts that should be considered within an SEA.
- Checklists, which offer a simple way of identifying whether certain issues are relevant to a proposal and help to avoid overlooking potential issues.
- Matrices of impacts and conflicts or synergies, which facilitate — more systematically than checklists — the identification of the main issues that should be addressed within an SEA.
- SWOT analysis, which can present relevant opportunities and threats related to the environment that could be addressed in an SEA.
- Overlay maps and GIS, which can determine key spatial issues and set the territorial boundaries for the assessment.
- Decision trees and impact networks, which can identify key direct and indirect impacts and set the system boundaries for the assessment.
- Life-cycle assessment, which can map all inputs and outputs based on a cradle-to-grave approach, as well as to validate system boundaries for the evaluation of the environmental effects.

23. Often it will not be appropriate, possible or necessary to address all environmental effects of a plan or programme within SEA, though the reasons why should always be provided. Instead, assessment against relevant indicators or guiding questions may be sufficient for the purposes of an SEA (see box A4.2).

Analysis of the context and baseline

24. The purpose of baseline analysis is to establish the reference point for assessing the effects of the plan or programme. Typically, it involves describing the current state of the environment and outlining its likely evolution without the plan or programme. A key task in that regard is to analyse and extrapolate trends in the evolution of the state of the environment in the territory or sector that is subject to the plan- or

programme-making process and SEA. Given the need to reflect both key current issues and longer-term trends, and the usual time and resource constraints in plan- or programme-making and SEA processes, the baseline analyses will usually rely on existing data.

25. There are numerous tools that can be used to obtain data, such as:

- Surveys of local environmental quality that have often proved instrumental for project-level EIA may be realistically applied in SEA only for very specific local plans and programmes. Their use in SEA is also limited by the fact that they provide only a snapshot of the current situation without yielding insights into longer-term trends.
- Progress reports on implementation of environmental policy objectives and standards can provide useful insights into obstacles or achievements in realizing already existing environmental objectives and targets. These reports (often part of a state-of-the-environment report or environmental monitoring systems) are usually structured around specific domestic indicators that are relevant for specific commitments in the country.
- Trends in headline environmental indicators usually focus on aggregated indicators to measure key drivers, pressures, states, impacts and responses. Useful indicators may be obtained from international comparative reviews using these headline indicators, for example those of the European Environment Agency or OECD.
- Health surveys help to identify the current health issues that are of concern in areas or sectors addressed by the plan or programme. For example, SEA for a transport plan may analyse trends in the exposure of population to excessive levels of air pollution or noise, accidents on roads, etc; these issues would be usually deemed directly relevant for transport. However, SEA for a transport plan may also map wider or indirect health issues, such as cardiovascular diseases, psychosocial well-being or obesity and examine whether they are influenced by transport-related issues (e.g., lack of physical activity — walking, cycling, etc.). Due to complex cause-effect relationships, evaluations of such indirect issues inherently involve assumptions and the assessment in such cases should properly acknowledge any limitations and uncertainties in the conclusions reached.

Contribution to the development and comparison of alternatives

26. The environmental report must identify, describe and evaluate the likely significant environmental effects of implementing the plan or programme and its reasonable alternatives (art. 7). The SEA process has a potentially important role in identifying and generating reasonable alternatives, which begins in the scoping phase. The comparison of the effects of the major alternatives represents a crucial step in SEA for contributing to the quality of plan and programme making in support of the environment and sustainable development. Key tools for the purpose of **developing alternatives** include:

- Collective expert judgement, which can determine or develop key alternatives, e.g. through workshops or conferences.
- Overlay maps and GIS, which can help develop and optimize alternatives with clear spatial dimensions.
- Scenario building, which can outline future options that reflect the most uncertain and important driving forces affecting future development.

- Modelling, which can illustrate key features of the proposed options (possibly starting with extreme scenarios), rule out unfeasible proposals and help in combining and optimizing selected options.
- Life-cycle assessment, which can define alternatives based on different material and energy flows (e.g., in waste or energy management).

27. Formulation of alternatives is central to integrating environmental considerations into plan and programme making within the SEA process. A first step is to identify the range of reasonable alternatives that meet the objectives of the proposal, and summarize their environmental aspects. The alternatives should include a do-nothing alternative. Although it is not mandatory, it might also be helpful to include the best practicable environmental option. The best practicable environmental option helps clarify the environmental trade-offs that are at stake, and the basis for choice.

28. As mentioned in section A4.2, all alternatives can be analysed and mutually compared in terms of their specific effects or their contribution to the attainment of the relevant objectives of the plan or programme. The development of alternatives is thus normally closely interlinked to the **assessment of their effects** (hence the inclusion of these two tasks within a single step in section A4.2) and some analytical tools used to develop alternatives can be used also to predict their effects (and some of the tools listed below are the same as those identified in the list above). The most common tools include:

- Collective expert judgement, which can analyse the scale and nature of expected impacts.
- Matrices of impacts and conflicts or synergies, which can describe the main environmental impacts of proposed options or their main synergies or conflicts with the relevant environmental objectives.
- Trend analyses and extrapolation, which can outline the likely evolution of the state of the environment, i.e., environmental trends based on the evolving environmental pressures.
- Overlay maps and GIS, which can determine impacts of the proposal in the given territory and identify cumulative and synergistic effects.
- Life-cycle assessment, which can help to estimate different resource inputs and outputs of proposed options.
- Predictive modelling, which can quantify impacts by simulating environmental conditions.

29. The easiest means of **comparing key options** for decision-making is to describe and present clearly their key positive impacts (benefits) and negative impacts (problems or risks) — such a description will anyway be required as part of the non-technical summary. Other techniques that facilitate comparison of options are:

- Matrices, which can present impacts of proposed options or their consistency with relevant environmental objectives.
- Overlay maps and GIS, which can visually present the proposed alternatives and their impacts.
- Multi-criteria analysis, which can evaluate alternative options against several criteria and combine these separate evaluations into one overall evaluation.

- Cost-benefit analysis, which can examine the balance between the benefits of the proposal and its costs over a specified period of time.
- Life-cycle assessment, which can present impacts of proposed alternatives on material and energy flows.

30. Given the great degree of uncertainty that inevitably occurs in any analysis on a strategic level, it is recommended that a **sensitivity analysis** be carried out for any analysis that is performed. Sensitivity analysis helps to test the effect of changed assumptions and thus yields insights into the robustness of an assessment.

31. Annex A5.1 offers more detailed information on selected techniques. The specific features of these techniques are outlined in table A5.1 below.

Table A5.1: Overview of basic analytical tools

Analytical tool	Application within the SEA process					Key features				
	Identification of issues and impacts	Analysis: context and baseline	Contributing to development of alternatives	Assessment of impacts	Comparing options for decision-making	Demand for data	Cost and time requirements	Transparency for public	Ability to cope with uncertainties	Ability to address health issues
Environmental scan, and legal and policy reviews	✓	✓				o	$	😐		XX
SWOT analysis	✓	✓			✓	o	$	😐	•	XX
Checklists	✓					o	$	😐	•	X
Matrices	✓		✓	✓	✓	o	$	☺	•	X
Decision trees, impact networks	✓	✓			✓	o	$	☺		XX
Overlay maps and GIS	✓	✓	✓	✓	✓	oo	$$	☺		X
Trends analysis or extrapolation		✓		✓		o	$	☺	•	X
Collective expert judgement	✓	✓	✓	✓	✓	o	$	😐	•	XX
Modelling			✓	✓		oo	$$	☹	•	X
Scenario building	✓		✓			oo	$$	☺	•	XX
Life-cycle assessment	✓	✓	✓	✓	✓	oo	$$	☹		
Cost-benefit analysis			✓	✓	✓	oo	$$	☹		
Multi-criteria analysis			✓	✓	✓	oo	$$	☹	•	X

Key:

Application	✓	Applicable
Demand for data	o	Less
	oo	More
Cost and time requirements	$	Lower
	$$	Higher
Transparency for public	☹	Low
	😐	Moderate
	☺	High
Ability to cope with uncertainties	•	Able
Ability to address health issues	x	Low
	xx	High

A5.4 OVERVIEW OF BASIC PUBLIC PARTICIPATION TOOLS

32. The Protocol defines the basic requirements for public access to information and consultation (see section A4.3). These provisions may appear very similar to EIA. However, it is important to note that the scale, scope and range of some SEAs may make the practical public participation arrangements in SEA significantly different from EIA.

33. Public participation in SEA is likely to attract different publics. The complex nature of some SEAs calls for the use of techniques that facilitate focused problem-solving debate rather then mere problem exposure. This is an important challenge for SEA practice in the next few years.

34. In order not to confuse the public with too many opportunities for participation, selected tools should, where possible, provide a single public participation process serving the SEA and plan- or programme-making purposes. These tools may:

    - Provide information.
    - Gather comments.
    - Engage the public concerned in collaborative problem solving.

35. There are many public participation tools and various techniques often differ with minor adaptations. The most common tools are outlined in table A5.2 below and described in detail in annex A5.2.

36. Inadequate resources and capabilities of disadvantaged groups and individuals may limit their participation, so attention should be given to selecting appropriate public participation techniques to facilitate their inputs. If the chosen tools are difficult to use by the disadvantaged, there is a danger that only better-resourced groups and individuals will participate in the SEA and their views may not necessarily raise all public concerns.

Table A5.2: Overview of basic public participation tools

Public participation tool	Enables ...			Key features		
	Provision of information	Gathering of comments	Collaborative problem solving	Usual cost of application	Problem-solving ability	Ease of commenting
Range of printed material inviting comments	✓	✓		$		😐
Displays and exhibits	✓	✓		$		😐
Staffed displays and exhibits	✓	✓	✓	$$	•	☺
Information hotline	✓	✓		$		☺
Internet/Web-based consultations	✓	✓	✓	$	•	😐
Questionnaires and response sheets		✓		$$		☺
Surveys		✓		$$		☺
Public hearings	✓	✓		$		😐
Workshops	✓	✓	✓	$	••	☺
Advisory committee	✓	✓	✓	$	••	☺

Key:

Enables	✓	Yes
Usual cost of application	$	Lower
	$$	Higher
Problem-solving ability	•	Low
	••	High
Ease of commenting	😐	Moderate
	☺	High

Chapter A6

POLICIES AND LEGISLATION

A6.1 INTRODUCTION TO THE CHAPTER

The Protocol refers throughout to "the environment, including health". To avoid repetition, the Manual refers only to the environment, but this should always be understood to include health. For more information on health issues, please see annex A1.1.

1. This chapter discusses the Protocol's article 13 on policies and legislation. The emphasis is on applying "principles and elements" of the Protocol, rather than an SEA process similar to that for plans and programmes.

2. A volume on *Strategic Environmental Assessment at the Policy Level — Recent Progress, Current Status and Future Prospects*, edited by Barry Sadler, has been prepared by REC, on behalf of the Czech Ministry of Environment, as additional information to this Manual.[37]

Legal obligations

3. Article 13 requires that Parties "endeavour" to ensure that environmental concerns are considered and integrated to the extent appropriate in the preparation of their proposals for policies and legislation, and that the appropriate principles and elements of the Protocol should be considered when doing so. As far as a Party applies article 13, practical arrangements should take into account the need for transparency in decision-making.

4. There are further provisions relating to policies and legislation in the preamble and in article 1 (b) (objective), and article 24.4 (entry into force). There is no corresponding provision in the SEA Directive.

What are policies and legislation?

5. The Protocol does not offer a definition of "policies and legislation", though policies are generally considered to be strategic proposals at a higher or more general level than plans and programmes. The Oxford English Dictionary defines a policy as a "principle or course of action adopted or proposed as desirable, advantageous, or expedient; [especially] one formally advocated by a government, political party, etc." and legislation as the "enactments of a legislator or legislature". Article 13 states that the policies and legislation subject to article 13 are those that are likely to have significant effects on the environment.

Guidance

6. The Protocol provides very little information on how environmental concerns can be considered and integrated in the preparation of proposals for policies and legislation.

7. However, the potential for furthering sustainable development is substantial when environmental concerns can be considered and integrated into decision-making at these more strategic levels. And the lack of a clear process means there are opportunities for innovative and imaginative approaches to the consideration and integration of environmental concerns in the preparation of proposals for policies and legislation. Given the very different nature of individual policies and legislation, flexibility will be essential. This is therefore an exciting and challenging area of work with great potential.

[37] Available at http://www.unece.org/env/eia/documents/PolicySEA/SEA of Policies volume.pdf.

8. The consideration and integration of environmental concerns will generally take different forms in the preparation of proposals for policies and those for legislation. A policy might, for example, undergo a form of SEA as part of the process of development, including elements such as assessment of potential environmental effects, consideration of alternatives, and public consultation. However, this approach would not usually be applicable in a legislative context, because proposals for laws are considered and debated under prescribed parliamentary or other legislative procedures. Environmental matters may well be discussed in the course of such procedures, but any formal assessment of the type envisaged under the Protocol would normally have to take place before the proposed law is presented to the legislature. There is a parallel between this situation and the Protocol's provisions on plans or programmes that are adopted "through a formal procedure by a parliament or government". In these cases, SEA takes place before the finalized plan or programme is submitted to the formal procedure leading to adoption.

9. The Manual website (http://www.unece.org/env/eia/sea_manual/welcome.html) provides links to information on different approaches taken by countries for both policies and legislation, as also described in the volume mentioned in paragraph 2 above.

A6.2 POSSIBLE APPROACHES

10. This section suggests how environmental concerns might be considered and integrated in the preparation of proposals for policies and legislation, as far as a Party applies article 13 — what is termed below the "consideration and integration" process.

11. The lack of a strict requirement for the SEA of policies and legislation gives the Parties the opportunity to approach the consideration and integration of the environment in policies and legislation more flexibly, undertaking pilot studies and gradually developing experience and skills. For example, Parties might choose to consider at first only those policies and legislation with the clear potential to have significant (positive or negative) environmental effects. A strict definition of the field of application and of significance criteria might be developed later.

12. However, two key features of the consideration and integration process are apparent in the Protocol — the need to **integrate** (art. 1 (b) and (e)) and to ensure **transparency** (art. 13.3). Box A6.1 below presents suggestions on how to make integration more effective and means by which transparency may be achieved. Practical methods of implementing these approaches are presented in chapter A5.

13. Other elements to be considered might be those developed in articles 4 to 12 for plans and programmes (i.e., the "principles and elements" referred to in art. 13.2):

    - Field of application and determination of significant effects.
    - Scoping and environmental report.
    - Public participation, consultation with environmental and health authorities, and transboundary consultations.
    - Decision-making.
    - Monitoring.

14. However, these elements should not be considered to occur in a strict sequence. There may be much iteration, returning to earlier elements, and the elements may merge or overlap. Information gathering will inevitably be at a higher and more broad-brush level than for plans and programmes, and, similarly, any prediction and evaluation of effects will be less precise than for plans and programmes. Some existing SEA-like processes for policies and legislation discourage the production of a separate environmental report, with the findings of the SEA instead being incorporated into existing documentation that follows the policy or legislation through its development. Support documentation might be made available to the public separately.

15. Parties might also find useful the guiding principles in the guidelines on implementing the Canadian Cabinet Directive on the Environmental Assessment of Policy, Plan and Programme Proposals,[38] set out in table A6.1 below.

16. A consideration for those Parties that are also Parties to the Aarhus Convention is the application of articles 7 and 8 of that Convention, as discussed in box A6.2 below.

[38] Canadian Environmental Assessment Agency (2000), *Guidelines for Implementing the Cabinet Directive on the Environmental Assessment of Policy, Plan and Programme Proposals*, available at http://www.ceaa.gc.ca/default.asp?lang=En&n=B3186435-1.

17. Finally, Parties might wish to set up an advisory service or help desk to support application of the Protocol to policies and legislation. It might be provided by, for example, the environment ministry, the prime minister's office, the finance ministry, some other central department, or some combination of these.

Box A6.1: Suggestions on integration and transparency

Integration requires early initiation of the consideration and integration process within the policy- or legislation-making process. The combination of the objectives of the policy or legislation with wider environmental objectives would appear an effective starting point for integration. Integration may be made more effective by:[39]

- Starting early, before any irreversible decisions have been made.
- Including a strong voice on environment within the group developing the policy or legislation.
- Agreeing within the group and with decision makers how the consideration and integration process, including any environmental assessment, will be used.
- Tailoring the consideration and integration process to fit the policy- or legislation-making process and, in particular, its timetable.
- Aiming to use the principles and elements of environmental assessment to enhance discussion of environment concerns.
- Promoting transparency to provide support for the integration of environmental concerns.

Transparency may be achieved by various means, including for example:[40]

- Public information on the outcome and reasoning (i.e., why a policy or legislation has been adopted, taking environmental concerns into consideration).
- Public information at earlier stages of the policy- or legislation-making process or the consideration and integration process, including notification that such a process is beginning or has begun.
- Early consultation with environmental and health authorities on the results of an assessment of the possible environmental effects of the policy or legislation.
- Early public participation, involving not only relevant NGOs, but also the wider public and other Parties to the Protocol when appropriate.

[39] Echoing the discussion in chapter A3.
[40] Echoing art. 7 to 11 applied to plans and programmes.

Table A6.1: Guiding principles from the Canadian Guidelines

Guiding principles	
Early integration	The analysis of environmental considerations should be fully integrated into the development of a policy…. To support sound decision-making that is consistent with the principles of sustainable development, the consideration of environmental effects should begin early in the conceptual planning stages of the proposal, before irreversible decisions are made. In this way, [SEA] can support the analysis of options and identify issues that may require further consideration.
Examine alternatives	One of the most critical aspects of any [SEA] is the opportunity to evaluate and compare the environmental effects of alternatives in the development of a new policy…. This comparison will help identify how modifications or changes to the policy … can reduce environmental risk.
Flexibility	[Authorities] have discretion in determining how they conduct [SEAs], and are encouraged to adapt and refine analytical methodologies and tools appropriate to their circumstances.
Self-assessment	Each individual [authority] is responsible for applying [SEA] to its proposed policies … as appropriate, determining how an assessment should be conducted, performing the assessment and reporting on the findings of the assessment.
Appropriate level of analysis	The scope of analysis of potential environmental effects should be commensurate with the level of anticipated effects.
Accountability	[SEA] should be part of an open and accountable decision-making process within … government. Accountability should be promoted through the involvement [i.e. participation] of affected individuals and organizations, when appropriate, and through documentation and reporting mechanisms.
Use of existing mechanisms	In conducting [an SEA, authorities] should use existing mechanisms to conduct any analysis of environmental effects, involve the public if required, evaluate performance and report the results. Such mechanisms shall also be used to report statements of environmental effects.

References

18. The EC has developed a number of tools for the consideration and integration of the environment into the preparation of proposals for polices and legislation, including the Secretariat-General's support for the Impact Assessment process aimed at structuring and supporting the development of policies in the EC.[41]

19. Further references are provided in *Strategic Environmental Assessment at the Policy Level — Recent progress, current status and future prospects,* and on the Manual website (http://www.unece.org/env/eia/sea_manual/welcome.html).

20. In addition, some countries have developed methods for the consideration and integration of health in the preparation of proposals for policies and legislation. One example is the *Policy Appraisal and Health* guide in the United Kingdom, which includes simple screening questions for health and well-being.[42]

[41] Available at http://ec.europa.eu/governance/impact/index_en.htm (see, for example, the EC internal guidelines on Impact Assessment, at http://ec.europa.eu/governance/impact/commission_guidelines/docs/iag_2009_en.pdf).
[42] United Kingdom, *Policy Appraisal and Health: A guide from the Department of Health* (reissue 2004) http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_409

Box A6.2: Public participation provided for in the Aarhus Convention

Article 7 ("Public participation concerning plans, programmes and policies relating to the environment")

… To the extent appropriate, each Party shall endeavour to provide opportunities for public participation in the preparation of policies relating to the environment.

Article 8 ("Public participation during the preparation of executive regulations and/or generally applicable legally binding normative instruments")

Each Party shall strive to promote effective public participation at an appropriate stage, and while options are still open, during the preparation by public authorities of executive regulations and other generally applicable legally binding rules that may have a significant effect on the environment.

To this end, the following steps should be taken:

(a) Time-frames sufficient for effective participation should be fixed;

(b) Draft rules should be published or otherwise made publicly available; and

(c) The public should be given the opportunity to comment, directly or through representative consultative bodies.

The result of the public participation shall be taken into account as far as possible.

Article 8 might be interpreted as an obligation to strive to provide public participation during the preparation of legislation (etc.), while options are still open, by setting up a basic procedural framework including time limits, notification and the opportunity for commenting, and by taking the resulting comments into account as far as possible.[43]

5414.pdf.

[43] After *The Aarhus Convention: An Implementation Guide* (supra note 34), pp. 119–122.

PART B: TRAINER'S GUIDE

Chapter B1

CAPACITY-DEVELOPMENT FRAMEWORK FOR THE PROTOCOL

B1.1 INTRODUCTION TO THE CHAPTER

The Protocol refers throughout to "the environment, including health". To avoid repetition, the Manual refers only to the environment, but this should always be understood to include health. For more information on health issues, please see annex A1.1.

1. This chapter highlights the importance of a proper approach to ensure the overall effectiveness of capacity-development interventions for SEA. It covers the following issues:

   - A capacity-development framework for SEA (section B1.2), outlining the main issues that should be analysed in the design of strategies that aim to develop capacities for effective implementation of the Protocol, and presenting examples of capacity-development tools.
   - Capacity assessment (section B1.3), outlining the key issues that should be addressed in capacity assessment and presenting simple capacity-assessment tools.
   - Tips for designing relevant SEA capacity-development strategies (section B1.4), describing key assumptions for capacity development
   - Concluding remarks (section B1.5), describing the basic issues that influence the quality of systematic capacity development for SEA.
   - An example of a detailed capacity-assessment questionnaire used in five countries in Eastern Europe, the Caucasus and Central Asia (annex B1.1).
   - Examples of simple terms of reference for national capacity-development strategies for the introduction of SEA and the implementation of the Protocol requirements (annex B1.2).

B1.2 INTRODUCTION TO CAPACITY DEVELOPMENT FOR THE PROTOCOL

B1.2.1 Capacity-development framework for the Protocol

2. Effective implementation of SEA systems generally requires development of three types of capacity: system capacity, institutional capacity and human capacity. Key issues in the development of these capacities are summarized in table B1.1 below.

Table B1.1: Capacity-development framework for the Protocol[44]

Types of capacity	System capacity	Institutional capacity	Human capacity
Key elements	• Legal, policy and procedural frameworks within which institutions and individuals operate	• Ability of an organization to operate effectively within the given system	• Skills and expertise of individual persons and their motivation
Objectives	• Develop overall legislative policy and regulatory frameworks • Improve inter-institutional coordination	• Develop organizational performance and functioning capabilities	• Develop skills • Support long-term motivation and commitment
Specific interventions (non-exhaustive list)	• Legislative policy and regulatory reforms • Practical guidelines to assist interactions between key players in SEA process • Monitoring and review of the effectiveness of the entire system	• Institutional audits • Internal management guidelines • Improved working conditions (e.g., tools and means of communication)	• Development of basic skills • Advanced professional development • Professional certification
Cross-cutting interventions (non-exhaustive list)	• Awareness-raising about benefits of SEA and principles for its sound application • Platforms that facilitate regular professional debate and policy dialogue between the key stakeholders (e.g., professional networks or regular conferences to review and discuss states of practice) • Pilot projects that test proposed changes in legislation or guidance are implemented as part of inter-institutional learning and involve local experts through on-the-job training • Award schemes that identify and reward good practices		

System capacity

3. System capacity is determined by the quality of the overall system within which institutions and individuals operate. Systems may be ineffective (i.e., not reaching their objectives) or inefficient (i.e., too slow, costly, complicated or resource demanding). The development of system capacity aims to enhance the

[44] Adapted from A. Jurkeviciute and J. Dusik, *REC approach to capacity development for EIA/SEA reforms* (2004), unpublished material, REC Environmental Assessment Team.

effectiveness of the entire system through legislative, policy and regulatory reforms, the provision of practical guidelines and the monitoring and review of the effectiveness of the entire system.

4. **Legislative, policy and regulatory reforms.** The Protocol may be transposed into a national setting through, for example, an environmental protection act (a framework environmental law), declaring that the provisions of the Protocol be applied, establishment of the national framework law on SEA (through either a separate act or amendments to existing environmental protection legislation or EIA laws) or through amendments to existing planning or sectoral legislation.

5. **Practical guidance for SEA** is generally one of the most effective means for capacity development. It may be issued in the form of generally applicable guidance or as specific guidelines that customize general SEA procedures and approaches to the needs of a specific plan- or programme-making process. Guidelines may contain a description of the key elements in SEA, expected outputs of SEA and their links with plan and programme making, tools and methods that can be applied and may even include checklists to review whether the requirements of the Protocol were complied with. A list of examples of practical guidance, with hyperlinks, is available on the ECE website (http://www.unece.org/env/eia/sea_manual/welcome.html), and this list will be kept up to date as new examples become available.

6. **Periodic reviews of the entire SEA system** can be used to provide feedback on the effectiveness of the entire SEA system and to propose a plan for future reform. There is also a need for a monitoring and audit system.

Institutional capacity

7. Institutional capacity is the ability of an organization to operate effectively within the given system. The development of institutional capacity aims to enhance overall organizational performance through internal institutional audits, internal SEA management guidelines and internal communication mechanisms.

8. **Internal institutional audits** can be performed periodically to review whether an institution operates effectively within the SEA system, to identify achievements and obstacles in its internal functioning and to suggest means and actions to enhance organizational performance. Such audits may focus on internal coordination within the organization, and on the capacity and accountability of staff. Staff performance evaluations may be conducted routinely as a part of an organization's self-evaluation process to identify gaps and suggest improvements.

9. SEA may benefit from improved internal communication of different departments. **Internal management guidelines** can specify processes for internal communication and decision-making. However, choice of the right **communication mechanisms** is important, and electronic tools in SEA can make work more efficient. Nonetheless, team discussions and expert consultations can more effectively clarify conflicting opinions and enhance synergies between various parts of an organization. Such consultations also contribute effectively to the development of institutional capacity.

Human capacity

10. Human resources comprise the skills and expertise of people and they play a central role in SEA. The development of human capacity aims to ensure that key people have appropriate skills and are committed to their work. This can be done through, among other means, the development of basic skills, advanced professional development and certification.

11. **Development of basic skills** is the starting point in the development of human capacity. It usually includes the availability of SEA and related courses in universities, awareness-raising workshops, seminars and, increasingly also, films and web-based distance learning tools[45] that target relevant stakeholders.

12. **Advanced professional development** may occur through advanced courses and studies in selected disciplines. Other effective means include on-the-job training, where experts acquire advanced know-how through involvement in real SEAs and communication with more experienced colleagues.

13. **Certification** for SEA may be one of the means to increase human capacity and skills. SEA certification may be established as a subsystem of certification of environmental professionals or EIA experts. It is important to ensure that certification of SEA experts should be combined with periodic training, workshops and other capacity-development activities.

Cross-cutting capacity-development interventions

14. In addition to specific tools to build capacities of different types, there are several tools that create enabling environments for development of all three types of capacity identified above. These include awareness-raising about the benefits of good practice, platforms for regular professional debate, pilot projects and award schemes. Top-down support for SEA is critical. Therefore, policymakers and other high-ranking Government officials (not only in the field of the environment) should be aware of the benefits of good SEA practice.

15. **Awareness-raising about the benefits of SEA and principles for its effective application** can enhance appreciation of this instrument among plan and programme makers and decision makers. In a changing political environment, this tool can be used for promotion of SEA in different sectors and on different levels. It can be done through, for example, promotional materials that present examples from real-life cases and that present the views of decision makers and practitioners.

16. **SEA pilot projects** can be used to develop, test or demonstrate new SEA approaches. Such projects provide practical experience and establish precedents of good SEA practice. They are typically used in the early stages of the introduction of the SEA process. They test possible SEA formats and linkages with similar existing practices and procedures that may be linked or merged in the future, such as EIA. They can be implemented as a part of inter-institutional learning and involve local experts through on-the-job training.

17. **Platforms for regular professional discussion and policy dialogue** between the key stakeholders can be supported through professional networks, regular conferences to review and discuss the state of practice, or through e-mail discussion lists. Such regular interactions between institutions and individuals, from different professional and geographical areas, establish a professional debate that may significantly influence development of the entire SEA system, can promote capacity-development initiatives within key institutions and might coordinate various interventions to develop human resources for SEA. An example of a successful networking facility is the global International Association for Impact Assessment (http://www.iaia.org/) that also has numerous national affiliates.

18. **Award schemes** can be used to identify and recognize good SEA practices. Award ceremonies may be linked with national SEA conferences that discuss approaches and debate the key issues in current practice. SEA awards may be

[45] For example, the joint World Bank/International Association for Impact Assessment Distance Learning Programme on SEA developed for China, available from http://info.worldbank.org/etools/docs/library/107861/sea/sea/index.html.

given to institutions or individuals for completed SEA projects that demonstrate the principles of good practice, for example. for SEA in specific sectors or for innovative practices in a specific element of SEA (e.g., assessment tools, public participation techniques, consideration of alternatives, assessment of cumulative impacts, etc.).

B1.2.2 Key issues in capacity development

19. Capacity development is not a finite process, so at any point only key issues may be addressed with the possibility to reassess the impact of the initial capacity-development strategy.

20. SEA capacity-development efforts should start with a strategic design that answers the following questions:

    - Which capacities need to be built for SEA?
    - What are the priorities and in what sequence should they be approached?
    - How should various capacity-development interventions be linked to achieve a synergetic effect?
    - What combination of capacity-development tools will be most effective?

21. Selection of one or more strategic directions depends on the time and resources available, as well as on the cooperation and commitment of participating stakeholders. Therefore, preparation of a capacity-development strategy should be preceded by a stakeholder analysis and the assessment of their needs and capacity.

B1.3 CAPACITY ASSESSMENT

B1.3.1 Capacity assessment – purpose and tools

22. Any capacity development for the Protocol will be ineffective unless it is well planned. The causes of a lack of capacity, as well as its symptoms, should be understood better to match problems and solutions.[46]

23. The design of any effective capacity-development intervention should therefore begin with a review of existing capacities, which may identify:

- The needs of key stakeholder groups in SEA.
- Key gaps, and the desired focus of capacity-development assistance.
- The parties that can be involved in delivery or supervision of capacity-development interventions.
- The assumptions and risks in capacity-development programmes.

24. Capacity assessment should always be carried out through consultations with key stakeholders — environmental authorities, planning authorities, consultants and NGOs that are likely to be involved in SEA.

25. Capacity assessment might be conducted by a variety of methods, taking into account the time and resources available and the extent of the capacity-development strategy.

26. Workshops are usually the least expensive and time-consuming option — they may take anything from two hours to two days, or more, depending on the group of people.

27. Interviews and surveys are more time-consuming, but provide broader and deeper insights than a simple workshop. Interviews and surveys have been used to carry out capacity assessments for the Protocol in five countries in Eastern Europe, the Caucasus and Central Asia, as outlined in annex B1.1.

B1.3.2 Key questions for SEA capacity assessment

28. The capacity assessment should enable the identification of the key weaknesses of the system, the key players and the best possible capacity-development efforts.

29. System and problem analysis should address:

- The review of the planning framework.
- The identification of plans and programmes that will undergo SEA.
- Experience with current environmental assessment systems for plans and programmes.
- The most challenging aspects of the practical implementation the Protocol.

30. Stakeholder analysis should address:

- Key stakeholders in SEA reforms and their networks.
- Key providers of capacity-development services in SEA and resources available from their past, ongoing and planned capacity-development initiatives.

[46] Peter Morgan, “Capacity and capacity development – some strategies” (1998), note prepared for the Political and Social Policies Division, Policy branch, Canadian International Development Agency, Quebec. Available from http://www.impactalliance.org/ev_en.php?ID=4051_201&ID2=DO_TOPIC.

31. A capacity-assessment framework that is focused on these issues has been used by UNDP and REC in analysing capacities for the implementation of the Protocol in five countries in Eastern Europe, the Caucasus and Central Asia. Capacity assessment has been carried out through interviews and surveys, and the questionnaire used is provided in annex B1.1.[47]

[47] Also available at http://europeandcis.undp.org/environment/iep.

B1.4 TIPS FOR DESIGNING SEA CAPACITY-DEVELOPMENT STRATEGIES

32. A capacity-development strategy or programme should outline a longer-term strategy (objectives and priorities) as well as a short-term plan (immediate priority actions) to build up capacity in the specific areas determined during the SEA capacity assessment. Some issues for consideration when elaborating capacity-development strategies are outlined in annex B1.2.

33. The preparation of a capacity-development strategy should ideally facilitate consultations among relevant authorities, practitioners, providers of capacity-development services (universities, national training institutes for public administration, etc.) and other stakeholders interested in SEA reforms (e.g., NGOs) in order to ensure that it addresses the common priorities and is not biased to the needs or agenda of a particular group.

34. It is usually helpful if the strategy identifies responsible institutions for implementation of various priority actions and also outlines the review of the strategy at the end of the short-term action plan. Such a review could be combined with a meeting among key stakeholders or stakeholder representatives to analyse progress, to identify lessons learned, to revisit the objectives and to set up an action plan for a new period.

35. The elaboration of a capacity-development strategy is rarely a linear process — the strategy may undergo several reviews and changes with new information input over time.

36. Since capacity development for implementation of the Protocol is very similar to any other institutional or structural capacity development, it is recommended to review other resources developed for capacity development such as the UNEP *Environmental Impact Assessment Training Resources Manual*[48] and UNDP Capacity Development resources and tools.[49]

[48] UNEP, Economics and Trade Branch (2002), 2nd ed., available from http://www.unep.ch/etu/publications/EIAMan_2edition_toc.htm.

[49] UNDP, *Capacity Assessment Practice Note* (2008), *Capacity Development Practice Note* (2008), and others, available from http://www.beta.undp.org/content/undp/en/home/librarypage/capacity-building.html.

B1.5 CONCLUDING REMARKS

37. The authorities responsible for the implementation of the Protocol can play a significant role through awareness-raising and through supervision of the implementation of the national legislation on SEA. With certain simplifications, it can be concluded that the quality of capacity development is a good indicator of real interest to develop an effective SEA system in any given country.

38. Systematic capacity development will not proceed unless key institutions in charge of SEA acknowledge the need for capacity development in SEA. This may be politically sensitive since some countries may not wish to admit openly a lack of capacity. However, this acknowledgement is a vital precondition for any systematic capacity development.

39. The availability of human and financial resources is another natural prerequisite for SEA capacity development. Taking the initiative can enable good coordination of time and effort. However, real actions will require the allocation of sufficient resources for implementation.

Chapter B2

EXAMPLE STRUCTURE OF PRACTICAL EXERCISE FOR USE IN TRAINING COURSE ON THE PROTOCOL

B2.1 INTRODUCTION TO THE CHAPTER

The Protocol refers throughout to "the environment, including health". To avoid repetition, the Manual refers only to the environment, but this should always be understood to include health. For more information on health issues, please see annex A1.1.

B2.1.1 Objective of the practical exercise

1. Effective training normally comprises a theoretical introduction combined with practical work on hypothetical or real-life case examples.

2. Theoretical information within this Manual is provided in chapters A1 to A6. This chapter brings key information presented in these chapters into a practical exercise that focuses on the design of an optimal SEA approach for a chosen plan or programme.

3. The proposed tasks and the discussion items are formulated as a general framework. The trainer should adapt these framework questions to the aims of the capacity-building exercise and to the training-course participants' existing knowledge.

B2.1.2 Possible outcomes

4. This practical exercise should help participants to gain a better understanding about SEA and its relation to plan and programme making. The exercise can typically be used for discussion on:

   - A suitable SEA procedure for a specific approach to plan or programme making, which may be used to facilitate development of SEA guidelines for this plan- or programme-making regime.
   - A detailed SEA approach for the development of a particular plan or programme, and that may be applied to facilitate elaboration of the terms of reference for such an SEA.

B2.1.3 Tasks in the practical exercise

5. This chapter suggests that such a practical exercise takes place through the following sequence of tasks:

   - Task 1: Analyse the plan or programme making.
   - Task 2: Discuss when and how to determine whether SEA is needed for the plan or programme.
   - Task 3: Discuss practical arrangements for scoping.
   - Task 4: Discuss the information to be provided in the environmental report and its logical links with the development of the plan or programme.
   - Task 5: Discuss practical arrangements for consultations with relevant environmental and health authorities.
   - Task 6: Discuss practical arrangements for public participation.
   - Task 7: Discuss practical arrangements for taking information generated within SEA into account in the plan- or programme-making process.

- Task 8: Discuss practical arrangements for coordination of the SEA with the plan- or programme-making process.
- Task 9: Discuss practical issues for design of monitoring and for linking SEA with subsequent environmental assessments.
- Task 10: Present the proposed approach to SEA of the given plan or programme.

B2.1.4 Complexity of the exercise

6. Depending on the needs of the target audience, its familiarity with plan or programme making and the time available for the practical work, the practical discussion may address the following:

- **The general approach to undertaking SEA within the given plan- or programme-making process**. This most simple discussion requires the audience be familiar with the requirements of the Protocol, have general knowledge of the procedure or steps in the respective plan- or programme-making process, and be aware of the various options for the integration of SEA into the development of plans and programmes. Successful accomplishment of this exercise may typically require two to five hours of work.
- **Detailed procedures to be followed in SEA for the given plan- or programme-making process**. This more advanced discussion requires the audience be familiar with the detailed requirements of the Protocol, have detailed knowledge of the procedure or steps in the respective plan- or programme-making process, and be aware of the various options for the integration of SEA into the development of plans and programmes. Successful accomplishment of this exercise may typically require six to eight hours of work.
- **SEA methods and tools appropriate for the given approach to plan or programme making**. Such an advanced discussion requires the audience be familiar with the detailed requirements of the Protocol, have detailed knowledge of the procedure or steps in the respective plan- or programme-making process, have a good understanding of: (a) options for the integration of SEA into the formulation of plans or programmes; and (b) analytical and participatory tools that can be used in the preparation of the environmental report and for carrying out consultations and public participation. Successful accomplishment of this exercise may typically require 9 to 15 hours of work, depending on the complexity of the plan- or programme-making process.
- **Detailed terms of reference for SEA of the given plan or programme**. This most advanced discussion requires the audience be familiar with:
    - The detailed requirements of the Protocol
    - The detailed features of plan or programme making
    - The detailed logical links between SEA and the development of plans or programmes
    - Methods that can be used: (a) in the preparation of the environmental report; and (b) for carrying out consultations and public participation
    - Possible degrees of integration of SEA into the plan- or programme-making process

- Successful accomplishment of this exercise may typically require anything between 15 and 30 hours of work, depending on the complexity of the plan- or programme-making process.

B2.1.5 Information that needs to gathered before the exercise

7. Successful completion of the practical exercise requires provision of the following information on the features of the given plan- or programme-making system or particular plan or programme:

   - What is the focus of the plan- or programme-making process? Who develops the plan or programme and who should adopt it?
   - Are there any requirements or guidelines for the plan or programme making that could help to identify the process steps and outputs?
   - Is there a requirement for an environmental section or analysis within the plan- or programme-making process?
   - What is the consultation process with authorities within this plan- or programme-making process? With whom? When?
   - Are there any requirements for public participation in the plan- or programme-making process? With whom? When?

B2.2 TASKS FOR WORK ON A CASE STUDY

Task 1: Analyse the plan or programme making

8. This introductory exercise should help the participants to become familiar with the plan- or programme-making process that has been chosen to be subject to SEA. This information is needed to propose an effective and customized SEA approach for that particular context. Naturally, before embarking on the design of an abstract SEA procedure, it is useful to know how the plan or programme making actually works and what is missing in relation to SEA. Such information will provide a basis for later consideration of how SEA can fit into the preparation of that plan or programme.

9. The analysis of the plan- or programme-making process should start with the gathering of basic information on the nature of the plan or programme. The participants should obtain information on the origins of the plan or programme, the authority responsible for developing it and the role of the decision maker. It may also be useful to know how the plan or programme will be implemented (e.g., will it lead directly into specific projects, or will it be followed by another, more detailed programme or plan, etc.?).

10. Once the overall context has been clarified, the following detailed issues in the plan or programme making should be discussed:

    - What are the specific tasks in the development of the plan or programme?
    - Does the plan or programme development involve any environmental analyses that might be linked with the preparation of environmental report? When are these environmental analyses undertaken during the development of the plan or programme?
    - Does the plan or programme making already involve any consultations with relevant environmental and health authorities? Which authorities are consulted and when do these consultations occur during the development of the plan or programme?
    - Does the plan or programme making already provide for any access to information and public participation? Who from the public can access the information and participate and when are these opportunities provided during the development of the plan or programme?

11. This more detailed analysis of the plan- or programme-making process may be facilitated with the help of table B2.1 below.

12. The following notes may be used as guidance in the detailed analysis of the plan- or programme-making process:

    - The plan- or programme-making tasks might include those related to information gathering, information analysis, communication with other stakeholders, plan drafting stages or phases, etc. These tasks may be identified in the relevant legislation or guidance on preparation of the respective plan or programme, or from examples of similar plans or programmes in the past.
    - Once the plan- or programme-making tasks have been outlined, the participants should proceed by identifying the likely environmental analyses that will be part of the plan or programme making. The participants should be aware that some basic environmental analyses might be routinely applied in plan or programme making. It is useful to know the scope and focus of such

analyses in order to link them effectively with the preparation of the environmental report.

- Since consultations among authorities are usually an integral part of any plan- or programme-making process, it is useful to review whether any arrangements for consultations with environmental and health authorities exist within the plan or programme making and what their timing is.
- The analysis of the plan or programme making may be concluded by an analysis of arrangements for public access to information and public participation during the development of the plan or programme.

Table B2.1: Possible review framework for the plan- or programme-making process

Tasks in the development of the plan or programme	Existing environmental analyses	Consultations with the authorities	Public access to information and consultations with the public concerned

Task 2: Discuss when and how to determine whether SEA is needed for the plan or programme

13. This exercise should help the participants to discuss when and how to determine whether SEA is needed for the plan or programme. The participants should be aware that the timing of such a determination will have major implications on the effectiveness of the proposed SEA process. If such a determination occurs too late, it is likely to lead to delays and to less effective SEA.
14. Initial points to discuss include the following:
    - What information is needed to determine whether SEA is required for the given plan- or programme-making process?
    - Should the given plan- or programme-making process be automatically subject to SEA or is a case-by-case determination required?
    - When should such a determination be undertaken most effectively?
15. If the participants conclude that a case-by-case determination is required, then the following items should be discussed:
    - What approach to “significance testing” should be used?
    - How should relevant authorities (and possibly the public concerned) be consulted?
    - How should information about the outcome of determination be made available to the public?
16. Successful accomplishment of this exercise will require the participants be familiar with the information in this Manual on determining whether SEA is required under the Protocol, including the detailed description of the tests (see chapter A3).

17. By the end of this exercise, the participants should be aware that the requirement to carry out SEA for a given plan or programme should be determined as early as feasible in the development of the plan or programme. Practical arrangements for an early determination of the need for an SEA should have been identified.

Task 3: Discuss practical arrangements for scoping

18. Scoping is one of the most important elements in SEA. This exercise should help the participants to discuss when and how to undertake SEA scoping in relation to plan or programme making.

19. The participants should be aware that the Protocol does not stipulate scoping as a rigid procedural stage (nor is a scoping decision needed). They should note that scoping may be carried out either through a single procedural step, or as an iterative process that may start with early advice and may be continued within various stages during the preparation of the environmental report.

20. Points to discuss include the following:

- What information needs to be generated during the scoping in order to determine the appropriate scope of the environmental report?
- What is the minimum information to be obtained in order to carry out SEA scoping effectively and when is this information available during the plan or programme development?
- What practical arrangements should be made to consult relevant authorities (and possibly the public concerned)?
- Should scoping be carried out through a single procedural step or rather as an iterative process that starts with early advice that is developed in detail as the plan or programme is developed?

21. Successful accomplishment of this exercise will require the participants be familiar with the information contained in the Manual on scoping and the treatment of alternatives within SEA (see section A4.2).

22. By the end of this exercise, the participants should understand that scoping should start early and should link with the plan or programme development.

Task 4: Discuss the information to be provided in the environmental report and its logical links with the development of the plan or programme

23. This exercise should help the participants to discuss the information to be provided in the environmental report and its logical links with the development of the plan or programme.

24. The participants should start by outlining the types of information to be provided in the environmental report based on the requirements of the Protocol. They can then compare their findings with the overview of the plan- or programme making steps and the environmental analyses during the preparation of the respective plan or programme, as identified in task 1. Such a comparison may help them to discuss opportunities for linking the information in the environmental report with the development of the plan or programme.

25. Points to discuss include the following:

- What information will have to be provided in the environmental report for the given type of plan or programme (bearing in mind the strategic issues

relevant to the plan or programme and the need to maintain the appropriate detail of assessment)?

- How will information in the environmental report differ from any existing analyses performed during the plan or programme making and are there any similarities or opportunities for synergies?
- What data will the SEA team need from plan and programme makers and what inputs can the SEA team provide into the development of the plan or programme?
- Optionally: what information should be provided in qualitative or quantitative form and which analytical tools could be used to deliver it (see chapter A5)?

26. Successful accomplishment of this exercise will require the participants be familiar with the information contained in this Manual on the environmental report (section A4.2), logical linkages between SEA and the development of the plan or programme (chapter A2) and, optionally, the overview of basic analytical tools for SEA (chapter A5).

27. By the end of this exercise, the participants should be aware that the preparation of the environmental report may be linked effectively to, or incorporated into, the development of the respective plan or programme (though the report itself must be distinct from the draft plan or programme).

Task 5: Discuss practical arrangements for consultations with relevant environmental and health authorities

28. This exercise should help the participants to discuss the practical arrangements for consulting the relevant environmental and health authorities during SEA.

29. The participants should outline consultations with authorities that are needed based on the requirement of the SEA Protocol. They may then compare their proposals with the overview of the existing consultations with relevant authorities during the preparation of the respective plan or programme, as identified in task 1. Based on this comparison, they can discuss whether SEA-related consultations with environmental and health authorities should be carried out as a separate process or if they can be combined with consultations with relevant authorities during the development of the plan or programme.

30. Points to discuss include the following:

- Which authorities need to be consulted within the SEA process?
- When and how should these consultations be performed in order to provide effective inputs?
- How do the proposed consultations differ from the existing consultations with authorities?
- Should separate consultations be organized for SEA and for the plan- or programme-making process, or is it better to have a single commenting process?

31. Successful accomplishment of this exercise will require the participants be familiar with information contained in this Manual on consultation with authorities (section A4.4), logical linkages between SEA and development of plan or programmes (chapter A2) and, optionally, basic consultative tools for SEA (chapter A5).

32. By the end of the exercise, the participants should be aware that the consultations with relevant authorities in SEA may be linked effectively to, or incorporated into, consultations with authorities during the development of the respective plan or programme.

Task 6: Discuss practical arrangements for public participation

33. This exercise should help the participants to discuss the practical arrangements for consultations with the public.

34. The participants should outline what is required in order to carry out public participation based on the requirements of the Protocol. They may then compare their proposals with the overview of the existing arrangements for access to information and public participation within the preparation of the respective plan or programme, as identified in task 1. Based on this comparison, they can discuss whether SEA-related public participation should be carried out as a separate process or whether it could be combined with the public participation regime in the development of the plan or programme.

35. Points to discuss include the following

- What information should be made available to the public during an SEA?
- Is it necessary to determine the public concerned in an SEA (and if so how)?
- Should one stage of consultation be carried out or should consultation occur as an iterative process?
- How do consultations in SEAs differ from existing consultations with the public, and should separate consultations be organized for the SEA and for the plan- or programme-making process, or would it be better to have a single commenting process?
- Optionally: what consultative tools could be used to facilitate public participation? (If the exercise allows enough time for further discussion, they may then also suggest appropriate consultative tools that could be used in such an SEA (see chapter A5).)

36. Successful accomplishment of this exercise will require the participants be familiar with information contained in this Manual on public participation (section A4.3), logical linkages between SEA and development of plan or programmes (chapter A2) and, optionally, with basic consultative tools for SEA (chapter A5).

37. By the end of the exercise, the participants should be aware that the arrangements for public participation in SEA may be linked effectively to, or incorporated into, the public participation regime for the development of the plan or programme.

Task 7: Discuss practical arrangements for taking information generated within SEA into account in the plan- or programme-making process

38. The exercise on taking into account the environmental report and results of consultations should discuss arrangements that would enable persons developing the plan or programme and those preparing the environmental report, or decision-making authorities for the respective plan or programme, to ensure that information generated within an SEA is taken into account when developing a plan or programme and before approving it.

39. The key point to discuss is:

- How to ensure that due account is taken of the outcomes of the SEA (the environmental report and the measures to prevent, reduce or mitigate the adverse effects identified in it; the outcomes of consultations with relevant authorities; and the outcomes of public participation) when the plan or programme is adopted if:
    - SEA were to be partially integrated into the development of the plan or programme (i.e., it ran concurrently to the plan or programme development and provided inputs at key stages of the plan or programme making). What happens if SEA experts and the experts who develop the plan or programme cannot reach consensus on certain issues?
    - SEA were to be fully integrated into the development of the plan or programme. Again, what happens if the SEA experts and the experts who develop the plan or programme cannot reach consensus on certain issues?
    - SEA were to be carried out in isolation from the plan or programme development or would start only once the plan or programme had been drafted. What happens if the SEA comes up with proposals for major changes in the plan or programme at a time when the drafting of the plan or programme has been completed?

Task 8: Discuss practical arrangements for coordination of the SEA with the plan- or programme-making process

40. This is exercise should help the participants to discuss the practical activities required for conducting SEA in the plan- or programme-making process.

41. The previous exercises helped the participants to discuss the detailed modalities for SEA scoping (task 3), for obtaining information required in the environmental report (task 4), for carrying out SEA-related consultations with authorities (task 5), for conducting SEA-related public participation (task 6) and taking information generated within SEA into account in the plan- or programme-making process (task 7). Based on the conclusions of these earlier discussions, the participants should clarify the specific modalities for the work of the experts who should conduct the proposed SEA process.

42. Points to discuss include the following:

- What would be the main advantages and disadvantages of an SEA that is carried out in isolation from the plan or programme development, or that is delayed and starts only once the plan or programme has been drafted?
- What would be the main advantages and disadvantages of partial integration of SEA into the development of the plan or programme?
- What would be the main advantages and disadvantages of full integration of SEA into the development of the plan or programme?

43. Successful accomplishment of this exercise will require the participants be familiar with the information contained in this Manual on elements of the SEA procedure (chapter A2), decision-making (section A4.6) and logical linkages between SEA and development of plan or programmes (chapter A2).

44. By the end of the exercise, the participants should be aware of the main benefits and problems associated with various options for undertaking SEA during the development of the plan or programme.

Task 9: Discuss practical issues for design of monitoring and for linking SEA with subsequent environmental assessments

45. This exercise should help the participants to discuss the expected tasks of the SEA experts in designing monitoring for the plan or programme and for linking SEA with subsequent environmental assessments.

46. Points to discuss include the following:

- What is generally expected in the design of the post-SEA monitoring?
- How should post-SEA monitoring link with the monitoring for the plan or programme?
- How should SEA link to subsequent environmental assessments (i.e., EIA for specific projects for which the plan or programme sets the framework, or SEA for subsequent plans and programmes)?

47. Successful accomplishment of this exercise will require the participants be familiar with the information contained in this Manual on monitoring (section A4.7).

48. By the end of the exercise, the participants should be aware of the main challenges in the application of monitoring and of the practical linkages between this SEA and subsequent EIAs or SEAs.

Task 10: Present the proposed approach to SEA of the given plan or programme

49. This concluding exercise facilitates presentation of the suggested SEA approach. This may be also useful in elaboration of the specific terms of reference for the given SEA process.

50. The participants should summarize the main strengths and weaknesses of the proposed approach and openly acknowledge any assumptions and risks in its application. If time permits, the participants might estimate the number of working days to complete the whole SEA, identify the required skills among the SEA experts or determine any other issues that should be mentioned when such an SEA is presented.

51. Thus the participants might be asked to summarize the proposed SEA approach by outlining:

- The key tasks to be performed within the SEA and how they link to tasks in the plan or programme making.
- Roles (tasks and mandates) of the SEA experts during the of the plan or programme.
- The main strengths and weaknesses of the proposed approach, and the assumptions for its effective operation (being realistic about the risks).
- The expected number of working days to complete the SEA.
- The required skills among the SEA experts, etc.

52. By the end of the exercise, the participants should be able present the proposed SEA approach to the competent authority, stakeholders or consultants who are interested in carrying out the SEA.

ANNEXES

Annex A1.1

HEALTH

1 INTRODUCTION TO THE ANNEX

This annex provides guidance on the consideration of human health as part of SEA, as required by the Protocol. Section 2 discusses why health matters and the provisions of the Protocol with regard to health. Section 3 goes on to look at possible practical arrangements.

This annex is intended to be useful both for SEA practitioners wishing to understand the potential effects on human health of plans and programmes, and for environmental and health authorities from whom information and advice may be sought (e.g., as statutory consultees) or which wish to ensure that health issues are fully addressed. Like the Manual as a whole, however, it does not constitute formal legal or other professional advice, or serve as interpretative guidance for the Protocol.

Parties might use the ideas in this annex to explore how health can be considered in their national setting, undertaking pilot studies, developing procedures to satisfy the requirements of the Protocol and drafting guidance meeting their own institutional needs and context.

2 WHY HEALTH MATTERS

As the "European Environment & Health Action Plan 2004–2010" notes:[50]

> Good health is something which everyone wants — for themselves, their children and for the wider economic and social benefits it brings to our society. It plays a major role in long-term economic growth and sustainable development – there is increasing evidence showing that it is not so much the cost of health that is high, but rather the cost of ill-health (in terms of health care, medicines, sick leave, lower productivity, invalidity and early retirement).

Evident links between the state of the environment and the state of health led to the launching of the intergovernmental "Environment and Health" process. The 1999 London Declaration on Environment and Health provided a major stimulus to the development of the Protocol on SEA, and the follow-up declaration in Budapest in 2004 confirmed the commitment to take health into account in the assessment of strategic proposals under the Protocol.[51]

As a result, the Protocol provides for the consideration of health as an integral part of the SEA of plans and programmes.

3 POSSIBLE PRACTICAL CONSIDERATIONS

This section examines interpretative and methodological challenges, as well as practical approaches to the consideration of health as part of SEA, focusing on:

- The determination of significant health effects (subsection 3.1).
- Consulting environmental and health authorities (subsection 3.2).
- Assessing the expected impacts on health, including both qualitative and quantitative assessment of health effects (subsection 3.3).
- Scoping and preparation of the environmental report (subsection 3.4).

[50] Commission of the European Communities, COM(2004) 0416 final. Available from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52004DC0416:EN:HTML.

[51] Declaration of the Third Ministerial Conference on Environment and Health (EUR/ICP/EHCO 02 02 05/18 Rev.5) (London, 1999), available from http://www.euro.who.int/__data/assets/pdf_file/0007/88585/E69046.pdf; and Declaration of the Fourth Ministerial Conference on Environment and Health (EUR/04/5046267/6) (Budapest, 2004), available from http://www.euro.who.int/document/e83335.pdf.

3.1 Determination of significant health effects

The Protocol does not provide a definition of health. Instead, it requires that relevant health issues or factors that need to be considered within an SEA are identified for each plan or programme, taking into account the results of consultations with relevant environmental and health authorities.

During such a determination, relevant authorities may find it useful to consider the framework of determinants of health outlined in the figure below. It will be important to identify which determinants of or factors influencing health may be significantly affected by the implementation of a plan or programme. It may then be useful to consider how the plan or programme may, for example, protect and promote health in line with relevant environmental objectives.

The WHO broad concept of health — well-being, not merely the absence of disease — in itself suggests that plans and programmes may influence health in many ways. Some of their effects are direct and self-evident — and many are already well recognized in practice — but others are indirect and difficult to predict. As with many types of environmental effect, the pathways between factors in the physical environment and health outcomes can be complex and take place over long timescales. It is also important to be aware that the effects of plans and programmes on health will often be synergistic, with different types of impact combining to bring about both beneficial and adverse effects.

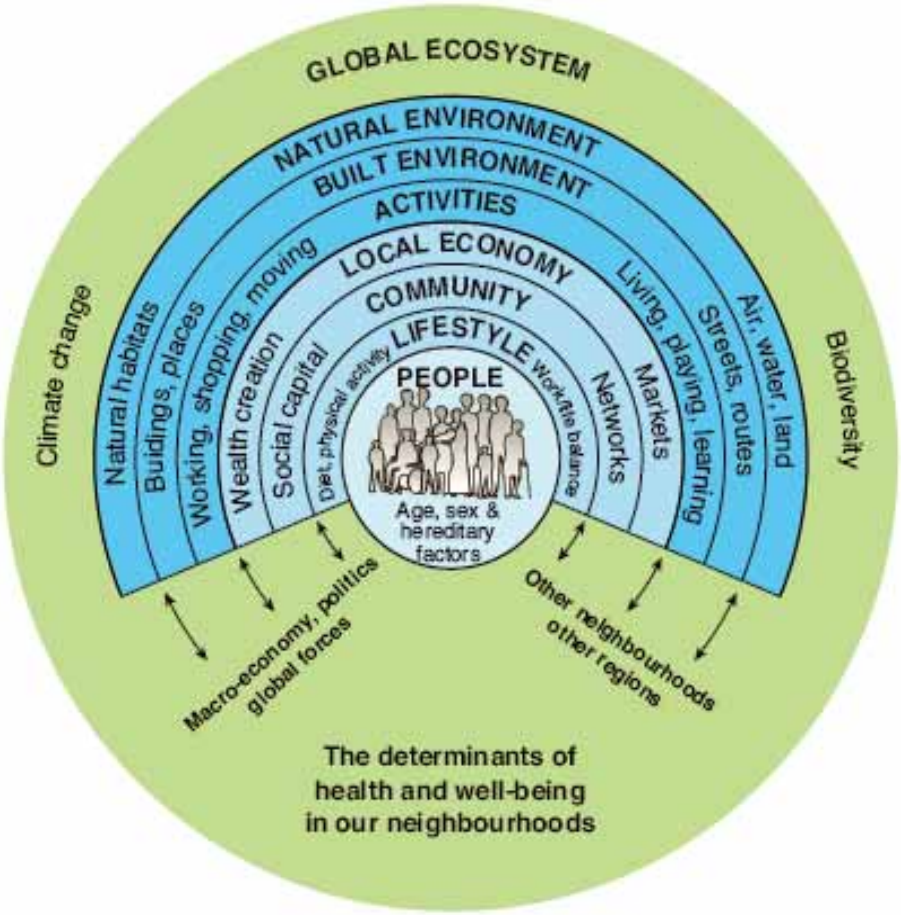
In addition, there are significant issues in relation to the relevance to SEA of available data on health, which are collected for different purposes and are often at too high a level of generality to be useful in SEA. Statistics on rates of illness and death do not necessarily provide illuminating baseline data or a sound basis for monitoring the effects of implementing a plan or programme.

Though there is uncertainty about the relative importance of various determinants and their complex interactions, the determinants presented in the figure are recognized as being the main factors that influence health. As such, they can be used as a starting point for assessment of the likely significant health effects of a plan or programme.

For example, plans and programmes may influence transport, housing, employment, education and social services and so promote social cohesion, ease access to community facilities, encourage exercise and reduce the need to drive. So a transport plan may affect the following health determinants: individual lifestyle (e.g., through encouraging or discouraging levels of physical activity); social and community networks and influences (through altering community facilities or changes in fragmentation of communities); living and working conditions (e.g., through changes in the number of road traffic accidents); and environmental conditions (e.g., through air pollution and noise).[52] A further, practical, example is provided in the box below.

[52] Adapted from Margaret Douglas, Martin Higgins and Sheila Beck, “Strategic Environmental Assessment and health”, briefing paper for the Scottish HIA Network (2005). Available at http://www.healthscotland.com/documents/1250.aspx.

The main determinants of health[53]



[53] *Sources*: Hugh Barton, "A Health Map for Urban Planners: towards a conceptual model for healthy, sustainable settlements", *Built Environment*, vol. 31, No. 4 (2005), pp. 339–355; Hugh Barton and Marcus Grant, "A health map for the local human habitat", *Journal of the Royal Society for the Promotion of Health*, vol. 126, No. 6 (2006); and M. Whitehead and G. Dahlgren, "What can be done about inequalities in health?", *The Lancet*, vol. 338, No. 8774 (1991), pp. 1059–1063.

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Selected health determinants:

- *Environmental factors*: air quality, noise and toxic substances in the environment.
- *Socio-economic factors*: employment and education.
- *Social and community networks/influences*: none.
- *Living and working conditions*: safety of commonly-used products and of construction materials.
- *Individual lifestyle factors*: healthy ways of spending leisure time (e.g., agro-tourism, bicycle riding, etc.).

The specific tasks performed by the SEA team included:

- Clarification of why health matters were addressed within this SEA instead of being assessed separately.
- Carrying out a brief overview of the state of health in the Czech Republic.
- Carrying out an overview of the main methodological issues in analysing impacts of policies, plans and programmes on health, including explanation of the need to analyse health impacts that are caused both by changes in the state of the environment as well as by socio-economic factors.
- Explanation of the chosen approaches for assessing the impacts of the programme on health, combined with an overview of health-related policies, plans and programmes that were relevant to this Operational Programme.
- Assessment of the actual health effects, primarily through: (a) the SEA team outlining the possible direct effects (positive and negative) of individual interventions proposed in this programme; and (b) the SEA team determining those interventions pursued by the programme that might have positive or negative impacts on relevant health determinants.
- Making proposals for implementation of this programme including: (a) criteria or conditions for selection of future projects that would be promoted by this programme (including environmental and other conditions); and (b) proposed indicators to monitor effects on health.
- Drawing overall conclusions.

These assessments were done on the basis of collective expert judgement by recognized health experts in the Czech Republic (from the National Health Institute), reviewed by the rest of the SEA team.

Examples of health determinants that may be affected by a plan or programme include:[55]

- Factors affecting healthy lifestyles, such as facilitation of walking and cycling, availability of healthy products, availability of public spaces for exercise, provision of public transport and discouraging private car use.
- Factors related to social or community influences or networks, such as community cohesion, community severance or fragmentation, social support or isolation, accessibility of community services (including medical services, social support, shopping), accessibility of local transport and communication networks, land use and urban design, safety and levels of crime.

[54] Martin Smutny, SEA team leader, personal communication, January 2007. Further information available from martin.smutny@integranet.cz.

[55] Based on International Association for Impact Assessment, *Health Impact Assessment: International Best Practice Principles,* Special Publications Series No. 5 (September 2006). Available from http://www.iaia.org/publicdocuments/special-publications/SP5.pdf.

- Factors related to living and working conditions, such as the availability and quality of housing, access to safe drinking water and adequate sanitation, indoor air quality and exposure to hazards (i.e., risk of accidents, including workplace and transport hazards).

- General socio-economic factors (e.g., education, employment and income), cultural factors (e.g., effects on traditional lifestyle values, religious values, or sites of cultural and spiritual significance) and environmental factors (air, water and soil pollution, noise, disease vector breeding places, etc.).

Some of the above-mentioned factors are interlinked or cannot easily be clustered into one category of determinant and might indeed appear in more than one category. However, this framework of health determinants is not meant as a complete checklist or rigid template for categorizing or clustering health factors. It is presented as a framework for possible use in the initial identification of various health factors that may be affected by a particular plan or programme.

The focus of SEA under the Protocol is on the physical environment. However, as practice with applying the Protocol develops it is anticipated that more complex interactions between the physical, social and behavioural environments might be assessed in some countries.

Though environmental factors are important in determining health, **socio-economic** ones are probably more so, with income and education being strongly correlated with health (see box below). However, it may be difficult to assess the influence of many types of plans and programmes (for example, land-use plans) on these health determinants.

Measures of socio-economic status that are important determinants of health

Socio-economic status can be measured through a number of variables including:[56]

- Income (individual or aggregated). Income influences health through a direct effect on material resources. Income is the best single indicator of material living standards. However, the collection of income data can be limited due to the sensitive nature of such information.
- Education levels (individual assets). Education is a strong determinant of future employment and income and it may affect a person's cognitive functioning. Information on education levels is easy to measure. However, these measures do not generally assess the quality of education.
- Occupation-based measures. Occupation is strongly related to income. Further, occupational class reflects social standing and may be related to health outcomes. Occupations may also reflect specific toxic environmental or work-task hazard exposures. Information on occupational measures is easily available in many routine data sources.

The Protocol requires assessment of only those environmental issues that are deemed likely and significant. Environmental and health authorities may therefore find it useful to gradually reduce any long list of possible health factors that may be affected by a particular plan or programme to only those on which the plan or programme may have likely significant effects. Some guidance on such a process is contained in annex III to the Protocol.

[56] See Bruna Galobardes, Mary Shaw, Debbie A. Lawlor, John W. Lynch and George Davey Smith, "Indicators of socioeconomic position (part 1)", *Journal of Epidemiology and Community Health* (2006), vol. 60, pp. 7–12. Available from http://jech.bmj.com/cgi/content/full/60/1/7.

3.2 CONSULTING ENVIRONMENTAL AND HEALTH AUTHORITIES

Consultation of environmental and health authorities is at the core of the consideration of health within SEA. In many countries, however, it is easier to identify relevant authorities with environmental responsibilities than to identify their health counterparts. Typically there are many organizations with differing responsibilities:

- **National authorities** are often the lead agencies on health policy development and implementation issues.
- **Regional and local authorities** may have a more specific role in operational matters relating to local populations.
- **Municipal authorities** may have a role in protecting and promoting health. This can include both traditional health management, such as sanitation and water supplies, as well as issues such as health promotion activities and primary health-care services.

Health authorities are rarely involved in the plan- or programme-making process. In a study organized by the WHO European Healthy Cities Network, health and planning agencies were found to cooperate regularly in only 25 per cent of the cases studied.[57] Health authorities may also lack the capacity to contribute effectively and they may need — at least initially — proper support or guidance. If necessary, appropriate liaison arrangements and procedures for soliciting their inputs (such as service agreements) could be put in place (see also section A4.4, which deals with consultation of relevant authorities).

Indeed, the determination of the health factors that are likely to be significantly affected by a particular type of a plan or programme, and the drawing of conclusions about positive and adverse impacts of a plan or programme on health, may not be easy tasks at first. In this regard, it could be useful if environmental and health authorities and those developing plans and programmes share information and gradually reach a common understanding on:

- Health determinants that are likely to be significantly affected by different types of plans and programmes.
- Causal linkages between changes in health determinants and corresponding health effects.
- Measures to prevent, reduce or mitigate any significant adverse effects on health.
- Arrangements for monitoring actual health effects during implementation of various plans and programmes.

3.3 ASSESSING THE EXPECTED IMPACTS ON HEALTH

The identification of the key health determinants that are likely to be significantly affected by a plan or programme can provide a basis for the assessment of the positive and negative effects of a plan or programme on health. Changes in these determinants may result in health effects that may be:

- Direct or secondary.

[57] Hugh Barton, Claire Mitcham and Catherine Tsourou (eds.), *Healthy urban planning in practice: experience of European cities*, *Report of the WHO City Action Group on Healthy Urban Planning* (WHO, 2003). Available from http://www.euro.who.int/document/E82657.pdf.

- Short, medium- or long-term.
- Cumulative or synergistic.
- Permanent or temporary.

The table below provides a summary of physical environmental risk factors and possible related diseases and risks. Such a table, adapted to local conditions, may be useful to authorities in certain circumstances. It might also be adapted to different types of plan or programme.

In the light of the uncertainties and limitations discussed in section 3.1 above, it is not realistic to expect authorities carrying out SEA to make precise or detailed predictions about the potential effects, either beneficial or harmful, of their plans and programmes on health. Nor would it generally be practicable for them to carry out very detailed studies to predict these effects. It is essential that appropriate, simple and practical approaches be taken with more detailed studies being undertaken only in special cases, as adequately addressing health in SEA poses important methodological and procedural challenges.

In this regard, it is useful to note that the Protocol requires, through its article 2, paragraph 7, provision only of information that may reasonably be required, taking into account:

- Current knowledge and methods of assessment.
- The contents and the level of detail of the plan or programme and its stage in the decision-making process.
- The interests of the public.
- The information needs of the decision-making body.

In addition, annex IV, paragraph 8, of the Protocol requires that the environmental report include information on difficulties encountered in providing the information to be included, such as technical deficiencies or lack of knowledge.

Qualitative assessment of health effects

In most instances, the assessment of health effects will be qualitative, not quantitative. However, qualitative assessment does not mean guessing: any judgement should be well reasoned and should whenever possible rely on existing research and knowledge. Annex A5.1 outlines some analytical tools that facilitate expert judgement; other tools may be derived from the medical profession. The London Health Observatory has produced *A Guide for Reviewing Published Evidence for use in Health Impact Assessmen*t, [58] which details a number of steps for assessing quantitative and qualitative evidence that might be appropriate in SEA.

[58] Available from http://www.lho.org.uk/download.aspx?urlid=10846&urlt=1.

Examples of physical environmental risk factors and related diseases and risks (WHO, 2006; adapted to refer to the ECE region)

Disease or Risk	Physical Environment Risk Factors												
	Water, sanitation and hygiene	Indoor air pollution	Outdoor air pollution	Noise	Other housing risks	Chemicals	Recreational environment	Water resources management	Land use and built environment	Other community risks	Radiation	Occupation	Climate change
Lower respiratory		■	■		■								
Upper respiratory		■	■		■								
Diarrhoeal diseases	■												■
Intestinal nematode infections	■												
Leishmaniasis					■								
Sexually transmitted diseases												■	
Human immunodeficiency virus (HIV)												■	
Hepatitis B and C												■	
Tuberculosis		■			■							■	
Perinatal conditions	■	■	■			■						■	
Congenital anomalies			■			■					■	■	
Malnutrition	■									■			■
Cancer	■	■	■			■				■	■	■	
Neuropsychiatric disorders				■	■	■						■	■
Cataracts		■									■	■	
Deafness												■	
Cardiovascular diseases	■	■	■	■		■	■		■			■	■
Chronic obstructive pulmonary disease		■	■									■	
Asthma		■	■		■							■	
Musculoskeletal diseases												■	
Physical inactivity									■				
Road traffic accidents									■			■	
Falls					■		■		■	■		■	
Drowning							■			■		■	■
Fires					■							■	
Poisonings					■	■						■	
Other unintentional injuries					■		■		■	■	■	■	■
Violence					■	■			■				
Suicide					■	■			■			■	
Diseases absent from, or less prevalent in, the ECE region (*except in Central Asia):													
Malaria *								■		■		■	■
Trachoma	■											■	
Schistosomiasis (Bilharzia)	■												
Chagas disease (American Trypanosomiasis)					■								

Disease or Risk	Physical Environment Risk Factors												
	Water, sanitation and hygiene	Indoor air pollution	Outdoor air pollution	Noise	Other housing risks	Chemicals	Recreational environment	Water resources management	Land use and built environment	Other community risks	Radiation	Occupation	Climate change
Lymphatic filariasis													
Onchocerciasis (River Blindness)													
Dengue (and dengue haemorrhagic fever) *													
Japanese encephalitis													

It should at least be possible to assess the positive and negative effects of a plan or programme on relevant health determinants and to draw overall conclusions on whether the plan or programme creates favourable conditions for a healthy population, with health being defined to include well-being, not merely the absence of disease.

The table below gives examples of questions related to health that SEA practitioners might raise in connection with their proposals, together with notes on links which have been established between these issues and the health of individuals and social groups. The questions are broadly ranged in a sequence, from specific and direct effects to those which are subjective and linked to well-being and the quality of life:

Quantitative assessment of health effects

Most approaches to the quantitative assessment of health effects are likely to rely on elements of HIA. HIA has to a great extent developed separately from SEA, is based on different disciplines and is far less focused on prediction of the effects of strategic proposals. However, careful use of its approaches and methods can provide decision makers with valuable information on the implications for health of their plans and programmes. The box below gives an overview of the scope and methods of HIA.

This Manual emphasizes the integration of health into SEA and the avoidance of a separate HIA for a plan or programme subject to SEA under the Protocol. Nonetheless, HIAs have been undertaken that illustrate health and planning authorities working together, and that would also fit straightforwardly into an SEA methodology. One example of such an approach is that of the Cambridgeshire Health Authority in the United Kingdom.[59]

To find out more about HIA, a good starting point is the WHO website at http://www.euro.who.int/healthimpact; more information may be found at http://www.hiagateway.org.uk. See also the *Health Impact Assessment: International Best Practice Principles* published by the International Association for Impact Assessment (http://www.iaia.org/publicdocuments/special-publications/SP5.pdf).

[59] Cambridgeshire Health Authority, "Cambridgeshire & Peterborough Structure Plan Review: Health Impact Review" (March 2002), available from http://www.communityhealthprofiles.info/resource/item.aspx?RID=44213.

Health in SEA: possible effects of plans and programmes on health

Examples of questions that can help to identify possible effects of plans and programmes on health, with notes on the evidence base of known connections between these issues and health. (Questions are indicative only and might be used or adapted as relevant.)

Questions on possible changes to health determinants	Related SEA topics	Government policies	Possible health effects and the evidence base (could be referenced to literature and/or web links)[60]
Does the plan or programme involve provision of health facilities, e.g., general practitioner surgeries, health centres or hospitals?	Population		Higher rates of general practitioner consultation are associated with greater social and economic deprivation, yet communities most at risk of ill health tend to experience the least satisfactory access to preventative services.
Does the plan or programme involve leisure facilities, e.g., sports centres?	Population		A lack of exercise is associated with increased cardiovascular risk.
Does the plan or programme affect access to health or leisure facilities?	Population		Lack of access to services (e.g., by foot or affordable transport) is experienced disproportionately by women, schoolchildren, the elderly and disabled people. Poor access to services is a significant factor in social exclusion, which is associated with health problems.
Will the plan or programme give rise to developments involving emissions into air or water?	Soil, water, air		Air pollution has both short- and long-term damaging effects on health, can worsen the condition of those with lung or heart disease and may reduce average life expectancy.
Is the plan or programme concerned with contaminated land or waste management or disposal?	Soil, water, air		Contaminants such as heavy metals, oil, asbestos and landfill gases are injurious to health. Waste disposal can be a major generator of road transport, noise and dust, with potential adverse effects on safety and air quality.
Could the plan or programme lead to other types of impacts on people, e.g., from noisy or disruptive activities?	Population		Environmental noise causes annoyance and sleep disturbance to many people. There is evidence of a causal relationship between noise and hypertension and heart disease.[61]

[60] Except where shown, evidence is based on Ben Cave, Peter Molyneux and Adam Coutts, *Healthy sustainable communities: What works?* (Wellingborough, United Kingdom, Milton Keynes and South Midlands Health and Social Care Group, 2004). Available from www.apho.org.uk/resource/view.aspx?RID=93661.

[61] Institute for Environmental Health, *Report on the non-auditory effects of noise* (Leicester, United Kingdom, 1997), p. 90

Questions on possible changes to health determinants	Related SEA topics	Government policies	Possible health effects and the evidence base (could be referenced to literature and/or web links)[60]
Could the plan or programme create a risk of flooding?	Water, soil		Health effects from flooding can include gastroenteritis, chest infections, asthma, stiffening of joints and psychological problems of stress, among a number of perceived effects.
Will the plan or programme contribute to climate change?	Climatic factors, air		Climate instability and rising sea levels have major long-term health implications. Avoidance or mitigation of adverse effects can make a difference.
Does the plan or programme encourage the use of public transport or alternative means of transport other than private cars?	Air, climatic factors		Reduced car use lowers direct exposure to exhaust pollutants. Reduction in traffic congestion and noise can be expected to improve quality of life and well-being. Any reduction in carbon emissions, however small, contributes to the achievement of climate change objectives.
Does the plan or programme encourage walking and cycling?	Air, population		Physical activity is one of the best ways of improving overall health and reducing obesity. Neighbourhoods with mixed land use, high population and employment density, street connectivity, pedestrian-oriented design and safety encourage more physical activity and have a lower obesity prevalence. These features are particularly helpful in reducing the social isolation of older people.
Does the plan or programme involve greater provision of access to the countryside and coast?	Population, landscape, biodiversity		Greater opportunities for walking and cycling are beneficial to physical health. Greater contact with nature is beneficial to mental health
Will plans or programmes for housing take into account energy efficiency, warmth, ventilation and flexibility?	Population, climatic factors		Cold, damp homes are associated with cardiovascular and circulatory diseases. Fuel poverty affects mental health and contributes to health inequalities. Housing needs to be suitable for people with disabilities, families and the ageing population.

Questions on possible changes to health determinants	Related SEA topics	Government policies	Possible health effects and the evidence base (could be referenced to literature and/or web links)[60]
Does the plan or programme promote easy and sustainable access to services such as workplaces, shops, schools, health-care facilities and social activities?	Population		Poor transport contributes to social exclusion as it restricts access to activities that enhance people's life chances, such as work, learning, health care, food shopping and other key activities. Community severance by physical barriers (e.g., transport infrastructure) and psychological barriers (e.g., road safety fears) limits travel horizons and can affect access to services such as employment, education and health facilities. Lack of access to services (e.g., by foot or affordable transport) is experienced disproportionately by women, schoolchildren, the elderly and disabled people. Poor access to services is a significant factor in social exclusion, which is associated with health problems.
Does the plan or programme encourage a sense of community safety, identity and social cohesion?	Population, cultural heritage, landscape, biodiversity		Good design encourages greater community ownership of the environment and reduces negative effects such as vandalism and under-use of facilities. A sense of community identity and belonging is known to foster health and the sense of well-being. Fear of crime reduces social solidarity, and has an adverse psychological impact. Fear of leaving home exposes older people in particular to isolation and vulnerability. Good urban design can help to "design out crime" and enhance community safety.
Will the plan or programme provide for locally accessible green spaces?	Population, biodiversity, fauna and flora, cultural heritage, landscape		Safe green space encourages social contact and exercise, and is associated with lower crime rates. People who can see trees or green space from their homes report higher levels of health and well-being.

Questions on possible changes to health determinants	Related SEA topics	Government policies	Possible health effects and the evidence base (could be referenced to literature and/or web links)[60]
Does the plan or programme have employment implications relevant to the social groups concerned?	Population		Isolated developments can lead to the exclusion of vulnerable groups. Local job opportunities enable walking and cycling options. Unemployed people have a higher risk of poor physical and mental health and shorter life expectancy. Low-paid insecure employment carries greater risks of accidents, infections and heart disease and increase health-damaging behaviour such as smoking.

SEA and HIA: similarities and differences

HIA is not defined in any international legal instrument, but the International Association for Impact Assessment defines it as: "a combination of procedures, methods and tools that systematically judges the potential, and sometimes unintended, effects of a policy, plan, programme or project on the health of a population and the distribution of those effects within the population. HIA identifies appropriate actions to manage those effects." [62]

There are many similarities between SEA and HIA. Both are intended to inform and influence decision-making. Both use procedures involving screening, scoping and reporting, and both attach great importance to consultation.

But there are also a number of important differences:

- HIA is often applied outside the normal SEA context of ex ante prediction of the effects of strategic proposals such as plans and programmes, for example to identify the effects on health of specific services, activities or behaviour.
- In many contexts, HIA can draw on established knowledge from research in fields such as social sciences, epidemiology and toxicology; this may be more detailed and quantitative than is appropriate for SEA, though HIA can take a strategic and qualitative approach where appropriate.
- In addition, it is worth noting that the health sector sometimes uses terms such as plan or programme in different senses from those generally understood in SEA (e.g., a plan for reducing health inequalities or an immunization programme).

Some of the methods used in HIA, and knowledge based on it, can readily be applied in SEA to help identify the potential effects of plans and programmes on human health and health inequalities, and to suggest how adverse effects could be offset and beneficial ones enhanced. As with other environmental effects, however, the predictive character of SEA and the uncertain and indirect nature of many of the health effects of plans and programmes can make it impracticable or even undesirable to attempt precise or detailed predictions.

[62] *Health Impact Assessment: International Best Practice Principles*, supra note 56.

3.4 SCOPING AND PREPARATION OF THE ENVIRONMENTAL REPORT

Subsection A4.2.3 of the Manual describes steps in scoping and the preparation of the environmental report. This subsection provides some practical tips for addressing health issues within those steps, by presenting additional guidance on the contents of the report (further to table A4.2). The suggestions in the table below should not be treated as providing a complete and rigid framework. Those persons addressing health issues in the environmental report might adopt approaches based on the specific nature and context of the given plan or programme and on the comments obtained from health authorities during scoping.

Possible approaches to addressing health in the environmental report

Items in the environmental report (Protocol, annex IV)	Tips for possible approaches to addressing health
1. The contents and the main objectives of the plan or programme and its link with other plans or programmes.	This issue is fully addressed in table A4.2 of the Manual.
2. The relevant aspects of the current state of the environment, including health, and the likely evolution thereof should the plan or programme not be implemented. 3. The characteristics of the environment, including health, in areas likely to be significantly affected. 4. The environmental, including health, problems which are relevant to the plan or programme.	These three items (2–4) may overlap but relate to different aspects of health conditions in areas covered by the plan or programme and on which it is likely to have significant effects. In paragraph 2, the relevant aspects might describe overall trends in the state of health in the area. In paragraph 3, relevant general trends in health might be described, with specific reference to areas with high values for well-being (public spaces, areas for exercise, etc.), areas with localized health problems or health inequalities, and densely populated areas. In paragraph 4, health problems might be mapped. When a more comprehensive approach to addressing health issues in the SEA is chosen, determinants of health might be identified and might include factors such as lifestyle, social or community influences, living and working conditions or general socio-economic, cultural or environmental factors.
5. The environmental, including health, objectives established at international, national and other levels which are relevant to the plan or programme, and the ways in which these objectives and other environmental, including health, considerations have been taken into account during its preparation.	Health objectives might include international or regional (e.g., from WHO or the WHO Regional Office for Europe), national and more local objectives that are relevant to the plan or programme's likely significant effects or to issues that it raises.

Items in the environmental report (Protocol, annex IV)	Tips for possible approaches to addressing health
6. The likely significant environmental, including health, effects*/ as defined in article 2, paragraph 7. */ These effects should include secondary, cumulative, synergistic, short-, medium- and long-term, permanent and temporary, positive and negative effects.	Health should be considered in the context of the other components listed in article 2, paragraph 7, such as exposure to traffic noise or air pollutants. A description of the relationship between these components might be important, as it might reveal other and more significant effects than by a study of the components individually. More comprehensive approaches to addressing health might assess the positive and negative effects of a plan or programme on relevant health determinants, and might draw conclusions on whether the plan or programme would create favourable conditions for a healthy population, with health being defined to include well-being, not merely the absence of disease.
7. Measures to prevent, reduce or mitigate any significant adverse effects on the environment, including health, which may result from the implementation of the plan or programme.	Environmental mitigation measures proposed in the environmental report might themselves have adverse health effects and vice versa. Any such effects should be considered.
8. An outline of the reasons for selecting the alternatives dealt with and a description of how the assessment was undertaken including difficulties encountered in providing the information to be included such as technical deficiencies or lack of knowledge.	This issue is fully addressed in table A4.2 of the Manual.
9. Measures envisaged for monitoring environmental, including health, effects of the implementation of the plan or programme.	Monitoring issues specific to health may include: • *Monitoring short- and longer-term effects*. Changes to the physical environment may have short-term consequences, for instance changes in transport and land use may see an immediate impact on accident rates. Other ecosystem changes such as air quality and climate change may have much longer-term impact time frames. • *Monitoring impacts on health inequalities* (differences in health status). If the scoping and environmental reporting stage has addressed health inequalities, it may be important to include these indicators in the monitoring stage. This will be of benefit to environment and health practitioners as well as supporting the provision of information to the public concerned. The feasibility of any monitoring of health effects will be influenced by the availability of data, which may be obtained through: • *Use of existing national, regional or local data*.

Items in the environmental report (Protocol, annex IV)	Tips for possible approaches to addressing health
	Environmental and health authorities will most likely have an existing environmental and health monitoring programme. • *Use of health indicators*. It may sometimes be useful to continue the use of the health indicators chosen during the scoping and environmental reporting stages to monitor the health impacts of the plan or programme. This allows for consistency of analysis throughout the SEA. However, adjustments to existing monitoring systems in order to incorporate new health indicators may be quite demanding. Therefore, the feasibility of the establishment of any new monitoring system should be carefully reviewed prior to its approval.
10. The likely significant transboundary environmental, including health, effects.	This issue is fully addressed in table A4.2 of the Manual.
11. A non-technical summary of the information provided.	This issue is fully addressed in table A4.2 of the Manual.

Annex A1.2

LEGAL AND POLICY LANDMARKS IN THE EVOLUTION OF SEA

Drafting note: This list of landmarks is not intended to be exhaustive. National guidance documents might be removed and placed on the website.

1970	United States *National Environmental Policy Act* (1969): requires "proposals for legislation and other major federal actions significantly affecting the…environment" to include a "detailed statement…on the environmental impact" (Sec. 102 (2)(c)) *California Environmental Quality Act*: modelled after the National Environmental Policy Act and applies to activities proposed or approved by state agencies, including programmes, plans and staged projects (Guidelines Sec. 15165–15168)
mid-1970s	*Public inquiries and environmental reviews of major proposals*: consideration of policy issues (e.g., Mackenzie Valley Pipeline Inquiry, Canada, 1974–1977; Ranger Uranium Environmental Inquiry, Australia, 1975–1977)
1978	National Environmental Policy Act *Regulations* issued by Council on Environmental Quality: specify actions subject to programmatic environmental impact statement as those that can be grouped generically, geographically or by technology (Sec. 1052.4 (b))
1986	Netherlands, *Environmental Management Act* (amended 1994): applies to specified national plans and programmes, including all those fixing the locations of projects for which an EIA is mandatory
1989	Australia, *Resource Assessment Commission Act:* establishes independent inquiry body on resource policy issues (Commission disbanded in 1993, legislation retained) World Bank, *Operational Directive 4.00* (amended 1991, 1999): refers to preparation of sectoral and regional environmental assessment (annex A 6–8)
1990	Canada, *Environmental Assessment Process for Policy and Programme Proposals* by Order in Council (amended 1999): applies to proposals submitted to Cabinet
1991	New Zealand, *Resource Management Act:* landmark sustainability law combining policy, planning and regulatory functions into omnibus regime United Kingdom, guide on *Policy Appraisal and the Environment:* advice for central government agencies (updated by good practice guidance, 1994; amended 1997; updated 1998) *Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention)*, came into force 1997: calls on the Parties "to the extent appropriate …shall endeavour to apply" the principles of EIA to policies, plans and programmes (article 2.7)
1992	*ECE pilot study of EIA of Policies, Plans and Programmes*: recommends its application by member countries Hong Kong, *Environmental Implications of Policy Papers* by decision of then Governor: applies to proposals to Executive Council (later development plans) *Czech Environmental Impact Assessment Act*: requires SEA for broad range of concepts (i.e., policies, strategies, plans and programmes) that are prepared or adopted by central Government authorities

1993	Denmark, *Environmental Assessment of Government Bills and Other Proposals* circular by Prime Minister's Office (amended 1995, 1998 when it became legally binding): applies to draft legislation to Parliament and to strategic proposals on which Parliament must be consulted European Commission, *Environmental Assessment of Legislative Programme* by Internal Communication: applies to legislative proposals and other actions by Commission
1994	Norway, *Assessment of White Papers and Government Proposals* by Administrative Order: contains provisions relevant to environment but applies primarily to economic and administrative consequences Slovakia, *Environmental Impact Assessment Act*: contains requirement to assess basic development policies, territorial plans in selected areas and any legislative proposal that may have an adverse impact on the environment (art. 35)
1995	Netherlands, *Environmental Test* by Cabinet Directive: applies to draft legislation, part of comprehensive review of enforceability, feasibility and impact on business
1996	*Proposal by European Commission for a directive on the assessment of the effects of certain plans and programmes* (COM (96) 511; amended by COM (99) 73), hereafter SEA Directive
1998	Finland, *Guidelines on Environmental Impact Assessment of Legislative Proposals* by Decision-in-Principle: apply to law drafting, also decrees, resolutions and decisions *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention)*: provisions for public participation in articles 7 and 8 refer to plans, programmes and policies and to laws and regulations relating to environment *Declaration by the Environment Ministers of the ECE region on Strategic Environmental Assessment* (ECE/CEP/56): inviting countries and international finance institutions to introduce and/or carry out SEA "as a matter of priority"
1999	Australia, *Environmental Protection and Biodiversity Conservation Act:* introduces provisions enabling SEA of policies, plans and programmes Finland, *Act on Environmental Impact Assessment Procedure* : applies to policy, plans and programmes United Kingdom, *Proposals for a Good Practice Guide on Sustainability Appraisal of Regional Planning Guidance* (finalized in 2000; replaced in 2005 by a guidance document, *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*)
2001	European Council and Parliament, *SEA Directive* (2001/42/EC), adopted; came into operational force in July 2004, currently being transposed into national legislation by EU member States France, *L'évaluation environnementale des plans et programmes de transport* (SEA of transport plans and programmes), by French ministry in charge of environmental affairs

2002	*Communication from the Commission on Impact Assessment* (COM (2002) 276 final) (reviewed in the light of experience and a further report issued in 2004: *Commission Staff Working Paper, Impact Assessment Next Steps — In support of competitiveness and sustainable development* (SEC (2004) 1377)) Austria, *Assessment of the significance of environmental effects: Screening approach and criteria applied in SEAs*, by the Federal Ministry of Agriculture and Forestry, Environment and Water Management
2003	*Protocol on SEA* to the Espoo Convention, adopted at Kyiv Scotland (United Kingdom), *Environmental Assessment of Development Plans*, by Development Department, Scottish Executive
2003	European Commission, *Implementation of Directive 2001/42/EC:* guidance on the requirements of the SEA Directive
2004	Ireland, *Implementation of SEA Directive: Draft Guidelines for Regional Authorities and Planning Authorities*, by Department of the Environment, Heritage and Local Government
2005	United Kingdom, *A Practical Guide to the Strategic Environmental Assessment Directive* *Strategic Environmental Assessment at the Policy Level: Recent Progress, Current Status and Future Prospects:* A volume prepared by REC for Central and Eastern Europe on behalf of the Czech Ministry of Environment Hong Kong, *Strategic Environmental Assessment Manual*, Hong Kong Special Administrative Region Bavaria (Germany), *Preliminary guidelines for preparing the environmental report*, Bavarian Government, Ministries of the Interior and of the Environment European Commission, *The SEA Manual — a Sourcebook on Strategic Environmental Assessment of Transport Infrastructure Plans and Programmes*, by Directorate-General for Energy and Transport Austria, *Strategic environmental assessment: From scoping to monitoring*, by the Federal Ministry of Agriculture and Forestry, Environment and Water Management International Association for Impact Assessment, *Conference on International Experience and Perspectives in SEA*, Prague
2006	Greening Regional Development Programmes Network, *Handbook on SEA for Cohesion Policy 2007–2013* OECD/Development Assistance Committee, *Applying Strategic Environmental Assessment: Good Practice Guidance for Development Co-operation*
2010	Entry into force of the *Protocol on SEA*

Annex A1.3

INTERNATIONAL ASSOCIATION FOR IMPACT ASSESSMENT PERFORMANCE CRITERIA FOR SEA

A good-quality SEA process informs plan and programme makers, decision makers and the affected public on the sustainability of strategic decisions, facilitates the search for the best alternative and ensures a democratic decision-making process. This enhances the credibility of decisions and leads to more cost- and time-effective EIA at the project level. For this purpose, a good-quality SEA process is:

Integrated

- Ensures an appropriate environmental assessment of all strategic decisions relevant for the achievement of sustainable development.
- Addresses the interrelationships of biophysical, social and economic aspects.
- Is tiered to policies in relevant sectors and (transboundary) regions and, where appropriate, to project EIA and decision-making.

Sustainability-led

- Facilitates identification of development options and alternative proposals that are more sustainable.[63]

Focused

- Provides sufficient, reliable and usable information for development planning and decision-making.
- Concentrates on key issues of sustainable development.
- Is customized to the characteristics of the decision-making process.
- Is cost- and time-effective.

Accountable

- Is the responsibility of the leading agencies for the strategic decision to be taken.
- Is carried out with professionalism, rigour, fairness, impartiality and balance.
- Is subject to independent checks and verification.
- Documents and justifies how sustainability issues were taken into account in decision-making.

Participative

- Informs and involves interested and affected public and government bodies throughout the decision-making process.
- Explicitly addresses their inputs and concerns in documentation and decision-making.
- Has clear, easily understood information requirements and ensures sufficient access to all relevant information.

Is iterative

- Ensures availability of the assessment results early enough to influence the decision-making process and inspire future planning.

[63] i.e. that contributes to the overall sustainable development strategy as laid down in Rio 1992 [Agenda 21, Rio Declaration on Environment and Development, available from http://www.un.org/esa/dsd/agenda21/ and defined in the specific policies or value of a country.

- Provides sufficient information on the actual impacts of implementing a strategic decision to judge whether that decision should be amended and to provide a basis for future decisions.

Annex A5.1

DESCRIPTION OF SELECTED ANALYTICAL TOOLS

This annex introduces the following techniques:

- Formal and informal checklists.
- Matrices of impacts and of conflicts or synergies.
- Collective expert judgements – Delphi technique.
- Overlay mapping and GIS.
- Trend analysis and extrapolation.
- Decision trees and impact networks.
- Predictive and simulation modelling.
- Scenario building.
- Life-cycle assessment (LCA).
- Cost-benefit analysis (CBA).
- Multi-criteria analysis (MCA).

Technique	Formal and informal checklists
Description	A checklist presents a catalogue of issues that might be considered when assessing particular types of plan or programme. Checklists may list: • Environmental concerns usually associated with certain plans and programmes. • Relevant environmental objectives for various development activities. • Indicators or specific guiding questions that can be asked when evaluating a plan or programme in certain fields.
Usual application within SEA	• Analysis context and baseline. • Identification of issues and impacts.
Advantages	• Help remember all the information relevant to a task. • Provide a simple way of identifying whether certain issues are relevant to a proposal and help to avoid overlooking potential issues.
Disadvantages	• Do not offer a very analytical approach to analysis. • Encourage neglect of any important effects that are not present in the checklist. • May cloud judgement with irrelevant information. • Do not specify the nature of cause-and-effect relationships — are prone to pigeonholing impacts into certain categories whereas, in reality, an impact may be part of a complex system.

Technique	Matrices of impacts and of conflicts or synergies
Description	**Matrices of impacts** enable identification and presentation of potential impacts of proposed interventions (e.g., proposed objectives or actions) on the different components of the environment. They are similar to checklists and can best be described as a two-dimensional checklist. They can use symbols, characters and numerical scores, in different scales or colours, to show the nature of the impact or its approximate scale or magnitude. Matrices can also illustrate cumulative and indirect impacts and impact interactions. For example, they may include columns or rows that summarize overall impacts of proposed interventions. Presented information should be easy to verify, and each matrix may need to

	be accompanied by a text explaining the nature of specific effects. **Matrices of conflicts or synergies** show relationships between proposed interventions (e.g., proposed objectives or actions) and relevant environmental or other objectives (e.g. in the case of more comprehensive assessments).
Usual application within SEA	• Identification of issues and impacts. • Assessment of impacts. • Contributing to development and comparison of alternatives.
Advantages	• Provide a good visual summary of impacts, which is easy to interpret. • Can be adapted to identify cumulative impacts as well as impact interactions. • Is a useful tool for presenting results, for example from subjective assessments, or from numerical modelling. • Can be designed to include the potential for interactions and can combine the impacts from various actions or from a number of projects. They can also be used to compare alternative options.
Disadvantages	• Matrices often present only direct impacts. • May lead users to overcomplicate the analysis by considering all potential interactions between all proposed actions and all environmental issues. This is time-consuming and may divert attention to minor impacts.
Examples of practical application or key sources of further information	Sample matrix for assessment of the measures of the National Development of the Czech Republic (in *Proceedings of the International Workshop on Public Participation and Health Aspects in Strategic Environmental Assessment* (2001, REC), p. 122; available from http://archive.rec.org/REC/Publications/Proceedings/SEAproceedings.pdf). Matrix method suggested to screen alternative (in an SEA of carbon dioxide capture and storage, available from http://uregina.ca/ghgt7/PDF/papers/poster/143.pdf).

Technique	Collective expert judgements – Delphi technique
Description	Collective expert judgements iteratively canvass opinions and perspectives from recognized experts in relevant fields. Specific means that meet this aim may include simple workshops, interviews or questionnaires with a problem-solving focus (for example, to assess possible impacts or risks), as well as more sophisticated techniques. These means are described in annex A5.2 The Delphi technique represents the systematic and powerful tool for formulation of collective expert judgements. It enables identification of the prevailing judgement within a large group of experts who do not directly interact with each other. This technique thus reduces costs and enables participation of experts from geographically dispersed locations. It also defines principles and steps that can be effectively used for formulation of expert judgements using other less time-consuming techniques (e.g., workshops, conferences, etc.). The Delphi technique is based on the following key steps: • Clarify what information is needed, design the questions and determine the time line of the process. • Identify the appropriate number of experts to serve on the Delphi panel and explain the tasks. • Prepare and distribute the initial set of open-ended or closed-ended questions.

	• Collect and analyse the first responses and compile the responses. If open-ended questions were used extensively, analyse and present the first set of responses within an appropriate theoretical framework, typology, or outline. • Send the same question out to the same panellists a second and third time. The process may be repeated with additional waves, if necessary. Include the responses with the question so that panellists can read the other opinions and adjust their own opinions. Respondents will read each other's ideas and answer the question again. As information is exchanged, people incorporate each other's perspectives and information into their thinking and arrive at a fairly accurate understanding of the critical issues to consider in their decision-making process. • Always prepare and distribute a final report to panellists. One of the motivations for participating in a Delphi panel, particularly for specialists, is to learn first-hand, before others, what the results of the Delphi study are.
Usual application within SEA	• Analysis of context and baseline. • Identification of issues and impacts. • Assessment of impacts.
Advantages	• Can deal with quite technical or complex issues. • Allows sharing of ideas and consensus in decision-making by a large number of stakeholders who are geographically distanced • Convenient for participants, as they can contribute from their own office or home.
Disadvantages	• Takes time for the organizers (can run for several months). • Participant commitment may falter if the process takes too long or they have other commitments. • Large amounts of data need to be carefully assessed and distributed, so the process can be expensive to manage.
Examples of practical application or key sources of further information	Nehiley, J. M. (2001) *How to Conduct a Delphi Study* B. Dick, *Delphi face to face* (2000, action research resources); available from http://www.scu.edu.au/schools/gcm/ar/arp/delphi.html.

Technique	Overlay mapping and Geographical Information Systems
Description	Overlay mapping and GIS are methods for identifying the spatial distribution of impacts. Both methods involve the preparation of maps or layers of information that are then superimposed on one another. They can: • Provide a composite picture of the receiving environment, including health (sensitive areas or resources, current pressures, etc.). • Present impacts of previous developments. • Illustrate potential impacts of future activities. • Map the cumulative impacts, or map the impacts on a number of receptors. An important feature of spatial analysis is its ability to consider topographic data that become essential when planning infrastructure or analysing certain impacts (e.g., noise, local air quality, visual impacts). Manual overlay mapping uses a series of transparent maps with different information shown on each layer. GIS allows the rapid construction of multi-layered electronic maps and can be regarded as the high-tech equivalent of overlay mapping. GIS can also be useful for handling large amounts of data. Once a base GIS has been prepared, further information can be added and amended as necessary; outputs and

	inputs are therefore easy to update.
Usual application within SEA	• Analysis of context and baseline. • Identification of issues and impacts. • Assessment of impacts. • Contributing to development and comparison of alternatives.
Advantages	• Both techniques enable visual presentation of past, present and future impacts.
Disadvantages	• Both techniques can be expensive and time-consuming.
Examples of practical application or key sources of further information	The British Geological Survey report (2004) on *Strategic environmental assessment (SEA) and future aggregates extraction in the East Midlands Region* presents a number of GIS usage methods and approaches (available from http://www.bgs.ac.uk/downloads/browse.cfm?sec=12&cat=136).

Technique	Trend analysis and extrapolation
Description	Accurate trend analysis is one of the most important aspects of any strategic assessment. In the context of SEA, it can be defined as an interpretation of environmental pressures and changes in the state of the environment over time. Trend analysis uses data sets and helps to trace any trends or patterns. Trends can be linear, exponential or cyclical and they should, where possible, be analysed over a correct temporal scale. The presentation of trends can be fairly simple, e.g., a line graph, or quite complex, e.g., using three-dimensional graphics or video simulation. There are numerous computer programs that facilitate trend analysis (e.g., the simplest ones being computer spreadsheet software, more advanced ones including RATS, GAUSS, JMP, etc.). Trend analysis facilitates presentation of the main linkages between environmental pressures and corresponding (sometime delayed) changes in the state of the environment. As such, it can also assist predictions of future impacts. Some trends can be safely extrapolated on the assumption that the trend is going to continue in the same dynamic. When doing so, it is important to realize that virtually every trend has a corresponding counter-trend. Oversimplified extrapolation that does not consider how the trend will evolve once it reaches a key breaking point (e.g., when the carrying capacity of the surrounding environment has been reached or exceeded), or once the counter-trend becomes stronger, may be misleading. Trend extrapolation can thus play an important role in medium-to-short-term forecasts when no major counter-trends or breaking points are expected. Long-term trends can be precisely determined only through modelling, if at all.
Usual application within SEA	• Analysis of context and baseline. • Assessment of impacts.
Advantages	• Can greatly assist in the quantification of cumulative impacts in cases where environmental data are available over long periods of time.

Disadvantages	• There are often situations where it is not possible to obtain relevant or sufficient data on specific environmental pressures. • In cases where there are gaps in data, it becomes important to use appropriate statistical methods to ensure the proper interpretation of trends. Such analysis may be quite cumbersome.
Examples of practical application or key sources of further information	Different examples of trend analysis are presented in the Transport Analysis Guidance on *Strategic Environmental Assessment for Transport Plans and Programmes* (2004) published online by the United Kingdom Department for Transport; available from http://www.dft.gov.uk/webtag/documents/project-manager/unit2.11.php.

Technique	Decision trees and impact networks
Description	Networks and systems illustrate the cause-and-effect relationship. They identify the pathway of an effect using a series of chains (networks) or webs (system diagrams) between a proposal and the wider environment in which it is proposed to operate. These techniques can help to illustrate implications of the plan or programme on the subsequent decisions and its knock-on effects on other developments (decision trees) or a gradual progression from direct immediate effects to indirect or longer-term or delayed effects (effect networks). If sufficient data is available, it is possible to include quantitative measurements in the network diagram. This technique constitutes a simple form of modelling and allows the evaluation of effects and their interactions (see more on modelling below). In developing a network or system, the steps might include to: • Consider and list the measures. • Identify effects of each measure on other developments or on directly affected elements of the environment. • Identify secondary knock-on effects on other developments or environmental elements — thus illustrating pathways from direct effects to indirect implications. • Determine, when doing so, whether any cumulative effects on the same development pattern or element of the environment occur. • If appropriate consider a loop to show any feedback. • If appropriate, use quantitative techniques as a simple form of modelling to evaluate the effects.
Usual application within SEA	• Identification of issues and effects. • Assessment of effects. • Contributing to development and comparison of alternatives.
Advantages	• Use of flow diagrams can assist with understanding effects. • Network diagrams clearly illustrate the interaction pathways — the mechanism of cause and effect is made explicit. • Although network analysis may not be quantitative, it may still provide a good basis for choosing which processes could be quantified or modelled in further detail.
Disadvantages	• No spatial or temporal scale can be provided. • Network analysis uses a holistic approach to impact assessment, so it may require a considerable effort to complete. • Diagrams can become too complex.

Technique	Predictive and simulation modelling
Description	Modelling is an analytical tool that enables the quantification of environmental effects by simulating environmental conditions. Often models use computer technology to predict the effects. A mathematical model lends itself to the spatial and temporal analysis of aspects of the environment such as air and water quality, water volume and flows, noise levels and airborne deposition on soils and vegetation. Other types of model include socio-economic models, species habitat models and expert systems that allow the effects of a project to be determined through a programme of decisions. The most advanced and used models are for air quality, water quality and noise modelling as well as ecological and visual modelling. There are a number of different models available for assessing those effects. They can be used to consider direct and cumulative effects of a number of measures proposed in the plan or programme and enable some assessment of indirect effects resulting from emissions or effects of development proposals.
Usual application within SEA	• Assessment of effects. • Contributing to development and comparison of alternatives.
Advantages	• Noise, air dispersion and hydrodynamic models are well developed and generalized in form and are therefore suited to the analysis of direct and cumulative effects. • Modelling results can be combined with overlay techniques effectively, for example to assess different alternatives. • Modelling is also a particularly useful tool for simulating effects over time and in space.
Disadvantages	• Models are extremely costly and time-consuming. • The accuracy of the model is only as good as the baseline environmental data used to construct, calibrate and run it and the assumptions made in its design. • It is difficult for any model to address realistically every intricacy of the natural system. • Models also have a reputation for being pessimistic in their outcome and data can be manipulated relatively easily. • Developing a new model is generally demanding in terms of cost, expertise, time and possibly data. For this reason it is best suited to larger and more complex projects. It is therefore often more appropriate to use a model that has been used previously and is therefore established and accepted.

Technique	Scenario building
Description	Scenario building is a process of designing hypothetical situations that incorporate the most uncertain and important driving forces affecting future development. The technique aims at addressing the following questions: 1. What are the driving forces? 2. What are the uncertainties? 3. What is inevitable? 4. How about this or that scenario? Scenario building is sometimes associated with forecasting, which is also used to predict future events, but it uses calculations based on historical data. There are many scenario-building techniques. The approach based on eight

	steps of scenario-building described in *The Art of the Long View* by Peter Schwartz[64] may be of interest in SEA. The eight steps are: 1. *Identify focal issue or decision*. Where will having scenarios be helpful? What do you really want to know? 2. *Identify the key forces in the local environment*. What factors influence the focal issue or decision? What will decision makers want to know when making their choices? 3. *Identify driving forces*. What major trends influence the key forces? 4. *Rank the key and driving forces by degree of importance and degree of uncertainty*. Identified key or driving forces should be looked at carefully as they are more critical to providing different scenarios that are important. Select two to three to study further. 5. *Select scenario logics*. Following the ranking, take the information to define the key variables for building scenarios. 6. *Flesh out the skeletal scenarios by looking at key factors and driving forces developed in steps 2 and 3*. Each key factor and driving force should be given some role in the scenario. For example, if you had two key factors and two driving forces, that makes four possible combinations that can be built into a narrative about the scenarios. 7. *Define implications*. Once the scenarios are defined, look for implications — what would happen in the different scenarios? Build these into your scenarios. 8. *Select the leading indicators and signposts*. Relate the scenarios to real situations — some are more likely than the others given the trends under way. Then, identify further indicators (e.g., leading indicators) that could alert you if this scenario plays out.
Usual application within SEA	• Assessment of effects. • Contributing to development and comparison of alternatives.
Advantages	• Scenarios provide a simplified version of reality and a way of creating a shared understanding of complex systems among those that work with them. • They can be used to test ideas and explore consequences.
Disadvantages	• Scenario development and interpretation requires relatively high technical skill. • Scenario-based analysis is no better than the model itself and the data used. Careful testing and validation are necessary to avoid decisions or actions based on a flawed model. • Scenarios may involve complex mathematical operations or graphic images that are hard to understand and explain to non-technical audiences and policy makers.
Examples of practical application or key sources of further information	• Detailed overviews of various approaches to scenario development can be obtained from http://www.gbn.com/about/scenario_planning.php. • Global Business Network (http://www.gbn.com/). • Information portals on scenario building can be found at http://www.well.com/~mb/scenario/.

[64] *The Art of the Long View: Paths to Strategic Insight for You and Your Company* (New York, Doubleday, 1991).

Technique	Life-cycle assessment (LCA)[65]
Description	LCA is a technique for assessing the potential environmental effects and potential issues associated with a product (or service), by: • Compiling an inventory of relevant inputs and outputs. • Evaluating the potential environmental effects associated with those inputs and outputs. • Interpreting the results of the inventory and effect phases in relation to the objectives of the study. LCA generally addresses at least energy, but may also include emissions into air and water, land use and depletion of natural resources.
Usual application within SEA	• Identification of issues and effects. • Assessment of effects. • Contributing to development and comparison of alternatives.
Advantages	• Comprehensive analysis of effects based on cradle-to-grave approach. • LCA serves as validation for the system boundaries used in the evaluation of the environmental effects.
Disadvantages	• Apart from energy it is very difficult to quantify emissions from all possible processes, requiring huge emission inventories. • LCA must be used cautiously and, in the interpretation of the inventory, care must be taken with subjective judgements. Certain products do not provide enough information to accurately assess environmental effects (e.g., metals, VOC). Also, production processes and usage might differ from country to country. • Reliable methods for aggregating figures generated by LCA, and using them to compare the life-cycle effects of different products, do not yet exist. • Preserving the confidentiality of commercially sensitive raw data without reducing the credibility of LCAs is also a major problem. • LCA does not have spatial and temporal resolution. • In most situations it is impossible to prove conclusively using LCAs that any one product or any one process is better than any other, since many parameters cannot be simplified to the degree necessary to reach such a conclusion. Many LCAs have reached different and sometimes contradictory conclusions about similar products.
Examples of practical application or key sources of further information	• INTERREG III B Project Alp FRail (http://www.lkzprien.de/de/main/alpine_freight_railway.htm). Operational Solutions for the transalpine railway freight traffic for sustainable management of connections of the economic areas within the alpine space, available from http://www.deutscher-verband2.org/cms/fileadmin/medias/PDFs_Projekte/Alp_Frail-Kurzdarstellung-CADSES-de.pdf. • "Complete Life Cycle Assessment for Vehicle Models of the Mobility CarSharing Fleet Switzerland", conference paper by Gabor Doka and Sabine Ziegler for the first Swiss Transport Research Conference (Ascona, 1–3 March 2001); available from http://www.doka.ch/DokaMobilitySTRCproc01.pdf. • Umberto, a software tool to model, calculate and visualize material and energy flow systems, available from http://www.umberto.de/en/. • GaBi 4, a life-cycle engineering, greenhouse gas accounting, benchmarking and energy efficiency modelling tool, available from http://www.environmental-expert.com (search for "gabi" under "Software").

[65] This description is based on adaptation of LCA provided by the EC-sponsored BEACON project (Build an Environmental Assessment CONsensus on the trans-European transport network). This project offers a good overview of some SEA tools for transport sector. For more information see *http://ec.europa.eu/environment/eia/sea-studies-and-reports/beacon_manuel_en.pdf*.

	• Greet (Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation) model from the Argonne National Laboratory: a fuel-cycle model for transportation fuels and vehicle technologies, available from http://greet.es.anl.gov/. • E2database from Ludwig-Bölkow-Systemtechnik, a fuel chain analysis decision aiding tool, and E3database for energetic, emissions-related and economic regional evaluation of hydrogen fuel chains, Agator, His, Schindler. • Global Emission Model for Integrated Systems (GEMIS), available from http://www.oeko.de/service/gemis/en/index.htm. • SimaPro, a tool that collects, analyses and monitors the environmental performance of products and services, available from http://www.pre.nl/simapro/simapro_lca_software.htm.

Technique	Cost-benefit analysis[66]
Description	CBA seeks to compare the monetary value of benefits with the monetary value of costs. A benefit is defined as anything that increases human well-being, and a cost as anything that decreases human well-being. In turn, human well-being is determined by what people prefer. Preferences are either revealed through choices and market behaviour or are stated through questionnaire (market research) procedures. Measurement of a preference is obtained by finding out the individual's willingness to pay for a benefit or for the avoidance of a cost, or their willingness to accept compensation for tolerating a cost or foregoing a benefit. These WTP ("willingness to pay" for an environmental gain) and WTA ("willingness to accept" compensation for an environmental loss) concepts provide estimates of what is known as consumers' surplus. The aim of maximizing benefits minus costs, or of requiring benefits to exceed costs, is fundamental to the concept of economic efficiency which has the overall goal of maximizing the sum of human well-being in a given economy. In many cases, WTP can be found from market behaviour and damages can be estimated directly. An example might be the effects of air pollution on crop productivity. The relationship between the two is secured from experimental or field observation and is known as a dose response function. The loss in yield can then be measured by the market value of the crops. This combination of a dose-response function and a market value is one instance of a production function approach. In other cases there is no evident market to refer to. Revealed preference analysis looks at "surrogate markets", markets in goods and services that embody some environmental feature. An example would be a house and the market would be the housing market. Each house is seen as a bundle of characteristics or attributes and these attributes contribute to the price of a house. Among the attributes might be peace and quiet or air pollution. By statistically regressing the price of the house on the attributes the "hedonic price coefficient" can be found. Thus, many studies have found significant relationships between air pollution, disamenity and noise and house prices. Further manipulation of the data by then showing how the hedonic prices vary with income, among other variables, produces measures of WTP for noise reduction, etc. Stated preference techniques use questionnaires to elicit preferences in contexts where there may be no surrogate market. In principle, the questionnaires are similar to conventional market research for new or modified products. Contingent valuation asks directly what people are WTP, or asks if they are WTP "X" where X is some starting point sum. Contingent

[66] This description is taken from the United Kingdom report indicated in the list of sources.

	ranking (or conjoint analysis) ranks alternatives and anchors one of the alternatives to a money price. Individuals' WTP is then inferred rather than derived directly from answers about WTP.
Usual application within SEA	• Assessment of effects. • Contributing to development and comparison of alternatives.
Advantages	• CBA is a widely used and recognized technique. • It provides easy-to-understand information (in monetary terms) to the decision maker. • It allows comparison of effects which might otherwise be difficult to compare, e.g., time savings for motorists versus loss of landscape value.
Disadvantages	• There are many issues of contention in CBA, including appropriate discount rates and the reduction of future costs and benefits to net present values, and the valuation of health, life and environmental goods and services. • There are many technical difficulties and much dispute regarding the methods used within CBA, such as contingent valuation.
Examples of practical application or key sources of further information	• United Kingdom Department of the Environment, Transport and the Regions, *Review of Technical Guidance on Environmental Appraisal: A Report by EFTEC (Economics for the Environment Consultancy)* (1998). • Anthony Boardman, David Greenberg, Aidan Vining, David Weimer, *Cost-Benefit Analysis: Concepts and Practice*, 3rd ed. (Upper Saddle River, New Jersey, Prentice Hall, 2006). • J. Dixon, L. Fallon Scura, R. Carpenter and P. Sherman, *Economic Analysis of Environmental Impacts* (London, Earthscan, 1994). • N. Hanley and C. Spash, *Cost-Benefit Analysis and the Environment* (Cheltenham, United Kingdom, Edward Elgar, 1993). • E. Mishan, *Cost-Benefit Analysis* (London, Allen and Unwin, 1988). • D. W. Pearce, D. Whittington, S. Georgiou and D. James, *Project and Policy Appraisal: Integrating Economics and the Environment* (Paris, OECD, 1994). • Risk and Policy Analysts Ltd, *Guidance on Environmental Costs and Benefits*, Report to the Environment Agency, January 1998. • J. Winpenny, *The Economic Appraisal of Environmental Projects and Policies: a Practical Guide* (Paris, OECD, 1995).

Technique	Multi-criteria analysis (MCA)
Description	MCA is a method for evaluating alternative options against several criteria, and combining the separate evaluations into an overall evaluation. It can be used to identify a single most preferred option, to rank options, to short-list a limited number of options for subsequent detailed appraisal, or simply to distinguish acceptable and unacceptable options. MCA helps to manage that complexity by converting the evaluation to a numerical score. All MCA approaches incorporate judgements that are expressed in weights of criteria and in performance evaluations. Usual steps in a multi-criteria analysis are as follows: 1. *Identify assessment criteria.* They can measure key consequences of proposed alternative options based on the relevant objectives or on their likely impacts. Carefully examine the proposed set of criteria to ensure that: • The set of criteria is complete (no significant criteria is missing). • There are no redundant criteria (these may include insignificant criteria or criteria where all options perform equally). • Criteria are measurable (it must be possible to assess — at least qualitatively — how well each option performs in relation to the criterion).

	• Criteria are mutually independent (there is no double counting). 2. *Analyse relative importance of criteria (weighting).* Most MCA techniques enable the determination of the relative weights of each criteria in the decision -making. Methods of weighting vary from simple techniques (e.g., comparing criteria against each other to determine their relative weight) to complex methods (e.g., sociological surveys to determine the importance of each criterion in the affected community). 3. *Analyse performance (scoring).* Before scoring the performance, determination of what constitutes the best and the worst performance in a given context is required. Scoring performance may be done through three basic means: • Direct rating through expert judgements by assigning a score to each option (e.g., 0–100 point scale). • Determining performance against a criterion-specific function that defines gradual progression from the worst to the best performance. • Judging performance of options against each other. Methods vary — through simple ranking of options to determine the order of their performance (e.g., on criterion 1 the option A scores best, C second and B third) to complex calculations. 4. *Multiply weights and scores for each of the options and derivation of their overall scores.* Each option's performance on a criterion is multiplied by the weight of the respective criterion — this is done for all the criteria. The sum yields the overall relative score for the given option. The results for all options are compared and discussed. 5. *Analyse sensitivity to changes in scores or weights.* Sensitivity shows how changes in the scores or weight affect the results of MCA. Such analysis may be essential if: • There are serious uncertainties about performance of some options against selected criteria, or • If decision makers or stakeholders argue about the relative weights of criteria used in MCA.
Usual application within SEA	• Assessment of impacts. • Contributing to development and comparison of alternatives.
Advantages	• MCA takes into account different criteria at the same time, which is impossible with the usual decision-making process based on a single criterion. • MCA may be used to bring together the view of the different stakeholders in the evaluation. • MCA is transparent and explicit (the scores and weights are recorded), easy to audit. • MCA may facilitate communication with the decision maker(s) and sometimes with the wider community.
Disadvantages	• MCA reduces the rational debate about various pros and cons of proposed alternative options into a discussion about abstract numbers (scores and weights). • MCA cannot facilitate consensus on very controversial decisions. • By presenting quantitative information (aggregated scores) MCA may create a false impression of accuracy despite the fact that application of MCA heavily depends on a value judgement. • The results may be manipulated by those who master MCA (i.e., simple

	sensitivity analyses that are normally performed within MCA show criteria that best influence outcomes and this knowledge can be used to produce different overall scores).
Examples of practical application or key sources of further information	United Kingdom, Department for Communities and Local Government, *Multi-criteria Analysis: A Manual* (London, 2009), available from http://www.communities.gov.uk/publications/corporate/multicriteriaanalysismanual. *Journal of Multi-Criteria Decision Analysis* (John Wiley & Sons), online journal available by subscription only. More information can be obtained at http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1099-1360. United Kingdom, Department of the Environment, Transport and the Regions, *Review of Technical Guidance on Environmental Appraisal: A Report by EFTEC (Economics for the Environment Consultancy)* (1998)

Annex A5.2

DESCRIPTION OF SELECTED PUBLIC PARTICIPATION TOOLS

This annex introduces the following techniques:

- Printed material inviting comments.
- Displays and exhibits.
- Information hotline/staffed telephone lines.
- Internet/web-based consultations.
- Questionnaires and response sheets.
- Surveys.
- Public hearings.
- Workshops.
- Advisory committee.

Technique	Printed material inviting comments
Description	Printed materials are the easiest ways to publicize and provide information on a draft plan or programme and the SEA, or to publicize a participation process. Popular forms of the printed materials include fact sheets, flyers, newsletters, brochures, issues papers, reports, surveys, etc. These can be single-purpose or produced as a series (e.g., newsletters). Printed material can be handed out, made available to be picked up, or mailed out either directly to a select mailing list, or included as "bill stuffers" with regular mailouts such as utility bills, rates notices or other regularly posted bills. Printed materials aim to provide easily read information in words and drawings, to inform a wide range of stakeholders about the plan- or programme-making and assessment processes or documents. Printed material, whether handed out, dropped into letterboxes, distributed by mail, or mailed out with other material, is one of the easiest and most familiar methods for increasing awareness of an issue and soliciting responses to an issue or proposal. Available budget, and the use of other publicity methods and tools will determine just what type of printed material will best suit your need.
Advantages	• Printed materials can reach a large number of people through mailing or via free display. • Comment sheets or questionnaires included with the material can allow for feedback. • Can facilitate the public participation process. • Printed information can be a low-cost publicity means, which is easily handed out and carried away. • Can be economically distributed by doubling up with existing mailing lists. • Can potentially reach a wide audience, or be targeted towards particular groups. • Ongoing contact, information can be updated.
Disadvantages	• The problem with most printed materials is the limited space available to communicate complicated concepts. • Needs time to design, prepare text, visuals, proofread, print and fold. • There is no guarantee that the materials will be read — may be treated as junk mail. • If mailed, the guarantee of being read is only as good as the mailing list itself; mailing lists need regular updating to avoid wasted time, energy and paper.

	• Appearance of the material should be visually interesting but should avoid a sales look. • Can be lost if included with many other flyers and bill stuffers (consider using coloured paper and bold headlines if mailing as a bill stuffer, to ensure this is not just binned without reading). • Can exclude those who are not print literate unless visual elements are used. • Information may not be readily understood and may be misinterpreted.
Examples of practical application or key sources of further information	International Association for Public Participation *IAP2 Public Participation Toolbox* (2000), available from http://www.iap2.org/.

Technique	Displays and exhibits
Description	These tools are events that are intended to provide project information and raise awareness about particular issues. Displays can be interactive, and can be used as part of a forum, workshop, exhibition, conference or other event. Displays and exhibits can include feedback opportunities such as blank sheets with one-line questions, and can include drawings, models, maps, posters, or other visual and audio representations illustrating an event, proposal or issue. Interactive displays can include "post-it" idea boards, maps and flipcharts or blank posters for comments and questions. Displays and exhibits develop more concrete concepts of proposals or developments and, where these provide options for interaction, provide public opinions and feedback that can be incorporated into the plan- or programme-making and assessment processes. Key issues to consider beforehand, and the main steps to prepare for and carry out the methods, include: • Select a date and venue that will encourage the greatest number of participants to attend (generally weekends or public holidays/shopping centres/public spaces). • Arrange for a number of displays/exhibits to give details of the event/issue. • Place the display/exhibit in a well-populated public space where those most affected by the issue/event are likely to pass by. • Advertise and publicize the event with emphasis on the issue to be considered. • Advertise times when the display/exhibit will be open. • Allow adequate time for setting up. • Provide adequate staffing and consider the employment of volunteers, security and insurance issues. • Provide coordinators to facilitate participation and answer questions. • Collate feedback and publish results.
Advantages	• The tool focuses public attention on an issue. • It can create interest from media and lead to increased coverage of the issue. • Allows for different levels of information sharing. • Provides a snapshot of opinions and community issues based on feedback. • People can view the displays at a convenient time and at their leisure. • Graphic representations, if used, can help people visualize proposals.

Disadvantages	• The tool needs a facilitator to encourage involvement and written feedback. • Information may not be fully understood or misinterpreted if no staff are provided to respond to questions or receive comments. • Public must be motivated to attend. • Can damage the proposal's reputation if done unprofessionally.
Examples of practical application or key sources of further information	International Association for Public Participation, *IAP2 Public Participation Toolbox* (2000), available from http://www.iap2.org/. United States Dept of Transportation, Federal Highway Administration, "Public Involvement Techniques for Transportation Decision-Making: Transportation Fairs" (1997), available from http://www.fhwa.dot.gov/reports/pittd/tranfair.htm. Nick Wates, *The Community Planning Handbook* (London, Earthscan, 2000). Available online in English only from http://www.communityplanning.net/toolkits/UrbanGovToolkitsCPH.pdf.

Technique	Information hotline/ Staffed telephone lines
Description	An information hotline offers pre-recorded information on the planning document or an issue via the telephone and/or access to SEA and planning team members who can answer questions or provide additional information and assistance. It aims to deliver accurate, consistent information over the telephone to those who wish to know about an issue or who can provide additional information. Staffed telephone lines can serve as a link between the public and the developer during the duration of the plan or programme making and assessment, making the public feel involved. Key steps in application: • Determine the information to be recorded and a timetable of updates. • Advertise the phone number, e.g., via stationery and flyers printed, or a sticker, e.g., on outgoing printed correspondence or promotional material. Advertise the number in the media, and ensure it is on all your outreach material. • Set up a hotline number for callers by recording message and hooking up to the phone line. Record information that will answer the most commonly asked questions. • If staffed phone line is used, assign the person to answer the calls. The person assigned to provide information has to be briefed and trained, and has to have a pleasant telephone manner, even with difficult callers. • Set up a toll free number for non-local callers. • In case of pre-recorded information hotline, offer the option of being put through to a specific person for more details. • Record calls/common complaints/concerns in telephone journal for your records and input to the participation/consultation process.
Advantages	• An information hotline offers an inexpensive and simple device that can ensure fast, easily and efficiently information dissemination. • Provides a one-stop service to the public to access information about the planning activity. Can describe ways the public can get information and provide feedback. • Offers a reasonably low-cost for set up and updates. • Portrays an image of accessibility for an organization, developer or the SEA team.

	• A convenient way of receiving comments from interested parties. Not intimidating, easy for people to participate and provide comments. Promotes a feeling of accessibility.
Disadvantages	• Must be adequately advertised to be successful. • If staffed, can be time-consuming and limit staff members available to perform other tasks. • Designated contact must have sufficient knowledge of the activity to be able to answer questions quickly, accurately and professionally.
Examples of practical application or key sources of further information	Department of Public Health (Flinders University) and South Australian Community Health Research Unit, *Improving Health Services through Consumer Participation — A Resource Guide for Organisations* (Canberra, Commonwealth Department of Health and Aged Care, 2000). Available from http://www.healthissuescentre.org.au/documents/detail.chtml?filename_num=226533. United States Environmental Protection Agency, *RCRA[67] Public Participation Manual* (1996), chap. 5 (Public participation activities); available from http://www.epa.gov/epawaste/hazard/tsd/permit/pubpart/chp_5.pdf. United States Environmental Protection Agency, *National Pollutant Discharge Elimination System (NPDES) Public Involvement* (2002), available from. http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=2.

Technique	Internet/web-based consultations
Description	The tool typically comprises a website on the Internet. It is used to provide information or invite feedback. Care should be taken to keep the information up to date. More interactive forms of participation on the Internet may also be developed, e.g., online forums and discussion groups. Technically, the potential tools for Internet-based consultations can be: • HTML web pages with links to documents, pictures and graphics (moving or still) and sound. • A dedicated e-mail address to which non-structured submissions can be sent. • Survey forms that elicit community response on particular issues (HTML or PDF to be faxed/mailed back). • Moderated bulletin boards that allow “threaded” discussions about a range of issues. • Virtual meetings using a chat room facility on specific topics. • Webcasting (i.e., audio and visual broadcasting via the Web) of meetings and events. The Internet can enhance traditional techniques but it cannot replace them. The purpose of the website should be clearly articulated and information should be accurate and timely. The resource implications of maintaining the site need to be carefully assessed and budgeted for before it is established. It should be decided whether the management of the website will be done in-house or outsourced, what web-based tools to be used and what staff training is needed.
Advantages	• The most straightforward and inexpensive, resource-efficient technique to present and distribute information to those that have Internet access. • The audience is potentially global. • Costs are reduced as no printing or postage costs are incurred. • Has a possibility to provide timely and accurate information about and a

[67] Resource Conservation and Recovery Act (RCRA).

	historical record of the planning, assessment and consultation processes. • It is a way to invite stakeholders to comment on the specific proposals and a means of receiving feedback. • An interactive medium allowing discussion and debate.
Disadvantages	• There are significant resource implications in setting up a new website. • The responses can be difficult to analyse if questions are open-ended. • Because not all stakeholders will have access to the Internet, it cannot be used to replace the traditional means of consultation — alternative means of information dissemination will also be required.

Technique	Questionnaires and response sheets
Description	Questionnaires are a basic tool used to collect information, and are usually developed and tested to ensure that they are easily understood. Questionnaires ensure that exactly the same questions are presented to each person surveyed, and this helps with the reliability of the results. Questionnaires can be delivered via face-to-face interviews, telephone interviews, self-completed forms, mailouts or online. Questionnaires can be distributed by e-mail as well as posted or faxed. Response sheets can be collected at a workshop, or can be picked up at a workshop and mailed back. These can also be mailed out in ways that reduce postage costs, when they are included in routine mailouts such as the distribution of fact sheets or accounts. Questionnaire preparation steps: • Draft questions. Keep as short as possible. • Test questions with a small pilot group to determine whether they are unbiased, straightforward and not open to misinterpretation. Wording of questions has to be clear to avoid bias. • Indicate the purpose of the questionnaire at the outset. • Include qualitative data such as age, sex, address, education etc. to allow for further extrapolation of the results and/or inclusion into the mailing list. • Send out questionnaires. If mailed and if the budget allows, provide free mail reply (stamped addressed envelope; freepost mailbox, etc.) to improve responses. • Document and publicize the responses.
Advantages	• Less personal if interviews or telephone surveys are not used, but anonymity can encourage more honest answers. • Useful to generate both qualitative and quantitative data. • Works well to reach respondents who live in a large area. • Provides information from those unlikely to attend meetings and workshops. • Permits expansion of the mail list. • Can be used for statistical validation. • Allows results to be extrapolated by subgroups. • Allows the respondent to fill out at a convenient time. • More economical and less labour intensive than interviews and telephone surveys as they provide larger samples for lower total costs.
Disadvantages	• Low response rates can bias the results. • Needs a return envelope/freepost address to encourage participation. • Depends on a high degree of literacy.

Technique	Surveys
Description	Surveys are a method used to collect information from a specific population. They can be used to collect broad general information from or about a large audience or specific information from target groups. Surveys can seek information that can be quantitative (facts and figures) and/or qualitative (opinions and values). Surveys use questionnaires to collect information, and these can be delivered through face-to-face interviews, self-completion written forms, telephone surveys, or electronic surveys (see also questionnaires and response sheets). For a well-conducted survey using a large, random sample, surveys are usually high cost. Small-scale surveys using opportunistic sampling and volunteers can be relatively low cost, but may not produce results that can be generalized beyond a specific group of people. Surveys are designed to collect information in relation to a particular issue or planning document. The results of the surveys provide information about the demographics and/or opinions of a specific group of people. Relevant steps in designing and carrying out a survey: • Find out what is already known, and what relevant surveys are being done or planned elsewhere in order to avoid duplication, and define the scope of the survey. • Talk to developer and relevant authorities to focus the questions. • Determine the way the information will be obtained (see questionnaires and response sheets). • Select your target audience. How will you sample them? How will you ensure that your survey gives a representation of the ideas of the group? • Pilot test the survey to ensure the readability and clarity of questions. • Carry out the survey. • Collate and analyse the results, prepare report. • Make the report available to those surveyed, to appropriate authorities, and to the media.
Advantages	• Provides traceable data. • Surveys can serve an awareness-raising purpose. • When properly constructed, can reach a broad, representative public or targeted group. • Can derive varied information from the results.
Disadvantages	• Poorly constructed surveys produce poor results. • Can be expensive if surveying a large audience. • Care must be taken that wording of questions is unambiguous to prevent skewed results. • Care is needed in sampling to make sure representative samples are taken. • Surveys with tick boxes are the fastest and easiest to process; however, this limits the detail in the information collected.

Examples of practical application or key sources of further information	United Kingdom, *Focusing on Citizens: A Guide to Approaches and Methods* (Edinburgh, United Kingdom, Convention of Scottish Local Authorities (COSLA), 1998). Available from http://www.dundeecity.gov.uk/dundeecity/uploaded_publications/publication_285.pdf. United States Environmental Protection Agency, *RCRA[68] Public Participation Manual* (1996), chap. 5 (Public participation activities); available from http://www.epa.gov/epawaste/hazard/tsd/permit/pubpart/chp_5.pdf. United States Department of Transportation, "Public Involvement Techniques for Transportation Decision-Making: Public Opinion Surveys", available from http://www.fhwa.dot.gov/reports/pittd/surveys.htm.

Technique	Public hearings
Description	Public hearings are a formal way of presenting and exchanging information and views on a proposal. Formal public hearings generally tend to be best used in conjunction with more informal methods of engagement such as informal meetings and facilitation. Important points to consider before organizing the event: • Clearly describe the purpose of the public meeting and the issue to be considered. • Describe where the public hearing falls within the context of the entire process. Be particularly clear about the extent to which input provided could influence the outcome. • Decide whether a public hearing is appropriate when you receive a request for one. • Advertise the public hearing by public notice. • Send the notice to each person who requested a public hearing. • Carefully schedule presentations by interested parties and ensure presenters can speak for their allotted time without interruption. • Prepare a report/record of the public hearing and make it public.
Advantages	• During such events the public is allowed, by prior arrangement, to speak without rebuttal. • Available evidence can be worked through systematically. • Comments received are recorded and made public. • If run well, can provide a useful way of meeting other stakeholders. • Demonstrates that the responsible authority is open to all interested parties for consultations and information exchange.
Disadvantages	• Does not foster dialogue. • An adversarial mood can be created. • Public meetings can be intimidating and may be hijacked by interest groups or vocal individuals. • Minority groups and those who do not like to speak in public are not easily included. • While appearing simple, can be one of the most complex and unpredictable methods. • May result in no consultation, only information provision.

[68] Resource Conservation and Recovery Act (RCRA).

Technique	Workshops
Description	A workshop is a structured forum where participants are invited to work together in a group (or groups) on an assessment of an issue or SEA step. The goals of a workshop are to bring participants together in a structured environment (that is, through large and small group activities, discussions, and reflection) to resolve issues and build consensus on the assessment, rather than provide information and answer questions. Alternatively, workshops can be organized to target representatives from a particular stakeholder group, e.g., NGOs, or experts in one area. Workshops require a facilitator who is able to engage all participants in the discussion; they are participatory tools that are best used with smaller numbers of participants. A variety of tools can be used within a workshop, including focus groups and visioning. A report has to be prepared as on outcome of the workshop, recording opinions, suggestions or conclusions that have been collaboratively developed and agreed to by all participants on an issue or proposal.
Advantages	• Excellent for discussion on criteria or analysis of alternatives. • Fosters small group or one-on-one communication. • Offers a choice of team members to answer difficult questions. • Builds ownership and credibility for the outcomes. • Maximizes feedback obtained from participants. Ability to draw on other team members to answer difficult questions. • Maximized feedback obtained from participants. • Fosters public ownership in solving the problem (see IAP2 reference below). • Can provide a more open exchange of ideas and facilitate mutual understanding. Useful for dealing with complex, technical issues and allowing more in-depth consideration. Can be targeted at particular stakeholder groups.
Disadvantages	• Hostile participants may resist what they may perceive as the “divide and conquer” strategy of breaking into small groups. • Facilitators need to know how they will use the public input before they begin the workshop. • Several small group facilitators are usually needed (see IAP2 reference below). • To be most effective, only a small number of individuals can participate, therefore, the full range of interests are not represented.
Examples of practical application or key sources of further information	International Association for Public Participation *IAP2 Public Participation Toolbox* (2000), available from http://www.iap2.org/.

Technique	Advisory committee
Description	Advisory committees generally comprise expert groups and governmental or non-governmental institutions with expertise in a specific field or interest in the draft plan or programme. In a consultation process, they can offer advice on appropriate changes to a plan or programme or recommend the introduction of specific measures. Although similar to task forces, advisory committees function as an ongoing structure, while task forces tend to be formed on a short-term basis to focus

	specifically on the development of a particular proposal. Advisory committees are particularly useful for involving community representatives, especially people with required expertise, in complex, controversial or significant plan- or programme-making and assessment processes. Committees are not lobby groups — they have an important public function beyond individual members' own interests. Committees are more effective if their roles and tasks are clearly established before deciding on membership. Also, it is important to establish selection criteria for membership. Time and resources must be committed to supporting the committee during the life of the project or the committee. The committee has to be informed of progress, the consultation results, developer and decision maker conclusions and policy changes or emerging issues that will influence the committee's advice or role.
Advantages	• Advisory committees offer additional advice and guidance. • They can help to reduce criticism from interest groups. • They demonstrate a commitment to participatory engagement and suggest to the stakeholders that they will be able to influence decisions and outcomes within certain boundaries.
Disadvantages	• Conflicts of interest may emerge among members of the committee. • May be time- and resource-consuming. Care needs to be taken to establish, manage and monitor their ongoing operation. • Where there are divergent views or where members have unequal status, knowledge or expertise, facilitation may be needed.

Annex B1.1

EXAMPLE OF A DETAILED CAPACITY ASSESSMENT FOR THE IMPLEMENTATION OF THE PROTOCOL USED IN SELECTED COUNTRIES OF EASTERN EUROPE, THE CAUCASUS AND CENTRAL ASIA

I. Identification of plans and programmes that will require SEA under the SEA Protocol

I.1. Are the terms "plan" and "programme" defined in national legislation? If so, please provide these definitions.

I.2. Please identify (with the assistance of the table below) those national and subnational (e.g., region (rayon) or province (oblast)) plans and programmes in the country that will fall within the scope of the Protocol.

Sectors	List all strategic documents (irrespective of whether they are called plans, programmes, policies, strategies, etc.) in each given sector that are "prepared or adopted by public authorities at all levels of government on a basis of legislative, regulatory or administrative provisions" *(simplified definition of plans and programmes adapted from art 2.5 of the SEA Protocol)*	Briefly describe their main features (e.g., number or plans during last five years and current and planned changes in the legislation)
Agriculture		
Forestry		
Fisheries		
Energy		
Industry		
Mining		
Transport		
Regional development		
Water management		
Telecommunications		
Tourism		
Town and country planning or land use		
Other national or subregional documents (e.g., Poverty Reduction Strategy Papers)		

II. Analysis of current environmental assessment provisions

II.1. Describe the current environmental assessment procedure for strategic decisions according to the existing provisions (under OVOS (EIA) or State ecological review systems) in the country and compare it with the existing practice:

- Screening mechanism and the extent of application during the past five years (or two to three years, if preferred): how many documents have been reviewed prior to being forwarded to the State ecological review/SEA procedure and how many of them have undergone State ecological review/SEA?
- Contents of the SEA report: legal requirements + how is the specific scope of the environmental assessment determined + possible methodological guidance or standards for preparation of SEA reports.
- Review requirements: which types of authorities have the opportunity to comment on the environmental report, and are there any additional requirements for review through the State ecological review system?

- Description of public participation provisions: description of legal requirements and references to any methodological guidance for public participation in SEA that has been produced in the country.
- Mechanisms for taking account of the SEA report and of public comments in the plan- or programme-making process.

II.2. Describe possible future changes in this legal framework (if any).

II.3. Analyse the main strengths and weaknesses of the current system and opportunities for its future development or improvement.

III. Analysis of the priority issues for the effective implementation of the Protocol

Analysis of the priority issues for the effective implementation of the Protocol must reflect the opinion of the senior officials responsible for the practical implementation of the Protocol in each given country.

How to effectively:	Please mark as: 2 – top priority 1 – important 0 – not relevant	Which are the specific issues where assistance would be helpful?
Undertake SEA in plan- and programme-making processes in accordance with definition of SEA in article 2.6 of the Protocol (e.g., how to link SEA to the decision-making process, etc.)		
Undertake SEA screening in accordance with articles 4 and 5 (e.g., how to combine mandatory and exclusions lists and when to apply case-by-case examinations, etc.)		
Organize SEA scoping in accordance with article 6 (e.g., when to undertake scoping, how to select suitable methods for consultations with public and authorities, how to write terms of reference for SEA, etc.)		
Elaborate environmental baseline studies in SEA (in accordance with annex IV, paras. 2, 3 and 4)		
Use environmental objectives in SEA (in accordance with annex IV, para. 5)		
Analyse the likely significant environmental, including health, effects (in accordance with annex IV, para. 6)		
Compare alternatives of the plan or programme (in accordance with annex IV, para. 8)		
Prepare post-SEA monitoring plans to meet requirements of article 12 and annex IV, paragraph 9		
Analyse transboundary effects (in accordance with annex IV, para. 10)		
Organize public review of the SEA report in accordance with article 8 (e.g., how to identify the public concerned; how to inform the public and collect feedback, how to review public comments, etc.)		
Organize consultations with environmental and health authorities in accordance with article 9 (e.g., how to identify relevant authorities, how to effectively consult them during SEA, etc.)		

How to effectively:	Please mark as: 2 – top priority 1 – important 0 – not relevant	Which are the specific issues where assistance would be helpful?
Undertake transboundary consultations in accordance with article 10 (e.g., when to notify, what level of document should be exchanged, how to organize effective transboundary consultations)		
Explain costs and benefits of SEA to decision makers		
Apply SEA to policies and legislation in accordance with article 13		
Draft laws or regulations to implement the Protocol		

IV. Key stakeholders in SEA reforms

IV.1. Identify key institutions responsible for the SEA process (contact details and names of key officials).

IV.2. Identify key stakeholders and networks promoting SEA/EIA reforms in the country (NGOs, EIA centres, professional newsletters and journals, etc.) and how these players cooperate in these reforms and how this cooperation may be strengthened.

V. Past, ongoing and planned initiatives to build SEA capacity in the country

V.1. Describe the key planned activities that the Government wants to implement in order to ratify and implement the Protocol (pilot studies, new law, regulations, etc.).

V.2. Describe all past and ongoing donor assistance programmes in the field of SEA in the country.

V.3. What SEA/EIA courses (at universities, training programmes for public administration, etc.) exist or are planned in the country?

V.4. Describe any other NGO, consultancy or academic programmes.

VI. Recommendations for the most effective focus of the UNDP and REC project

Please determine and prioritize which types of interventions or activities may most effectively build capacity for implementation of the Protocol, including the development of SEA pilot projects in selected countries. When suggesting the focus of the project you may consider the following types of capacity-development activities, among others:

- Pilot projects: supporting an SEA of a specific plan or programme (if this is a priority, indicate for which type of programming process this assistance would be provided).
- Assistance with legal reforms (drafting new laws or regulations to implement the Protocol).
- Development of national guidelines (specifying the SEA approach, the methods that can be applied, etc.).
- Development of training materials and training of trainers.
- Promotional campaign (brochures, leaflets, website creation, etc.) to explain SEA to key policymakers, decision makers and administrators.

Annex B1.2

EXAMPLE OF SIMPLE TERMS OF REFERENCE USED FOR NATIONAL CAPACITY-DEVELOPMENT STRATEGIES FOR IMPLEMENTATION OF THE PROTOCOL IN SELECTED COUNTRIES OF EASTERN EUROPE, THE CAUCASUS AND CENTRAL ASIA

Introduction

This annex presents a framework for drafting of national strategies for implementation of the SEA Protocol in four selected countries in Eastern Europe, the Caucasus and Central Asia. These national strategies helped to map capacity-development needs of the target countries for the future implementation of the Protocol.

Process for elaboration of the strategy

Each strategy was developed through consultations with:

- National focal points for the Protocol in order to ensure that it becomes a national strategy.
- Key environmental assessment practitioners and NGOs in the country.
- The main international organizations that may support development of the SEA system in the country.

Proposed structure of the strategy

I. Background

The background contained clear and concise information about:

- The planned timeline for the transposition of the Protocol into the national legal system.
- An explanation of the path the Government would take for transposition of the Protocol, for example, by extending and upgrading existing provisions for EIA so that they covered plans and programmes in line with the requirements of the Protocol; inclusion of new SEA requirements into the planning process; or a totally new assessment tool. The explanation briefly outlined why the path was chosen rather than the alternatives.
- Which legal documents would transpose the Protocol (e.g., a new law or decree, changes in existing laws or decrees, guidance documents, etc.).

II. Country needs assessment

Earlier national needs assessments were updated on the basis of detailed consultations with authorities and persons in charge of SEA Protocol implementation and with practitioners. Information presented in the country assessments was completed and was officially approved by the national focal points for the Protocol.

III. Medium-term strategy

The in-country team developed an overall long-term capacity-development strategy for SEA in the country based on detailed consultations with key stakeholders in environmental assessment reforms (authorities and persons in charge of Protocol implementation, key environmental assessment practitioners and NGOs). The strategy addressed all types of capacities — system capacity, institutional capacity and human capacity — in accordance with the framework presented in an early draft of chapter B1. The strategy looked five years ahead and suggested realistic targets for the development of each type of capacity, and realistic tools that could be used with national resources alone or with limited international assistance.

IV. Short-term priorities

Once the overall strategy was prepared, the three most important short-term actions until 2008 were identified. These priority actions were developed in the form of project outlines that clearly defined:

- Target groups, stakeholders and beneficiaries.

- A proposed sequence of activities to carry out the action.
- Linkages with other donor and capacity-development activities in the country.
- Budget.

V. Implementation arrangements

Implementation arrangements outlined:

- The responsible institution for oversight of implementation of the strategy.
- The formal status of the strategy and its endorsement (e.g., by the ministry of environment or other relevant body, such as a national council for sustainable development).
- Future working arrangements for securing resources for implementation on the national level (e.g., budget of the ministry of environment, fund-raising with key donors).

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