

THEORY & PRACTICE OF STRATEGIC ENVIRONMENTAL ASSESSMENT

TOWARDS A MORE SYSTEMATIC APPROACH



Thomas B. Fischer

The Theory and Practice of Strategic Environmental Assessment

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For Stephanie and Moritz

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Preface

It has been established practice for many years to take the environmental effects of projects into account in their design and authorization but this has generally resulted in mitigation rather than avoidance of adverse effects. Avoidance has been seen increasingly as the domain of ‘strategic’ environmental assessment (SEA). If there could still be any lingering doubt about the need to take systematic account of environmental effects in planning – and to do so in the widest, most inclusive manner possible – it must surely have been dispelled by the latest (February 2007) IPCC assessment of the science of climate change. This starkly demonstrates the consequences for the planet of our collective failures to have proper regard to the environmental effects of our plans and actions. In such a context, SEA is a tool that can help to make development more sustainable. SEA was given an enormous impetus in the European Union and beyond when the member states began to apply Directive 2001/42/EC in mid-2004. The legal basis now provided by the Directive has enormously widened and strengthened the

application of SEA. But, as Thomas Fischer’s book makes clear, it has been accompanied by doubts, often inspired by a lack of experience, about how to apply it to widely differing types of plan and programme, verging at one extreme on policies and at the other on projects; by a quest for examples of good practice; and sometimes by a failure to see how to embed SEA in different planning systems. Part of the importance of Fischer’s book lies in addressing these issues and showing, by examples from recent practice, that SEA is not the arcane preserve of specialists alone but is in the mainstream of good planning. Fischer also warns against complacency: there is ample room for improvement in the application of SEA and especially in the assessment of alternatives and the provision of better follow-up of assessments if we are to achieve the high level of protection of the environment sought by the Directive.

David Aspinwall
Former policy advisor on SEA to the
European Commission, DG Environment

Foreword

It takes specialized tools to manage the uncertainty inherent when developing strategic plans with extensive geographic scope and stakeholder interests. As this book admirably demonstrates, strategic environmental assessment has now finally moved from the ‘untried’ to the ‘proven’ column in the project management balance sheet. Through SEA we can identify the environmental and environmental risks at the earliest phases of strategic appraisal. Working through the range of potential alternatives, SEA can advise on potential outcomes and propose solutions involving future design, management and planning to avoid, reduce or remedy potential risks. For too long SEA has been viewed as a conceptual tool waiting its application, and as the following chapters record, there is now a growing and extensive body of recorded practice that justifies how the use of SEA can improve decision-making frameworks within government, non-governmental

organizations (NGOs) and even industry.

One of the primary objectives of the International Association for Impact Assessment (IAIA) is to act as a networking organization for the exchange of ideas, concepts and best practice in impact assessment. Over the last few years, the IAIA has promoted increased contact between international SEA practitioners and interested parties. The results have been impressive: IAIA conferences, debates and papers have been charged with a dynamism, energy and vitality as the participants have explored the flexibility that SEA possesses across its various guises and international settings. We have been delighted to host many of the debates that help make up the contents of this book.

*Dr Ross Marshall
President 2006–07
International Association for
Impact Assessment*

About This Book

Strategic environmental assessment has been developing rapidly over the past two decades and continues to do so. However, to date, analysis of existing practice and associated reporting has remained far from systematic, lagging behind practical applications. Furthermore, SEA theory has remained poorly developed.

It is now commonly accepted that SEA should adapt to the specific situation of application, and therefore be applied in a flexible manner. Furthermore, there are basic generic principles that underlie any SEA. These principles are used in this book as the foundations for developing and promoting a more systematic approach to SEA. In this context, four objectives are pursued:

- 1 To portray current conceptual ideas and to develop them further,
- 2 To provide for an overview of the fundamental principles and rules of SEA,
- 3 To report on international SEA practice in a systematic manner,
- 4 To advance SEA theory.

The book is written for a wide international audience, including in particular students and practitioners who are new to SEA or who wish to refresh their knowledge of SEA. An evidence-based approach is used, aiming at filling a gap in the professional literature, which to date has relied too heavily on non-analytical case descriptions rather than on systematic review and empirical evidence. With the

author being from Europe, the focus is on European examples. In this context, an update of the implementation and transposition status of the SEA Directive in the European Union member states is provided. However, on various occasions, reference is also made to non-European practice and a number of non-European SEA systems are reviewed. The book is based on various sources, including the international professional literature, as well as publications and research project results by the author. Furthermore, teaching materials, particularly from the University of Liverpool MA in Environmental Management and Planning have been considered.

The book is based on the following understanding of SEA:

- SEA is a systematic decision support process, aiming to ensure that environmental and possibly other sustainability aspects are considered effectively in policy, plan and programme making. In this context, SEA may be:
 - a structured, rigorous, participative, open and transparent environmental impact assessment (EIA) based process, applied particularly to plans and programmes, prepared by public planning authorities and at times private bodies,
 - a participative, open and transparent, possibly non-EIA-based process, applied in a more flexible

manner to policies, prepared by public planning authorities and at times private bodies, or

- a flexible non-EIA based process, applied to legislative proposals and other policies, plans and programmes in political/cabinet decision-making.
- Effective SEA works within a structured and tiered decision framework, aiming to support more effective and efficient decision-making for sustainable development and improved governance by providing for a substantive focus regarding questions, issues and alternatives to be considered in policy, plan and programme (PPP) making.
- SEA is an evidence-based instrument, aiming to add scientific rigour to PPP making, by using suitable assessment methods and techniques.

The book is organized into seven chapters. Chapter 1 explains what SEA is. In this context, the origins and development of SEA, current understanding and perceived benefits, differences with project EIA, rationale and theoretical thinking behind SEA, as well as context conditions and potential barriers to effective SEA are explained. Chapter 2 reports on the SEA process, making a distinction between EIA- and non-EIA-based approaches. Furthermore, descriptive, analytical and involvement methods and techniques are introduced. Chapter 3

deals with the question of how suitable alternatives can be identified in SEA. In this context, the importance of a tiered approach to SEA is stressed and explained, looking at transport and electricity transmission planning. Furthermore, tiering in spatial/land use planning is discussed. Chapter 4 provides for a comparative review of the performance of 11 established SEA systems in 10 countries globally, using context and methodological evaluation criteria introduced in Chapters 1, 2 and 3. Chapter 5 reviews implementation and transposition of the SEA Directive in the European Union member states. In this context, legislation and guidance documents are listed; in an annex to the chapter, references to emerging Directive-based case studies are also made. Chapter 6 introduces and reviews five spatial/land use SEAs, representing different levels of strategicness, focusing particularly on processes, methods and techniques used. Furthermore, whether perceived SEA benefits have been achieved is discussed. Finally, Chapter 7 draws conclusions and provides for recommendations for the future development of SEA. There are three annexes. Annex 1 presents a table for reviewing the quality of an environmental report, prepared according to SEA Directive requirements. Annex 2 lists emerging SEA case studies in EU member states. Annex 3, finally, is written for instructors, making suggestions for exercise questions.

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During the time of writing this book, Chris, a good friend of mine from Ottawa, was diagnosed with ALS, which is currently considered incurable. Whilst the reasons for the disease are still unknown, there are suspicions that environmental stresses, particularly related to heavy metals, may play an important role. I will donate 20% of the royalties of this book to the ALS Society of Canada (www.als.ca). My thoughts are with him, Leny, Maddie and Sarah at this very difficult time.

Thomas Fischer

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