Environmental Impact Assessment Handbook

Environmental Impact Assessment Handbook

A practical guide for planners, developers
and communities

Third edition

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Foreword to the first edition (2002)

Since its birth in the United States just over 30 years ago, a huge literature on environmental impact assessment (EIA), both within the UK and the rest of the world, has been spawned. As one who has contributed his fair share to this, I can confidently say that this practical handbook is unique. It is not academic, as so much of the literature tends to be (*mea culpa*), yet it is likely to prove very useful not only to students but also to academics seeking to familiarise themselves with a new field. It is not procedural, yet it explains how the EIA process works and refers the reader gently to the appropriate chapter and verse. It is not theoretical, but it describes many of the approaches and methods used in EIA. It is not an activist's charter, yet it provides the ammunition to challenge an environmental statement. Rather, it is an approachable and practical handbook, with numerous illustrated explanations and examples, written from the practitioner's perspective.

Over the dozen or so years we have had EIA in the UK, it has become part of our everyday life. It is increasingly common to hear on the news that the results of an EIA have revealed that some impact or other is likely to be problematic or that protesters have demanded an EIA before a development is allowed to proceed. The concept of environmental assessment is expanding from the evaluation of projects to the environmental appraisal of plans and policies. We all need an accessible, practical explanation of EIA, whether we are developers, consultants, central or local authority officers, environmental regulators, environmental activists, local residents, students or academics. This practical handbook is it!

Christopher Wood

EIA Centre, School of Planning and Landscape, University of Manchester, 2002

Foreword to the second edition (2009)

Since this book was first published in 2002, the world of environmental impact assessment (EIA) has continued to move forward and adapt to meet the current needs of decision-makers. Changing demands have brought forward new demands for the incorporation of climate change, health impact assessment, social deprivation, sustainable development, technology assessment and the greater demonstration of how consideration of environmental aspects has influenced final designs and development structures. This process has not been made any easier for the practitioner by increasing legal and public challenge and the negative stance to EIA adopted by the Barker Review amongst others. Finally, EIA practitioners now have to ride two horses, with the statutory introduction of strategic environmental assessment (SEA) demanding the application of new skill sets and mental gymnastics by those who attempt to operate in both fields of specialism. All this plus corporate governance, liability insurance and public participation!

The original book quickly earned its place in the bookcase of non-specialist and students alike and was soon reprinted to meet demand. It was especially well received by engineers and planners as well as EIA practitioners. From experience, in my work as the manager of the Environment Agency's National Environmental Assessment Service we have found it useful for training purposes and for the insight many of its sections bring to key areas of practice.

However, with more experience, legislation and the sheer complexity of some EIA demands, it became apparent that an update was necessary. This new edition builds on the format and information of the first, updating broad legislative principles and including a new section on SEA, of which the authors have considerable practical experience.

It is this translation of practical experience into an easy to read and follow style that made the first edition so well received, and I welcome its successor!

Ross Marshall

Manager, National Environmental Assessment Service, Environment Agency

Foreword to this edition

Environmental impact assessment (EIA) has been with us for nearly half a century, and there can be no doubt that it has come a long way since its original inception through the 1969/1970 US National Environmental Policy Act. Virtually all countries globally now have some formal EIA requirements in place. Despite a substantial amount of criticism over the years, EIA has stayed with us and has matured, even if remaining unpopular with some, including, on the one hand, developers who think it's too expensive and, on the other, environmentalists who claim it's ineffective in stopping environmentally harmful projects. It's probably this peculiar position of being 'caught in the middle' that has made it resilient. Also, all attempts to develop alternative tools to EIA have resulted in propositions that look remarkably similar to what we already have, suggesting that at the very heart, there is nothing wrong with its underlying approach.

This is the third edition of the *EIA Handbook*, which is now coming of age. It is fitting at a time of fundamental – economic, social and environmental – change. An important question arising is how a decision support tool based on instrumental rationality can survive the current post-truth era in which it is not evidence that appears to sway people's opinions but rather beliefs. On the one hand, it's by providing evidence for its effectiveness. On the other, it's by offering hands-on and – as far as possible – simple advice for how to do it. It is here where the *EIA Handbook* is at its best and indispensable, providing clear and easy to understand instructions. In nearly 18 years, the *EIA Handbook* has become one of the few definitive books in the UK for practitioners (engineers, planners and others) as well as for students. This revision ensures it will continue to be in this position for some time to come.

Professor Thomas B. Fischer

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School of Environmental Sciences, University of Liverpool, UK

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Preface

About this practical handbook

The aim of this handbook is to provide practical guidance on environmental impact assessment (EIA). EIA is a systematic procedure for ensuring that the likely significant effects of new development on the environment are taken into account in deciding whether the proposed project should go ahead or not. EIA is explained here in accordance with the requirements and format of the UK Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017/571) as amended (the EIA Regulations). The assessment of effects on the environment, the production of the environmental statement (ES) to present these findings, and the consenting authority's consultation, examination and consent decision, all make up the EIA process.

This third edition provides a complete review and renewal of the text building on the practical purpose of the handbook, while placing greater emphasis on details about the core steps in the screening, scoping, assessment, ES write-up, and post-submission consultation and examination than the previous editions. It also includes a new separate chapter on how EIA can be effectively linked with many other processes and assessments that have emerged since the UK's EIA Regulations were introduced back in 1988.

This guidance is written for planners, designers and developers who need sufficient introduction to EIA to know what needs to be prepared by whom and by when. It will also be useful for project managers, students and community groups. The handbook approach has been designed based on good practice, making its guidance readily useful as a reference for EIA practitioners and environmental specialists.

The objectives of the *EIA Handbook*

- To present the requirements of EIA according to the UK EIA Regulations in a readily usable and practical way.

Legislation and guidance is generally given for England. The relevant legislation and guidance for Wales, Scotland, Northern Ireland or other countries should always be consulted.

- To inspire and share experience towards good EIA practice by a practical handbook format illustrated with advice, reference to further information, practice principles and case studies.
- To inform and guide the use of EIA early and effectively in the development design and land use planning processes.
- To demonstrate the advantages of effective and proportionate EIA practice, including linkages to other processes, to facilitate better-informed planning decisions.

Who the *EIA Handbook* is written for

- Planners of local authorities who need to advise on the requirements for EIA and receive planning applications accompanied by ESs. It will also be useful for other officers dealing with conservation, transport and environmental health issues who will be consulted on such planning applications.
- Professionals regulating projects subject to legislation other than spatial and development control planning.
- Developers who need to understand EIA prior to early discussions with local authorities and appointment of specialist consultants.
- Designers, architects, engineers, surveyors, planners and other professionals working as project managers on development proposals who need to understand why, when and how to include EIA in their projects.
- Environmental topic specialists, as an easy reference and to understand the requirements of other specialisms and the context within the EIA process.
- The statutory consultees in the EIA and spatial and development control planning processes who need to understand their role.

-
- The community sector, which could make use of this guide to assist its understanding of, and participation in, EIA and the development planning process.
 - Students of environmental and sustainability courses as well as those students on engineering, architecture, planning and related courses who study EIA as a core or subsidiary subject.
 - Users primarily in the UK; however, the principles and practice have world-wide applications.

Acknowledgements

As we acknowledged in the first and second editions of this handbook, in a book of this nature, based as it is on practical experience, gratitude is owed to a wide range of people whose approach and decisions have guided environmental impact assessments (EIAs) in particular directions. These include clients, developers, academics, planning authority officers, regulators and practitioners – especially those that have poured time and effort into volunteering to improve EIA through the Institute of Environmental Management and Assessment (IEMA) and other institutes over the years. To all of them we would like to express our thanks for contributing to what continues to be an inspiring and challenging field . . . we are all still learning.

For this third edition of the handbook, specific support in drafting particular sections and reviewing content have been made by the following

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- **climate change** – Joanna Wright (LUC)
- **cultural heritage** – Robert Sutton (Cotswold Archaeology)
- **landscape and visual impact** – Julian Francis (Environment Agency)
- **noise** – Graham Parry (ACCON UK)
- **material assets** – Steve Pearce and Nigel Pilkington (AECOM), with initial input from David Smith (AECOM)
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- **major accidents and disasters** – B. Emberton (Arup).

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Abbreviations

AA	appropriate assessment
ALC	Agricultural Land Classification
AONB	Area of Outstanding Natural Beauty
AQMA	Air Quality Management Area
BEIS	Department for Business, Energy and Industrial Strategy
BMV	best and most versatile
BNG	biodiversity net gain
BREEAM	Building Research Establishment Environmental Assessment Methodology
BS	British Standard
BSSS	British Society of Soil Science
CEA	cumulative effects assessment
CEEQUAL	Civil Engineering Environmental Quality Assessment
CIEEM	Chartered Institute for Ecology and Environmental Management
CifA	Chartered Institute for Archaeologists
CJEU	European Court of Justice
DAERA	Department of Agriculture, Environment and Rural Affairs (Northern Ireland)
DCO	development consent order
Defra	Department for Environment, Food and Rural Affairs
DMRB	<i>Design Manual for Roads and Bridges</i>
EcIA	ecological impact assessment
EIA	environmental impact assessment
ELC	European Landscape Convention
EMP	environmental management plan
ES	environmental statement
ESIA	environmental and social impact assessment
FCS	Forestry Commission Scotland
GHG	greenhouse gas
GLVIA3	<i>Guidelines for Landscape and Visual Impact Assessment</i> , 3rd edition
HRA	Habitats Regulation assessment
IAP2	International Association for Public Participation
IAQM	Institute of Air Quality Management
IEMA	Institute of Environmental Management and Assessment
ISO	International Standards Organization
LCA	landscape character assessment
LLFA	lead local flood authority
LOAEL	lowest observed adverse effect level
LPA	local planning authority
LSE	likely significant effect
LVIA	landscape and visual impact assessment
MHCLG	Ministry of Housing, Communities and Local Government
MMO	Marine Management Organisation
NCC	Natural Capital Committee
NGO	non-governmental organisation
NPPF	National Planning Policy Framework
NPS	national policy statement
NSIPs	Nationally Significant Infrastructure Projects
NTS	non-technical summary
PCP Act	Planning and Compulsory Purchase Act
PEA	preliminary ecological appraisal
PINS	Planning Inspectorate
RBMP	river basin management plan
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SEA	strategic environmental assessment
SOAEL	significant observed adverse effect level
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest

TA	transport assessment
TCP	Town and Country Planning
TS	transport statement
TWA	Transport Works Act 1992 (as amended)
TWAO	Transport and Works Act order
UN	United Nations
UNECE	United Nations Economic Commission for Europe
VEC	valued ecosystem(/environmental) component
WFD	Water Framework Directive
WHO	World Health Organization
WRAP	Waste Resource Action Programme
ZTV	zone of theoretical visibility