

# Integrated Environmental Assessment

## *Training Manual*



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UNEP promotes environmentally sound practices globally and in its own activities. This publication is printed on paper from sustainable forests including recycled fibre. The paper is chlorine free, and the inks vegetable-based. Our distribution policy aims to reduce UNEP's carbon footprint.

This booklet summarises the contents of the *IEA Training Manual: A Training Manual on Integrated Environmental Assessment and Reporting*, developed through a collaborative initiative among the United Nations Environment Programme (UNEP), the International Institute for Sustainable Development (IISD) and more than 40 experts from around the world.

In order to emphasise the generic applicability of the methodology at the global, regional, national, ecosystem and local levels, the original title, *GEO Resource Book*, has been changed to *IEA Training Manual*.

The manual consists of two volumes. Volume 1 includes eight core methodological modules, while Volume 2 currently includes one thematic module, as follows:

#### VOLUME 1: Core methodological modules

- Module 1: The GEO approach to integrated environmental assessment
- Module 2: National IEA process design and organisation
- Module 3: Developing an impact strategy for your IEA
- Module 4: Monitoring, data and indicators
- Module 5: Integrated analysis of environmental trends and policies
- Module 6: Scenario development and analysis
- Module 7: Creating communication outputs from the assessment
- Module 8: Improving the IEA process and increasing impact through monitoring, evaluation and learning

#### VOLUME 2: Thematic modules

- Module VIA: Vulnerability and Impact assessment for Adaptation to Climate Change

*IEA Training Manual: A Training Manual on Integrated Environmental Assessment and Reporting* can be downloaded from [www.unep.org/ieacp](http://www.unep.org/ieacp) or [www.iisd.org/measure](http://www.iisd.org/measure).

Keeping to the original idea of a continuously evolving capacity-development approach and materials, the *IEA Training Manual* is distributed only in electronic form. It can be accessed at [www.unep.org/ieacp](http://www.unep.org/ieacp) or <http://hqweb.unep.org/ieacp>. Hard copies are printed on demand for specific workshops. This summary booklet is available through UNEP in hard copy, or can be downloaded from the same website. UNEP is proceeding with the translation of the manual into all six official UN languages (Arabic, Chinese, English, French, Russian and Spanish) and the development of regionally customised versions.



# Acknowledgements

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# IEA Training Manual: A Training Manual on Integrated Environmental Assessment and Reporting

## The need for an IEA training manual

The need to build environmental considerations into decision-making, a central theme in *Our Common Future* (commonly known as the Brundtland Report), is no longer a bold proposition, but a basic necessity.<sup>1</sup> Without the ability to monitor and assess changing environmental trends and their interactions with human development, navigating the sea of global change would be reduced to reactive crisis management—hardly an effective way to tackle policy issues with such profound relevance for the planet.

Brundtland called not only for attention to the interactions between environment and development but also for the need to consider the interests of future generations. This requires an ongoing effort to substantially strengthen our capacity to assess the range of possible futures and to create policies that take this knowledge into account. Addressing these needs is at the heart of this training manual.

The purpose of the *IEA Training Manual* is to help build capacity for forward-looking integrated environmental assessment (IEA) and reporting at the subglobal level. Users of the *IEA Training Manual* will:

- Understand the rationale for undertaking forward-looking, integrated environmental assessment (IEA) using the Global Environment Outlook (GEO) approach of the United Nations Environment Programme (UNEP).
- Understand the importance of a mandate for an IEA, its participatory process and options for its governance structure, and be able to construct an impact strategy.
- Be familiar with the conceptual and methodological aspects of carrying out the assessment, including the analysis of environmental trends and policies and the study of policy options in the context of future scenarios.
- Be capable of organising the process for producing physical and electronic outputs from the IEA.
- Have the knowledge and skills to set up a monitoring and evaluation process focused on the IEA itself as part of a continuous learning process to improve the assessment.

For the purposes of this publication we defined *integrated environmental assessment* as “the process of producing and communicating future-oriented, policy-relevant information on key interactions between the natural environment and human society.” The methodology underlying IEA has been pioneered and championed by the Global Environment Outlook (GEO), UNEP’s flagship assessment and reporting process on the status and direction of the global environment. GEO is a consultative, participatory, capacity-building process as well as a series of reports analysing environmental change, causes and impacts, and policy responses, providing information for decision-making at global and subglobal levels. The GEO series aims to keep the state of the world’s environment under review, identify emerging issues that require international attention and provide options for policy-making and action planning.

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1 World Commission on Environment and Development. (1987). *Our common future*. Oxford: Oxford University Press.

Since the publication of the first global report in 1996, the GEO approach has been adopted by an increasing number of organisations at the regional, national and subnational level. The *IEA Training Manual* draws on the growing body of experience gained through these initiatives.

Capacity building has been a key element of the GEO process, and training activities carried out by UNEP and its partners since the late nineties contributed to the wider adoption of IEA methods. In 2000 UNEP and IISD, a UNEP Collaborating Centre, jointly published a training manual that served as the basis for many training activities and for developing other regionalised training curricula.<sup>2</sup>

The need for updating the earlier IEA training manual became obvious for a number of reasons, including the evolution of the GEO methods, the need for more detailed and more easily customisable information on the environment and its interaction with human well-being, and the need to increase the effectiveness of capacity building. A 2004 meeting of the GEO Capacity Building Working Group discussed the criteria for more effective capacity-building efforts, shown in Box 1, and these criteria, along with additional guidance from UNEP and the GEO Capacity Building Working Group, inspired the development of the *IEA Training Manual*.

**Box 1: Criteria for improving the effectiveness of IEA capacity building, as identified at the March 2004 meeting of the GEO Capacity Building Working Group in Geneva, Switzerland.**

1. **Improve coordination.** Identify, monitor and, where possible, improve coordination and cooperation with similar capacity-building initiatives, including other initiatives of UNEP.
2. **Utilise existing capacity.** Identify and improve the utilisation of capacity that exists in current partner organisations and the GEO network.
3. **Promote innovation and diversity.** Embrace the diversity of capacity-building and training approaches to assessment and reporting while maintaining the coherence and integrity of the GEO approach.
4. **Introduce innovative tools and methods.** Increase the effectiveness of capacity building by introducing novel tools and innovative, experiential and participatory training methods successfully used by partner organisations.
5. **Promote multi-level engagement.** Increase sustainability of impact by engaging capacity-building audiences on both an individual as well as an organisational level.
6. **Link capacity building to actual assessment and reporting.** Search for and create opportunities to connect capacity building and the actual production of GEO-compatible assessments and reports.
7. **Provide incentives.** Provide incentives to eligible organisations and experts where possible and warranted to maintain their interest in GEO assessment and reporting beyond training.
8. **Strengthen capacity to effectively communicate assessments.** Ensure capacity building strengthens the ability to design and implement communication strategies.
9. **Improve monitoring, evaluation and learning.** Ensure methods and mechanisms are in place to monitor, measure and, as required, report on the short- and long-term impacts of capacity-building efforts.

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2 Pintér, L., Zahedi, K., & Cressman, D. (2000). *Capacity building for integrated environmental assessment and reporting. Training manual*. Winnipeg: IISD for UNEP. Retrieved from [http://www.iisd.org/pdf/geo\\_manual\\_2.pdf](http://www.iisd.org/pdf/geo_manual_2.pdf)

Capacity is multi-dimensional, particularly in an area as complex as an IEA, which requires a multi-pronged approach. This may include a training component (face-to-face, distance learning, training-by-doing), but also may include additional measures such as staff exchanges, technical support or providing easy access to data. Therefore, the *IEA Training Manual* has to be seen in a broader context, as a key—but not the only—element in UNEP’s IEA capacity-building efforts.

Capacity development accompanying the IEA process comes in the form of a well-developed training package, which includes:

- The *IEA Training Manual*, to help build capacity for IEA and reporting at the subglobal level (available in all six UN official languages).
- IEA Community Platform, a web-based tool for access to and sharing of resources on IEA, developed through the GEO/IEA process and other related assessment processes at subglobal levels.
- Development of an e-learning version of the *IEA Training Manual* that responds to the need to increase the reach and effectiveness of existing and future training materials (available at <http://moodle.iisd.org>).
- IEA Trainers’ Database, which includes all IEA-certified trainers who support the delivery of the IEA training package.

## The audience

The target audience for the *IEA Training Manual* includes facilitators who construct IEA training curricula and, ultimately, the participants in capacity-building programs. The latter include primarily mid-level leaders and practitioners in public agencies, with overall responsibility for initiating and managing assessment and reporting processes. They may work on different scales, from national governments to states and provinces, municipalities or ecoregions. Many of them would have prior assessment or state-of-the environment reporting experience. Based on experience with previous training endeavours, IEA practitioners may also include representatives of non-governmental organisations, academics, students, media and experts from the private sector.

While a variety of technical specialists have a key role to play in IEAs, the *IEA Training Manual*, even with its extended content, provides only introductory coverage of some methods that would require extensive academic training. The emphasis is on the IEA system as a whole and on helping participants realise when and where to bring in specialist knowledge for maximum effect.

## Contents

The *IEA Training Manual* builds on elements of the earlier IEA training manual, other teaching resources and experience with previous IEA initiatives, but there are also several significant differences.

Content is organised into nine modules, as shown in Box 2. A modular design was chosen because capacity-building needs vary, and often it is necessary and more effective to concentrate efforts on one or a few topics rather than on the entire IEA package. The intention is to provide maximum flexibility to audiences and facilitators in deciding what content is most relevant. The *IEA Training Manual* is the IEA “source code” that can be freely used as a library of ideas and materials that, over time, can evolve and integrate new concepts and ideas that arise either from GEO or from the many other assessments that will be undertaken in the future at the global or subglobal level.



**VOLUME 1:** Core methodological modules

Module 1: The GEO approach to integrated environmental assessment

Module 2: National IEA process design and organisation

Module 3: Developing an impact strategy for your IEA

Module 4: Monitoring, data and indicators

Module 5: Integrated analysis of environmental trends and policies

Module 6: Scenario development and analysis

Module 7: Creating communication outputs from the assessment

Module 8: Improving the IEA process and increasing impact through monitoring, evaluation and learning

**VOLUME 2:** Thematic module

Module A: Vulnerability and Impact assessment for Adaptation to Climate Change (VIA)

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The modules take participants through the IEA process, essentially treating IEA as an *institution* that organisations in charge of assessment and reporting processes need to build. This will take the reader through questions related to setting up a process and securing the mandate to build an impact strategy, carry out the actual assessment, prepare information products and close the loop by reflecting on lessons learned throughout the process.

Thematic modules that will provide guidance for IEAs focused on a particular scale, sector or issue are being developed and will represent Volume 2 of the training manual. The first currently available thematic module is focused on vulnerability assessment and adaptation to climate change. This module is based on the IEA methodology and integrates the perspectives of vulnerability and impact assessments to explore adaptation responses.

Each module is accompanied by a set of PowerPoint slides on a CD, along with sample agendas that are intended to help course designers construct and run sessions of an

overview or comprehensive nature, or somewhere in-between. Course designers are encouraged to modify and enrich the slide decks with regional case studies and other, more locally relevant information.

## Course design and delivery

Generally, a course based on the entire *IEA Training Manual* will *not* be offered (that is, all

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