Integrated Environmental Assessment

Training Manual for the Arab Region

Module 2
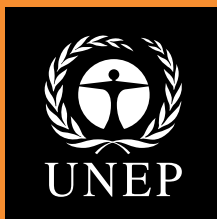
National IEA Process Design and Organization

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Module

2

Table of Contents

List of Acronyms

CC	Collaborating Centre
DPR Korea	Democratic Peoples Republic of Korea
GEO	Global Environment Outlook
IEA	Integrated Environmental Assessment
NCC	National Collaborating Centre
NGO	Non-Governmental Organization
UNEP	United Nations Environment Programme
UNEP RRC.AP	United Nations Environment Programme, Regional Resource Centre for Asia-Pacific
TERI	Tata Energy Research Institute
TEI	Thailand Environment Institute
SoE	State of the Environment
SWOT	Strengths, Weaknesses, Opportunities, Threats

Overview

Reporting on environmental trends and their interactions with economic and social development is becoming mandatory for many governments and organizations around the world. Assessments and reporting can increase the accountability of decision making and help answer important questions about development and the environment, such as: How effective is our environmental performance? How is it related to current policies? What are the policy options? These are challenging questions that need an integrated approach based on the best scientific knowledge and technical capabilities available.[1]

Integrated environmental assessment (IEA) is a way of analyzing and communicating environment-society interactions.[2] A national IEA is complex and dynamic, and requires careful planning.

This module on the design and organization of a national IEA process is based on UNEP's GEO approach to IEA. The module provides an overview of why the process is important, how it is established and governed, who would participate and in what role. It gives advice on the allocation of resources, and explains the stages involved in setting up and implementing a GEO-based IEA process. It will give you a better understanding of the role and structure of the process, and your role in participating or managing it. This module also explains how other modules in this resource book fit into the IEA process.

This module will be useful not only for national IEA managers, but also for professionals in private or public sectors that are responsible for conducting environmental assessments in an integrated and participatory manner.

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1. Pintér, L., K. Zahedi and D. Cressman. (1998). *Capacity Building for Environmental Assessment and Reporting (IEAR)*. Winnipeg, MB: IISD for UNEP. www.iisd.org/measure/capacity/iear.asp.

2. For more details regarding GEO and the Integrated Environmental Assessment, review modules 1 and 5.

The module concentrates on the following aspects of the IEA process:

■ Securing institutional commitment for an IEA;

■ Identification of stakeholders and defining their roles;

■ Instruments for conducting the process;

■ Allocation of required resources (time, human, financial); and

■ Interactive process design and its benefits.

A key feature of the GEO approach is the participation and interaction of different experts and stakeholders. This module explains how to identify relevant stakeholders and their roles. It shows approaches to using a participatory process, which could also enhance the capacities of the stakeholders to lead similar processes elsewhere.

Through a participatory process, IEA promotes a better use of existing capacities and information at the national level, which reduces the amount of effort allotted for the IEA and financial costs.

Given its interactive process,[3] an IEA helps to capitalize on the experience of assessment practitioners and facilitate information exchange.

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3. *Interactive process* stands for a process that stimulates the exchange of ideas, consider different points of view based on scientific and empirical evidence, that generates a value added knowledge and enrich the analysis.

Notes

Course Materials

1 Introduction and learning objectives

A successful integrated environmental assessment at the national level requires good advance planning. This starts with understanding the role, design and organization of the process, as well as identification of the main steps and activities needed to achieve the IEA's goals.

This module provides guidance on how to encourage participation of different sectors through the entire process. However, activities related to each stage of the IEA may be undertaken with relative independence, depending on what best suits the political and institutional situation in your country. After successfully completing this module, you will have developed the capacity to conceptualize, participate in and manage the design and organization of an IEA process. You will be able to:

- Understand the main stages of the IEA process;

- Understand the institutional arrangements to be developed;

- Learn to lead an IEA process in an interactive and participatory way;

- Identify the main activities and procedures for preparing IEA reports and promoting their findings to achieve maximum impact; and

- Be aware of and able to manage challenges of running the process while involving the public.

In order to achieve this competence and these capacities, the module incorporates three interactive training elements: case examples, discussion questions and exercises. The module is organized in three main sections, of which this introduction is the first. The second section explains the main contributions of the IEA process in terms of capacity building and network development. The third section presents in detail the organization and design of the national IEA process, explaining each stage of the process from start-up and institutional framework through the final steps for reporting and follow-up.

2 IEA process features

IEAs are designed to generate information on the status and dynamics of the environment and its interaction with human well-being. They are typically known first and foremost for their products: reports, websites or databases. However, in order to produce such information and expect it to have both high levels of scientific credibility and policy relevance, an IEA also must have a well-planned and well-managed process.

The ultimate success of an IEA process depends on who is in charge of and who participates in the process, in what specific role, how the process is structured, and how it allows for flexibility to adapt to local cultural, administrative, legal and other conditions.

The design of IEA processes can learn from the experience of UNEP's global GEO program, its regional sub-assessments, and the growing number of national and sub-national IEA efforts. Based on this experience, we have identified key IEA process attributes that can help guide planning of new initiatives at the national and sub-national levels.

■ **Participatory.** This means that different stakeholders are involved in an interactive process that promotes knowledge and information exchange, and makes clear their position and interests on issues. Engaging participation helps identify IEA issues that truly matter, strengthens the analysis of the observed change, and builds ownership of the IEA's findings among audiences who are supposed to follow up with action.

■ **Multidisciplinary and multisectoral.** IEA is *multidisciplinary* because the analysis takes into account different branches of science in such a way that the process of discussion, construction and analysis from different disciplines enriches the assessment. It is multisectoral because environmental issues have many economic and social inter-linkages, so participation of different sectors (public and private) is necessary to carry out a sound assessment as well as to ensure that results of the assessment lead to articulate responses and actions from different sectors.

■ **Integrated.** In the IEA designation, integrated refers to a number of aspects of the assessment:

1. Linking state of the environment analysis with policy analysis;

2. Incorporating global and sub-global perspectives;

3. Incorporating historical and future perspectives;

4. Covering a broad spectrum of issues and policies; and

5. Looking at dynamic and complex interactions between the environment and human well-being in place-based contexts (e.g., particular countries, ecosystems, cities, regions, watersheds).[4]

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4. See Module 1 for details

■ **Multi-product.** IEAs typically generate a family of products targeting a wide audience. The products range from simple posters through fact sheets, data compendia to comprehensive IEA reports and executive summaries.

■ **Institutionalized.** IEA involves assessing and reporting on the environment and its interaction with human well-being as an integral part of sustainable development. IEA needs to be built with a long-term perspective in mind where assessment is cyclical, and where periodic products and continuous interaction among participants in policy and science communities and other elements of the public are part of the process.

IEAs are instruments for social learning where society at various levels builds knowledge about human interactions with the environment, and the resultant risks and impacts, and in the process builds capacity to better adapt to the challenges ahead. Along the process, the IEA contributes to a better understanding of the links between environment and development, strengthening the capabilities of participants to identify upcoming issues, to evaluate alternative options for action, to agree on common goals, to promote informed decisions by policy-makers, and to set future national environmental agendas. So, an IEA is an instrument for advancing the development of public policy incorporating stakeholder participation.

The IEA process is made up of a number of activities including:

■ *Establish an institutional framework for collaboration and organization of the IEA.*
Identify and enter into formal or informal cooperative agreements with different organizations with interest, capacity and/or mandate concerning the environment. Discuss and agree on objectives and roles to be adopted in the production of your IEA outputs.

■ *Establish and maintain an information base (i.e., set up information system, gather and update the required data).* The information-gathering process during the assessment provides an opportunity to analyze the quality and usefulness of information provided by monitoring systems. It is also an opportunity for improving data sharing and harmonisation mechanisms. Also, during this activity, it is possible to identify new themes and information needs, as well as data gaps. This step further allows identification of indicators of key environmental issues.

■ *Discussion forum.* An IEA represents an opportunity for discussions on topics such as common assessment methodologies, trends of the driving forces, pressures, and key environmental issues, policies, policy options and scenarios. These discussions may involve the public, private sectors and decision makers. Also, this provides an opportunity to analyze environmental policy and practice with involvement of different stakeholders.

■ *Capacity-building.* The IEA plays a capacity building role in two ways. First, the IEA process emphasizes a learning by doing approach based on interactive workshops and other non-workshop based

interactions such as distance learning, Internet fora or technical and scientific collaboration. Second, the IEA can help identify capacity building needs and address them through targeted action, such as training, staff exchanges, the provision of data and technical equipment or through other means.

■   *Define and implement a communication and impact strategy.* From the beginning of the process, it is necessary to understand who your various audiences are, so you can establish an efficient and effective communication and impact strategy. Strategies should include implementation plans as well as evaluation measures.

Discussion Questions

1.   Identify the main organizations that use an integrated approach to lead participatory processes focused on environment-development interactions in your country. Explain briefly the main activities that were/are involved.

Organization Activities

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2.   What key initiatives are ongoing in your country that could be strengthened by the IEA?

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3.   What opportunities do you see in your country to help drive the IEA process?

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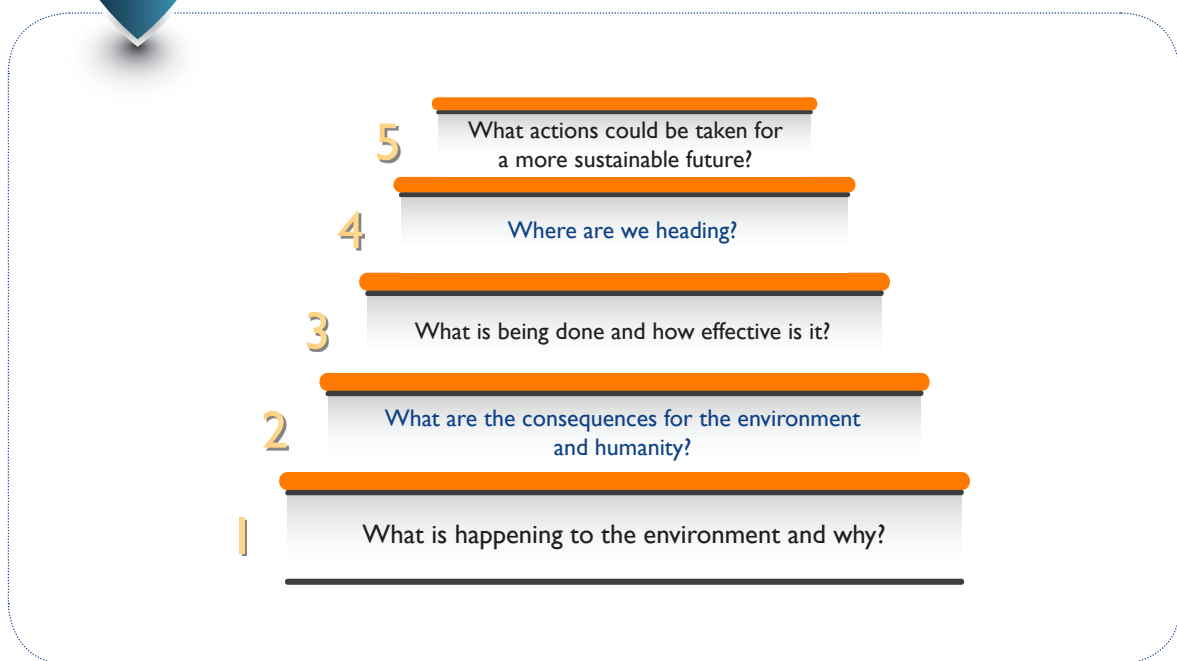
3 Overview of the IEA process

This section provides a general overview of the IEA process, identifying its main components and the relationships among them. It will help you to understand how the process can be structured in order to provide an answer to key questions in an IEA report (Figure 1). These are further explained in Modules 5 and 6.

Figure 1   Schematic view of key questions to be answered by the IEA

5 — What actions could be taken for a more sustainable future?

4 — Where are we heading?

3 — What is being done and how effective is it?

2 — What are the consequences for the environment and humanity?

1 — What is happening to the environment and why?

3.1 Objectives and importance

Because the goals of IEAs are broad and ambitious, they require a learning approach at both the individual and the organizational level. Learning emerges in the process of interaction with others who are designing the assessment, gathering and interpreting data, and considering complex environment-human well-being interactions from an integrated perspective. Interaction is critical because individuals representing different disciplines, organizations, or social interests will have different views on the environment and economy. Through the IEA process, they make important contributions, strengthen their understanding of issues, and build ownership of results, all of which are key preconditions for subsequent action.

The objectives of the process are the following:

■ Bring together relevant organizations and individuals with interests in IEA and potential for significant contribution, some of whom may not otherwise have a history of collaboration;

■ Involve policy-makers in order to secure their support for the process and its key findings; and

■ Facilitate the process of interaction based on a common methodology, fostering the dialogue between science and policy.

The IEA process is important because it provides an opportunity for policy-makers to have close contact with various experts and stakeholders to discuss key environmental issues from an integrated perspective, to develop a better understanding of their points of view and define together an agenda for action. The IEA promotes learning from experts and organizations based on their interaction as they proceed with the assessment (Box 1).

The IEA also provides an opportunity to discuss possible environmental futures, identifying emerging issues and analysing scenarios.

The principal output of the process is the main IEA report. As explained in Modules 3 and 7, its audience is typically broad, including decision makers in the private and public sectors, scientists and resource managers, the general public, youth and community groups, and the education community. Therefore, the IEA main reports need to be non-academic, but sub-products may be needed to target specific audiences.

BOX 1   **Three major reasons to produce a National Integrated Environmental Assessment Report**

■ To improve knowledge on the state of its environment and how that state changes over time, in order to better assess results of past actions and to contribute to the development and harmonization of environmental and other related policies.

■ To more fully integrate environmental considerations into decision making about sustainable development.

■ To improve public information on the state of the country's environment through wider stakeholder participation.

Source: UNEP (2004). *Guidelines for National Integrated Environmental Assessment Report in Africa.* Final draft.

BOX 2   AGENDA 21: Information for decision making

"In sustainable development, everyone is a user and provider of information considered in the broad sense. That includes data, information, appropriately packaged experience and knowledge. The need for information arises at all levels, from that of senior decision-makers at the national and international levels to the grass-roots and individual levels".

Source: UN Department of Economic and Social Affairs. Division for Sustainable Development. *Agenda 21*. Chapter 40.

3.2 Basic conditions for initiating an IEA process

Because the IEA process involves a range of complex activities and promotes active engagement of government, the academic community, scientists, NGOs and the private sector, a series of basic conditions need to be in place in order to make sure the process can be properly managed.

One key element is political will and commitment of the national environmental authority or equivalent to support the IEA process. A legal mandate and requirement to produce an IEA helps, as it may oblige government to support a meaningful assessment and create a basis for accountability in the political system. The mandate should be clearly laid out in the context of laws and regulations.

Some key issues in such a legal mandate include the following:

■   Legislation may call for collaboration among government agencies that contribute to the IEA;

■   A common methodology for data collection may be identified among the national authority, private and public organizations, and scientists or technical experts;

■   The legislation may refer to environmental reports to be produced by a range of public and private organizations; and

■   Legislation may promote exchange of data and harmonization of reporting initiatives;

■   The lead agency's role in preparing the way for consultations and external participation.

The following three boxes (3 , 4 and 5) show examples of legal mandates countries have for preparing environmental assessments and reports.

BOX 3   The Egyptian mandate case

Article 5 of chapter 2 of Law number 4 of 1994 concerning environmental protection, amended by law number 9 of 2009, stated that for the fulfillment of Environment Agency objects, the Agency may conduct, among others, a number of activities including:

■   ''Gather national and international information on the environmental situation and the changes affecting it on a periodical basis in cooperation with the information centres of other agencies, publish such information and evaluate and utilize it in environmental management and planning.''

■   Participate in the preparation and implementation of the national programme for environmental monitoring and make use of the data provided thereby.

■   ''Compile and publish periodic reports on the main environmental indicators.''

■   ''Prepare an annual report on the environmental situation to be submitted to the President of the Republic and the Cabinet, a copy of which shall be deposited at the People's Assembly.''

Source: Law Number 4 of 1994 Promulgating The Environment Law, Presidential Decree, EGYPT
http://www.eeaa.gov.eg/english/law4.doc
http://www.eeaa.gov.eg/english/law4_arb.doc

BOX 4   Lebanon case

Article 10 provision 3 and article 17 provision 8 of the environmental protection law No.50 declared in 2002 requiers the General Commission for Environmental Affairs to prepare annually a state of environment report.

Source: Environment protection Law. Ministry of Municipalities and Environment.

BOX 5   Jordan case

Article 4 of Law number 52 of 2006 stated that for the fulfillment of environment protection objectives and the improvement of its various components in a sustainable manner, the ministry, in cooperation and coordination with the relevant authorities, undertakes the following tasks, including paragraph (k) concerning the issuance of publications relating to the environment. The Ministry is considered the competent authority in charge of issuing reports on the state of the environment in the Kingdom.

Source: Law No. (52) of 2006 (Environmental Protection Act) - Hashemite Kingdom of Jordan

Besides legal mandate, another prerequisite for an effective IEA is adequate management and technical/scientific capacity to lead the process and carry out the assessment. Organizations in charge of the IEA overall should be able to mobilize a wider group of participants, including senior researchers and decision-makers. They should also have on staff experienced officials with the necessary connections and conceptual understanding of the IEA's purpose and process.

3.3 General Structure of the IEA Process

Establishing an IEA process requires careful advance planning. The various stages of the process creates a structure around which activities and participation can be organized, capacities built, resources and time allocated, and release of outputs scheduled.

Details of the process may change place by place, and they may need to be modified as the IEA proceeds in order to adapt to how events unfold. However, based on the practical experience of previous GEO style reports and other assessments, we can outline elements of a generic process with key elements that one way or another need to be considered in such an assessment.

Based on this body of experience we can identify seven stages of a generic national IEA process, as well as a set of generic activities and outcomes related to them (Figure 2). Each stage is explained in this module, while details of how to manage specific components of the assessment (e.g., analysis of environmental trends and conditions, policy analysis, data and indicators, and scenario analysis) are explained in other modules in this resource book. The national IEA process followed in the West Asia (Lebanon Case: SoE 2001) (Boxes 6A and 6B) provide an example.

Figure 2 Stages of the National IEA Process

PROCESS MONITORING, EVALUATION AND LEARNING

Stages	Activities	Outputs
Stage 1 Start up	■ Secure mandate from relevant national organizations who will act as core supporters of the process. ■ Identify a local technical team within the lead agency. ■ Develop a basic outline for conceptual framework and process, capacity time and rescues required. ■ Hold start-up meetings to discuss, adjust and finalize the process and institutional arrangements. ■ Secure commitment for resources and in-kind contributions.	MOU`s reviewed conceptual framework.
Stage 2 Institutional Set-up	■ Define roles and responsibilities of the political and technical partners. ■ Establish mechanisms of coordination among partners and collaborating institutions. ■ Define institutional framework. ■ Discuss the elements for the impact strategy. ■ Prepare a stakeholders map.	*MOU`s signed *Institutional framework. *Stakeholders map.
Stage 3 Scope and design	■ Clarify methodological issues. ■ Establish geographic boundary and timescale for producing the report. ■ Identify key environmental issues ■ Draft an outline of the report ■ Identify the target audience ■ Develop the impact strategy ■ Discuss the elements for a communication and outreach strategy	*Design document (including annotated structure of outline). *Impact strategy.
Stage 4 Planning	■ Define the different activities along the process, person in charge and expected outputs ■ Allocate financial and human resources. ■ Review and adjust the impact strategy and define measures of impact ■ Develop a communication and outreach strategy ■ Establish a monitoring and evaluation system.	*Implementation plan. *Adjusted impact strategy. *Communication and outreach strategy.
Stage 5 Implementation	■ Validate priority environment/development issues and their connection according to the GEO framework ■ Identify indicators, date requirements and sources of information ■ Collect, process and analyze information ■ Interact with organizations to discuss preliminary results (workshops) ■ Write the report and adjust drafts ■ Translation and publication (hardcopy, CD, etc)	*Report and complementary results, in different media.
Stage 6 Communication of results & outreach	■ Promote different GEO products and messages ■ Organize interviews with the media ■ Organize presentations for stakeholders	*Report and complementary results in the public domain.
Stage 7 Monitoring evaluation and learning	■ Evaluate the process Extract lessons learned ■ Evaluate the impact of the process in terms of policy making contributions, capacity building and public awareness	*Impact results and recommendations for the future.

As shown on Figure 2, IEA is an ongoing process. It aims to improve decision making, enhance national capacities, and provide systematically collected, analyzed and presented information. Activities and outputs can be identified for every stage, and these, along with expected outcomes, provide a basis for evaluation, learning and improvement. Besides internal learning, the fact that many countries use the IEA approach presents an opportunity for sharing lessons learned across a wide range of initiatives. It is necessary to define expected results at different stages (Figure 2). Technical and political partners will identify lessons learned from the process and thus can improve it. As such, the process is enriched by continuous feedback at the national level, and information is often exchanged with other countries using a GEO approach.

BOX 6A   National IEA process in West Asia

(Lebanon Case: SoE 2001)

One of the key features of the IEA process following the GEO approach is its flexibility. The following description illustrates the process followed in national IEA initiatives supported by UNEP in the West Asia region.

1. The Ministry of Environment contracted ECODIT Liban (a private organization) to assist it in preparing the 2001 State of the Environment Report (SoER).

2. ECODIT suveyed, reviewed available sources of information and identified existing data and information as well as gaps.

3. Preparation and presentation of a methodology.

4. ECODIT and MoE/LEDO (Lebanese Environment and Development Observatory) agreed on the general format of the SoER.

5. Holding a number of internal meetings with the MoE/LEDO Follow-Up Committee and with key MoE employees in various departments, as well as project staff. These meetings helped identify key policies and actions pertinent to major environmental issues.

6. Contacting and meeting with a number of key individuals and organizations, both governmental and non-governmental.

7. Delivering intermediary outputs including a prototype of transport section before drafting the whole report.

8. Finalization of report incorporating expert MoE/LEDO comments.

9. Organizing a workshop/seminar to present the SOER.

10. Publishing and launching of the report.

A report by the Republic of Lebanon Directorate General of Environment for the period 1999-2003 highlighted the Directorate's vision towards environmental challenges and presented an overview of its structure and administrative functions in accordance with the Law of its establishment. The report briefly tackled major results and progress achieved by the Directorate during the above five years in the legislative, administrative, financial, and technical fields, in addition to planning and environmental guidance.

Source: Ministry of Environment/LEDO: Lebanon State of the Environment Report 2001.

BOX 6B

National IEA process in North Africa (Egypt SoE Report 2010, Issued in 2011)

The National IEA report 2010 relied on four major principles:

Principle 1: Transparency

All pressures on Egypt's environment have been presented using the latest data available to MSEA\EEAA in collaboration with all ministries, authorities and research centers.

Principle 2: Participation

Large numbers of experts, researchers and those concerned with the environment participated in developing and reviewing the report. A work group comprising members from the different fields and specializations was formed and several workshops were held for developing the report, identifying its objectives and collecting its data. Regular meetings were also held for reaching an agreement on work methodology and report structure. The report has also been developed with participation from a large group of experts representing the different public and executive sectors, such as line ministries, research institutions, universities, organizations, NGOs, People's and Shura Council members, environmental communication and information professionals, representatives of private sector and

businessmen associations, environment protection associations, women organizations as well as representatives of the Youth sector and all civil organizations in Egypt.. The Ministry, in collaboration with the University of Yale and the University of Columbia, studied Egypt's status in the 2010 Environmental Performance Index and analysed relevant indicators to improve its environmental status in the coming years. In this context, Egypt ranked 85th out 133 countries in 2006, 71st out of 149 countries in 2008, and finally 68th out of 163 countries in 2010.

Principle 3: Scientific Approach

The State of the Environment Report has been prepared in compliance with the internationally recognized global standards. The scientific approach has been applied in writing the report which included all arenas (sources, adverse impacts, environmental indicators, efforts exerted to mitigate adverse impacts, vision and future plans), in addition to global future directives in environmental protection.

Principle 4

The necessity of linking Egypt's international obligations, which were ratified under international environmental conventions that have an impact on the status of the global environment to efforts exerted at the national level to address national environmental issues. Local environmental issues cannot be separated from the global ones since we live in one planet.

3.4 The role of participation in the IEA process

An IEA requires blending knowledge and perspectives from many different points of view. It also aims to influence audiences with different interests and information needs. In order to maximize impact, it is essential to have the participation of a wide range of actors, either as contributors to the assessment, as audiences, or as both, throughout the process (Figure 3).

IEA can and often does provide a forum for continuous dialogue, although the number of actual participants involved in the assessment and reporting often needs to be kept at manageable levels. Participation is important not only because it helps to identify key environmental issues from the different stakeholders' perspectives, but also because it can offer options for addressing those issues. If participation is open and transparent, it is more likely that interests of different stakeholders, including interests of poor, vulnerable groups and women will be recognized and better reflected in the formulation of policy responses.

A basic definition of *stakeholders* includes those:

■ Whose interests are affected by environmental problems, or whose decisions have environmental effects;

■ Who have information, resources or expertise required for policy formulation and strategy implementation; and/or

■ Who control key mechanisms for policy and strategy formulation and implementation.

Potential stakeholders and partners whose support for the whole IEA process is crucial may include the following:

■ Political leaders;

■ Officials of national and regional public offices (such as ministries, institutes, councils, directorates and the military);

■ Local authorities;

■ Political party representatives;

■ Scientific community;

■ Representatives of industry or entrepreneurial associations;

■ Private sector representatives;

■ Professional schools or associations;

■ Academia (universities and research centres);

■ Non-government organizations;

■ Mass media;

■ Youth groups, women groups;

■ Indigenous communities and groups;

■ Civil society organizations;

■ Community and religious groups; and

■ Opinion leaders.

In order to ensure effective participation, it is essential to have sufficient political support, including:

■ Full support for an effective participatory process from the national environmental authority or lead environmental institution;

■ Leadership and organizational support from of the national environmental authority and/or other agencies to support the process; and

■ Explicit commitment as possible to make use of the results, including considering recommendations in policy formulation, budget processes and strategic planning.

You can increase effectiveness of participation throughout the process by paying particular attention to the following:

■ Ensure participation is built into all relevant stages;

■ Establish open communications among technical experts involved in the assessment to clarify uncertainties and verify assumptions;

■ Increase ownership by involving stakeholders from the very beginning, including in the formulation of recommendations;

■ Invite stakeholders to contribute based on their experience, and make sure they can recognize their inputs in the analysis and recommendations;

■ Inform participants that their contribution and participation will be properly recognized in outputs; and

■ Where possible ensure stakeholder inputs are recorded, and that records are made available to contributors.

Running the IEA process as outlined provides:

■ An opportunity to contribute to and have access to the assessment database;

■ Development of analytic skills and capacities, using an integrated approach to environment and development problems; and

■ Opportunity to contribute to addressing major environment and development issues at the policy level.

BOX 7   Stakeholder participation: The GEO Lima and Callao case

Lima and Callao is a large metropolitan area in Peru, South America, which includes the capital of the country, Lima. The GEO Lima and Callao was started in December 2004.

The technical team in charge of preparing the report is the Group of Environmental Initiatives. They defined the following strategy to ensure stakeholder participation throughout the process. Stakeholders received advance material for discussion as well as the methodology

and working tools (e.g., key questions, working tables). A number of techniques were used to engage key people and groups.

■ One-hour presentation of the project to the strategic political partners and the media at a working breakfast.

■ One-day presentation of the project to different stakeholders, from the public to private sector. Participants worked together on the outline, key environmental issues, pressures, indicators and data sources.

■ Four two-hour thematic workshops to discuss preliminary findings with stakeholders.

■ One and one-half day workshop to discuss the first draft of the report. Groups also discussed other components of the report (i.e., responses, emerging issues and scenarios, conclusions and recommendations).

■ E-mail consultation on the second draft, including conclusions and recommendations.

■ Half-day meeting with all the stakeholders and policy-makers to revise conclusions and recommendations.

■ Targeted interviews with specific stakeholders during the process.

Source: UNEP-CONAM-GEA Group-Municipalities of Lima and Callao (2005).
GEO Lima and Callao process.

Discussion Questions
Procedure

■ First try to answer the following questions individually, then convene small groups representing the private and public sectors and share individual answers.

■ The group should describe the main contributions they can make to, and the benefits they expect from the IEA process.

1. What benefits do you expect to get from your participation in the IEA process?
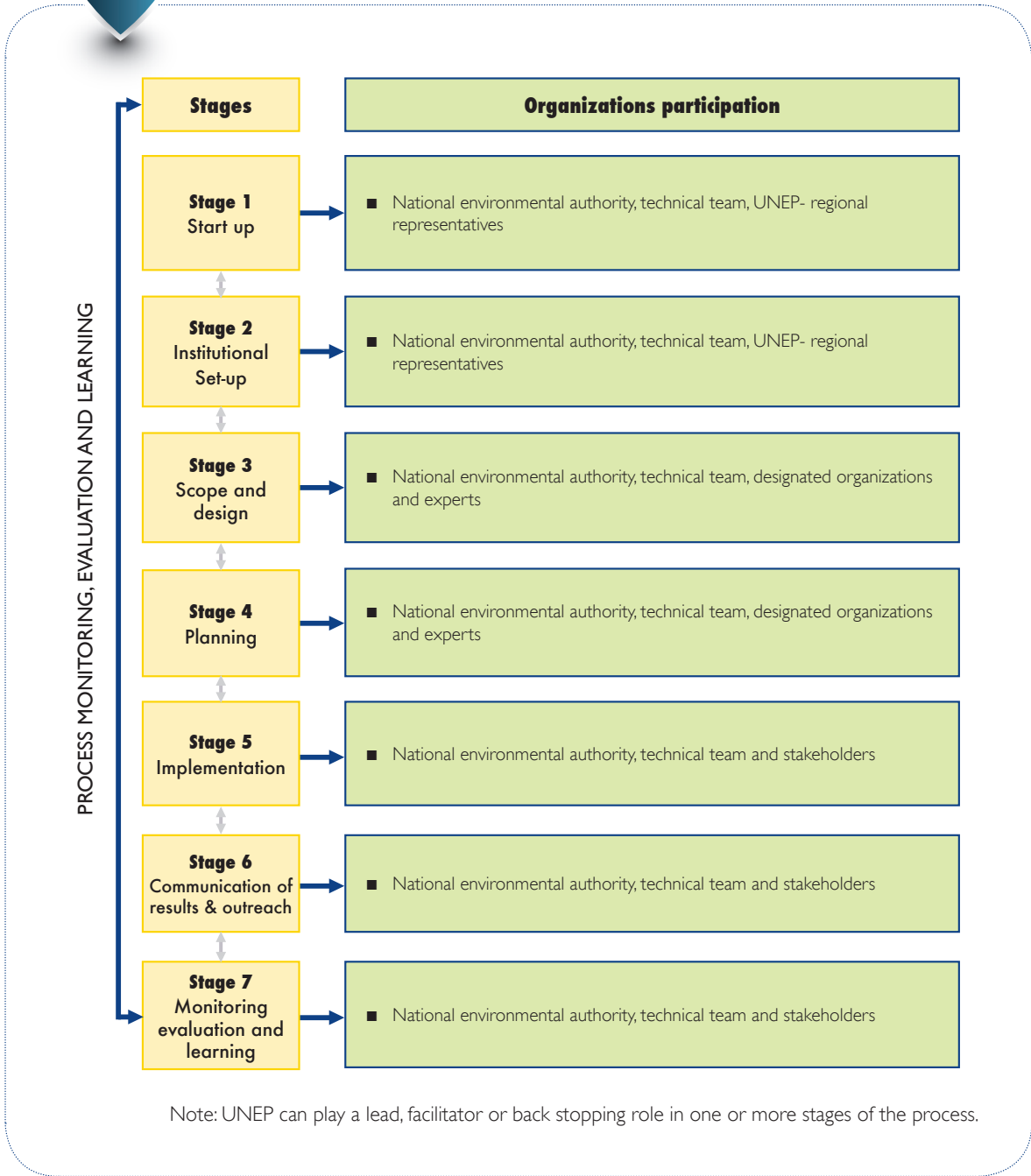
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2. What contributions can you provide to the IEA process?

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Stages	Organizations participation
Stage 1 Start up	■ National environmental authority, technical team, UNEP- regional representatives
Stage 2 Institutional Set-up	■ National environmental authority, technical team, UNEP- regional representatives
Stage 3 Scope and design	■ National environmental authority, technical team, designated organizations and experts
Stage 4 Planning	■ National environmental authority, technical team, designated organizations and experts
Stage 5 Implementation	■ National environmental authority, technical team and stakeholders
Stage 6 Communication of results & outreach	■ National environmental authority, technical team and stakeholders
Stage 7 Monitoring evaluation and learning	■ National environmental authority, technical team and stakeholders

PROCESS MONITORING, EVALUATION AND LEARNING

Note: UNEP can play a lead, facilitator or back stopping role in one or more stages of the process.

3.5 Stages of the IEA process

3.5.1 Stage 1: Start-up

The start-up stage of the IEA involves initial contacts between the participating organizations in the IEA, the determination of the need for the assessment, securing the necessary mandate and establishing the scale and feasibility of securing funding to carry out the work.

The management of this stage may vary according to the institutional structures in any given country. For instance, in small countries with limited resources, the process needs to be kept simple.

At this stage, it is important to decide which institutions need to be involved in the process, based on their statutory responsibilities, and also, who will manage the process. Once the lead and participating or technical support institutions are identified, the first start-up meetings are held to define the national IEA goals, and the responsibilities of the parties.

Outputs at this stage include a conceptual framework and memoranda of understanding (MoUs) between the parties involved in the IEA process. The conceptual framework is prepared with input by the national environmental authority and the core team. The description of the conceptual framework also describes what the IEA and its goals are, its general organization, methodology, the IEA process, guidance for implementation, the resources required, and clarifies whether further fund-raising or in-kind contributions are needed.

3.5.2 Stage 2: Institutional start-up

This section explains the activities and instruments required to establish proactive institutional coordination through the process. It is important to identify suitable institutions with properly defined roles in the process. It is important to involve institutions that can continue to lead the process for a long time.

In many cases, national organizations lead the IEA process while UNEP-DEWA or GEO collaborating centres provide technical support. Figures 4, 5, 6 and 7 illustrate four possible institutional frameworks. There are no generally applicable, rigid rules; so many variations are possible depending on national organizational capacities and structures.

The focal point for UNEP-DEWA in most cases is the national environmental authority that holds a legal mandate on environmental reporting. If another organization is going to lead the process, the national environmental authority needs to be involved, or it needs to select such an institution. UNEP-DEWA will provide assistance with developing the methodology and guidelines for the process.

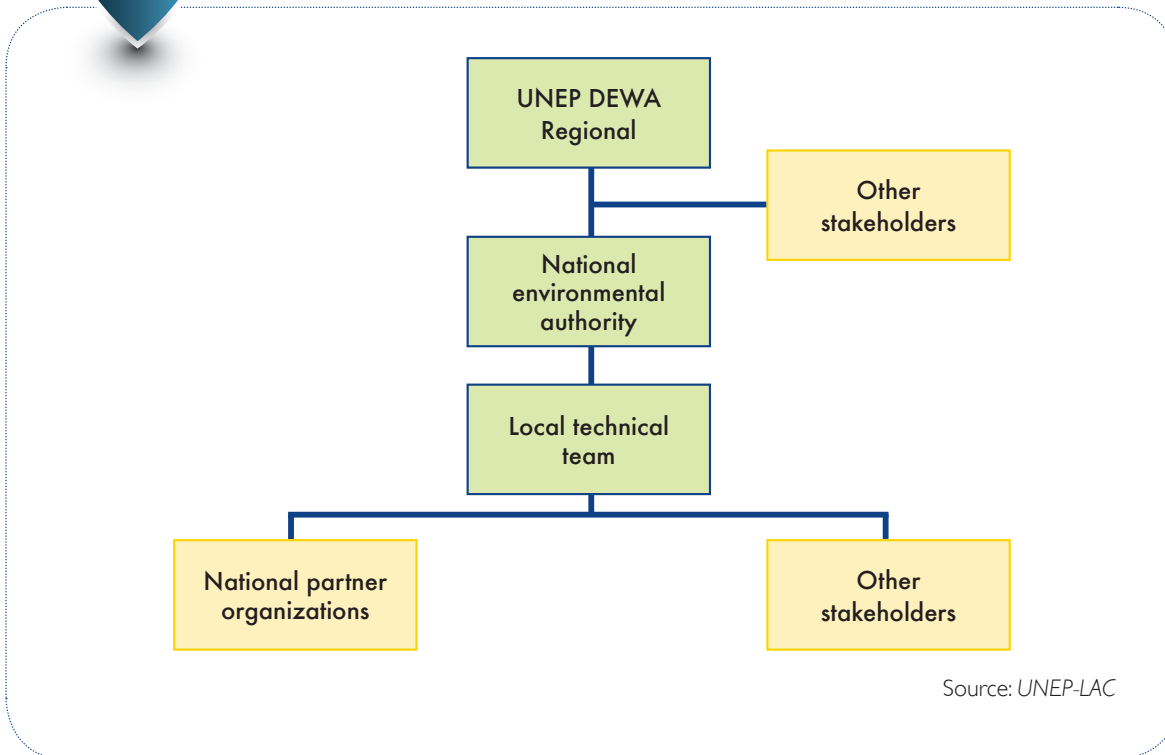**Figure 4**   Typical organizational framework, Latin America and the Caribbean

UNEP DEWA Regional

Other stakeholders

National environmental authority

Local technical team

National partner organizations

Other stakeholders

Source: *UNEP-LAC*

Figure 5   Typical organizational framework, from the Africa region

Lead institution

UNEP

Collaboratin Centre

Local technical team

National partner organizations

Other stakeholders

Source: *UNEP, DEWA-Africa (2005)*
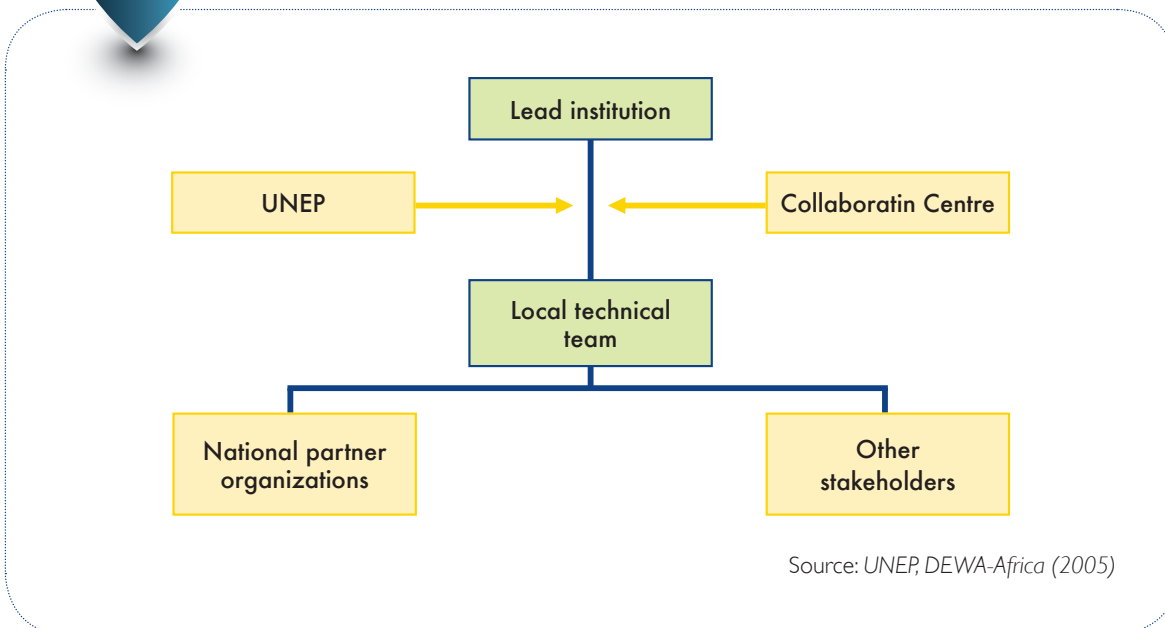
Figure 6   Typical organizational framework for Arab Environment Outlook

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                    ┌─────────────────────┐
                    │       CAMRE         │
                    └─────────────────────┘
                              │
                    ┌─────────────────────┐
                    │  UNEP DEWA Regional │
                    └─────────────────────┘
                              │            ┌──────────────────────┐
                              ├────────────│ Collaborating Centers│
                              │            │      AGU-ACSAD       │
                              │            └──────────────────────┘
                    ┌─────────────────────┐
                    │ CEDARE Lead Institution │
                    └─────────────────────┘
                              │
                    ┌─────────────────────┐
                    │   Technical team    │
                    │ Task force committee│
                    └─────────────────────┘
                              │
              ┌───────────────┴───────────────┐
   ┌──────────────────────┐       ┌──────────────────────┐
   │   National partner   │       │   Other stakeholders │
   │ Ministries of environment │   │    NGOs/UN agencies  │
   └──────────────────────┘       └──────────────────────┘
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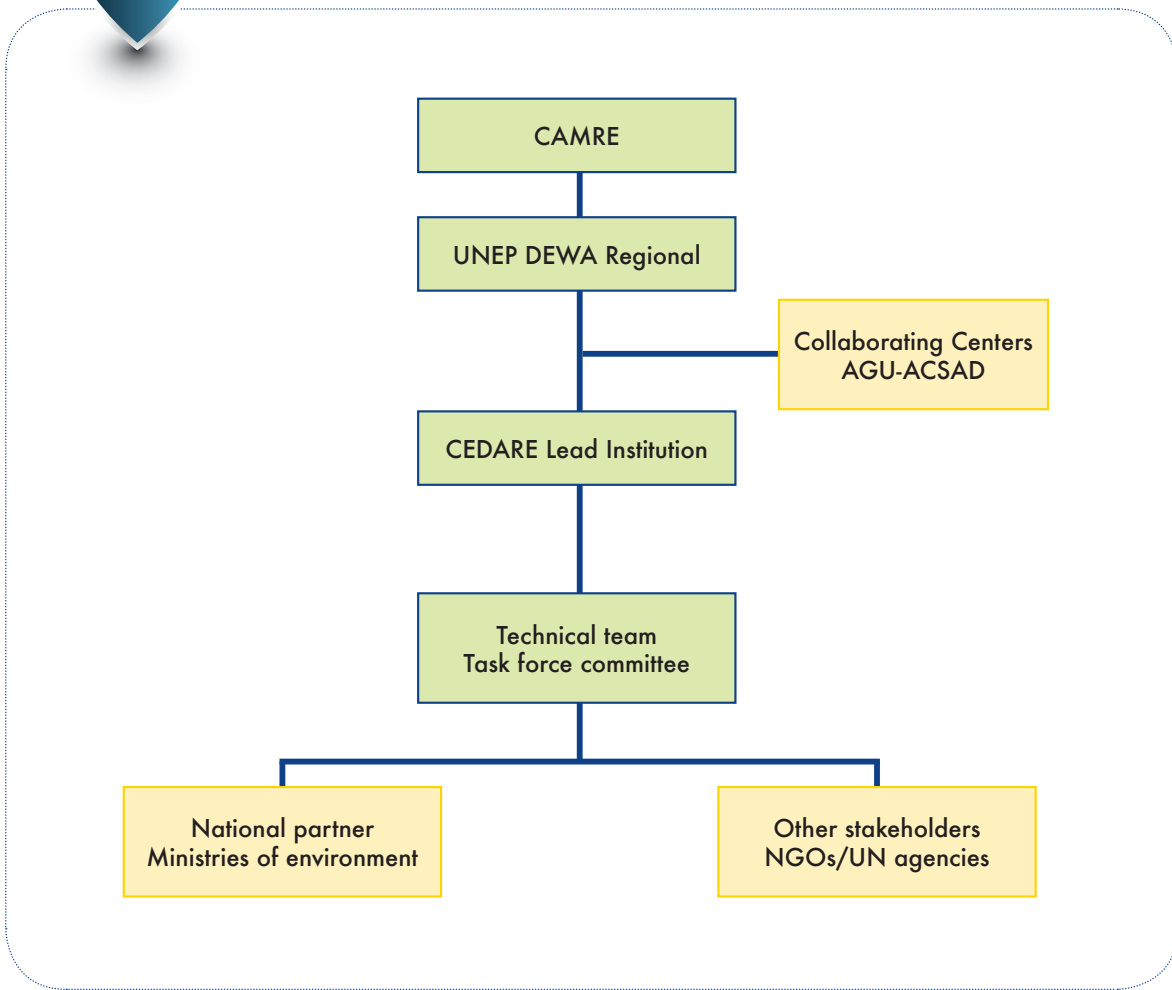
In the case of Abu Dhabi –UAE for example, a technical team task force committee was established by the environment authority to advise and support the participatory process (Figure 7). Members of the council were mainly representatives of the government and private sector.

In order to have a better understanding of the roles and responsibilities of the main parties in the institutional framework, we provide a brief explanation of the role of the lead institution, the local technical team, collaborating centres and national partner organizations, and other stakeholders.

Figure 7 IEA organizational framework, in the case of UAE (Abu Dhabi SoE)
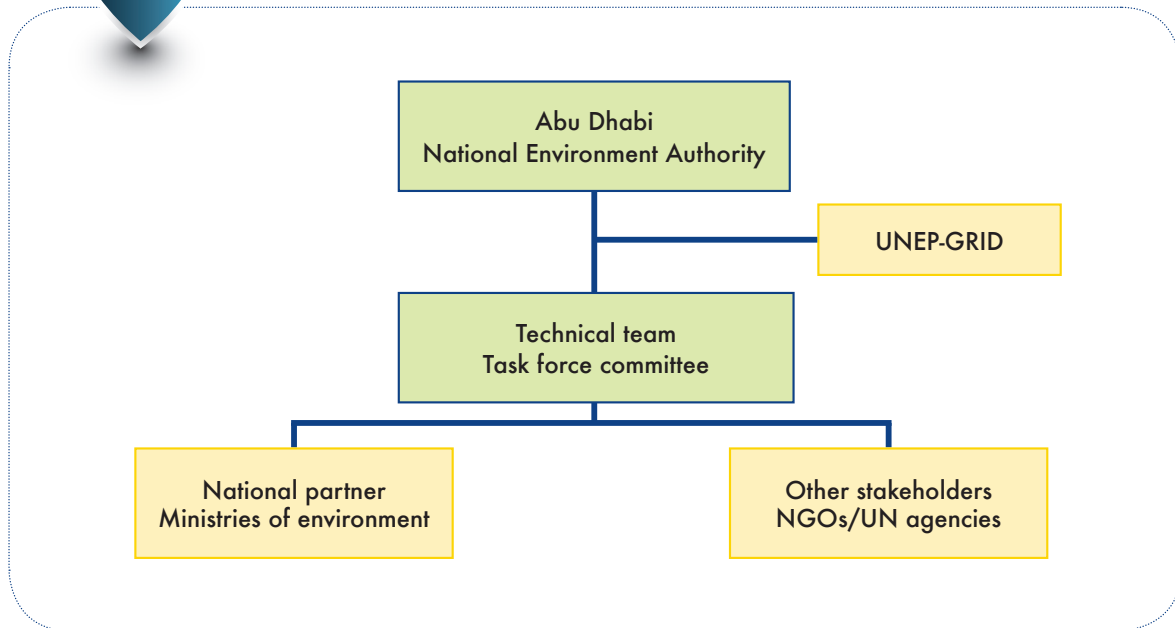
a. Lead institution

The leader is usually a government organization (e.g., the ministry of environment or national environment council). Examples would be the Ministry of Environment. The lead organization would have a legal mandate for preparing an integrated environmental assessment (Figure 5).

There are several different ways to lead an IEA process. Because the IEA process is flexible and customized to national institutional capacities, a private organization (e.g. NGO, university) could also be selected to lead the process, depending on the national preferences. However, the lead institution must have the support of the government, as this increases the IEA's legitimacy and likelihood of its use by decision-makers. Once the lead institution is selected, it is in charge of coordinating and managing the process. Different institutional arrangements have strengths and weaknesses that need to be evaluated during planning (Table 1).

Criteria for selecting the lead institution may include the following:

- Capacity to engage key stakeholders;
- Sufficient capacity to manage the process (i.e., no need to depend on consultants);
- Recognized ability to carry out high quality assessment and reporting on time and on budget; and
- Acceptable to a wide range of stakeholders.

Table 1 Most common organizational models, their advantages and disadvantages

Type of agency	Possible advantages	Possible disadvantages
Existing inter-ministerial coordinating body	■ Political support and mandate to carry out an assessment. ■ Greater collaboration within government. ■ Mandate for Environmental reporting. ■ National government ownership. ■ Better access to data and information. ■ Effective coordination and communication mechanisms	■ Not recognized as independent. ■ Tends to protect the status quo.
Existing government department	■ Political support and mandate to carry out an assessment. ■ Limits proliferation of specialized agencies. ■ Existing regional networks. ■ Greater collaboration within government. ■ Has the mandate for environmental reporting. ■ National government ownership. ■ Access to data and information.	■ May not be recognized as an independent ■ May limit public and other stakeholder involvement. ■ May tend to protect the status quo. ■ Bureaucracy in procurement of services. ■ Difficult to coordinate and access data across sectors.
Independent or semi-independent agency (i.e. university, NGO, private institute)	■ Autonomous. ■ High profile and visibility. ■ Potential for innovation and greater efficiencies. ■ Links to non-governmental stakeholders and scientists.	■ May requires formal support to have access to information. ■ Possibly weaker regional networks. ■ Potentially insecure funding. ■ Limited authority associated with reporting. ■ Reduced acceptance of the IEA by the government policymakers.

Source: *Based on Pintér, Zahedi and Cressman,* 2000. Capacity Building for Integrated Environmental Assessment and Reporting. *Training raining Manual. Second edition, 2000. p. 13.*

■ To provide effective leadership, the lead institution needs to appoint a senior staff person with strong technical and administrative capacity to coordinate the process.

b. Local technical team

The role of the technical team is to undertake specialized analysis, provide, analyze and interpret data, provide peer review, and help engage the wider expert community.

Selection of effective technical partners is crucial for the process. Criteria for selection may include the following:

■ Experience in integrated environmental assessment;

■ High public profile and recognized leadership capacity

■ Good relationship with the national environmental authority;

■ Capacity to dialogue with different stakeholders from both the public and private sector, and ability to build consensus on key environmental issues;

■ Experience in organizing and facilitating workshops; and

■ Sufficient human resources to dedicate to a demanding assessment.

The selection could be accomplished by direct invitation by the national environmental authority or through a tendering process. It is important to recognize that the IEA process cannot begin until key technical partners have been selected.

Technical team organization

Depending on the national context and type of process, the structure and capacity of the technical team may vary.

■ *Small technical team.* This model uses a team of 3–5 people including 2–3 researchers, one of them being responsible for coordinating inputs into the entire report. Researchers are in charge of data collection, organization, analysis and report writing, as well as organizing and leading workshops and consultations. The team also includes 1–2 research assistant(s) to provide support on data collection and processing, and preparing tables and graphs.

■ *Extended technical team.* In this model, the small technical team would add subject experts for specific tasks (e.g., state of a particular component of the environment, scenarios). Experts have specialized knowledge and direct access to primary data. In this case, it is necessary to establish terms of reference for each specialist (Box 8). Terms of reference should include:

* Role in joint activities (presentations of findings in workshops);

* The specialists' roles, including specific activities to be carried out, information to be provided, as well as a programme of contributions;

* Rules for sharing information used in the process (including confidentiality agreements);

* Decision methods (including problem solving);

* Resources to be provided by each partner; and Agreements on how to integrate results of the process into national environmental decision-making.

These terms of reference should be periodically reviewed to ensure that they are being followed and are up to date.

BOX 8

Example of terms of reference (TOR) for consultants in charge of a section of the IEA report

CONSULTANT SERVICES FOR:

Air quality assessment in GEO Lima and Callao (Peru)

1. ANTECEDENTS

The GEO Cities project is part of the UNEP GEO project. The GEO project started in 1995 and produces or has inspired integrated environmental assessments at different levels: global, regional, sub-regional, national and local.

The GEO Cities project has a number of objectives.

■ Recognize the links between environmental conditions and human activities, especially those related to urban development.

■ Contribute to building local technical capacities that will facilitate integrated assessment to be made on the state of the urban environment.

■ Guide consensus building on the most critical environmental problems in each city.

■ Work to ensure that it is possible to formulate and implement urban strategies and plans that will help cities improve urban environment management.

■ Encourage the creation of institutional networks in the city.

2. OBJECTIVE

The goal of this consultancy is to produce a 10–20 page report, excluding annexes, regarding the current state of air pollution in Lima and Callao. The assessment includes the current state, the pressures, impacts and responses to the air pollution.

3. REPORT CONTENT

The report should include the following sections and answer the following questions:

1. Pressures on the urban environment

■   History of air pollution in Lima and Callao.

■   The growth of the city and air pollution.

■   What are the pressures that affect air quality in Lima and Callao?

2. The state of the urban environment

■   What local atmospheric conditions affect air quality?

■   What are the main pollutants (e.g. PM10, CO, SO2, O3, NOx, Pb)?

■   What are the fixed and mobile air pollution sources, and pollution levels by main pollutant?

3. Environmental impacts from urban activities

■   What are the impacts of air pollution on human health (respiratory diseases, allergies, cancer, etc.)?

■   What are the impacts of air pollution on the natural environment?

4. Responses

■   Programs, projects and investments to improve air quality in Lima and Callao.

■   Incentives for emissions reduction.

■   Monitoring air quality.

■   Policy and regulation.

5. Sources of information

6. Other relevant information and annexes

4. OUTPUTS

1. Draft report

2. Final report

The consultant will deliver two printed copies of the report as well as an electronic copy. The report should include tables, graphs and maps to help the reader easily understand the information.

5. TIME

Two weeks including the consultant's participation in workshops to discuss and validate the results. After the workshop, the consultant will adjust the report based on comments, suggestions and additional information received.

Activities	Week 1	Week 2
First draft	X	
Workshop for report discussion		X
Incorporate comments and suggestions into the report		X

6. PAYMENT

The total amount for the assessment is $XXXX.

Payment arrangement is the following:

■ 50 per cent after the first draft

■ 50 per cent after the final draft

Source: GEA Group. *Terms of Reference for consultants for GEO Lima & Callao*. Lima: 2004.

When the lead organization is different from the organization in charge of writing the overall report, it is important to define mechanisms of coordination to ensure that there is regular communication as well as clear and agreed review and revision guidelines as well as timelines.

Participants also need to keep in touch through periodic meetings, and written or electronic notes to exchange opinion regarding the organization of activities related to the IEA process. Each partner should select a person from the team to serve as the contact point for issues related to the IEA process.

As one of the goals of the IEA process is to have a significant impact on policy making, the process includes a stage for communication of results and outreach (Figure 1). Given the importance of the communication and outreach strategy, it may require dedicated leadership and a different team for the task.

c. Collaborating institutions and other stakeholders

Primary collaborating institutions are those with a direct role in the assessment, including for instance a role in coordination, selection of key issues to be covered, data collection and analysis, drafting of assessment reports and communication of results. Secondary participants are those who are invited to contribute their views, but who do not typically play a coordinating role or have responsibility for assessment products. While primary institutions are typically governmental, academic or specialized NGOs, secondary participants may come from a widest range of sectors and include e.g., government departments or agencies, academic, non-governmental organizations, corporations, civil society organizations, youth or women's groups, aboriginal associations or the media.

It is important that the different stakeholders participate throughout the entire process, providing information or developing specific activities.

In order to keep an active relationship with collaborating institutions, it is important to keep in mind the following:

■ Identify a contact person for the duration of the process;

■ Establish a clear definition of their role and responsibilities; and

■ Keep the contact person regularly informed about progress and seek out his/her views on key decisions.

d. GEO Collaborating Centres

UNEP-DEWA regional offices have collaborating centres (CCs) with regional mandates or with specialized thematic expertise that, as noted earlier, participate in global GEO and other assessments. They could also help conduct the IEA process and provide support on technical aspects of the process.

CCs are often in close contact with the national technical team, and can:

■ Clarify any methodological issue in the process;

■ Provide technical support to the local technical team for preparing workshops;

■ Help facilitate capacity building and other workshops; and

■ Review drafts.

e. Identification of stakeholders

As previously mentioned, stakeholders are those:

■ Whose interests are affected by environmental problems or their decisions have environmental effects;

■ Who have information, resources or expertise required for policy formulation and strategy implementation; and

■ Who control key mechanisms (e.g., funding) for policy and strategy formulation and implementation.

To enhance stakeholders participation and their contributions there are three key principles.

■ *Inclusivity.* Include a full range of stakeholders representing different groups of interest, including marginal and vulnerable groups.

■ *Pertinence.* Include stakeholders whose interests are significantly affected by the issues covered in the IEA.

■ *Gender perspective.* Women and men must have equal access to all stages of the participatory process, and it is important to respond to the demands from women and men.

This allows formulating and implementing better integrated policies and strategies.

In order to assure that the different stakeholders are represented, stakeholder analysis is very helpful. The analysis identifies and examines key stakeholders, fulfilling criteria such as representation across sectors, gender and vulnerability. The analysis alone does not guarantee though that the identified stakeholders are going to be active in the process—this may need incentives and strong leadership (Figure 8).

Stakeholder analysis includes three elements:

1. *Key issues or problems that will be discussed throughout the IEA process.* Identify stakeholders relevant to the IEA's priority issues.

Figure 8   Identifying stakeholders, their roles and interests
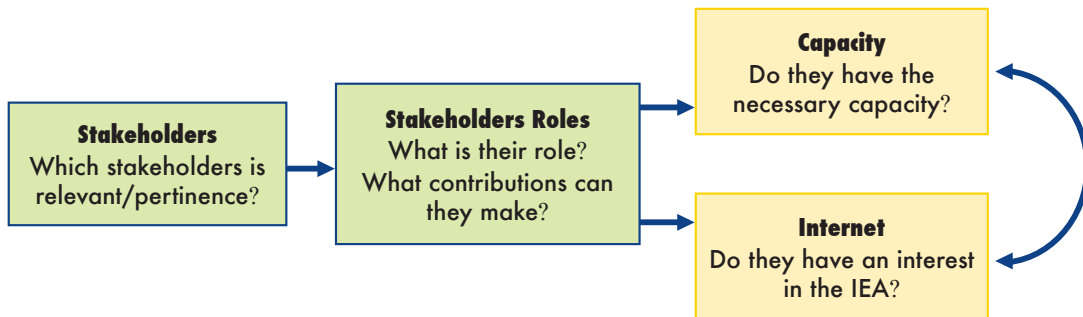
Source: *UN HABITAT (2002)*. Herramientas para una gestión urbana participativa. Colección de Manuales *Ediciones SUR.*

2. *Stakeholder long list.* Prepare a detailed list of stakeholders, structured by general categories (such as public sector and private sector) as well as sub-categories (see Table 2 and Table 3). The list should include stakeholders that meet any of the following criteria.

■ They are affected by environmental problems, or their decisions have environmental effects.

■ They have information, resources or expertise required for policy formulation and strategy implementation.

■ They have control or influence on key mechanisms for environmental policy and strategy formulation and implementation.

3. *Stakeholder map.* The detailed stakeholder list is analyzed according to criteria or attributes important for the participatory IEA approach. Stakeholders can be categorized in different ways. One criterion is the degree of interest and influence of the stakeholders (Table 3). Another is based on their contribution to different parts of the report (Table 4).

A third alternative could be to use Table 3 for each IEA component presented in Table 4.

Once stakeholders are classified and selected, it is important to evaluate their availability and commitment to the process. It is also recommended to verify if any major stakeholder groups are missing, based on additional information.

Table 2 Example of detailed list of stakeholders at national level by type of contribution

Stakeholder to involve	Reasons for participation				
	Information	Capacity	Strengths		Affected by environmental issue
			Access to funding	Legislative powers	
Public Sector					
National environmental authority					
Officials of national and regional public agencies					
Regional and local government representatives					
Science and technology council					
Private Sector					
Business Representatives					
Scientific community					
Academia Mass media					
Civil Society					
Community groups					
NGOs					

Adaptation based on UN Habitat. (2002). Herramientas para una gestión urbana participativa. Colección de Manuales. Ediciones SUR.

It is important to periodically request stakeholder self-evaluation, in order to both review their performance and contribution to the process. If the evaluation is formal (though still simple), its key criteria should be defined in advance and this information should be known by the stakeholders. The evaluation should take into account the different roles that the stakeholders could play such as: information and data supplier; playing a policy making or promotional role (e.g., lobbyist). Stakeholders should have a clear understanding of the expected outcome of their participation.

Table 3 Stakeholder classification

	Low influence	High influence
Low interest	Stakeholder group with low relevance to the process	Useful stakeholder group for policy formulation and decision making. (e.g., business councils, finance ministries)
High interest	Important stakeholders in need of empowerment (e.g., indigenous people living in sensitive eco-systems)	Key stakeholder group

Source: *UN Habitat. (2002).* Herramientas para una gestión urbana participativa. Colección de Manuales. *Ediciones SUR – modified.*

Table 4 Stakeholders by IEA Components

IEA Component	Stakeholder				
	Government	Private sector	Civil society	Academia	Other (please specify)
Pressure					
State (and trends)					
Response					
Impacts					

Source: *UNEP.* IEA Module testing workshop. *Montevideo 2005.*

In order to keep stakeholders engaged in the process, it is important to offer incentives that respond to their interests, such as:

■   Listening and taking into account their points of view;

■   Keeping them informed of the activities and results of the process;

- Stating clear rules for participation and what commitments are expected;

- Incorporating key stakeholders in the monitoring process; and

- Developing different activities to keep close relationships with the stakeholders.

EXERCISE

(15 minutes)

Objective

To exchange the different perspectives you may have about the stakeholders that should be involved in an IEA process.

Procedure

- Each participant answers the following questions individually.

- The participants are organized in groups of 8–12. Each group selects a representative who will facilitate and summarize the discussion.

- The group results may be presented in a plenary.

1. Identify the main stakeholders in your country that should be included in an integrated environmental assessment process.

a. ....

b. ....

c. ....

d. ....

e. ....

2. For each stakeholder, list the main organizations or people that should be included.

....

....

EXERCISE
(optional)

(based on UN Habitat. (2002). *Herramientas para una gestión urbana participativa. Colección de Manuales.* Ediciones SUR).

Constructing a stakeholder map for IEA

Objective

Develop a shared understanding of who the main stakeholders are, what is their relationship with key environmental issues and their relative importance.

Materials

White index cards (three times the number of participants)

Sets of index cards of different colours

Procedure

1. Ask participants to write the name of relevant stakeholders on a white card (as many as they consider important for the process). Stick them on a blackboard.

2. When there are no more suggestions, identify the main interest of the suggested stakeholders related to the key issues of the IEA process.

3. Group the cards according to the perceived common interests of the stakeholders. Each group of interest is replaced by a coloured card. Each stakeholder name is transferred to the coloured card along with that person's main interests.

4. The coloured cards are arranged in a star shaped pattern, with each coloured card forming one ray of the star. The stakeholders are arranged according to its importance to the key environmental issue that is the centre of the star. The most important stakeholders are close to the centre.

f. Establishing the basis for the impact strategy

At the outset, it is important to try to understand how the national IEA process can have an impact on policies that influence the state of the environment. Particular attention should be paid at this point to identifying persons and groups that are in a position to influence policies that have an impact on the environment, and effectively manage relationships with these people. Module 3

describes a framework for developing an impact strategy in more detail and it is also summarized in Box 9 and shown in Figure 7.

Determining effective ways of engaging key decision-makers is a key element of crafting an impact strategy. An important element of this is to ensure the issues covered by the IEA also reflect the concerns and priorities of decision-makers. Besides decision-makers, involving the media is particularly important both as a provider of information through public surveys, and as a channel to reach key audiences.

BOX 9   Developing an impact strategy for a national IEA process

What is an impact strategy?

An impact strategy consists of the steps you take to ensure that the work you do will lead to real progress on key issues or concerns. It is proactive in nature, and adaptive in a public policy environment where priorities of governments and citizens can shift and change.

Why do you need an impact strategy?

It is often an underlying assumption of reporting that good information will lead to good decisions. But while good information is necessary, it does not follow that decision makers will act on it. Decision makers are often quite well informed, but their priorities and intentions may differ from what your assessment might indicate is important. The challenge for you is to take proactive steps to ensure that your assessment does not sit on a bookshelf once it is done. Your assessment will lead to recommendations for action, and such actions may require changes in government policies and practices. You should consider from the outset how the findings from your assessment might be used, and how the priorities you identify become the priorities of your government and your country.

Steps in building an Impact Strategy

Step 1. Anchor the assessment with a decision statement: *what do you want to see changed, based on the findings of the assessment, what decisions may need to be made and what changes in policy or policy might be required?* There will always be other influences on decision makers. Some will compete with and others will align with your interests. *Understanding the external*

political and bureaucratic environment, and issue attention cycles, will help you focus your impact objectives.

Too often, people move immediately to the information gathering stages of the assessment, without due consideration of Step 2. You need to think carefully about who will be in a position to take the findings of your assessment and use them effectively. Information by itself does not leverage change, but relationships do. It is vital to have people communicating ideas, analysis and data to other people. The next step is to identify the individuals and groups you most want to reach. You need to consider how these people acquire information, who they trust and what do they trust in terms of information resources. How can you get to those people? If you cannot reach them directly, then who are the people they do listen to, and can you reach them instead?

Step 2. Identify those who are in positions to make the decision or effect the changes; those who can influence the decision makers directly (intermediaries — the people who lean in to whisper advice into the ears of the decision makers); those in civil society who can bring pressure to bear on decision makers; those who can support, reinforce and strengthen your recommendations, in particular the academic community and other research institutes; and those in the media through whom we reach the public, who can also influence decision makers. Central to determining who to reach is the concept of relationship management, which means maintaining the connections and influence over time.

Step 3. Once you have identified who will help with achieving the decision you seek, you need to analyze both what they need to know, and what you need to know, that will help them take or influence the decision. This is the knowledge management process of the assessment. The remainder of this session will introduce some of the tools you need to gather, analyze and process your information.

Step 4. Next, determine how to move that knowledge into the hands of those you want to influence. There are many tools available to do this: the products to be released, the conferences and workshops to be held, and the amplifiers, including electronic mailing lists and websites, which get replicated throughout much wider audiences than may have been targeted. At the heart of the tactics and strategies that are developed is the creative management of opportunities: both taking advantage of key windows to move the assessment findings into the hands of others, and creating opportunity directly. An important part of this process is the development of "key messages" that are short, simple, plain language statements that capture the essence of the work.

Step 5. We know that in most work, we cannot easily demonstrate causality. It is hard to prove that one's efforts have led directly to the decision we were seeking. But it is possible to look at incremental changes in attitudes, actions, and behaviours that are a direct outcome of one's work. Monitoring, evaluation and learning mechanisms must be in place so that you can identify and map these incremental changes that will lead towards the decisions or changes you are seeking. This will help you to adjust your strategy, if necessary.

Figure 9   Impact strategy steps

Step 1
Changes you want to influence with the assessment

External political environment
Other influences on decisions and decision-makers

Step 5
Monitoring, evaluation, improvement

Step 2
Who?
Identify relationships:
Decision-makers; influencers; media; people who work for NGOs, etc.

Step 4
How?
What are the opportunities?
Publishing; conferences and workshops; news articles, etc.

Step 3
What?
Knowledge to be gathered through the assessment, and how it is to be gathered

Checkpoint
Timing: What is the current "Issue cycle?"

Source: *IISD (2004)*. Model for an Impact Strategy

Following are a series of steps for policy-makers that can be used to help convert recommendations into actions thus increasing impact.

1. Prepare an executive summary of the main results and policy options for policy-makers.

2. Identify instruments needed to put the actions in place and opportunities to obtain technical support.

3. Consider specific follow-up actions in compliance with policy options identified and use the mass media as well as campaigns to engage the public in dialogue.

4. Use stakeholders involved in the IEA to inform and engage other social actors about the process and its results.

3.5.3 Stage 3: Scoping and Design

The main objectives of this phase are to:

■ Define the geographic boundaries of the IEA;

■ Agree on the methodology for the assessment, and clarify any methodological issues;

■ Establish the structure of the IEA report, considering the priority environmental issues;

■ Determine the main elements for a communications and outreach strategy;

■ Determine target audiences; and

■ Define an impact strategy.

The geographic boundary of the IEA needs to be defined, taking into account that some environmental problems have regional and global impacts. Many IEA's focus mainly on the national scale, whilst addressing regional issues when it is required for analytic reasons

UNEP's integrated environmental assessment is based on the **D**rivers-**P**ressure-**S**tate-**I**mpact-**R**esponse (DPSIR) framework, which shows relationships between human activity and the state and trends of the environment and human well-being. This analytical framework helps one to understand connections among the components of an IEA.

The IEA process requires the people involved to learn and understand how to apply the IEA methodology, a process that some will find easier than others. It is important that everyone is clear about the methodology and their roles in using it.

The IEA process approach is iterative (learning by doing.) with specific steps, but these are flexible, and can be adapted to different needs. Each local team has to find the best way to interact with

stakeholders, and also has to deal with constraints related to data availability, changes in public authorities, etc. Customization and adaptation to local conditions is key: IEA teams need to select tools and methods that local stakeholders and contributors can work with.

Prior to the start of detailed planning, reviewing earlier IEA products and processes may be of help.

This is particularly useful regarding indicators already developed and identifying information sources and organizations related to earlier assessments.

Throughout the IEA process, the coordinating team must meet at regular intervals. This should start with a preparatory meeting at the start up stage. If the process includes a training workshop, the coordinating team should meet with the selected trainers and discuss the overall goal and approach of the IEA. The training can both help build capacity and also scope out process and content, as well as help set milestones and time line.

It is necessary to have follow up meetings to keep the report writing progressing. During the IEA process, especially once data has been collected, it can seem that activities slow down. You need to have regular interaction with the technical teams to keep up momentum. Also, technical teams need to serve as reviewers and should bring relevant experiences from other IEAs to the attention of participants.

For developing the impact strategy it is important to review its basic elements and stages presented earlier, in stage 2, and covered in detail in Module 3.

Recommended Readings

- ■ UNEP (2004). *Guidelines for National Integrated Environmental Assessment Report Preparation in Africa. Nairobi:* UNEP.

- ■ European Environment Agency (1999). A *checklist for state of the environment reporting. Technical* report No 15. Copenhagen: EEA.

- ■ Pintér, L., K. Zahedi and D. Cressman (2000). *Capacity Building for Integrated Environmental Assessment and Reporting.* Training Manual. Second edition. Winnipeg: IISD for UNEP.

- ■ UNEP (2004). *Methodology for the preparation of GEO Cities reports.* Mexico City: UNEP – ROLAC.

Discussion Questions

1. Why do you think is important for your country to be involved in this IEA process?

....

....

....

2. What kind of results do you expected to get from the process?

....

....

....

3. What constraints do you expect to encounter? Think about how you are going to address them.

....

....

....

3.5.4 Stage 4: Planning

The purpose of the planning stage is to bring together key process elements and content identified in the previous stage into a coherent and concise plan.

There are several outcomes to be achieved from the planning phase:

1. Share and make sure participants of the process understand the IEA methodology

2. Have a timetable and well-defined results at each stage

3. Identify the requirements of human, financial and infrastructure resources and how to overcome any shortfalls in these;

4. Have adequate coordination mechanisms with the process stakeholders;

5. Establish adequate mechanisms of coordination with the UNEP DEWA team and GEO collaborating centres, if applicable;

6. Review and adjust the impact strategy and define measures of impact;

7. Develop a communication and outreach strategy; and

8. Establish a monitoring and evaluation system.

During planning, you should consider using documents, survey results and workshops to get a clear understanding of the main environmental problems. This knowledge is essential for the design and planning of future activities in the process. Good planning will demonstrate that the IEA process builds on previous experiences and supports initiatives in progress.

Discussion Questions

Please form groups of 3-4 and identify an earlier IEA or environmental assessment (e.g., SoE) process you are familiar with. This may be in your country or from abroad.

1. What are the characteristics of the planning process for integrated environmental assessment in the selected case? List the characteristics and draw a plan chart.

....

....

Draw a plan chart:

National **IEA** Process Design and Organization

2. In your opinion what are the main conditions for an effective IEA in your country?

....

....

....

....

It is also important at this stage to review and adjust the impact strategy, and to develop a monitoring and evaluation system in order to recognize, understand and learn from successes and failures of the process.

Cost work plan

The IEA process requires many types of activities that involve human, financial and infrastructure resources. The costs will vary among countries, depending on a number of factors, such as the quality of institutions dealing with environmental issues and stakeholder awareness of the problems. It is important to have a clear, transparent fully cost work plan. In-kind resources can be part of the budget.

Table 5 shows an example of a timetable for the different activities of the IEA process. On average, the IEA process takes about 12 months.

Table 5   GEO-based IEA process timetable

Activities	Month1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Process	X											
initiation and first workshop												

Table 5: GEO-based IEA process timetable

Activities	Month 1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Report preparation: data gathering, specialized workshops and analysis of information. Output: first draft report		X	X	X	X	X						
Review workshop and revision of draft report. Output: second draft report							X	X				
Revision of final draft									X	X		
Publication and launch of final report											X	X

A key component of an IEA work plan is the budget. Given different institutional contexts and financial management systems, details naturally vary, but some common elements can be identified.

Table 6 provides an example of the main components of the budget and related explanations.

Table 6 Example of a budget structure for the IEA process

Component	Explanation
Personnel (includes subcontracting)	In cases where the IEA is done exclusively by permanent government employees, personnel costs may not be applicable. However, in most cases there is a need to involve external consultants and experts who need to be paid. In some cases, even stakeholders who attend several meetings throughout the process and have a specific role may require compensation.

Table 6: Example of a budget structure for the IEA process

Component	Explanation
Quipment	In some cases, the purchase of new computers for instance may be necessary. Also, there may be a need for specialized software (e.g., for undertaking spatial analysis).
Data	Data from statistical offices in many countries is freely accessible; in others, it needs to be bought. Unless special provisions can be secured for the IEA, the budget may need to include the cost of data.
Meetings	The IEA model following the GEO approach is based on an extensive interactive process, with expert and stakeholder meetings throughout. The cost per meeting of course varies by the number of participants, length, location, and equipment rental, among other elements. Main costs may be related to travel expenses, hotel and per diem.
Administrative expenses	Again, these may vary and include elements such as photocopying, telecommunication, administrative staff support, etc.
Publishing	This may include provisions both for electronic and print publishing and cover the cost of a professional editor, graphic designer, proofreading and printing expenses. In terms of electronic publishing, there is a cost to web design.
Outreach	This would cover expenses related to a public launch event, if one is planned. Outreach materials, such as separately printed executive summaries, may also need to be printed.
Process monitoring and evaluation	It may be useful to explicitly budget for this phase ahead of time.

3.5.5 Stage 5: Implementation

The implementation stage has three basic components: identification of environmental problems, indicators and sources of data; data collection, analysis and writing; and translation (if needed) and publication. Following are details on the first two components.

Identification of environmental issues and priorities

The identification of environmental issues and priorities requires a series of steps that help participants in the IEA move from a general conceptual framework of the IEA towards specific issues and interrelationships that will be analyzed in the assessment products.

The starting point is a conceptual framework that identifies the key domains of the environment as it interacts with human society. GEO uses a modified version of the drivers-state-impact-response (DPSIR) framework as described in module 1 and this framework has been successfully used also in the context of many national IEAs.

Once the framework is developed a range of environmental issues can be identified involving both expert and stakeholder participation. Issue s are more specific than the categories in a conceptual framework, but discussing them does not require deep technical expertise, which would limit the opportunities for stakeholder participation. The result of issue identification is typically a longer list of items that is usually longer than what can be effectively covered in an IEA. Therefore, there is normally a need for prioritization based on criteria. Alternatively, prioritization can happen once there is a list of indicators selected, but prioritization at an early stage can save time and work, as no indicators would be developed for lower priority issues.

The result of this stage of the process is a short list of clearly formulated priority issues with a clear link to the IEA's conceptual framework and a strong connection to stakeholders' concerns about the environment.

Indicators, data collection and analysis

National IEA reports use indicators to quantitatively describe various issues and to track changes. In a national IEA report, the number and type of indicators will depend on the objectives defined by the technical team. The list should include environmental, economic and social indicators. Indicator selection can directly build on the earlier identified priority environmental issues. Typically, indicator selection involves several rounds of discussion first producing a larger list and then narrowing it down to a tighter set of leading indicators based on scientific, policy and feasibility criteria. Indicator selection, data collection, visualization and analysis are described in detail in Module 4.

Due to limitations of time and resources, as well as common technical difficulties in gathering primary data, the technical team is likely to rely on secondary information sources, using information already prepared by various organizations, such as national statistical offices. Information needed for the report is often dispersed, and may require considerable work just to locate. The technical team needs to establish agreements with organizations willing to share their files and databases.

These involved two main steps: collecting and processing the information, and analyzing the information and writing the report. The first task often takes more time than expected, mainly because of institutional barriers to information sharing. Once the first task is completed, the next steps are relatively straightforward.

a. Information gathering

Because technical teams usually do not produce primary data, they must acquire it from original sources, often in government agencies. Sometimes, the technical teams have to persuade government officials to get interested in the project and help in the data collection. Such discussions can delay the process.

Once the data is collected, it should be organized and verified. This involves checking the sources of the information to ensure that the data is reliable. Ensure that you have enough time for the task.

Then, the data has to be transformed, combined and presented in different ways according to each component of the DPSIR framework.

Discussion Questions

1. In order to know the constraints that your IEA process will face, what are the main problems collecting information for the GEO-based report in your country?

   ....

   ....

2. Regarding environmental data, do you think is it reliable, and how regularly is it updated?

   ....

   ....

3. Sometimes, a report's conclusions show the lack of environmental information that Makes it impossible to analyze the magnitude of the problem, Can you think of examples of environmental problems for which there is no monitoring data or it s not accessible?

   ....

   ....

ROUND TABLE DISCUSSION

Discuss how the IEA Process can help organize the collection and assessment of information and the assessment of responses to the report by government and society.

b. Information processing, analysis and writing

The analysis of the data and information compiled sets the stage for the detailed integrated assessment, the main substantive part of the IEA. The underlying conceptual framework of the analysis in IEA is based on the logic of the driving force-pressure-state-impact-response (DPSIR) method, described both in Module 1 and 5. The DPSIR logic also serves as a basis for sequencing the steps of the assessment, although often several analytic processes are run in parallel.

The DPSIR logic is also reflected in the structure of IEA reports. Figures 9 and 10 show a possible IEA report structure that is based on this logic, though one has to keep in mind that variations are possible and used by the many countries that undertook or will undertake an IEA. A common dilemma, for example is whether the analysis of environmental trends and dynamics should be separated from the analysis of pressures and policies contributing to change. Some of the dilemmas and options for structuring the main IEA report are discussed below in more detail. These dilemmas need to be considered in each IEA exercise and you need to find a format that both preserves the main analytic elements of the assessment and addresses the information needs of your main audiences.

Figure 10   Sample outline of an IEA report

Specialized meetings

Validation second workshop

- Economic, social and institutional overview
- Human pressures on the environment
- Assessing the state and trends of the environment
- Analyzing policy responses
- Analyzing the impacts of environment change
- Policy options and scenarios
- Conclusions and policy recommendations
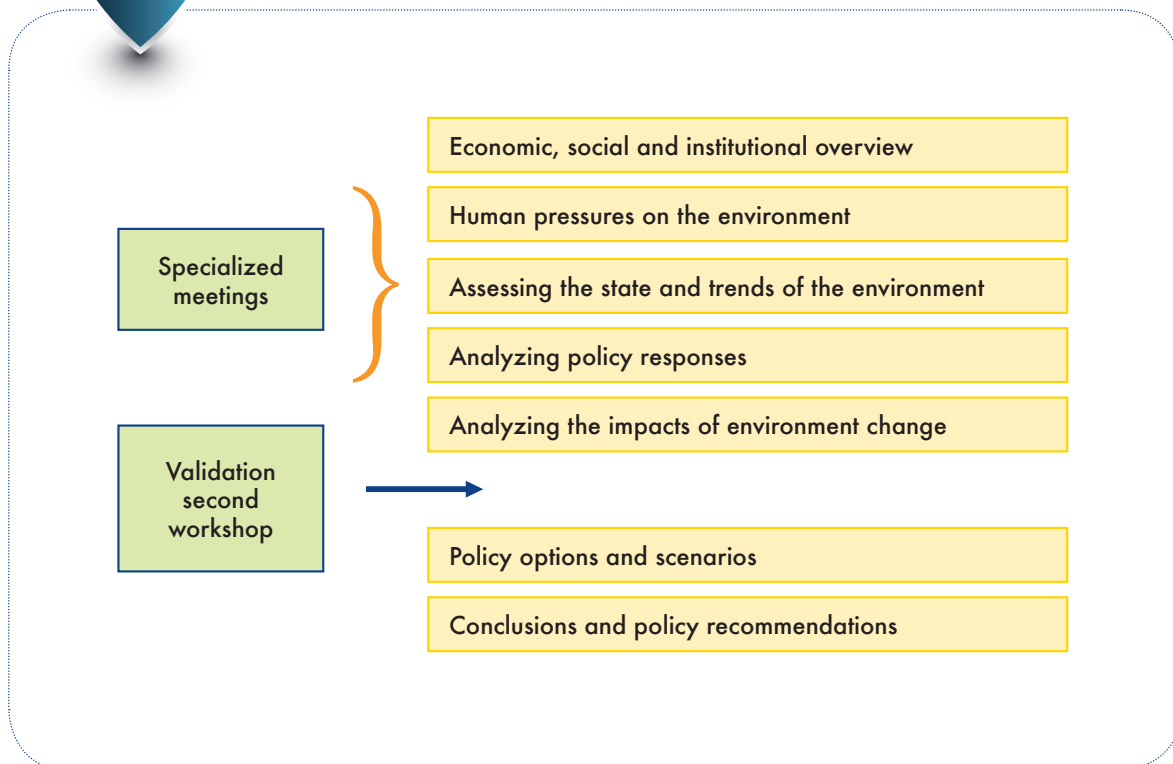
IEA structure

This stage deals with how to structure the report to get a final product that can be used in national environmental decision making processes. In this stage, it is crucial that participants discuss and agree on the main environmental problems and choose the best way to present the information through the report and associated products. The technical team should prepare a preliminary report outline and discuss it with stakeholders and participants. The following examples show different ways for preparing the outline. The choice and order of issues will vary among countries, depending on important issues and priorities.

Example 1. Table of contents of Lebanon SoE Report - 2001

PART	SECTION
I. Introduction	
II. Population and Economic Activities	
1. Population	1.1 Administrative Boundaries
	1.2 Population
	1.3 Pressures
2. Agriculture	x.1 Targeted Description x.2 Pressures on the Environment x.3 Key Policies and Actions x.4 Outlook
3. Industry	
4. Construction	
5. Transport	
6. Tourism and Recreation	
7. Energy	
III. State of the Environment	
8. Water	8.1 Water Resources 8.2 Uses and Functions 8.3 Water Quality 8.4 Economic Impacts of Water Pollution 8.5 Key Policies and Actions 8.6 Outlook
9. Air	9.1 Air Quality 9.2 Economic Costs of Air Pollution 9.3 Key Policies and Actions 9.4 Outlook

Example 1: Table of contents of Lebanon SoE Report - 2001

PART	SECTION
III. State of the Environment	
10. Biodiversity and Natural Heritage	10.1 Flora 10.2 Forests 10.3 Fauna 10.4 Karst Heritage
11. Soils and Land	11.1 Sources of Pressure 11.2 Land Use and Land Cover 11.3 Soils 11.4 Coastal Zone 11.5 South Lebanon After the Occupation
IV. Environmental Management	
12. Institutional Framework for Environmental Management	12.1 Legal and Regulatory Framework 12.2 Ministry of Environment 12.3 Other Government Agencies 12.4 Municipalities 12.5 Environmental NGOs 12.6 Research Institutions and Universities 12.7 Private Sector 12.8 Donors and Funding Institutions 12.9 Media
13. Land Management and Reforestation	13.1 Urban Planning 13.2 Nature Conservation 13.3 Reforestation and Combating Desertification
14. Solid Waste Management	14.1 Municipal Solid Waste Characteristics 14.2 Municipal Solid Waste Management in GBA 14.3 Municipal Solid Waste Management beyond GBA 14.4 Industrial Solid Waste Management 14.5 Outlook
15. Wastewater Management	15.1 Wastewater Collection, Treatment and Disposal 15.2 Key Government Policies and Actions 15.3 Outlook
V. Highlights and Conclusions	

Index

Introducing the Ministry of State for Environmental Affairs

Methodology

Example

Violations related to noise monitoring of different activities within the work environment (industrial, trade,tourist)

Noise generated from vehicles

Future plan

Terms and definitions

SECTION II: WATER

Chapter 5: Fresh water

Introduction

Fresh water available in Egypt

The current status of River Nile water quality

Egyptian lakes

SectionI : Air, Section II: Water, Section III: Land, Section IV: Urban environment

Chapter 6: Coastal and Marine Zones

Introduction

Threats menacing coastal and marine zones

Procedures for managing and controlling coastal and marine zones

The national program for monitoring coastal waters

Water quality in the Mediterranean Sea

Water quality in the Red Sea and the Gulf of Suez and Aqaba

Efforts to minimize the adverse impacts on the marine environment

Future vision

SECTION III: LAND

Chapter 7: Biodiversity

Introduction

Vitality of ecosystems

Status of habitats

Fauna status and trends

The red list

Invasive alien species

The socio-economic status of biodiversity

Threats

Protected areas management efficiency

Measures and procedures for biodiversity conservation outside protected areas

Future vision

Chapter 8: Afforestation, Forests, Green Belts and Landscapes

Introduction

Exerted efforts

Green belt around Greater Cairo

Planting forest timber trees by using treated waste water

Afforestation and cultivation of green spaces and parks

Future plan

Chapter 9: Desertification

Introduction

Status of desertification in the agro-ecological regions

National efforts to combat desertification

Chapter 10: Agriculture

Introduction

The role of the agricultural sector in the environment

Pesticides

Fertilizers

Climate change and agriculture

Organic fertilizers and agricultural waste (plant-animal)

Soil degradation

The state's efforts in agricultural and urban environmental development

The environmental impact of surface cultivation in cities and industrial and residential areas

Bio-energy

Section I: Air, Section II: Water, Section III: Land, Section IV: Urban Environment

SECTION IV: URBAN ENVIRONMENT

Chapter 11: Urban and Industrial Environmental Development

Introduction

Environmental problems in the urban environment

Urban environment challenges

Government policies to address urban environment problems

Future vision for urban development

Industrial environment

Introduction

Problems pertaining to new industrial cities

Future vision for industrial development

Example

Chapter 12: Energy

Introduction

The current situation

Future vision

Chapter 13: Industry

Introduction

Current projects and programs

Egypt's Pollution Abatement Program – the second phase (2007-2012)

Public and Private Sector Industry Project (2008-2012)

Future vision

Chapter 14: Solid Waste

Introduction

Quantities of solid waste generated in Egypt

The current status of municipal solid waste in Egypt

Efforts exerted to reduce the negative effects in 2010

Future vision

Chapter 15: Hazardous Substances and Waste

Introduction

Environmental indicators

Efforts exerted to mitigae the adverse impacts

Future vision

Chapter 16: Environmental Performance Index

Introduction

Egypt's status in the 2010 Environmental Performance Index

Conclusion

Section I: Air, Section II: Water, Section III: Land, Section IV: Urban Environment

Chapter 17: Environmental Protection Fund

Introduction

Projects implemented by the Environmental Protection Fund in 2010

Future vision

List of acronyms used in the report

List of acronyms related to the environment

Participants

Table of contents of the state of the Environment Abu Dhabi can be found at:
http://www.soe.ae/Abu_Frontpage.aspx?m=175

Example 4. Table of contents of the state of the Environment in Tunisia (2009)

Example

Example   5. Table of contents of the State of the Environment in Morocco

Table of contents of the state of the Environment in Morocco can be found at:
http://www.matee.gov.ma/

Economic, social and institutional overview

This section provides a high-level, retrospective analysis of the country's socio-economic and institutional conditions and identifies underlying driving forces. Driving forces refer to deep structural changes such as demographic trends or consumption patterns with fundamental influence on human activities that lead to direct pressures on the environment.

The overview can also help to firmly establish the link between environment and development and convey the need to look for the causes and solutions to environmental problems well beyond

the environment itself. The economic overview could include not only a description of key macroeconomic parameters, but also, for instance, the country's approach to international trade or degree of technological advancement. From the social point of view the analysis could include basic demographic figures, information related to human well-being and poverty, or issues related to social capital.

Finally, the section should also describe the institutional framework for environmental and sustainable development governance, including the underlying legal framework, key institutions and division of responsibilities among different layers of government.

Human pressures on the environment

Pressures in the DPSIR terminology refer to human activities with direct influence on environmental conditions. Pressures are typically correlated with driving forces and may refer to processes such as emission of pollutants, conversion from natural to cultural landscapes, or the harvest of renewable natural resources beyond their carrying capacity. Pressures are often combined, for instance land clearing for roads in a pristine forest may be accompanied by increased forest harvest intensity, introduction of non-native species or growing air pollution.

Usually, information on pressures tends to be more easily available because it comes from socioeconomic databases (for more details see Module 5).

Assessing the state and trends of the environment

This section presents the actual condition and trends in the environment, resulting from the driving forces and pressures. One of the first decisions to be made about the state of the environment analysis is the way SoE issues should be categorized. Perhaps the most common approach is to follow a hybrid structure based on environmental media and environmental problems. For instance, this could include such aspects of environmental degradation, as levels of air pollution, water contamination and solid waste, as well as changes in biodiversity. Module 5 provides detailed information and examples on some of the more common categories used, but these should not be taken as prescriptive. You should build in sufficient time for consultations with your experts and stakeholders to identify the categories most suitable for your reporting area.

This stage also involves the identification of key indicators and relevant data sources, acquiring the data, organizing the data on a suitable database, data analysis and interpretation. More detailed technical aspects of data and indicators are discussed in Module 4. You need to remember that the IEA should not be driven by data but by the issues and information needs identified by stakeholders.

Assessing policy responses

The assessment of policies can either be integrated with or separated from the SoE analysis. Both approaches have their strengths and advantages: separating the two sections leads to a more disjointed report where environmental state issues and their underlying policy causes are discussed separately; on the other hand, discussing policy responses together in one section may lead to a more coherent comparative analysis.

Policy analysis is a conceptually complex area and often requires either the collaboration of science-based or policy experts or experts well versed in analyzing environmental issues on the interface of science and policy. From the substantive point of view policy analysis involves the identification of public or private sector policy drivers that contributed to earlier demonstrated environmental change and assessing their effectiveness. It may also involve pointing out policy gaps. In order to help identify relevant policies Module 5 provides a general typology and further detail on the methodology of policy analysis.

Analyzing the impacts of environmental change

Analyzing the impacts of environmental change has gained increasing prominence in UNEP's GEO-4 report. Analyzing environmental impacts requires identifying changes in socio-economic or ecological conditions that are significantly influenced by changes in the state of the environment.

Typically, the observed impacts are a result of multiple forces of change, some short term and local, others long term and global and everything in-between. You will need to both scan a wide range of impacts and then select priorities to concentrate the analysis on. This will also require consultations in the scoping and more detailed analytic stage. You will also need to remember to try and separate or at least identify cases where impacts are caused or significantly influenced by non-human induced pressures, such as natural disasters.

Further methodological detail on analyzing impacts of environmental change is provided in Module 5.

Policy options and scenarios

Scenario analysis is an essential signature component of IEAs and outlooks. The scenario section builds on SoE and policy analysis and tried to answer these questions: where are we heading; what actions could be taken for a more sustainable future? This can help with long-term planning, and can support applying the precautionary approach to specific issues. By exploring possible future scenarios, decision-makers can get a clearer picture of what tomorrow might bring, and what the impact of alternative decisions is likely to be.

Scenario analysis usually combines quantitative and qualitative elements. The quantitative component requires modelling and may directly build on data and indicators. The qualitative component involves creating and refining descriptive narratives. These two sides of scenario analysis require different methods and skills and a process that helps combine them in coherent scenarios. The process usually involves several iterations of interaction among stakeholders, thematic experts and a core group of 'integrators', scenario experts who create the actual scenarios. In cases where capacity for quantitative modelling is limited, countries used only scenario narratives that may be still useful to explore alternative future trajectories and their policy implications in a series of facilitated conversations with participants.

Details of the scenario process are described in Module 6.

Conclusions and recommendations

Preparing recommendations is the final analytic stage of the IEA process, but whether it is required depends on a particular country, in some cases the task of formulating policy options is seen as the realm of the policy process, and decision makers may explicitly request that the IEA does not produce recommendations. However, there are also many examples in the past where recommendations were explicitly requested and were even included in the IEA mandate.

Formulating recommendations builds on all earlier IEA stages, and requires the participation of senior or high level policymakers who may not have been directly involved in earlier stages of the assessment. The technical team may be requested to prepare draft recommendations that then become a starting point for a dialogue, leading to a final set. In order to be effective, recommendations would ideally be connected with strategic policy processes, such as budgeting or long-term strategic planning.

For further details of the scenario concept and process please see Module 6.

3.5.6 Stage 6: Communication and outreach

While communication is indicated as a stage that comes once the content of the assessment has been finalized it is actually something that needs to start as early as the setup stage. A unique and powerful aspect of the global GEO process many sub-global iterations is that communication with potential audiences runs parallel with developing content. While products of the assessment are important in conveying key findings, interactions between experts and policymakers throughout the process provide many opportunities for conveying key assumptions, concerns or questions. In this sense, communication is not a 'stage' but an ongoing activity running parallel to the IEA.

The number and type of interactions depends on the scale of the IEA and of course the available budget, but at a minimum 2-3 meetings typically involving 25-30 participants can be used first to help with scoping then to review draft findings. Besides larger focus groups small group meetings with thematic experts can both help address more specific questions and build credibility for the assessment.

The main product of an IEA is usually a comprehensive report with a SoE, policy analysis and scenario components, among others. Besides the main report in hard copy there are possibilities for many other products that either explores some issues in more detail or that are geared towards some specific audience. As a matter of routine, IEA products should be posted on a public website or printed on a CD. Other associated products such as underlying data can be made available through interactive databases. Outputs may also need to be translated into other languages. The process of edition and publication usually takes significant time, involving design, style correction and printing, so it is important to plan for this early on in terms of time, resources and capacity.

Effective communication often requires the involvement of communication experts, taking advantage if possible of government public relations offices or if these are not available building a close relationship with the electronic and print media.

Communication issues from an impact strategy point of view are discussed in Module 3, while aspects related to creating physical products are in Module 7. Following are some tips for preparing your messages so they will be more easily understood.

Making your messages understandable to your audiences

The team producing the IEA needs to remember that the audience will not be environmental specialists or technical experts. Results of the assessment have to be easy to read, with limited use of jargon. Experiences in national IEA reports show that maps and other visual aids are very useful for communicating messages in an easy manner.

Make information relevant to your audiences

Communications is a two-way process. Before designing communication products and processes, it is important to first listen to your audiences, and understand what is relevant to them. Try to find out their level of familiarity with environmental and sustainability issues, if there are any potential misconceptions and knowledge gaps. Use this information to shape your messages so you provide them with useful information.

Shape the delivery system for the audience

Do not target people who do not have a technical background with long technical reports. Offer more detailed information to those who want it. Senior officials, such as cabinet ministers or business executives like a one or two-page synopsis. Only specialized audiences such as academics or students may have more time and interest to read the full report.

There are many communications options. The classic methods are largely oriented to print (reports, synopsis report with highlights, bulletins, articles, newsletters), or to radio and TV (interviews, pre-recorded messages).

In recent years, the Internet has become a major communications tool through the posting of reports online and the use of techniques such as interactive reports and electronic bulletins by e-mail. Consider alternative communications such as cartoons for populations that can't read or write or puppets in a theatre play. In addition to distribution to the news media, consider outreach to a wide range of interested organizations, such civil society organizations, universities, national and international agencies, schools and many others.

3.5.7 Stage 7: Monitoring, evaluation and learning

The IEA should not be seen as a one-time effort, but rather as the first step in a system that will hopefully produce environment and be sustainable development relevant information at regular intervals. The frequency of the IEA cycle is determined country by country, but the range typically varies between 2-5 years. Continuity of reporting will allow for better analysis of the impacts of actions taken, as well as the evolution of the links between pressures, the state of the environment, and impacts on ecosystem services and human well-being.

Evaluating the impact of the IEA is an important part of the learning process in reporting and for progress toward sustainable development. You can set up a process and simple database for technical teams to document evidence of the IEA's impacts of their work or to track the uptake of recommendations by policymakers and the public.

As covered in detail in Module 8, it is important to monitor progress at each stage throughout the process. For effective monitoring, it is important to define, in the planning of each stage, the expected results and key progress measures. The monitoring process allows improvements in IEA methodology and the institutional framework based on lessons learned at every stage.

Discussion Questions

1. Do you think it is important to evaluate your national IEA processes? Why?

2. Which measures will be good to keep track of your impact?

3. Which mechanisms will you implement in order to promote continuity of your reporting processes?

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Integrated Environmental Assessment

Training Manual
for the Arab Region

Workshop for the National
Reporting Toolkit (NRT)

9-12 December 2013
Abu Dhabi, UAE