

IEA

Training Manual

*A training manual on
integrated environmental
assessment and reporting*

Training Module 7

*Creating communication
outputs from the assessment*

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Module 7

A training manual on integrated environmental assessment and reporting

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List of Acronyms

EEA	European Environment Agency
GEO	Global Environment Outlook
GIS	Geographic Information System
HTML	Hypertext Markup Language
IEA	integrated environmental assessment
IIED	International Institute for Environment and Development
IPCC	International Panel on Climate Change
PDF	portable document format
PR	public relations
TOR	Terms of Reference
RDF	resource description framework
RSS	really simple syndication
SoE	State of the Environment
TERM	transport and environment reporting mechanism
UNEP	United Nations Environment Programme
WMO	World Meteorological Organization
WRI	World Resources Institute

Overview

There are many techniques and products to communicate the results of an integrated environmental assessment (IEA) following the UNEP Global Environment Outlook (GEO) approach. This module guides you through the communications process, showing you how to get your message to the audiences you want to reach.

Before you start producing your main report and other products, you need to make a series of important decisions. By identifying your target audience(s), you will be better able to shape your message and select the right content, and later, the right presentation format. By carefully considering your budget, you will be better and more able to make realistic decisions about the kind of product you feel will be most beneficial.

You will have to decide what kinds of information products best suit your message. There are printed materials (e.g., popular reports, flyers, posters, brochures), electronic (e.g., websites, CD-ROMs) and visual (e.g., photos, graphics, maps), each with its advantages and disadvantages. The module discusses strengths and weaknesses of different channels and how to go about approaching the media.

In addition to written materials, this module provides advice on visual materials. It covers the basic principles of the cartographic process, and gives concrete suggestions about ways to express your message visually.

A big part of the production and dissemination process is related to practical and organization steps. You need to evaluate internal and external resources to best meet your needs. Not everything can be produced in-house; often it is best to use external services for needs such as cartography, web design, editing and printing.

Finally, the module provides advice on building long-term communication strategies.



Notes

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Course Materials

1. Introduction and learning objectives

This module focuses on developing innovative communication outputs for the IEA, and provides practical steps for dissemination.

Upon successful completion of this module, participants should be able to:

- demonstrate an ability to link target group(s) and content with their choice of presentation format and communications channels, considering budget constraints;
- understand, consider and systematically implement the most important steps of a dissemination plan, while choosing the most appropriate communication outputs, and ways of reaching audiences;
- organize the production process and create high-quality paper publications, electronic products and visual presentations of data; and
- understand the importance of distribution/dissemination, with special emphasis on approaching the media.

Participants will create:

- a short-term strategy for IEA output production and distribution;
- a production plan; and
- a range of communication outputs.

Reading and exercises to be completed prior to the workshop

Participants should prepare a list of communication outputs with which they have been involved and/or bring existing, innovative printed or electronic communication outputs to the workshop. Participants are asked to bring the latest state of the environment (SoE) report for their country or other relevant jurisdiction, if available, as well as related products, such as brochures, a statistical book or other printed/electronic materials that includes a simple data set and graphical elements. These materials will be required when discussing visual presentation of data.

2. Choosing what to produce

Before deciding on the products and formats, it would be wise to revisit the objectives of the impact strategy (see Module 3 for details). In doing so, you will have a clearer overview of:

- the environmental issues you want to be communicated;
- the persons and groups in a position to influence these issues;
- the knowledge that the national IEA process will generate; and
- leveraging opportunities for getting key information to influential target audiences.

The latter point on leveraging opportunities is the focus of this module, which is to think strategically, linking target groups and content with innovative communication formats and channels, and at all times, considering budget and capacity constraints.



DISCUSSION QUESTION: Mapping existing communication outputs

(About 15 minutes.)

In small groups discuss your experiences working with different communication formats and distribution channels, both traditional (e.g., printed) and non-traditional (e.g., electronic/multimedia, interactive). The questions for the discussion might be, “What are your observations and experiences about using different formats?” and “What results, if any, were achieved?”

Base your discussion around products and examples that you brought to the workshop, along with your collective experience dealing with communication channels.



2.1 Target group(s)

In order to begin choosing what communication outputs to produce, it is necessary to identify and profile the target group(s). Which persons and groups do you want to reach with your message? These target groups will be identified as part of your impact strategy (see Step Two for Creating an Impact Strategy in Module 3,) and should include those persons in a position to influence the types of changes needed, based on results of the IEA.

Some target groups are not “chosen” but defined in the mandate for the assessment. This means that in some countries, environmental assessments or SoE reports are bound by legislation and specifically targeted towards governments.

It is important to keep in mind that target groups are not only defined by their profession or areas of focus, but also by differences in language and culture. This can particularly be an important consideration in countries with several languages. Because of possible delays and extra printing costs due to multiple language requirements, this needs to be considered when planning and budgeting.

Within the target audience list, there may be a number of specific groups, such as politicians, academics, women, business, journalists, youth, the general public and others. This will help you look for points of reference or interests to be addressed.

Review what has been done so far with respect to communicating with these target groups, and what, if any have been the reactions? It can be useful to define the level of involvement each group has with the most important issues, and ask if that involvement is on a personal or official basis. It also is helpful to know their perception of the issues and what their current behavior is with regard to them.



Box 1: Examples of some of the most common target groups

- Governments (environmental agencies, planning and finance departments etc.)
- Planners
- Politicians
- Researchers and analysts
- Non-governmental organizations (NGOs), the general public
- Schools and universities
- Industries and businesses
- Women's groups
- Indigenous peoples' groups
- Media

When segmenting the list of target audiences, it is also useful to distinguish between end users, who make decisions based on the information (e.g., adopt a law or not, buy or not buy) and “broadcasters” who recycle information to targeted messages and thus multiply its impact (e.g., the mass media, the educational system, many NGOs).

Once the target group(s) has been identified, you can take a closer look at how to tailor the message to reach those audiences. Remember that one size does not fit all; the message must connect to characteristics of the target group, such as previous knowledge, attitude, level of education, lifestyle, culture, interests, and their involvement in the problem and solution. The main message should stay the same, even though it will be shaped to fit different target groups.

Also consider your reach and credibility. Are you able to reach your target group(s)? Will they find your message credible, relevant and legitimate? If the answer to either of these questions is “no,” you should reconsider your message or your audience.

CASE STUDY/EXAMPLE

There are many examples of how assessments have tackled the need to reach different audiences through different products. One example is the first National State of the Environment Report of South Africa, published in 1999. Various publication formats, such as a web-based report, a paper overview document (published in several languages), a booklet for schools and a video, were developed to reach different target groups. Since then, several provincial, local and sector-specific reports have been published. The South African Department of Environmental Affairs and Tourism initiated a study to determine whether the 1999 report and related products reached target audiences, if it met the needs of decision-makers and other users, and to determine which of the related products added value to the suite of SoE products. For more information, see http://www.environment.gov.za/soer/reports/impact/Evaluation%20Impact%201999%20NSOER_0504.pdf



EXERCISE: Who is reading what?

This exercise is meant to reflect on how various groups access information, who are their peers, to whom do they listen, and what you as a producer of the information can offer to your target groups. All participants will break in groups of no more than six people for a short role-play. Each group will receive a pre-defined user group role (e.g., business people, youth and government). Within each group, break into two sub-groups: those preparing the assessment and proposing various types of products, and those representing a particular target group (e.g., business, youth, government etc.). Spend 15 minutes in each group separately discussing the type of products that can be offered or that would be used. Then reconvene in plenary, where each group can summarize their needs and their preferred products. The table below will help you to structure your thoughts.



Table 1: Planning to deliver information to target groups

Target group or focus group	What are the needs of the target group	What is the message	Formats
Government representatives of environment-related sectors (e.g., transport, agriculture)	To understand the environmental issue, the impacts, and linkages with other issues	Global warming and its causes	Extended brochure of 10 pages; indicator based analyses
....

Recommended readings

Principles of good practice. Checklist Analyzing Target Groups, http://www.iucn.org/themes/cec/principles/checklist_target_groups.htm

Environmental reporting Guidelines 2001 – With Focus on Stakeholders, Ministry of Economy, Trade and Industry of Japan, www.meti.go.jp/english/information/downloadfiles/cEnv0106e.pdf

Impact II Telling Good Stories, GRID-Arendal Occasional Paper 01 2005, <http://www.grida.no/impact/>

Guideline documents for the State of the Environment Reporting, <http://www.environment.gov.za/soer/>

Evaluation of the Impact of the of the 1999 National State of Environment Report, http://www.environment.gov.za/soer/reports/impact/Evaluation%20Impact%201999%20NSOER_0504.pdf



2.2 Content

With a better understanding of the types of target audiences best positioned to influence the environmental changes desired, the next step is to identify the ideas to be conveyed to the target group(s), and the messages you would like to deliver. At this stage, content and conclusions from the assessment will be transformed into shorter and more specific messages. These short messages must be supported by the main body of knowledge generated by the IEA, like the main report where all the knowledge is brought together, and which has to provide the credibility to all “supplementary” products. This approach can be applied to reports on many scales, from local to global. It is important to maintain the connections between both the processes and messages, as well as the products of these assessments (e.g., formats, content and timing). Questions to keep in mind may include whether these messages form a coherent story and whether there are any conflicts or ambiguities? If so, resolve these first by re-examining your starting point.

Scientific uncertainty is also a significant point. Uncertainty is a core part of science, but that is rarely well understood by the public or decision-makers. Communicating uncertainty needs special consideration. It must not be confusing, but it cannot be hidden either. The relevance of uncertainty with regard to the range of possible future outcomes has been brought to light particularly through the international climate change negotiations.



To formulate a set of messages best suited for a target group, consider the characteristics of the audience. For example, how much background information will they have? What are their priorities? Do they view the environment as a necessity or a luxury? What motivates this group to act?

Box 2: Target groups and content

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Decision-makers. Content should be short, specific, fact based and consist of the latest information

Media. Content should be short, and consist of findings relevant for media use, messages that can easily be linked to other issues in the news. You will have a better chance of media coverage if you provide supporting visuals such as graphs or photographs.

Students. Content should be well explained, and your language should be simple.

Scientists. Content should be fact-based, and rely on the latest data. Your language can be scientific, and include technical terms.

CASE STUDY

The European Environmental Agency (EEA) provides indicator-based reports targeting policy-makers. By developing the transport and environment reporting mechanism (TERM), they aim to monitor progress in integrating environmental concerns into transport policy throughout Europe. About 40 indicators cover the most relevant aspects of transport and the environment. Each indicator is supported by a key message and the main body of knowledge. TERM 2004: Indicators tracking transport and environment integration in the European Union, contains 10 key transport and environment issues for policy-makers.

Recommended readings

van Asselt, M.B.A., Beusen, A.H.W. and Hilderink, H.B.M. (1996). "Uncertainty in integrated assessment: A social scientific perspective." *Environmental Modelling and Assessment* 1: 71-90.

EEA (2004). Ten key transport and environment issues for policy-makers. <http://reports.eea.europa.eu/TERM2004/en>.

2.3 Budget

Available resources, both financial and human, will influence your work and force you to prioritize. Before choosing communication formats, the budget needs to be revisited. Some communication formats, like web-based publications, are typically less expensive to produce than printed products. Depending on the budget, you may have to prioritize your messages and findings.

Consider the cost of the required products, and see what other products can be realistically produce given available resources. Be innovative, and consider options like sponsorship of specific products or form alliances to co-publish.

Determine the time available to internal and external staff and allocate tasks appropriately. For materials, determine how much it costs to design and produce the products, and ask how much it will cost to distribute them. You will have to consider the cost of publishing, along with office supplies, mailing costs, telephone costs and copying. We recommend a contingency line item for unexpected costs that typically arise in developing communication outputs.

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EXERCISE: What are the main budget lines?

In a plenary, 7-10 minute discussion, participants outline the main competencies needed (available in-house and/or externally) and the main budget lines for producing a report and a website. The participants can use the table suggested below or propose other formats. The goal is to stimulate a discussion about required products. Participants also should discuss potential financial options. The results will be presented in plenary.



Activities	Unit	Costs
Writing	5 experts x 1 month
Editing	1 editor x 2 weeks
.....

2.4 Formats

At this point, you have clarified the messages and identified your target group(s). You have also had a closer look at your available resources, both financial and staff, and have spent time thinking through the complexity or sensitivity of the issue and your institutional credibility as the sender of the message. Now you need to choose the best format(s).

In many cases, formats like a paper report might be requested. However, considering additional or other alternative formats might help to broaden your reach to target group(s). Other formats can be synopses, executive summaries, periodic reports on critical issues, bulletins, newspapers, posters, calendars, atlases and vital graphics, just to name a few. More innovative ways of communication, like films might also be considered. Even though making films is a process demanding both economic and human resources, it has proven to be a very effective way of communicating a message, sometimes reaching much broader audiences than the more traditional means of communication. With the rapid expansion of internet services in many countries, using short video clips (e.g., interviews with affected stakeholders, senior experts, etc.) could be considered. Whatever your choice, note the importance of consistency of your message through all the formats.



Box 3: A sampling of formats and channels

Spoken options include visits, interviews, speeches, meetings, press conferences, training sessions, radio broadcasts, discussion groups and hearings.

Written options include reports, flyers, newsletters, posters and brochures.

Visual options include presentations, television, slide shows, films and videos.

Digital options include Internet, CD and DVD-ROMs, PC-demos, e-mail bulletins, discussion groups and online conferences.

See Table 2 for concrete examples.

Table 2: Advantages and disadvantages of the range of UNEP's GEO products

Printed			
Communication products	Advantages	Disadvantages	Points to remember
Technical report:			
Global Environment Outlook, Data Compendium Global assessment of acidification and eutrophication of natural ecosystems	Provides a good opportunity to delve into further depth on a specialized topic for a very specific audience.	Loaded with technical jargon for the non-specialist.	A database of specialized target groups needs to be kept because broad distribution of a specialized report will be a waste of resources.
Brochures and Leaflets			
Global Environment Outlook, Synthesis Outlook, Fact Sheets on Regions	Can reach large number of people. Becomes cost-efficient when produced in large numbers. Can be kept in store to answer questions.	Little chance of feedback; if distributed in the wrong way easily overlooked; mass distribution may result in high wastage, limited space to explain details.	Plan the distribution with care, and always pre-test a draft with the target group to check if the message gets across.
Reports			
Global Environment Outlook http://www.unep.org/geo/	Can present information in detail. Reports have proved useful for in-depth understanding of environmental issues, and have been widely used as reference material and for educational purposes.	Can easily be overlooked because of high number reports published. Little possibility for feedback.	The process through which the report is produced is as important as the product itself. Broad participation in the conceptualization, development and review of the report builds ownership and boosts credibility. Design elements, distribution and publicity should be well thought out and orchestrated to yield a return on investment.
Journals and Magazines			
"Tunza" – UNEP Magazine for Youth "Our Planet" – UNEP's flagship magazine for environmentally sustainable development http://www.ourplanet.com/	Good way to reach specialized audience with specific issues.	Limited circulation, little feedback. Can be a cost-effective method if the articles are published free.	Keep lists of specialized journals and names, phone numbers of editors, and build a relation with most important editors.

Digital means			
Means	Advantages	Disadvantages	Points to remember
Websites			
Ref.: http://www.unep.org/geo http://www.grida.no/geo/	Attractive way to present high variety of information. Feedback and interaction possible. Relatively easy to update. Insight into number of users, and potential to reach high number of people.	Not accessible for everyone, requires technical expertise.	How to attract target groups to the website? Ensure linkages with popular target group sites and ensure high ranking with search engines.
CD-ROMs			
	Suitable medium to present complex and high quantity of information, relatively cheap to reproduce, easy to distribute.	Requires special equipment to use, requires technical expertise to develop.	Check CD-ROM use in target group first.
E-mail (-newsletter)			
	Effective medium to approach small or large number of people, cheap, fast, direct, possibility for feedback.	Difficult to stand out in large number of e-mails sent each day.	Necessary to attract attention right away. Be direct, and avoid long messages.

Box 4: Examples of outputs for multipurpose and tailored reports.

Although there are alternative formats, the traditional assessment reports are printed in A4 format or close to this size, usually with soft cover. Examples of traditional assessment reports are the UNEP's Global Environment Outlook and regional reports (www.unep.org/geo), assessment reports of the European Environment Agency (www.eea.europa.eu), the Intergovernmental Panel on Climate Change (IPCC) reports (www.ipcc.ch) and many others. These global or regional assessment reports are multipurpose, capturing the latest findings for decision-makers and scientists.

At the country level, in most cases, SoE reports are the result of legal international and national mandates. These reports are multipurpose, providing access to environmental information. A range of examples of these reports is available for reference for good ideas and inspiration. For example, a collection of national and regional SoE reports from South Asia is available at http://www.rrcap.unep.org/reports/soe/sa_soe.cfm. SoE reports from Central and Easter Europe, Caucasus and Central Asia are available at <http://www.grida.no/enrin>. The Compendium of Sustainable Development Indicator Initiatives provides an overview and links to national and sub-national SoE-type reports with a strong quantitative component. <http://www.iisd.org/measure/compendium/>

If you choose tailored reports, the size and format should be adapted to your target groups. They can range from a small pocket book (e.g., *The Environment in your Pocket*, key facts and figures on the environment of the United Kingdom) to hardcover binders like *Vital Climate Graphics on Africa* www.rrcap.unep.org/reports/soe/sa_youthSoe.cfm.

The South Asia Youth State of the Environment report was named *Children of the monsoon* by the youth of this sub-region. This publication was prepared by South Asian Youth, going through the process of design and the consultation workshop. Presentation of the graphics, outline and selection of the names of the chapters all were done by the youth considering the youth interest. For example, youth selected the term “Mission H₂O” for the water issue; similarly the Air Issues the title was “Breath of Death.” The report has presented future scenarios in a simple way by selecting graphics the youth themselves have drawn. http://www.rrcap.unep.org/reports/soe/sa_youthSoe.cfm

Apart from printed materials, the trend over the several last years has been to focus on developing electronic products such as databases, portals, gateways, CD-ROMs and other electronic products.

Additional and supplementary formats for environmental information include:

- Synthesis reports that are aimed at top political decision-makers.
 - Posters are widely used to visualize and extract key messages in a larger format. A poster can serve as advertisement for a publication or organization (e.g., the UNEP centre in South Asia (<http://www.rrcap.unep.org/>), to highlight key environmental messages (e.g., the poster on Environment and Security priority areas in the Southern Caucasus <http://enrin.grida.no/security.cfm?article=5>), or for a one-page presentation of key priority environmental issue as was used in the on National SoE of Nepal.
 - Calendars, such as Central Asia: Environment and Development, including a paper calendar and a CD-ROM. <http://enrin.grida.no/aral/calendar/eng/index.htm>.
 - A Vital Graphics presentation supported with a short assessment text. A series of vital graphics is available at <http://www.grida.no/>.
 - Newspapers dedicated to cross-sectoral issues (e.g., *Environment and Poverty Times* <http://www.environmenttimes.net/>).
 - Multimedia presentations, documentaries, pictures and other electronic products. The International Institute for Environment and Development (IIED) has developed series of documentaries (e.g., http://www.iied.org/NR/forestry/projects/water_mm/water_mm1.html), and the World Resources Institute (WRI) provides material on a wide range of topics (<http://multimedia.wri.org/>).
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2.5 Consider your channels

People are exposed to environmental information, as they are to other issues, through a vast range of communication channels. It is therefore important to choose channels based on the audience's favoured way of accessing information. Your communication goal should align with the desired changes recorded as part of the impact strategy (see Module 3) (e.g., to change people's attitude towards an environmentally-related problem, to communicate your key findings to a narrow circle, such as politicians and ministries). Remember that communication is not only about information, but also about meaning. Meaning is actively constructed, not passively extracted from books or other sources provided by a sender. Keeping this in mind will assist in choosing outlets because the channels will be tailored to reach the target groups in large or narrow circles.

When selecting an appropriate channel consider its **effectiveness** and **efficiency**.



Communication effectiveness means that your message is:

- Received by the target audiences
- Interpreted by recipients as intended by senders
- Remembered over a sufficient period of time
- Triggered an appropriate action



$$\text{Effectiveness} = \frac{\text{Impact achieved}}{\text{The cost of producing message}}$$

Communication efficiency of a channel means that the maximum number of recipients has been reached per unit cost

$$\text{Efficiency} = \frac{\text{Number of recipients reached}}{\text{The cost of producing message}}$$

In each case, the communication must be tailored to the target audience. In countries like Norway, which has the highest number of daily newspapers per capita, people read newspapers extensively. In other places, like Uzbekistan, they are more avid radio listeners. Age, social status and level of education all play roles.

Information may reach its target audience directly: people buy books in a bookstore, borrow at a library, receive a briefing note in the mail, or download a map from the Internet. In other cases, information reaches its audience through media channels. The environmental information rarely is trivial. It is very complex: those who receive briefing notes might also be exposed to newspaper headlines, but they may not have a time to download a map. Information received from different sources on the same issue may be conflicting or highlight different angles of the problem, requiring active construction of meaning by the audience.

Even though the most effective and powerful communication channels are newspapers, radio and television, this should not limit you from trying to attract people's attention through additional communications channels. There are many direct channels, like information centres open for the public, e.g., ENFO in Ireland (www.enfo.ie), which provides public access to wide-ranging and authoritative information; environmental bookstores and ordinary bookstores, online bookstores

(like www.earthprint.com), libraries, and the Internet. Be innovative in your tactics, and utilize community fora, theatre, music, dialogues or meetings as alternative means.

Each channel has its strengths and weaknesses. Therefore, it is advisable to use a combination of channels, choosing some that offset weaknesses of others.

Consider the *messenger* and the *timing* of the message (link to issue cycles, as discussed in more detail in Module 3). These are both important and affect the effectiveness of the communication. For example, an op-ed (opinion or commentary article in a newspaper) by someone not associated with the assessment but referring to it can add significant credibility.

Be aware that language and cultural differences can affect your choice of channels. Choosing only a few main channels might prevent you from reaching as broad an audience as you might wish. In countries with several official languages, this is crucial to keep in mind.

If you want to reach large target audiences, repetition and continuation of messages in different channels is crucial. Promotion campaigns are an efficient approach to raising awareness. You may use a range of methods over a longer period to get your message across, including media campaigns, information leaflets and posters.

Remember that information produced but not disseminated will remain unknown and lose its significance.

It is very important at this stage of the project to start developing a well-structured dissemination plan for your various products. The table below provides guidelines for dissemination activities planned throughout the project. It indicates purpose, target audience, timing, media used for dissemination and follow-up with target audience and actions to be taken.

Table 3: A possible outline to disseminate IEA products

Dissemination plan						
Timing	Dissemination activity	Purpose	Target audience	Potential impact	Media used	Follow-up/ action taken
Date	Special planned event involving all relevant partners and media.	Launch of the report. Get attention.	Key partners (ministries, NGOs, public institutions), media.	Media coverage, awareness within the ministries, outreach to the public.	Press release, press kit, interviews, media contacts.	Media monitoring, free distribution to the ministries.
Date	Free mailing of the report to all ministries (approx. 20 copies per ministry).	To inform them about the content of the report, so that the report can be used in decision making processes.	High-level decision-makers, governments, clerks.	Affect decision making.	Report.	Get user feedback.
.....



CASE STUDY – Dedicated environmental information centres

Dedicated environmental information centres were established in many countries in Europe and Central Asia under the Convention on Access to Information, Public Participation in Decision making and Access to Justice in Environmental Matters (Aarhus Convention). If equipped with the necessary means, they provide access to environmental information for the public. They initiate debates through round tables and meetings, especially among NGOs.



EXERCISE

Discuss existing media relations in your country, and use your experience to draft a short-term dissemination plan to approach the media

Work in groups of four. Choose someone in your group to record your results following the discussion points below; report the results in plenary. Duration of the exercise is 40 minutes.



- Discuss the needs and available resources for communication.
- What ongoing relations with mainstream media exist within your organization/department?
- Do you have staff/members who are familiar with mainstream media norms and needs? Do these staff/members have sufficient time to do consistent media outreach?
- Make a list of responsive journalists and other “insiders,” and describe plans to use them to spread your message.
- Does your organization have a distribution network? Is it updated and ready to be used?

Summarize your results on a flipchart for presentation in plenary later.



EXERCISE

Participants continue working in the same groups. Duration of the exercise is 30 minutes. The aim of the exercise is to find out what are the best communication channels, considering given time, resources and possibilities. The participants map out a variety of communication channels, analyze strength and weaknesses of each of them, and prioritize their dissemination channels. Participants choose someone in the group to report the results of the group discussion in plenary.



Channel/media	Strength	Weaknesses	Priorities
Television	It can reach many people. Visual medium provides more impact and the ability to demonstrate a behavior.	Expensive to produce and buy time. Short format does not allow for more than awareness.	
Press (papers, magazines)	
Printed materials (book...)	

3. How do we do it?

3.1 Print products

Because not all publications are alike, the time needed to produce material for them varies. Due to extensive analysis and writing process, a comprehensive report may take six months to a year (or more) to produce. In contrast, a one-colour flyer may be completed in a few weeks and a full-colour brochure may take a few months from concept to delivery. Rushing the process may compromise the quality of your product and increase production costs.

To better prepare for the production process, you will benefit from asking who needs to be involved, in what way and during which phases. For example, you will need to involve writers, a graphic designer, a web designer, a database manager, maybe a cartographer and an editor. Further, clarify who is responsible for specific parts of the plan, and who coordinates the joint efforts.

Box 5: Common steps in the production of a printed IEA report.

The following list summarizes common steps in the production of a printed IEA report.

- **Specifications.** Rough specifications on format of the publication, size, font, illustrations and layout option. It is recommended that dummy reports are produced to present different options.
- **Contents.** Production of text, as well as choosing graphics and pictures. At this stage it is important not to forget any elements like picture text, references and headings.
- **Translation.** (If needed.)
- **Pre-design.** Can be useful to test the design in order to be able to make revisions before developing all the contents.
- **Layout.** Place all the contents into the design chosen.
- **Proofreading.** This is the last chance to make revisions before the report goes to the printers.
- **Test print/blue line.** You should always ask for a test print in order to get rid of the last mistakes, correct colours, identify missing elements, etc.
- **Print.** Now your major concern is to make sure the printed report is ready on time, according to quality expectations and within budget.
- **Quality control.** Quality control, revisions and editing. This should be done throughout the production process.



Specification and contents

A writing process will usually involve many people from different fields and with different perspectives. Therefore, it is important that the actual writing process be supported by specifications that are clear, so that the writing tasks are interpreted accurately, and information can be integrated with ease (see Module 2, Box 8 for an example list of tasks and responsibilities for authors). For example, you should be consistent in the use of fonts, formats, words and phrases. Good specifications that are carefully followed make the review process much smoother and simpler. A rule of

thumb can be that written formats should be clear, easily read and understood, with a good mix of relevant graphs, tables and photographs for maximum visual appeal.

Quality control and translation

Once the text is written, it needs to be reviewed and edited. This should be a precise process in terms of quality control and adherence to set specifications and deadlines. The review process should incorporate as many relevant stakeholders as possible given time and resource constraints. There must be a good feedback mechanism within this process so that collaborative decisions are taken. However, it must be made clear that the decisions of the designated product management team are final, in order to avoid unnecessary complaints.

Peer review (in Module 2 see Stage 5 of the IEA process) is an important element of the review process to ensure the credibility for larger more complex products. The objective of the peer review is to check for adherence by the authors to the specifications provided at the start of the assignment, to check the reliability and appropriateness of the scientific basis of the analyses, and the reliability and appropriateness of the data and information used for the analyses. It can also be used to provide relevant and up-to-date data and information to enrich the analyses, and to ensure that the sources of information as well as citations are used correctly.

Quality publications demand quality editing functions including copy, literary and technical editing. Technical editing ensures that the content is accurate and scientifically sound. The technical editor should be familiar with the subject being presented, and be familiar with the technical terminology used within the subject. The literary edit ensures that the document conforms to the guidelines and standards of the organizations, and ensures consistency within the document (e.g., referencing, capitalization, spelling, hyphenation of compound words, use of symbols and use of italics or bold). The literary edit also covers copy-editing, which is to ensure that spelling, grammar and punctuation are correct, that sentences are complete and comprehensible, that no material is missing, that illustrations and references to graphics are correctly inserted, and that tables are laid out correctly.

As the language edit is the most important from the reader's perspective, it is important that ideas are expressed clearly, that sentences are not too complex, that the flow of ideas is logical and that excessive jargon is avoided. Only when the original text is finalized does it go to the translation if other language versions are requested.

Layout

Layout is another crucial part of the process. Bad layout will easily confuse the reader and hide your message. A long report can be made more reader friendly through layout and design. For your message to stick out in the crowd of information products, it needs the right packaging. The layout is in many ways the final touch where you will have to think of such issues as harmony between text and illustrations, a good use of graphics and photographs, space and structure. The aim should be to have a product that is easy for the reader to navigate.

Printing

The printing process can be costly, so it is important to seek professional advice and budget the costs taking into consideration the number of colours, type of paper, format, binding and finishing. You should get quotations from several printers, because the price can vary significantly. It is very important not to rush this part of the process. Once you give the printer approval to proceed, you no longer have control of the process. You should always ask to see the blueprint, the finished document from which they make several copies, and study it closely before approving the printing.

EXERCISE: Budgeting needs and skills

This exercise builds on the exercise on establishing the main budget lines. The exercise is not limited to planning printed formats, but can be used when planning communications in any format.

The participants break into groups of about five. The exercise lasts for 30 minutes. The production phase requires people with different skills. This is an exercise in mapping needs and skills for preparing printed or electronic reports. Participants should discuss expertise, skills and services they need for preparing their communication outputs. The leading question for the discussion is: What expertise, skills and services do you need to succeed with your project? Make a budget and time plan based on:

1. Who will be involved in the project (inside and outside expertise)?
2. What are direct expenses (e.g., meetings, communication, printing, transport)
3. How much it cost?
4. What is the time frame of the different steps?

**Recommended reading**

Adapted from <http://jeanweber.com/about/whoneeds.htm> 3/21/05

3.2 Electronic/digital products

Disseminating environmental information through electronic channels, such as websites, can bring a great degree of flexibility. It allows messages in mixed formats, such as text, data, graphics and audiovisual. Today, there is a great and fast growing variety of electronic formats that can be used for different purposes. This includes formats such as PDF, html pages, RSS (a of web feed format used to publish frequently updated digital content), blogs and other personalized web-based tools.

There are many things to consider when choosing an electronic format for communicating your message, and it is important to keep in mind that in many countries web access is still limited. That limitation will vary from country to country and from region to region.

On the web, contents can easily be added, removed or updated. That flexibility offers an opportunity for publishing information as it becomes available. At the same time, readers will expect that an Internet site is regularly updated so, if resources for updates are lacking, you may lose readers.

It is important to keep in mind that we read differently on the web than we do with printed publications. Printed materials have a linear structure, and the reader follows a predefined path; reading a web report allows the reader to freely navigate from section to section. This has implications for how a web report should be organized and written. The most important advice when producing for the web is to limit text lengths and sharpen the messages. Be clear on what you want to communicate, and focus on the essential parts of your message.

Since people tend to read more slowly on the web, they will probably not follow your messages in a linear manner all the way to a conclusion, but will jump between pages as their interest shifts. The main messages you try to communicate should therefore not be saved to the end, but brought to the beginning of the text. Hence, you start with conclusions and move on from there.

Images and graphics may take a lot of time to download on the Internet for readers with a slow connection. This makes it important to understand the ability of your audiences to see images, depending on their computers and Internet connections, and to adjust your images accordingly. This may mean minimizing their use or at least keep the images sizes small. You can choose images and graphics without too many details, and to save the images as “jpg” files (for lower resolution graphics) and the graphics as “gif” files (common file compression format for photographs). If available, you may provide access to both low and high resolution versions of the same image and



let the readers decide if they want to spend the time accessing the higher resolution one. An image or graphic should always have explanatory text and the source.

The possibility to make links is a strength of web-based publications. This allows combining different parts of an assessment in contrast to having to follow a linear path in a printed publication.

If you choose to produce a web report but an important portion of your audience has poor web access, you can choose to also distribute on a CD-ROM. The navigation of a CD-ROM should resemble that of your web page, so people will find it easy to use. Before you start production of a CD-ROM, consider if your target audience will find this to be a useful format. For example, a CD-ROM might be of greater use for schools, than for the general public.



Box 6: Formats for electronic documents.

PDF. PDF stands for *Portable Document Format*, and has become a widely-used way of publishing electronic documents. PDF is probably the best way to transfer and view documents on the web or through e-mail. Once you have Adobe Acrobat Reader installed (which is already in most recent computers) all you need to do is click on the PDF file and it automatically opens. If Acrobat Reader is not already installed, it can be downloaded free from the web (http://www.freesoftwarepack.com/Adobe_Reader.html). However, creating a PDF file requires Acrobat Professional, which must be purchased.

HTML. Hypertext Markup Language is the coding language used to create hypertext documents for the web. In HTML, a block of text can be surrounded with electronic “tags” that indicate how it will appear on a computer screen (e.g., bold face or italics). Also, in HTML a word, a block of text, or an image can be linked to another file on the Web. HTML files are viewed with a web browser.

RSS. Rich Site Summary and RDF (Resource Description Framework) are web technologies that make it easy to automatically share content, such as news items, among different web sites. A web site can allow other sites to publish some of its content by creating an RSS document, and registering the document with an RSS publisher. A web publisher can post a link to the RSS feed so users can read the distributed content on his/her site.

WEBLOG (BLOG). This is a publicly accessible personal journal created by an individual, and shared over the web. The activity of updating a blog is “blogging,” and someone who keeps a blog is a “blogger.” Blogs are typically updated daily using software that allows people with little or no technical background to update and maintain the blog. Postings on a blog almost always are arranged in chronological order, with the most recent additions featured most prominently.

CASE STUDY

There are a number of ways to develop a web report. You can choose to develop a design and structure from scratch. Alternatively, you can use existing web reports for inspiration. There is also the possibility to use a template intended for more than one reporting institution.

UNEP/GRID-Arendal has applied the last strategy in a few projects. Web publishing software and web templates were developed for publishing the reports on the Internet. Here are two examples:

- Template developed for environment and sustainability reports based on the European Common Indicators for local sustainability (<http://ucp.ewindows.eu.org/template>)
- Basic template for urban SoE reports (<http://www.ceroi.net/template/index.htm>)

EXERCISE: Create an outline of a web structure

A paper report has a linear structure, where the reader goes through the contents in a predefined order. Web reports have a hierarchical structure, where the reader can choose to move horizontally from topic to topic, or vertically perusing a topic more in depth. Working in groups of 4-5, take an existing report provided by the instructor and transform the report's table of contents into a diagram of a web report. The web structure can be displayed on a large poster. Duration of the exercise 1 hour. Present results of the exercise at the plenary. The needs for exercise: A3 paper, markers of 4-5 colours.

**Recommended reading:**

Nielsen Norman Group's guidelines to website usability (<http://www.useit.com>)

3.3 Visual presentation of data in the IEA

This section has close links to parts of Module 4, which deals with databases and indicators from the conceptual and methodological points of view.

The visual part of communication is often underestimated. Ever since the birth of the printing press, there has been a cultural assumption that information is best communicated through written formats, and people often consider words the most important form of human communication. Supported by the invention of the computer and desktop publishing, media and advertising, the role of visual messages in the communication process has expanded since the late 1980s.

It is becoming increasingly important to recognize that the two communication systems—visual and verbal—are interdependent. It is probable that the most powerful, meaningful and culturally important messages are those that combine words and pictures. Memorable visual messages with text have the greatest power to inform, educate and persuade an individual.

Visual communication can help us shape the interpretation of data, and strengthen messages delivered through the text. Images, maps and graphics can simplify complicated insights as well as displaying complex information in a very condensed way. So, by using the right images and colours, and by getting your maps and graphics properly done, your IEA's messages and readability will be strengthened. See the presentation material on improved visual communication.

Box 7: Visual communication: Example of the Vital Climate Graphics, Africa.

The Third Assessment Report of the UNEP/WMO Intergovernmental Panel on Climate Change (IPCC) noted a warming of approximately 0.7°C over most of the African continent during the 20th century, based on historical records. While the exact nature of the changes in temperature or precipitation, and extreme events are not known, there is general agreement that extreme events will get worse, and trends in most variables will change in response to warming. To explain these changes, a large number of graphics were developed to make the issue more understandable. The information is available at: <http://www.grida.no/climate/vital/>

3.3.1 The cartographic process

Managing the cartographic process often requires a specialist (cartographer), who usually will not be the manager of the IEA. However, the assessment manager/practitioner will need to work closely with the cartographer to make sure the maps you use harmonize with the core messages and results of the assessment.

Once spatial data are collected and analyzed, they are sent to a cartographic designer for further processing and refinement. This step involves transforming the data into a clear and efficient visual representation. Ideally, the figures should give an immediate message to the users, with no more than two or three items being presented. By reducing the number of categories, you simplify the information.

Box 8: Relationship of GIS and maps

Covered in more detail in Module 4, a Geographic Information System (GIS) is a geo-referenced database. It allows you to collect and archive a large amount of data both geographically and through time (vertically and horizontally). When all data are collected and sorted, a GIS allows a rapid visualization of phenomena by automatic plotting. Usually such analysis is appropriate only for “working documents” not for “publishable documents” or ones intended for the general public. A GIS is a database used for storage of a large amount of data, and is mainly used as an efficient tool for management (e.g., water or transport networks, marine resources, land cover, grazing area). We often extract information stored in a GIS to conceive and create derivative and simplified maps and graphics so that important messages and information can be conveyed and understood by a broader public. In this case, the GIS is a source of primary information to be synthesized and simplified for the production of thematic maps and graphics that can be published in books or on the Internet.

The process of making a map or producing graphics is related to several disciplines. Cartography relates to art, to science and to politics. By choosing certain colours, contrasts and movements, you both emphasize and ignore information. As a cartographer or a creator of graphics, you make more or less conscious selections at all stages of the process. Already, when you ask what should be communicated, you make your first selection. Just think of the associations that different colours give. Ask yourself what difference it will make if you give a region the colour red versus green, and if it makes a difference how you choose to use contrasts and movements.

3.3.2 Implement time-saving techniques

To ease your work, the organization’s publications manager, graphic designer or cartographer can benefit from creating tools for graphic production. Create templates and libraries that can easily be assembled and stored, so that they can be used for multiple purposes. Using elements that already exist rather than recreating new components again and again will save time and allow consistency in your visual presentation. You can create a user-friendly template using tools available in most drawing software packages. The file structure on your hard disk also must be organized in a logical and efficient way, so that it is easy to find specific files that may otherwise be buried among hundreds or thousands of others.

EXERCISE: Improve visual presentation

Working in small groups (2-3 people) the task of participants is to improve the visual presentation of a simple data set provided by the facilitators. This exercise is best done with one computer per group. If that is not feasible, the exercise can be conducted with pens and paper. Following the two examples below, participants should improve graphical presentation through:

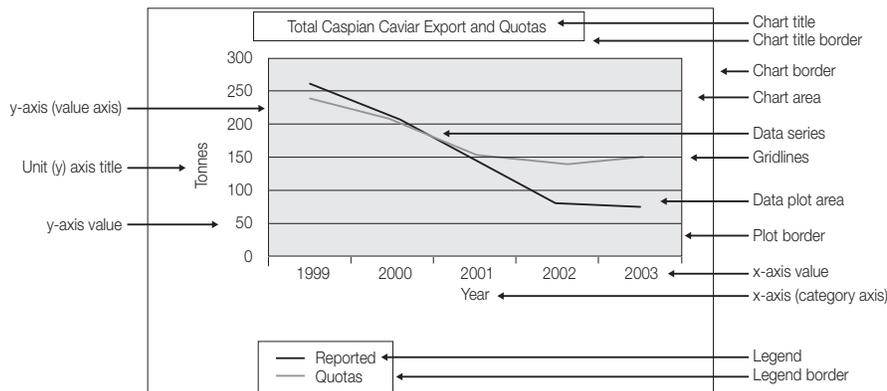


- Choosing the best representation (bars, columns, points or lines). For example, if the subject concerns volume (cubic metres), the preferred choice may be bars.
- Harmonizing font and size through all graphics. For example, considering that the font size describes the priority of the information displayed, font size should differ among title, legends and measurements.
- Harmonizing colours of the graphic (i.e., bars, columns, points, lines, background, grid-lines). For example, associating colours with themes, choosing contrasts and other visual elements, as needed.
- Delete all unnecessary information that “pollutes” the presentation. For example, grid-lines, chart borders and other elements are often used without considering their impact on visual clarity.

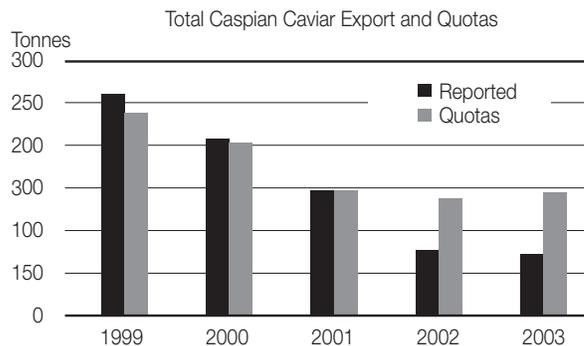


The duration of the exercise is about 1 hour, after which all groups present results of their work in plenary, and explain their choices for visual presentation.

Example 1: Automatically generated excel graphic and graphic elements



Example 2: Improved excel graphic



4. Reaching out with the outputs of the IEA

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4.1 Dissemination

At this point, it is time to implement the dissemination plan. Too many good information products are left in an office for just a few to read. Why spend time and money producing well thought-through products if nobody sees or reads them? First, verify if you already have a distribution network, and if this network is updated. Then, revisit your communication strategy, and ensure that your distribution list matches your target group(s). Add new names and organizations to your list as appropriate.

Further, consider different ways of distributing your product. This will vary depending on the format you have chosen. For example, a web-based report will probably reach more broadly, while a paper report might more easily reach directly to your target group(s). Consider contacting NGOs and ministries directly, and make a plan for seminars, meetings and events where you can attend and hand out your product dedicated to the IEA.

The most important thing is that you keep thinking about distribution long after you have finished your product, even though the energy for doing that is sometimes hard to find.

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4.2 Approach the media

Journalists are always looking for the next story, which gives you the opportunity to make them interested in your story. Building strategic and long-lasting relationships with the media is crucial for successful dissemination. If you have access to a media or a public relations officer within your organization, it would be a good idea to seek their advice. Approaching the media and establishing a network of journalists is a long process, and getting help from a colleague might ease your way towards your goal of getting media coverage.

Look at possible channels for approaching the media and attracting their attention. This can include press releases in written and audio formats and press kits, press conferences, press briefings or special media events. A strategic relationship with the media might include an environmental page every week in one particular paper. Depending on the nature of your announcement, you need to find the best way to communicate with journalists. UNEP has been practising real and virtual media tours to attract the attention of international media. For several years, UNEP held eco-journalist festivals in Central Asia.

You will need to develop a story line, and assemble and package the vital findings of your research and the key messages from your assessment. Again, seek advice if you can. Common practice is to proceed with a short (about one page), clear and understandable (non-technical) press release. Communicate the press release openly by putting it on the website, sending it to main news agencies and to your journalist network. Look for a good opportunity to launch your message, such as a political event, a scientific conference or a high-profile social event, or an on going debate. You may also organize a media event dedicated solely to the IEA.



Box 9: Preparing a press kit.

When launching an IEA report, you will benefit from preparing a press kit for the participants on the event. Journalists are often too busy to search for information or to read an IEA report from cover to cover. A press kit helps journalists to use your information, improving your chances of getting media coverage.

The contents will vary, but always include background information on the organizations behind the report, an executive summary of some way of highlighting the key findings in the report, a press release and some graphics.

Recommended reading

UNEP/GRID-Arendal IMPACT I and IMPACT II: www.grida.no/impact

4.2.1 The press release

A press release is a statement prepared for distribution to the media, to give journalists information that is useful, accurate and interesting.

Press releases have a particular format. Once you are familiar with writing them, all you have to do is fill in the blanks. Journalists receive many press releases, so they have standards and expectations that you must meet to just to have your release read and, hopefully, used.

Press Release Checklist

- Organization's/department's letterhead, name, address, phone number, e-mail, website
- PRESS RELEASE in all caps
- Contact person's name and contact information
- IMMEDIATE RELEASE OR RELEASE DATE in all caps)
- HEADLINE or TITLE in bold/caps
- Body text: Date/City-who, what, when, where and why
- Basic Font, page numbers, end with ###





EXAMPLE – Press release on the Kyoto Protocol



PRESS RELEASE

FOR IMMEDIATE RELEASE

Contact: Karen Landmark

Office: +4737035717

Mail: karen.landmark@grida.no

The Kyoto Protocol – a new era starts today

After more than 10 years of negotiations, the Kyoto Protocol finally becomes legally binding for the countries that have ratified it. The overall goal in the Protocol is a 5.2 per cent reduction of greenhouse gas emissions below the 1990 level by Annex 1 countries by 2010. As of 2 February 2005, 141 states and regional economic integration organizations had ratified, acceded to, approved, or accepted the Protocol. Only the United States, Australia, Monaco and Croatia have not ratified it among the countries listed as the Annex 1 countries in United Nations Framework Convention on Climate Change (UNFCCC).

Target reached in 2002, but the emissions are increasing again

By the end of 2005, countries that are obliged to reduce their greenhouse gas emissions shall report on their progress towards reaching the emission targets set in the Protocol.

Even if the total emissions from Annex 1 countries decreased by 6.4 per cent between 1990 and 2002, only a few of these countries can report on a real progress in reaching their emission targets. The decrease is mainly caused by a decrease in emissions, particularly by the Eastern European states and Russia due to economic downturn. The decrease in these countries have been 40 per cent, while the other Annex 1 countries have increased their emissions by 8.4 per cent. Emission projections show an increase in the total emissions from Annex 1 countries by 10.2 per cent between 1990-2010.

More countries must put more efforts in reducing their emissions

In 2002, 16 countries, mostly in Eastern Europe and Russia, had reached their targets. But some western European countries like UK, Sweden and Iceland had also reached their targets. Between 2002 and 2010 the number of countries that must reduce their emissions by more than 20per cent to reach their target is estimated to increase from 3 to 10

Developing countries will pass developed countries

Historically, developed countries have caused the enhanced greenhouse effect. But between 2020 and 2030, the total emissions from developing countries are expected to exceed the emissions from the developed world. There will still be a huge difference in the per capita emissions.

For more information: Karen landmark karen.landmark@grida.no

EXERCISE: Creating a press release and press kit

The participants are asked to write a press release based on an issue or report of their choice.

Recommended reading:

“How to write a press release” <http://www.lunareclipse.net/pressrelease.htm>

**4.3 Sustaining communication: Long-term approaches**

While information quality is essential, active communication is another vital ingredient that needs to be addressed in sustainability. People may or may not know about environmental conditions to which they are exposed. In any case, it takes a long time to achieve changes in attitude (e.g., consumption patterns, prevention, minimizing health risks, participation). Practice shows that if you want to achieve positive changes, a long-term approach is needed.

There are differences in the expected impact that various information and communication strategies cause over time. Intense publicity over a short period of time may have only a short-term impact. A short, intense mass media publicity campaign, for example is able to attract attention and even cause action; but unless the campaign lasts, its effect will soon fade, as attention of the audience will turn to another subject. On the other hand, research without or with little communication builds very limited impact over time.

The recommended long-term communication strategy is based on continuous persuasion. It begins with relatively active publicity in the beginning, and continues with a fast, consecutive improvement of the information base.

Your work is almost done, but a last and important step in the work process remains: evaluation. The evaluation step often is forgotten after the project is completed. However, information received through systematic evaluation and feedback (i.e., through interviews with key people), will save resources in the future. In addition, the possibility of providing feedback and influencing the process will increase the sense of ownership within the community. Your evaluation experiences also could be of use to other institutions planning to carry out a similar process.

Evaluation will be further discussed in Module 8, which deals with monitoring, evaluation and learning in the IEA..

Recommended readings

Nickolai Denisov, Leif Christoffersen, Impact of Environmental Information on Decision Making Process and the Environment, 2001, http://arctic.unep.net/index.cfm?issue=&type=8&data_id=8940

The Aarhus Conventions home page, <http://www.unece.org/env/pp/>

Case studies on access to information, public participation, <http://www.unece.org/env/pp/newcastle.handbook.htm>

UNEP's Media Tour of the Balkans, http://www.grida.no/impact/papers/Reading_Your_Own_Story.pdf

Developing and delivering training on the Aarhus Convention for Civil Society: A Manual for trainers, <http://aarhusclearinghouse.unece.org/rd.cfm?resourceid=10000690&u=http%3A%2F%2Fwww.unep.org>

Evaluation of the Impact of the of the 1999 National State of Environment Report for South Africa, http://www.environment.gov.za/soer/reports/impact/Evaluation%20Impact%201999%20NSOER_0504.pdf



References

Denisov, N. and Christoffersen, L. (2001). *Impact of Environmental Information on Decision Making Process and the Environment*. UNEP/GRID-Arendal.

UNEP/GRID-Arendal. "Media Tours in Central and Easter Europe and Central Asia."
<http://enrin.grida.no/mediatour.cfm>

Now Hear This. The Nine Laws of Successful Advocacy Communications. With Words of Wisdom from More Than 25 Leading Experts.
http://www.fenton.com/pages/5_resources/pdf/Packard_Brochure.pdf