



United Nations Environment Programme  
Training Resource Materials

**Implementing Sustainable Development**  
*Building capacity for integrated policy  
design and implementation*

*Draft for Comments*

**TRAINING RESOURCE MANUAL**

***Integrated Assessment***

*(with focus on trade-related policies)*

Produced by the Economics and Trade Branch UNEP Geneva

---

## **Implementing Sustainable Development:**

### **Building Capacity for Integrated Policy Design and Implementation**

#### **Training Resource Manual:**

#### **Integrated Assessment (with focus on trade-related policies)**

Copyright 2004 UNEP

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder, provided acknowledgement of the source is made. UNEP would appreciate receiving a copy of any publication that uses this publication as a source.

No use of this publication may be made for resale or for any other commercial purpose whatsoever without prior permission in writing from UNEP.

ISBN (xxx)

For enquiries, inputs and feedback on the use of this document please contact:

Economics & Trade Branch

Division of Technology, Industry and Economics

United Nations Environment Programme

11-13 Chemin des Anémones

CH - 1219 Châtelaine

GENEVA, Switzerland

Phone: +41 (22) 917 8298

Fax: +41 (22) 917 8076

e-mail: [etb@unep.ch](mailto:etb@unep.ch)

For manual updates and information visit:

UNEP Programmes for capacity building for sustainable development: see UNEP WEBSITE at [www.unep.ch/etu](http://www.unep.ch/etu)

Printed on 100% recycled paper

## Acknowledgements

---

To be added



## United Nations Environment Programme *Economics and Trade Branch*

---

The United Nations Environment Programme (UNEP) is the overall coordinating organisation for environmental activities within the United Nations system. Its mission is to provide leadership and encourage partnerships in caring for the environment by inspiring, informing and enabling nations and people to improve their quality of life without compromising that of future generations.

UNEP's Economics and Trade Branch (ETB) is one of the branches of the Division of Technology, Industry and Economics (DTIE). ETB examines how economics, trade and finance interact with the environment at local, regional, and global levels, and how these linkages in turn affect development. Through an increased awareness of these relationships, the Branch encourages decision makers in governments to integrate environmental, social and economic considerations when developing policies for sustainable development.

The work programme of the Economics and Trade Branch consists of four main components: economics, trade, financial services and integrated assessment and planning. These elements are underpinned by a capacity building effort that covers the main elements of the ETB's work program.

The trade component focuses on improving countries' understanding of the linkages between trade and environment and enhancing their capacities in developing mutually supportive trade and environment policies, and providing technical input to the trade and environment debate through a transparent and broad-based consultative process. Manuals in integrated assessment and planning focus particularly on review of macroeconomic policies and trade and agricultural policies.

ETB is strengthening its work to enhance the capacity of developing and transition countries to alleviate poverty and to holistically address the environmental, economic and social dimensions of sustainable development. In this context, it is working closely with governments and other stakeholders, including the private sector, non-government organizations (NGOs) and affected communities, to build capacity for integrated policy development and implementation.

This effort builds on UNEP's trade and environment capacity building program and its country-based work on assessment and policy development. It responds to requests by governments for capacity building on policies to secure sustainable development, with a focus on poverty alleviation. In undertaking this work, UNEP is building on existing partnerships, in particular the joint UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development (UNEP-UNCTAD CBTF), as well as its collaboration with the Secretariats of the MEAs and the WTO.

UNEP's goal is to work closely with a broader range of partner organisations – at the national, regional and international level – to promote a cooperative, coordinated and cost-effective approach to capacity building that is demand-driven, and meets the specific needs of its recipients. The overarching aim is to help implement the outcomes and recommendations of the World Summit on Sustainable Development (WSSD), the UN Millennium Declaration, and other important international meetings and conferences.

Further information on UNEP's assessment and policy development tools and training materials is available at the website [www.unep.ch/etb](http://www.unep.ch/etb) and through the Online UNEP EarthPrint Bookshop.



## **I Introduction**

- Purpose and content of the manual
- Using the training resource manual
- Preparing a training programme
- Sample two-day programme
- Pre-course checklist

## **II Session presentations**

- Welcome and mutual presentation
- Session 1: Introduction to integrated assessment
- Session 2: Process of an integrated assessment
- Session 3: Methods and content of integrated assessments
- Session 4: Policy responses and follow-up

## **III Suggested group activities**

- Materials for group activity 1 (case studies)
- Materials for group activity 2 (role play / simulation)
- Material for group activity 3 (country specific planning)

## **IV Additional material**

- References and further reading
- Pre-course questionnaire
- Session evaluation form
- Acronyms and glossary

### **Available on the CD-Rom:**

Full size copies of the transparencies / OHPs (word files)\* and power point slides for all the sessions.

*\*NOTE. These can be photocopied on to transparencies if access to PowerPoint software is not available.*



The purpose of this training resource manual is to increase the understanding of integrated assessment and promote its application in developing countries and countries with economies in transition. As such it is an important component of UNEP's efforts to enhance capacity building for integrated policy design and implementation for sustainable development.

These efforts aim to build capacities of policy and decision makers, national experts, governments and non-governmental institutions to:

- assess the environmental, economic and social impacts of macroeconomic policies, including trade policies;
- design and effectively implement mutually supportive economic, trade and environment policies.

### **Relevance**

Although it is generally accepted (in theory) that sustainable development encompasses a social, economic and environmental component, there is still a lack of understanding of the inter-linkages between social, economic and environmental sustainability in actual policy making. Separate approaches for environment, trade, economic and social policy-making prevail. To enhance sustainable development an integration of all three components is necessary and the link to poverty issues must be drawn.

It is generally acknowledged that trade is important for economic growth. The implementation of trade liberalisation and other trade-related policies, however, can have wide-ranging effects on the economy, the environment and society with both, negative and positive impacts. In order to realize the benefits of trade environmental, social and economic policies need to be in place.

An integrated assessment aims to develop recommendations (in country-specific detail) how to strengthen the positive impacts, and indicate what measures need to be taken to reduce or mitigate the negative impacts. It uses a range of impact assessment tools and approaches in order undertake a systematic evaluation of past or proposed future policies. It provides policy makers with an essential tool for integrating all three aspects of sustainable development when into policies, plans and programmes and the information necessary for informed decision-making.

### **Background**

The training resource manual draws on UNEP's experience at the national level working with research institutions, governments, regional partners and other stakeholders. It reflects the results of two series of concrete, country based projects involving 11 countries in Latin America, Africa, Asia, and Eastern and Central Europe that assessed the impacts of trade and trade-related policies on specific sectors. It also draws on on-going studies of the impact of trade liberalisation in the rice sector of six countries. These studies have focused on key sustainability issues including poverty, food security and conservation of biodiversity.

Since UNEP's past experiences evolved around integrated assessment of trade-related policies the training resource manual includes a strong focus on the assessment of the environmental, social and economic impact of trade liberalisation and other trade related-policies. The basic concepts of

integrated assessment presented in the training manual, however, could also be applied to other macroeconomic policies.

The manual builds on earlier UNEP publications on integrated assessment, notably the UNEP Reference Manual for the Integrated Assessment of Trade-related Policies (as main reference) and the Synthesis Report of Integrated Assessment of UNEP Country Projects (Round II) on Trade and Trade-related Policies. Those publications are suggested as main resource material for both trainers and participants. It also builds on the Training Resource Manual for Environmental Impact Assessment and its supplement: EIA/SEA: Towards and Integrated Approach.

## **Components**

The training resource manual has four main components: the introduction, the session presentations, group activities and additional material.

### ***I Introduction***

The introduction describes the purpose and content of the training resource manual and suggests practical steps for preparing and custom designing a training workshop / training course, including a suggested two-day agenda.

### ***II Session presentations***

The session presentations include speaking notes for trainers, print outs of slides and additional handouts. They are divided into five sessions.

#### Welcome and mutual presentation

This session provides suggestions on how to open the training and introduce background information and the course objectives.

#### Session 1: Introduction to integrated assessment

This session aims to give a broad introduction to the concept of integrated assessment. It should allow participants to decide whether integrated assessment is relevant, useful and applicable to their own situation. This session is the first one of a series of four, but it can also be used separately to inform and raise awareness among policy makers about the potential of integrated assessment.

#### Session 2: Process of an integrated assessment

This session aims to provide guidance to the process of undertaking an integrated assessment in a way that contributes to building capacity, commitment and ownership, while also enhancing an understanding of the issues at stake. This session should enable participants to design the integrated assessment study as a process, with details on purpose, focus, timing and stakeholder participation.

### Session 3: Methods and content of integrated assessments

This session aims to introduce the analytical methods to be used to identify the impacts of trade agreements or policies, to compare impacts, and to set priorities. This session should enable participants to select the appropriate methods in order to undertake an integrated assessment within their particular context.

### Session 4: Policy responses and follow-up

This session aims to introduce guidelines on how to design appropriate policy responses and recommendations, and follow-up activities to help implement these policies. It gives an overview of the different options for policy reform and emphasizes the importance of implementation and monitoring

## ***III Group activities***

Group activities are designed as interactive exercises, which should reinforce the topics presented in the session and enhance discussion among participants. They include descriptions of the group activity, instructions for trainers and handouts for participants.

### Group activity 1: Case study exercise

This group activity is based on the UNEP country projects on integrated assessment of trade-related policies, which were synthesized to serve as case studies for this exercise. The aim of the exercise is to enable participants to understand how integrated assessment is carried out, in terms of methods and participatory approach and to gain some perception of what might be involved in the process in their own country.

### Group activity 2: Role play / simulation

This group activity is also based on one of UNEP's country projects on integrated assessment of trade-related policies and aims to enable participants to understand the differing viewpoints of stakeholders in the integrated assessment process as well as the policy options and communication strategies available to them in supporting the case for integrated assessment.

### Group activity 3: Country specific planning of an integrated assessment

If the workshop includes the preparatory planning for an integrated assessment in a particular country this group activity is intended to help designing the integrated assessment. It should enable participants to identify current priorities, stakeholders, funding requirements, training needs and local/regional expertise likely to be required for the integrated assessment in the country.

## ***IV Additional material***

The last section of the training resource manual includes references, a pre-course questionnaire, a session evaluation form, and a glossary.

All the training material is available as hard copy and in electronic form (pdf for session presentations and power point and word files for slides) on the enclosed CD-Rom.



#### **Flexible tool for customised training**

The training resource manual is designed to assist trainers in preparing and delivering customised training courses tailored to the particular needs of the targeted audience. It is designed to be a flexible user-friendly manual, which allows for different combinations of the training material, its limitations to specific aspects only and regional and/or thematic adaptations or supplements.

The training resource manual is a tool for trainers who already have some experience and background knowledge on integrated assessment or related fields (such as environmental assessment, strategic environmental assessment, sustainability assessment, environmental impact assessment, social assessment, poverty assessment, etc.) or have attended a training-of-trainers workshop on the topic. It assumes that trainers already have acquired presentation and facilitation skills to transfer knowledge and facilitate group activities and group discussions.

#### **Main training objectives**

The main objective of the training is to assist government, NGOs and other stakeholders in initiating and conducting an integrated assessment. The training should enable them take the first steps toward identifying the economic, social and environmental impacts of macroeconomic policies, including trade-policies, and to develop policy responses that enhance sustainable development.

Specific objectives are to:

- introduce the concept of integrated assessment as well as its relevance for sustainable development, its relation to the policy planning cycle and its benefits (particularly for developing countries and counties with economies in transition);
- familiarise participants with the most important issues to be addresses by the integrated assessment and with its different phases, including an understanding of the available methods;
- familiarise participants with the content of the UNEP Reference Manual for the Integrated Assessment of Trade-Related Policies and the results of the country projects on integrated assessment in various countries;
- gain participants' commitment for the tool and encourage them to initiate further activities at national and regional level.

#### **Possible target groups**

The target group for an integrated assessment training could be high-ranking government officials and decision makers, groups with mixed stakeholders related to a certain policy in a country (government officials, NGOs, private sector, research and training institutes, universities etc.) as well as international, regional and sub-regional organisation. Trainings could be conducted at international, regional, sub-regional, national or sub-national level.

## Possible training programmes

Depending on the target group and the course objectives, training courses / training workshop built on the training resource manual, can be of different shape and duration. They could range from:

- Half-day workshops aiming mainly at awareness raising and sensitisation for the benefits, objectives and main features of an integrated assessment. Those workshops could be build around Session 1 only, underlining important aspects with examples from the country studies, and could target high-ranking government officials and decision makers.
- Two to three day training workshops aiming to raise awareness and build analytical skills for integrated assessment by using the full set of training materials and allowing for extensive discussions of the issues. These workshops could target various stakeholder groups, such as representatives of the government, NGOs, private sector, universities, research and training institutes.
- Up to a week training aiming to build capacities for informed decision making with respect to integrated assessment using the full range of training material and applying it to the country specific case. In case a country or institutions aims to initiate an integrated assessment process, the training resource manual could serve to design an introductory training, which is then extended by country specific planning session involving all major stakeholders.

The following table provides a suggestion for which training components would suit which target group. (to be completed)

Target group	High ranking government officials and decision makers	Government officials	Representatives of NGOs and private sector	Trainers (in training of trainers)	University students / researches
Welcome					
Session 1					
Session 2					
Session 3					
Session 4					
Group activity 1					
Group activity 2					
Group activity 3					
Other (...)					

The following session planning form could be used to custom design the training programme for a particular target group and prepare the according session outline.

**Table 2: Session planning form**

Training session	Planned duration (hours / min)	Material needed	Comment
Welcome			
Session 1			
Session 2			
Session 3			
Session 4			
Group activity 1			
Group activity 2			
Group activity 3			
Other (...)			

A sample for a suggested two-day programme is included on pages X. Timings given for the various sessions and group activities is indicative only and will vary according the targeted group, its interests, needs and level of existing skill and knowledge.

**Using the session presentations:**

The session presentations are designed to provide the trainer with background knowledge to be able to present and discuss the necessary concepts. Session presentations could be used in a sequence (Session 1 to Session 4), and combined with group activities. Session 1 could also be used in a stand-alone approach for introductory workshops. The material being presented is complex and it is expected that the trainer will read the session notes in preparation for ‘talking’ to the power point slides / OHP prompts. It is NOT intended that the trainer read the detailed session notes to participants. The slides / overheads will provide the necessary prompts during the presentation of the session.

In the session presentations the left margin icons are designed for the quick identification of reference material, slides or additional handouts.



indicates that an overhead projection transparency or power point slide is available (as a print out at the end of the session as well as in electronic form on the CD-ROM) and can be shown at this time.



indicates a handout that can be copied from the resource materials supplied at the end of each session.



indicates a cross-reference to the page number(s) of relevant material in the UNEP *Reference Manual for Integrated Assessment of Trade-related Policies* or another UNEP Publications (short version of title is given with the icon).

### **Adapting the training materials**

It is essential that the materials be applied and adapted with reference to local and regional conditions and needs. These should be identified at the start of the process and before the training commences. This analysis should also assist in incorporating local sources of information, experts, contacts and case studies which can be used to make the training more relevant, useful and interesting to course participants. Regional and sub-regional institutions, including trade and economic cooperation bodies, may play a particularly important role as a partner in these activities.

Particular care should be taken in assessing any suggested topics for audience participation and small-group work to ensure that the questions raised are relevant and within the experience of group members.

Further suggestions for customising the materials are listed on pages XX of the manual.

### **Identifying participant needs and experiences**

In preparing the training programme the trainer should take into account:

- The needs and existing knowledge of participants on integrated assessment or related topics, as well as their relation to trade, environment, economic and sustainable development policies. These should be determined during a training needs assessment, which precedes the design and delivery of activities. One option to identify them would be to use a pre-course questionnaire (sample is provided at page x). It ideally should be distributed well before the course and returned in time for the trainer to incorporate results into the detailed planning and session preparation.
- The need for the session structure to be flexible enough to accommodate participants' questions, suggestions and general discussion on integrated assessment and related issues. The session presentation timings are indicative only. In particular, time taken for group discussions and other training activities can vary enormously depending on the depth of treatment, the background of the participants and the size of the group. Some prior knowledge of this is essential in planning an effective session and appropriate learning outcomes; and
- The availability of regional and local input from relevant ministries, regional organisations and non-governmental stakeholders, including the private sector, which could describe current problems and share previous experiences.

At the beginning of the session, the trainer needs to spend some time identifying the needs and expertise of participants and their expectations of the session. This will amplify the information gained from the participant pre-course questionnaire on pages XX and XX. Depending on the size of the group further information can be gained by either:

- Asking participants to introduce themselves, and identify their present position and their major areas of interest (this will not be appropriate if the group consists of participants from within one organisation and presumably known to each other, if not to the trainer); or
- Quickly running through a shortened questionnaire at slide/OHP X, seeking a show of hands to indicate major interest areas met by participants in their day-to-day work. It is helpful also to have an indication of the participants' background and their current positions.

### **Checking the venue**

The venue may be predetermined by a number of factors including the urgency of the training, the availability of key participants and the availability of suitable meeting rooms on-site. Even when the site is predetermined it is necessary to check that:

- eating and desks are sufficient to accommodate the course numbers and suitable to split into working groups;
- the venue is adequately lit and as far as possible removed from normal working areas;
- there is easy access to overhead projector, beamer, flipcharts or other visual aids; and
- small groups have basic recording equipment such as markers, flipcharts, and/ or overhead transparencies to aid them in recording and reporting their discussions.

Participants should be provided with suitable refreshments during breaks and allocation of quiet meeting areas for discussion and exchange of information to ensure that valuable networking is encouraged together with possible planning for further contact between participants. Check the program to ensure that sufficient time is allowed for necessary movement between activities.

### **Pre-session information**

Suggested references are included at the end of the session presentations. These can be assembled and distributed:

- as pre-course reading, where this is possible and appropriate; or
- as handouts during, or after, the sessions.

Session timings need to include some provision for discussion of these materials if they have not been distributed prior to the course. If possible, some advance material should be distributed confirming the objectives, issue areas and timing of the course.

## Sample two-day programme *Integrated Assessment*

### Day one

8:30-9:00	Arrival of participants and registration
9:00-9:30	<b>Opening and welcoming remarks</b>
9:30-10:00	Tea / Coffee Break
10:00-10:30	<b>Introduction to the training workshop</b> <ul style="list-style-type: none"> <li>• Self introductions and expectations regarding the workshop</li> <li>• Objectives and programme of the training</li> </ul>
10:30-12:00	<b>Session 1: Introduction to Integrated Assessment</b> <ul style="list-style-type: none"> <li>• Presentation</li> <li>• Collecting participants' experiences on integrated assessment</li> <li>• Discussion and interaction with resource persons</li> </ul>
12:00-1:00	Lunch break
1:00-2:30	<b>Session 2: Process of an Integrated Assessment</b> <ul style="list-style-type: none"> <li>• Presentation</li> <li>• Discussion and interaction with resource persons</li> </ul>
2:30-4:30	<b>Group activity 1: Case study exercise on Integrated Assessment of trade-related policies</b> (First set of questions) <ul style="list-style-type: none"> <li>• Group work on case studies</li> <li>• Preparation of presentations</li> </ul>
4:30-5:00	Tea / Coffee break
5:00-6:00	<ul style="list-style-type: none"> <li>• Presentation of results by groups in plenary</li> <li>• Discussion</li> </ul>

**Day two**

9:00-9:15	Summary of the First Day and the Programme for the Second Day
9:15-10:30	<b>Session 3: Contents and methods of an Integrated Assessment</b> <ul style="list-style-type: none"><li>• Presentation</li><li>• Discussion and interaction with resource persons</li></ul>
10:30-11:00	Tea / Coffee break
11:00- 12:00	<b>Session 4: Policy responses and follow-up</b> <ul style="list-style-type: none"><li>• Presentation</li><li>• Discussion and interaction with resource persons</li></ul>
12:00-1:00	Lunch break
1:00-2:30	<b>Group activity 1: Case study exercise on Integrated Assessment of trade-related policies</b> (second set of questions) - continued <ul style="list-style-type: none"><li>• Group work on case studies</li><li>• Preparation of presentations</li><li>• Presentation of results by groups in plenary</li><li>• Discussion</li></ul>
2:30-3:30	<b>Group activity 2: Simulation of stakeholder negotiation (role play)</b> <ul style="list-style-type: none"><li>• Introduction to group activity</li><li>• Simulation in groups / evaluation within groups</li><li>• Discussion in plenary</li></ul>
3:30-4:00	Tea / Coffee break
4:00-6:00	<b>Group activity 3: Country specific planning of an Integrated Assessment</b> <ul style="list-style-type: none"><li>• Planning sessions in groups</li><li>• Presentation of results by groups in plenary</li><li>• Discussion of follow-up activities</li></ul>
6:00	<b>Closing</b> NB: Participants should return Evaluation Questionnaire

*If the trainer is unfamiliar with the subject matter, or with regional issues, it may be valuable to discuss with local stakeholders some of the following questions before undertaking the session preparation:*

- Are there any experiences with integrated assessment in the country or region?
- Does the country or region have a sustainable development or poverty reduction strategy?
- Have any attempts been made to integrate policies in the past?
- What are the key policy issues at present? How have policies been developed in the past? What has been the main policy instruments used so far?
- How important is trade and foreign investment to the country or region? What are the main sectors and markets?
- Is there a clear trade policy and a national development strategy?
- What are the decision-making processes? Who are the main stakeholders that are involved?

---

### **Administration**

- Check venue (see page x) and any accommodation and catering arrangements.
- Depending on the length of lead up time, prepare and distribute pre-course materials for participants including (if available) suggested readings, the pre-course questionnaire, and a general explanation of course objectives and programme.
- Check participant list and prepare nametags etc.
- Copy and collate other handouts, including print out of slides.
- Copy evaluation forms.
- Prepare materials for the group activities:
  - copy case studies and questions for group activity 1 (pages XX to XX of the manual);
  - copy role play materials (pages XX to XX);
  - obtain paper or overhead transparencies for recording the groups' conclusions; and
  - obtain markers or OHP markers.
- Check and adopt power point presentations (or OHPs transparencies) from the master (provided on CD-ROM).
- Time session presentation and note approximate timings in the margin of the session presentations. Be prepared to spend time on this phase of the preparation as it is essential to the success of the presentations that trainer/facilitator can talk freely on each of the topics introduced, relying on the slides / overhead presentation as a prompt.
- Read all group activity materials and select an approach to their use, which best fits available time and session and course design.
- Identify from the participants' list possible discussion leaders, group leaders and facilitators.



---

# Materials for welcome and mutual presentation

## *For trainer/facilitator*

Session presentation  
Slides

## *Handouts for participants*

Handouts 0-1  
Print out of slides

---



# Welcome and mutual presentation

---



0-1

**Welcome participants by introducing yourself asking them to introduce themselves. If they already know each other (e.g. if they are from one organisation or are colleagues from one institution) this approach will provide useful information for the trainer, but be of less value to participants.**

**If a pre-course questionnaire had been sent to participants prior to the training, refer to it and the information gathered (see format on page X).**

**Or, use slide 2 to obtain a quick assessment of the existing interest areas, skills and knowledge of the course participants.**



0-2

**Outline the session objectives, and the relevance of the topic to the overall concept of environment, trade and sustainable development. Emphasise that the participants' questions and observations will be valuable and welcome and that feedback from the sessions will be used in planning further training activities.**



0-3

**Mention that print outs of slides and additional handouts will be available and that you will be cross-referencing topics to the *Reference Manual on Integrated Assessment of Trade-Related Policies* as you go along. References to other UNEP publication will also be provided.**

**Check that all participants have a copy of the *Reference Manual for the Integrated Assessment of Trade-Related Policies* and, if possible, also of the *Synthesis Report UNEP Country Projects –Round II*.**

**If they do not have a copy, provided URL for accessing an electronic copy (see page X for details).**

---

The training resource manual draws on UNEP's experience at the national level working with research institutions, governments, regional partners and other stakeholders. It reflects the results of two series of concrete, country based projects involving 11 countries in Latin America, Africa, Asia, and Eastern and Central Europe that assessed the impacts of trade and trade-related policies on specific sectors. It also draws on on-going studies of the effect of trade liberalisation in the rice sector of six countries – China, Colombia, Indonesia, Nigeria, Senegal and Vietnam. These studies have focused on key sustainability issues including poverty, food security and conservation of biodiversity.

The Training Resource Manual on Integrated Assessment contains four sessions' presentations, including slides and handouts. In addition, it provides case study exercises and a simulation, which are based UNEP's country projects. The first session provides an overview of the importance and benefits of integrated assessment, and could also be used in an stand-alone approach to conduct a short introductory training, for example for government officials. Session 2 to 4 give a detailed insight in how to conduct an integrated assessment.

The training resource manual is designed to:

- familiarise participants with the content of the *UNEP Reference Manual for the Integrated Assessment of Trade-Related Policies*;
- present a step-by-step approach to designing an integrated assessment, including an understanding of the available methodologies; and
- use group activities and discussion sessions to look at recent examples of country-based integrated assessments, their costs and their benefits and identify issues of importance locally and country/region wide.



Handout 0.1  
(Background)

---

**Explain that during a series of policy dialogues and regional meeting countries have expressed the need to enhance capacity for integrated assessment. Distribute Handout 0.1 for background information on the work being done by UNEP and its partners.**

**Present the programme of the training workshop.**

---

## Welcome Handout 0-1

### **Feedback from UNEP/UNCTAD Workshops on Trade, Environment and Sustainable Development**

---

*UNEP and UNEP-UNCTAD sponsored workshops and policy dialogues have revealed a strong demand from countries in a number of regions for capacity building on integrated assessment. These countries recognise that embarking on this process is a complex undertaking, but perceive real benefits from it in terms of enabling them to develop appropriate policies at the economic, social and environmental interface. Specific points raised during these dialogues regarding the need for, and utility of, integrated assessments, as well as associated capacity building requirements, are highlighted in subsequent boxes in the remainder of this paper.*

1. UNEP-UNCTAD Capacity Building Task Force (CBTF) Workshop on Post-Doha issues on Trade and Environment, were held back-to-back with the WTO Regional Seminar for the Pacific Countries in Suva, Fiji, on 29th November 2002. This workshop provided a forum for participants to discuss the possible future thrust of CBTF activities in the region. Trade and environmental officials from 12 Pacific countries attended this event, as well as representatives from NGOs and regional cooperation bodies (the Pacific Island Forum Secretariat, the South Pacific Regional Environmental Programme, and the Forum Fisheries Agency), and staff of UNCTAD, UNEP, UNDP and WTO.
2. The UNEP Capacity Building Meeting on Environment, Trade and Sustainable Development for the Latin American and Caribbean Region (LAC), was held in Mexico City, Mexico, from 27th-28th March 2003. This workshop, which built on the findings of a prior meeting held in February 2001, sought to accurately define capacity building needs on the environment, trade and sustainable development policy interface for the region. It was attended by trade and environment officials from 13 LAC countries, representatives from the United States, the EC and Canada, and staff of UNEP, UNCTAD and ECLAC. The meeting also had active participation from a number of regional and sub-regional, economic, trade and environmental cooperation bodies (including CARICOM, CAN, CAF, and the CEC) and other stakeholders including NGOs, academic institutions and research organisations.
3. The UNEP-UNCTAD CBTF Workshop on Post-Doha issues on Trade and Environment, was held in Cape Town, South Africa, on 22nd May 2003. This workshop, held immediately after the WTO Regional Seminar for Anglophone African Countries, facilitated a substantive discussion and exchange of national experiences on key trade and environment topics, and provided an initial assessment of capacity building priorities, including the identification of possible topics for a regional workshop in 2004. It was attended by representatives of the ministries of trade and environment of 15 Anglophone African countries, in addition to representatives of SADC, NEPAD and AMCEN.

Participants in UNEP and CBTF workshops have highlighted that there is a need for broad stakeholder involvement in policy-making and standard setting. Their comments also support the theory that work conducted at the environment and trade policy interface will only be effective if it is done in a collaborative manner.

Feedback given to UNEP has indicated that one of the real benefits countries perceive from undertaking integrated assessments is the resultant promotion of transparency and good governance in the negotiations and policy-making process. It is clear in turn, that this transparency and the participation of affected stakeholders are necessary for effective and accurate assessment.

The assessment process has also been shown to enhanced discussions and cooperation between government officials, provincial bodies, NGOs, the scientific community and academic institution. This interaction has helped to identify gaps in data and in expanding the expertise and technical resources available for assessment. Such broad-based stakeholder participation in undertaking assessments was seen as extremely valuable by participants in these workshops, not least because it assisted in raising public awareness and engaging civil society more in the decision-making process.

The UNEP and CBTF workshops also highlighted the fact that consideration must be given as to whether the data set being used for assessments extends beyond the national level, to the regional one. This is particularly relevant in cases where several different economic sectors or countries make use of the same resource (e.g. marine or freshwater fisheries accessed by more than one country, such as those in Lake Victoria in East and Central Africa). In such situations there is need for enhanced regional level co-ordination between states and relevant regional and sub-regional institutions if the application of *national* assessments is to be successful.

Such regional coordination and collaboration on assessments is especially important between small under-resourced countries, as these states often find it difficult to collect the necessary data due to finite technical resources. While such countries in the Caribbean and Pacific are now looking to regional organisations to assist them in this regard, these organizations also often face financial and technical constraints on conducting assessments. For example, the South Pacific Regional Environmental Programme has a formal intergovernmental mandate to assess the environmental and social effects of trade liberalization and globalization for Pacific Island countries, but currently has insufficient resources to undertake this assessment.

---

# Materials for Session 1

## ***For trainer/facilitator***

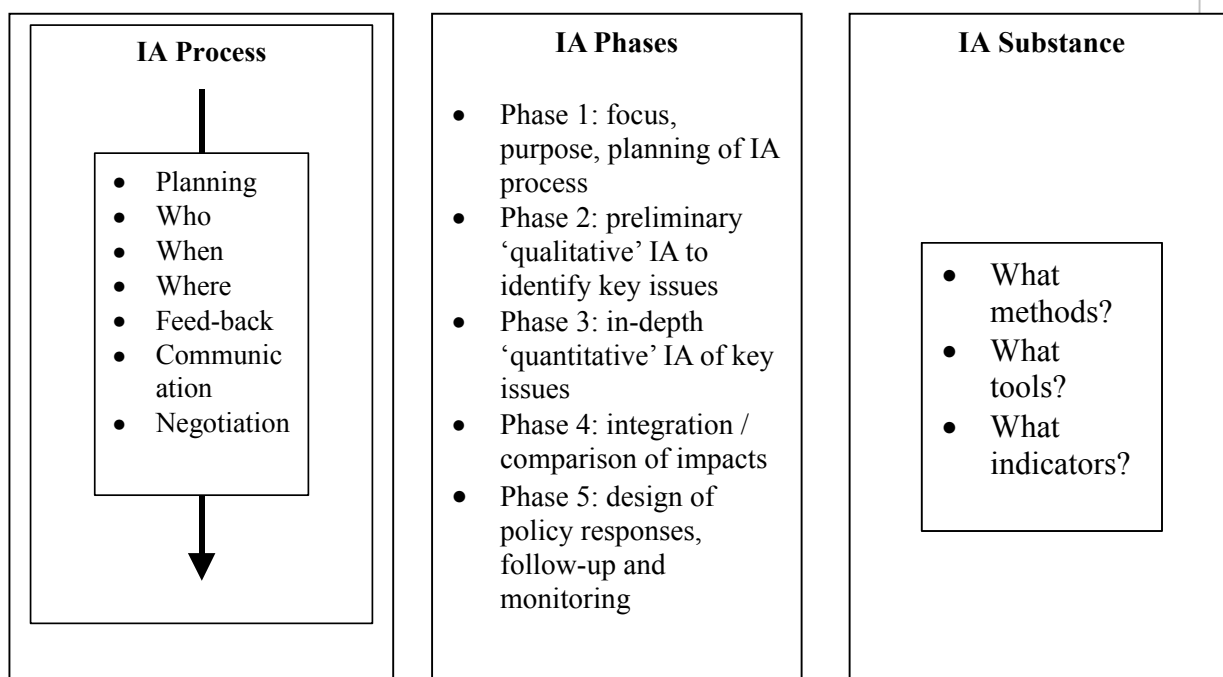
Session presentation  
Slides

## ***Handouts for participants***

Handouts 1-1  
Handout 1-2  
Print out of slides



## Navigation chart





# Session Presentation

## Session 1: Introduction to Integrated Assessment

---



1-1

**Before starting the session, note that print outs of slides and additional handouts will be available and that you will be cross-referencing topics to the *Reference Manual on Integrated Assessment of Trade-Related Policies* as you go along.**

---

### **Purpose of this session**

---

**Introduce the purpose of Session 1 and provide an overview of the main topics to be discussed.**

---



1-2

This session aims to give a broad introduction to the concept of integrated assessment, particularly of trade-related policies. It should allow participants to decide whether integrated assessment is relevant, useful and applicable to their own situation. This session is the first one of a series of four, but it can also be used separately to inform and raise awareness among policy makers about the potential of integrated assessment.

---

#### ***Evaluation question:***

Participants should be able to describe in brief what integrated assessment implies, what it is used for, what are its potential benefits, and then indicate whether and how it can be useful for their own situation.

---

### **Overview of the main topics of this session**



1-3

1. The context of sustainable development, trade, environment and poverty
2. The need for integrated assessments
3. Development from impact assessment to integrated assessment
4. The expected benefits of an integrated assessment
5. Objectives of an integrated assessment
6. Timing of an integrated assessment
7. Principles of the integrated assessment process
8. Focus of integrated assessment
9. Conditions of an integrated assessment



## 1. The context of sustainable development, trade, environment and poverty

---

**Briefly introduce the concept of sustainable development and the interlinkages between trade, environment and poverty to provide the broader context in which an integrated assessment will be applied.**

---

Sustainable development is a key concept that has gained increasing international acceptance during the last two decades.



1-4

The most frequently quoted definition for sustainable development is from the report *Our Common Future* (also known as the Brundtland Report): *'Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'*

It can be formally stated as the twin principles of intra- and inter-generational equity. In practice, these principles mean taking steps to alleviate poverty, protect the environment and avoid the economic marginalization of many developing countries. Therefore, sustainable development recognizes the need to simultaneously consider environmental, economic and social issues.

A number of international conferences and declarations have highlighted the importance of sustainable development. At the UN Conference on Environment and Development (UNCED) in Rio in 1992, also known as the Earth Summit, governments adopted Agenda 21 detailing the 'New Global Partnership for Sustainable Development in the 21st Century' and the 'Rio Declaration on Environment and Development.' This was reaffirmed at the Millennium Summit in September 2000 with the Millennium Development Goals (MDGs). Ten years after the Earth Summit, the World Summit on Sustainable Development (WSSD) in Johannesburg in September 2002, obliged states to adopt concrete steps and identify quantifiable targets for the better implementation of Agenda 21 with the WSSD Plan of Implementation.

---

**Before moving to the next slide, ask participants to give examples of the relationships between poverty and environment.**

---



1-5

These international conventions have legitimised the connection between sustainable development and environment. However, the challenge posed to development is how to improve people's living conditions (especially in poor communities in developing countries) whilst at the same time conserving the natural resources upon which life depends. Thus, it is important to understand how healthy environmental conditions can help improve agriculture and reduce poverty. Sectoral and overall country policies need to promote environmental protection and the reduction of poverty.

Important environment - poverty issues and concerns include:

- The risk that certain poverty reduction strategies damage the environment upon which the poor depend (long-term versus short-term gains)
- The fact that environmental degradation particularly effects the poor
- The increasing pressure on natural resources caused by poor families that need to meet their household needs
- The high environmental impacts caused by the rich as compared to the poor
- The need for a better understanding of why improving environmental conditions can help improve agriculture and reduce poverty
- The need to improve sectoral and overall policies to address the issues
- The search for win-win policies that reduce poverty and protect the environment

---

**Before moving to the next slide, ask participants to give examples of the relationships between trade and environment.**

---

Trade is known to be one mechanism for moving towards sustainable development. Trade liberalization, through the expansion of production, employment, and consumption opportunities, can have significant positive effects, raise living standards and improve social welfare. However, without appropriate policies and regulations, trade liberalization can have significant negative effects – environmental, social and economic.



1-6

A direct effect can be through promotion or deterrence of trade in environmentally beneficial goods or methods of production. Indirectly, trade liberalization can reinforce patterns of comparative advantage, which leads to increased specialization.

Important environment - trade issues include:

Trade can both create opportunity and pose a threat to the environment:

- Increased pressure to boost export and extractive industries leading to unsustainable use
- Pressure to produce more (e.g. in agriculture)
- Price changes of agricultural inputs
- Increasing water and energy use by modern industries
- New opportunities for trade in organic products
- Emphasis on comparative advantages leading to more efficient production systems

---

**Before moving to the next slide, ask participants to give examples of the relationship between poverty and trade.**

---

The relationship between trade and poverty reduction is important, and it is necessary to assess:



- The effects of trade on the prices of tradable goods and of these changes on household and individual welfare.
- The indirect changes in poverty through changes in government revenues and social spending.
- The impacts on households as both producers and as consumers.
- The impacts on local industry and other sectors, due to high competition of imported products.
- Also, there is a need to distinguish between rural and urban poverty, regions with different agricultural potential, and different livelihood systems. It is also important to acknowledge that there are both winners and losers.

---

**Before moving to the next slide, ask participants to give examples of synergies between trade, environment and poverty.**

---

Examples of synergies between trade, environment and poverty have been identified in some of the country studies facilitated by UNEP, for example:



- “Clean” rice production has been proposed in one study. This recommends producing rice using less chemical inputs (fertilizers and pesticides), causing less pollution. “Clean” rice serves an expanding market for organic products (a relevant trade issue) and is a profitable enterprise for local communities (reducing poverty);
- Adopting more efficient technologies, for instance for extracting oil from oil seeds has been proposed in another study. This indicates that some technologies are environmentally friendly by producing less waste as the oil is being extracted more efficiently. In addition, higher revenues can be achieved due to increase in tradable products per unit of produced oil seeds, and higher production levels for trade purposes. However, high investment costs to purchase more efficient technologies might be an obstacle to progress.

## 2. The need for integrated assessments

---

**Describe why integrated assessments are needed within the context of trade-related policies.**

---



1-9

It is generally accepted that trade is important for economic growth but has both negative and positive social, environmental and economic impacts. There is a need for integrated assessments to clearly propose (in country-specific detail) how to strengthen the positive impacts, and indicate what measures need to be taken to reduce or mitigate the negative impacts.

Integrated assessment can help to:

- Encourage sustainable trade (by further strengthening sustainable development and poverty reduction)
- Gain insight into the environmental, social and economic impacts of trade policies (both positive and negative)
- Stimulate inter-ministerial and inter-sectoral policy dialogue and cooperation
- Strengthen good governance in trade policy development.

## 3. Development from impact assessments to integrated assessment

---

**To provide further background, introduce Figure 1.1 and explain the development from impact assessment to integrated assessment and sustainability assessment and their main components - economic, social and environmental.**

---



1-10 to 1-12

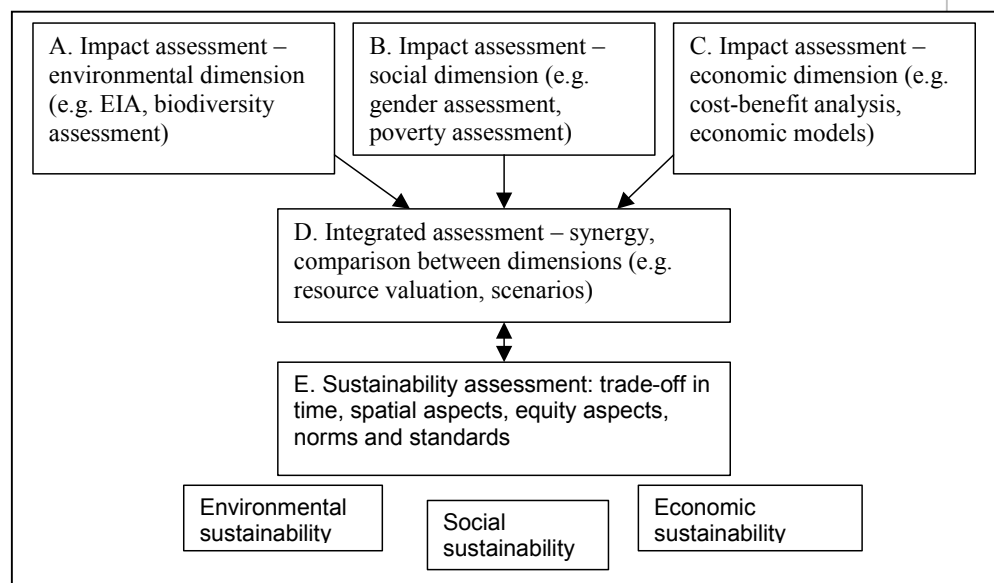
*Impact assessments* have traditionally had a spectral and thematic focus, and impact assessment tools are clustered along the lines of the three pillars of sustainable development: environmental, social and economic (A, B and C in Figure 1.1). However, comparing the different impacts and addressing the trade-offs between these three pillars is a major challenge. This is what *integrated assessments* aim to do, and in order to achieve this; a common denominator to compare impacts is needed. Resource valuation is most commonly used, meaning that all impacts are valued and compared in monetary terms.

However, integrated assessment is also moving towards *sustainable assessment* by adopting a sustainability framework (including issues and indicators) to assess the impacts of, for example, trade policies. While integrated assessment focuses on the impacts HERE (locality) and NOW (present situation), a sustainability framework focuses on the impacts HERE (beyond the locality, spatial trade-off) and LATER (after some time, temporal trade-off).

A sustainability framework thus defines the criteria and norms of major long-term and large-scale concerns of stakeholders i.e., what should be sustained for future generations (*later*) and beyond the nation or locality (*there*). A sustainability framework might be derived from sustainability policies or international agreements, and/or might be developed by means of a stakeholder process whereby public concerns are developed into a set of sustainability criteria, indicators and standards.

**Figure 1.1: Development from Impact assessment to integrated assessment**

Handout  
1.1 (Fig. 1.1)



Source: UNEP, 2004 (this training resource manual)

#### 4. Objectives of an integrated assessment

---

**Define integrated assessment and its objectives as used in the context of this training resource manual, and outline a rationale for its use. Refer back to Figure 1.1.**

---

1-13

Integrated assessment makes use of a range of impact assessment tools and approaches to explore the interactions between the environmental, social and economic dimensions of sustainable development. It is an instrument for evaluating all three aspects when formulating policies, plans and programmes and to assess the possible trade-off (negative interactions) and/or synergy (positive interactions) (see Figure 1.1). In addition, it might use a sustainability framework, with criteria, indicators and standards to assess acceptability of impacts.

Integrated assessment aims to support a structured and well-informed negotiation between relevant stakeholders during a planning process. It aims to ensure that stakeholders gain insight into the risks and opportunities of a policy (including environmental and social issues), and that they are offered the possibility of taking action. The use of an integrated assessment helps to ensure that environmental and social aspects are considered on a par with economic aspects, and the information necessary for informed decision-making is provided.

Integrated assessment supports capacity building of national institutions and stakeholders, by enabling participants to explore and quantify the linkages between the different dimensions.

## 5. Benefits of integrated assessment



UNEP Ref. Man.  
IA of Trade Policies,  
p. 5-9

---

**Introduce the benefits that can be expected from an integrated assessment in general terms and within the context of trade-related policies. Start off by asking participants what benefits they would expect.**

---

A range of benefits can be gained from an integrated assessment. An integrated assessment:

- Explores the linkages between different dimensions and policies (for example trade, the environment and development policies)
- Informs policy makers across government
- Informs negotiators
- Develops policy packages that help strengthen sustainable development and poverty reduction
- Enhances transparency and participation in policy dialogue and decision-making
- Saves time and money by developing a coherent integrated development approach
- Develops regional and international understanding and cooperation.

Within the context of trade-related policies, these potential benefits can be described as follows:

### Exploring the linkages between trade, the environment and development

An integrated assessment can help clarify the linkages between trade, the environment and development. A better understanding of these relationships can encourage policy makers to develop sustainable development strategies and to build understanding and support among stakeholders.



1-14



1-15

Over the years, governments, international organisations, NGOs and academic institutions have conducted various assessments of trade-related policies. These assessments have mainly been concerned with the environmental impacts of trade policies. These studies have produced useful insights into the relationships between trade and environment as well as highlighting the key factors to consider when examining such relationships. Integrated assessment aims to help establish a broad and holistic view of trade impacts on environmental, social and economic impacts.

### **Informing policy makers**

Informing policy makers across government departments of the implications of proposed trade policies helps to:

- Facilitate communication and cooperation across departments
- Coordinate actions across departments
- Build consensus and administrative capacity.

Various interest groups and formal trade advisory bodies and sub-federal governments in federal systems are systematically consulted in order to determine the policy-making or negotiating agenda, and set out different priorities and positions on particular issues.

### **Informing negotiators**

In the case of international trade agreements, once the domestic agenda and legislation for trade liberalization is in place, along with the necessary legislation, the policy process moves into the international arena. An integrated assessment:

- Informs negotiators of the main environmental and social trade-offs that are associated with the economic initiatives being considered; ensures that trade, environmental, social and economic issues are all addressed during negotiations;
- Can identify environmental and development effects of different trade-related policies at an early point in the negotiations.

### **Developing policy packages**

International trade agreements involve negotiations at the national level. And after international agreement has been reached, the process passes back to the national political and legislative process of the signatory states. This makes it important to manage any change or compromise in preferred national positions and domestic expectations, in light of the negotiated agreement. This is a crucial part of the process and is often the main focus of national political attention.

In some cases national authorization comes attached with particular conditions that affect how liberalization is implemented. Agreements often assign the task of implementing liberalization, especially on technical issues, to institutions constructed as part of the agreement. Recently negotiated agreements have contained provisions for the ongoing process of monitoring and implementation. The WTO's Trade Policy Review Mechanism (TPRM) is one example.

### **Increasing transparency in decision-making**

Insight and transparency into economic, social and environmental issues of trade policies can build public confidence and public support in the policy-making process.

Another important facet to the valuable role of information which is basic to the assessment process, is the fact that the process of integrated assessment:

- Enables different ministries to speak the same language on these issues; and
- Facilitates more effective inter-ministerial coordination, including through the creation of appropriate national-level mechanisms.

### **Saving time and money by developing a coherent integrated development approach**

Integrated assessment can help save time and money through identifying trade-environment-poverty linkages and providing planners and decision makers with an early warning of potential problems and negative impacts. It also helps to identify strategic options that support economic development while minimizing negative environmental, social and health impacts, thus reducing costs to mitigate such impacts.

### **Developing regional and international understanding and cooperation**

There is a clear need for country officials, including capital-based decision makers, to be empowered to understand and respond to linkages between trade, the environment and sustainable development. This relates to both international and regional negotiations on trade policy and economic cooperation and integration.

If possible, included examples from country studies, which underline the benefits.

## 6. Timing of an integrated assessment

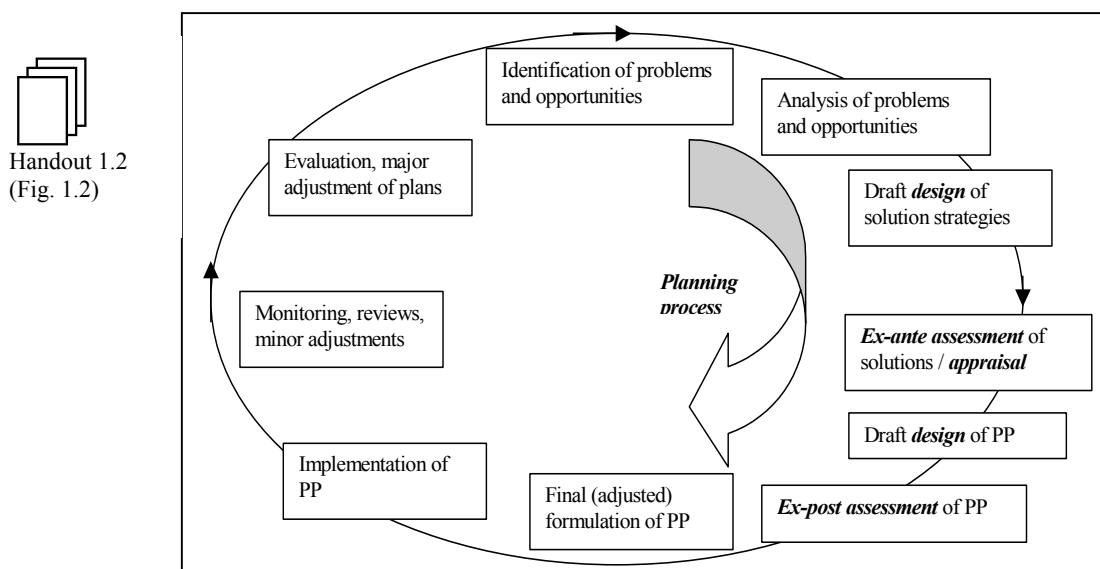


UNEP Handbook  
IA in Agr.Sect., p. 6

**Introduce Figure 1.2, which depicts the planning cycle and shows the different timing possibilities. Locate the *ex-ante* and *ex-post* assessment.**

The timing of an *integrated assessment* within the planning cycle is of critical importance, and will greatly determine the possible outcomes and benefits of the integrated assessment for decision makers and negotiators.

**Figure 1.2: Planning cycle and position of *ex-ante* and *ex-post* assessment**



Handout 1.2  
(Fig. 1.2)

Source: UNEP, 2004 (this training resource manual)

There are basically two main approaches to timing an assessment – the *ex-post* and the *ex-ante*. Undertaken after a policy change, *ex-post* assessments provide a retrospective examination of the environmental, social and economic impacts of a given event or policy.

In the context of trade-related policies, an integrated assessment can take place:

- Prior to the implementation of a trade measure or the planning or negotiating of a trade agreement (*ex-ante*);



1-16 to 1-20

- During the process of planning or negotiating a trade agreement (*concurrent*); or
- Following implementation of a trade-related policy or the final ratification of a trade liberalization agreement (*ex-post*).

While *ex-post* assessments provide no opportunity to influence the final outcome of a particular trade negotiation, they offer the following advantages within the context of trade-related policies:

- Improved understanding of the linkages between trade and sustainable development by identifying concrete impacts of liberalization as opposed to projected ones;
- Identification of relevant policy measures to mitigate negative impacts or promote positive impacts brought about by existing trade agreements or trade measures; and
- Help to define future *ex-ante* assessment and inform preparations for future trade liberalization agreements.

*Ex-ante* assessments by contrast, are undertaken before an event or policy change and can provide policy makers with forward-looking information, allowing them to develop a coherent and integrated set of policies. Such assessments can help governments to develop approaches that:

- Contribute to the policy process by identifying sustainability issues associated with a particular trade agreement and in particular the modalities for specific liberalization;
- Identify a range of issues that reflect the political and economic interests of various stakeholders;
- Help the country or region to identify policy priorities and put forward an integrated negotiating position;
- Direct the pace and/or scope of liberalization (including the sequencing of trade liberalization) to ensure that effective national environmental policies exist in vulnerable sectors;
- Help countries develop trade policies in a coordinated way that reflects the interdependence of economic, environmental and social goals; and
- Help build consensus within government.

---

**Please note that lack of available data should not form a hindrance to undertaking integrated assessments ex-ante.**

---



1-21 / 1-22

Both *ex-post* and *ex-ante* assessments have an important role to play in designing policies for sustainable development. Recently, however, there has been a shift in emphasis towards *ex-ante* approaches, in recognition that acting early allows policy makers to respond more effectively to new challenges and to proactively develop more integrated policies.

A *concurrent assessment* is conducted in parallel to trade negotiations. It will have some of the same uncertainty as an *ex-ante* analysis regarding the outcome of the process, although it will have the benefit of known national positions, a negotiating agenda, a time-frame and the ability to track any political direction that may emerge following the initiation of the negotiations. A concurrent assessment is a good way of keeping trade negotiators informed of sustainable development issues.

This type of assessment would also be useful at the point of a mid-term review in negotiations. By this point, contingent agreements may have been reached on important matters, settled national positions will probably exist on other items, and realistic scenarios for the final deal may be in place. An integrated assessment at this stage has the advantages of being both specific and policy-relevant, as well as being conducted sufficiently far in advance of the final agreement to be influential.

National governments might also wish to conduct an integrated assessment once the details of the final deal are in place, but before the agreement is ratified. However, as there is often little time between the final agreement and the subsequent national ratification, it would be difficult for national authorities to conduct a full-scale assessment at this stage. Conducting an integrated assessment prior to ratification may therefore only be possible if full-scale assessments have already been made at the initiation and mid-term stages of the negotiations.

## 7. Principles of the integrated assessment process

---

### **Introduce the main principles of an integrated assessment process and ask participants which of these principles they find most important.**

---



UNEP EIA/SEA  
Document, p. 92



1-23

Based on numerous experiences with various types of impacts assessment, particularly *environmental impact assessment*, *strategic impact assessment* and *social impact assessment*, there have been many attempts to describe the critical success factors. This undertaking, where many institutions and practitioners have been involved, has generated a number of basic principles for impact assessment, which are also highly applicable to integrated assessment. The following list of principles provides a concise checklist for any practitioner of integrated assessment when preparing, implementing and evaluating an integrated assessment process. Many of these principles will be further explained and elaborated upon in Sessions 2, 3 and 4.

1. *Cost- and time-effective*: the integrated assessment process should achieve its purpose in a timely and efficient manner, by careful planning, a focused approach and making best use of available information
2. *Objectives-led*: the integrated assessment process should be undertaken with reference to sustainable development goals and objectives
3. *Sustainability-driven*: the integrated assessment process should identify how alternative trade policy options contribute to environmentally and socially sustainable development
4. *Comprehensive scope*: the integrated assessment process should cover all levels and types of decisions falling under the proposed trade policy
5. *Focused*: the integrated assessment process should focus on key issues (in order to be cost-effective and manageable)
6. *Participatory*: the integrated assessment process should be an opportunity for stakeholder involvement which is appropriate to the level and issues of decision-making
7. *Transparent*: the information generated during the integrated assessment process should be accessible to all relevant stakeholders and decision makers
8. *Accountable*: clear allocation of agency responsible for decision-making and carried out with professionalism and rigour.
9. *Decision-centred*: the integrated assessment process should provide information and results in a form appropriate to the level of decision-making
10. *Fit-for-purpose*: the integrated assessment process and methods used should be customized to the context and characteristics of policy making and planning.

## **8. Focus of an integrated assessment**

---

**Emphasize that it is important to clearly focus the integrated assessment and explain the different ways to approach this.**

---

An integrated assessment of a policy should be carefully focused in order to be manageable and generate targeted results. The following checklist may help decide on the focus of the assessment:



1-24

1. What policy and policy measures are being assessed?
2. What is the time-frame in view of the stage of planning?
3. What are the sectors of interest (e.g. rice sector, transportation sector, etc.)?
4. What should be the geographical focus (e.g. poverty-stricken regions, important natural resources, etc.)?
5. What are the environmentally and/or socially critical issues (e.g. biodiversity, equity aspects, etc.)?

### **9. Conditions for an integrated assessment**

---

**Emphasize that for an integrated assessment to be successful, certain conditions need to be met.**

---



1-25

While the above-mentioned principles can be used to guide an integrated assessment process, it appears that a successful impact assessment will also depend upon meeting certain conditions. Experience has shown that the following basic conditions are necessary before undertaking an integrated assessment:

- The policy to be assessed should have potential impacts in the social and environmental dimensions, and be sufficiently concrete to be able to assess the impacts and propose alternatives
- The public sector decision makers should be motivated to be involved, or at least remain informed about progress and results
- Key stakeholders should be involved in the process
- The policy being assessed should have scope for change (not be strictly formalized)
- The results of the integrated assessment should be accessible to the public
- The assessment should be carried out within a time-span of 4-6 months.

## Outlook on the other sessions

---

### Present an outlook for Sessions 2, 3, and 4.

---



1-26

- Session 2 will focus on the integrated assessment process and phases. It introduces aspects of organization, design, public participation, reporting, and negotiation.
- Session 3 will focus on the contents and methods for an integrated assessment. It introduces the various methods that can be used and emphasizes setting priorities and the use of sustainability indicators.
- Session 4 focuses on integrated policy responses and discusses the formulation of policy options, follow-up activities, monitoring, and important aspects of informing policy makers.

### Main References for Session 1

Reference Manual for the Integrated Assessment of trade-related policies, UNEP, 2001

Handbook on integrated Assessment of Trade-related Measures: the Agricultural Sector, UNEP, 2004 (still unpublished)

Environmental Impact Assessment/Strategic Environmental Assessment: Towards and integrated Approach, UNEP, 2004

Building Capacity for Integrated Assessment and Planning for Sustainable Development, UNEP Brief, March 2004



Development from Impact to Integrated Assessment

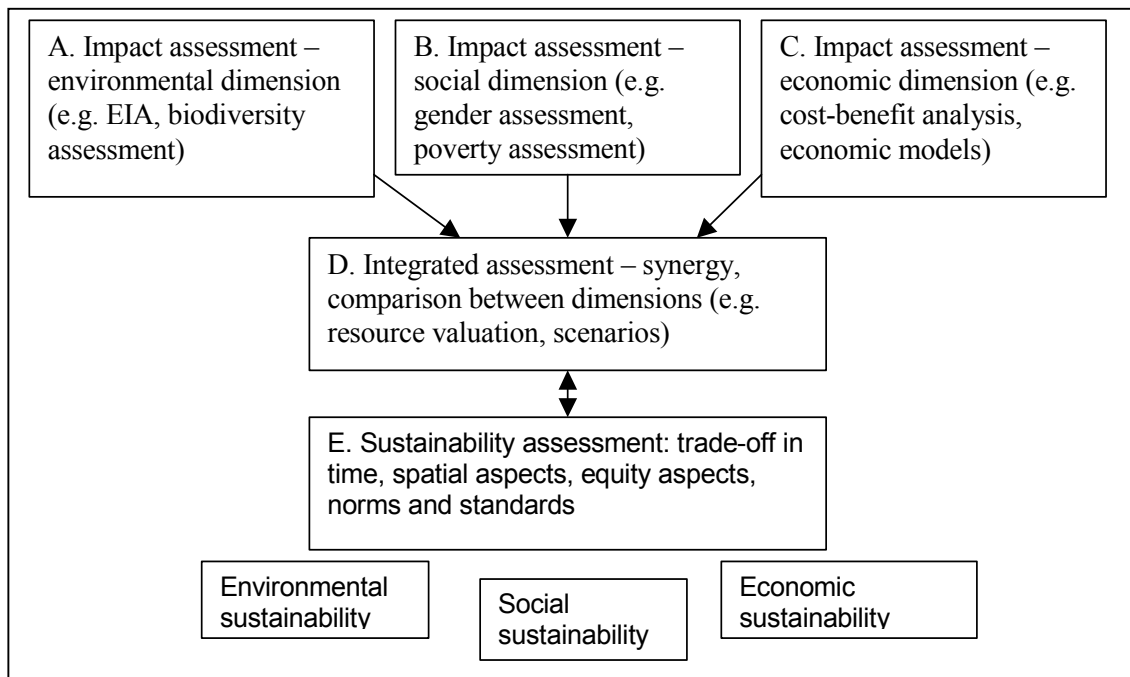


Figure 1.1

*Impact assessments* have traditionally had a sectoral and thematic focus, and impact assessment tools are clustered along the lines of the three pillars of sustainable development: environmental, social and economic (A, B and C in Figure 1.1). However, comparing the different impacts and addressing the trade-offs between these three pillars is a major challenge. This is what *integrated assessments* aim to do, and in order to achieve this; a common denominator to compare impacts is needed. Resource valuation is most commonly used, meaning that all impacts are valued and compared in monetary terms.

However, integrated assessment is also moving towards *sustainable assessment* by adopting a sustainability framework (including issues and indicators) to assess the impacts of, for example, trade policies. While integrated assessment focuses on the impacts HERE and NOW, a sustainability framework focuses on the impacts THERE and LATER.

A sustainability framework thus defines the criteria and norms of major long-term and large-scale concerns of stakeholders i.e., what should be sustained for future generations *here and there*. A sustainability framework might be derived from sustainability policies or international agreements, and/or might be developed by means of a stakeholder process whereby public concerns are developed into a set of sustainability criteria, indicators and standards.



**Planning Cycle and Position of ex-ante and ex-post Assessment**

The timing of an integrated assessment within the planning cycle is of critical importance, and will greatly determine the possible outcomes and benefits of the integrated assessment for decision makers and negotiators.

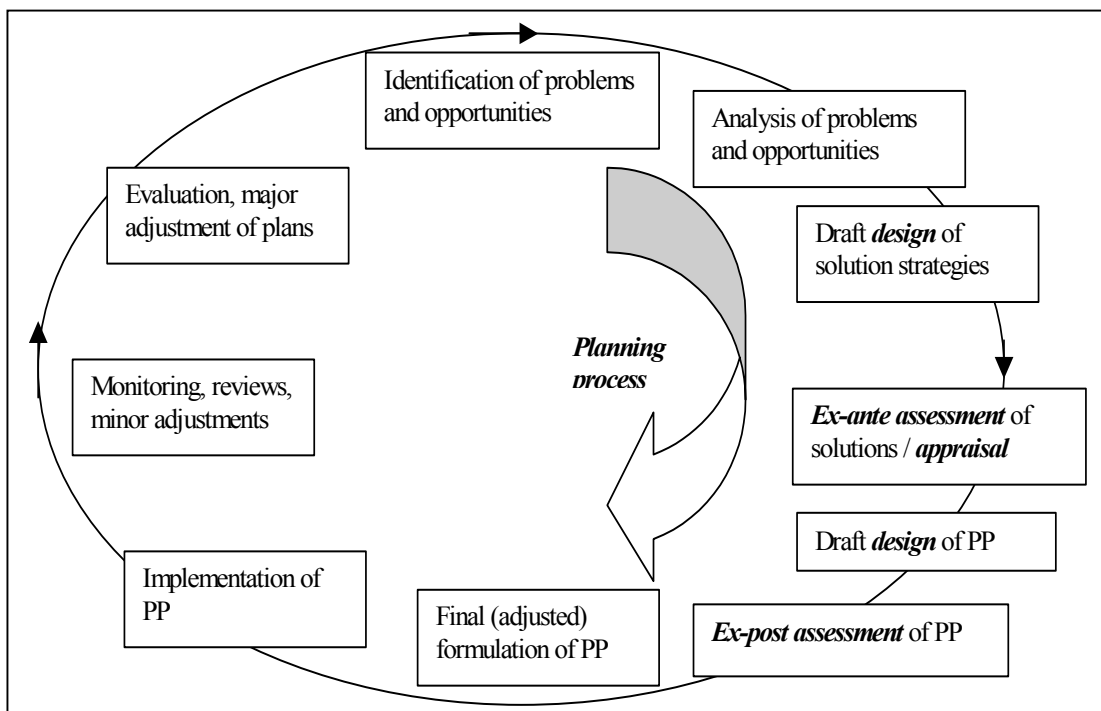


Figure 1.2

There are basically two main approaches to timing an assessment – the *ex-post* and the *ex-ante*. Undertaken after a policy change, *ex-post* assessments provide a retrospective examination of the environmental, social and economic impacts of a given event or policy. While *ex-post* assessments provide no opportunity to influence the final outcome of a particular trade negotiation, they offer the following advantages within the context of trade-related policies:

- Improved understanding of the linkages between trade and sustainable development by identifying concrete impacts of liberalization as opposed to projected ones;
- Identification of relevant policy measures to mitigate negative impacts or promote positive impacts brought about by existing trade agreements or trade measures; and
- Help to define future *ex-ante* assessment and inform preparations for future trade liberalization agreements.

*Ex-ante* assessments by contrast, are undertaken before an event or policy change and can provide policy makers with forward-looking information, allowing them to develop a coherent and integrated set of policies. Such assessments can help governments to develop approaches that:

- Contribute to the policy process by identifying sustainability issues associated with a particular trade agreement and in particular the modalities for specific liberalization;
- Identify a range of issues that reflect the political and economic interests of various stakeholders;
- Help the country or region to identify policy priorities and put forward an integrated negotiating position;
- Direct the pace and/or scope of liberalization (including the sequencing of trade liberalization) to ensure that effective national environmental policies exist in vulnerable sectors;
- Help countries develop trade policies in a coordinated way that reflects the interdependence of economic, environmental and social goals; and
- Help build consensus within government.

---

## Materials for Session 2

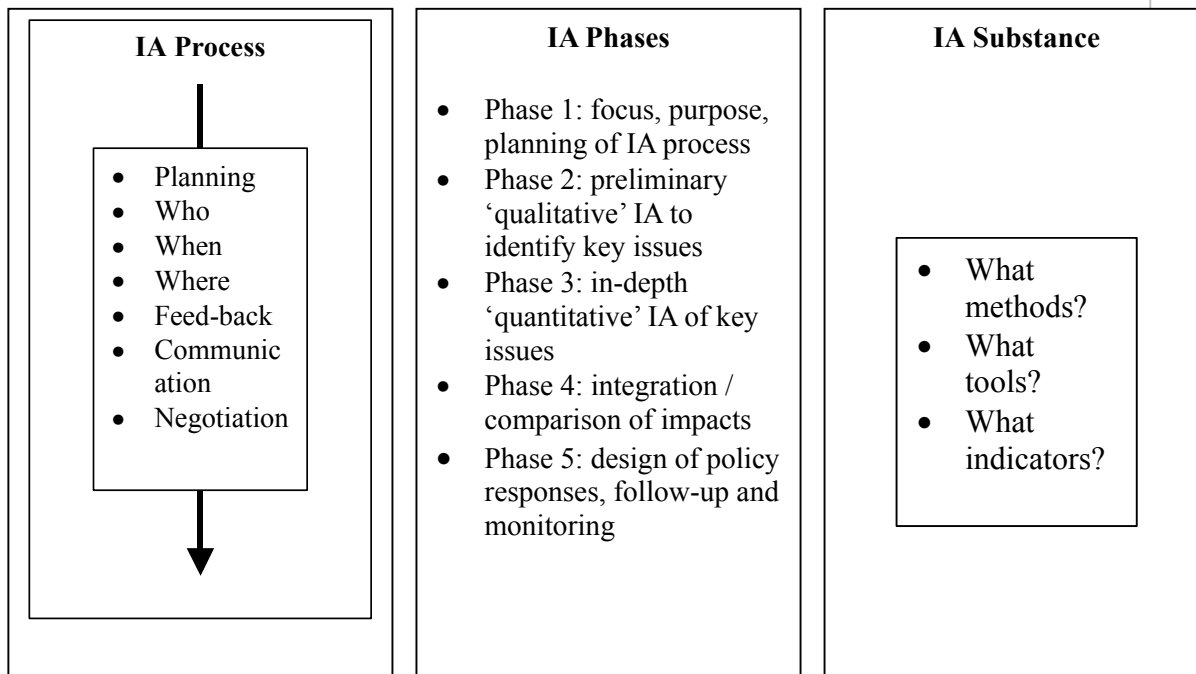
### ***For trainer/facilitator***

Session presentation  
Slides

### ***Handouts for participants***

Handouts 2-1  
Handout 2-2  
Handout 2-3  
Print out of slides





# Session Presentation

## Session 2: Process of an Integrated Assessment

---



**Welcome participants back to the course presentation. Briefly sum up Session 1, including participants' input, and encourage them to continue to contribute their knowledge and experience of any local assessments, recent or underway.**

**Introduce the navigation chart provided at the beginning of the presentation, which will serve as a reference point for the session.**

**Note that print outs of slides and additional handouts will be available and that you will be cross-referencing topics to the *Reference Manual on Integrated Assessment of Trade-Related Policies* as you go along.**

### **Purpose of this session**

**Introduce the purpose of Session 2 and provide an overview of the main topics to be discussed.**



This session aims to provide guidance to the process of undertaking an integrated assessment in a way that contributes to building capacity, commitment and ownership, while also enhancing an understanding of the issues at stake. This session should enable participants to design the integrated assessment study as a process, with details on purpose, focus, timing and stakeholder participation (i.e. which stakeholders to involve, when and how).

It is assumed that participants have followed Session 1 in which some of the issues raised will be expanded in Session 2.

#### ***Evaluation question:***

Participants should be able to describe integrated assessment as a participatory and capacity building process. They should be able to briefly indicate for each integrated assessment phase the key organizational and process-related issues to be addressed (without looking at the methods to be used). They should be able to outline the main issues for designing an integrated assessment process (purpose, focus, timing and stakeholder participation).

## Overview of the main topics of this session



1. Phases of the integrated assessment process
2. Purpose of the integrated assessment
3. Focus and scope of the integrated assessment
4. Design the integrated assessment process
5. Timing of the integrated assessment
6. Stakeholder participation / Roles and responsibilities
7. Transparency and communication
8. Negotiation
9. Capacity building

### 1. Phases of the integrated assessment

---

#### Introduce the five most common phases of an integrated assessment.

---

Integrated assessments are often undertaken in five phases:



UNEP Ref. Man.  
IA of Trade Policies,  
p. 15-23

- During Phase 1 (preparation and planning) issues to be clarified and determined include: purpose, focus, design of the integrated assessment process including approaches to ensure participation and communication.
- During Phase 2 a preliminary assessment of environmental, social and economic impacts is made, including critical linkages. This is done on a *qualitative* basis using available information. The aim is to identify the key issues for more detailed and *quantitative* study and analysis.
- During Phase 3, in-depth analyses of identified key issues to assess impacts are undertaken, with the use of quantitative methods where possible. Use can be made of environmental, social or economic impact assessment tools, of integrated assessment tools, and of sustainability frameworks (see Figure 1.1, Session 1).
- During Phase 4 the results of Phase 3 are compared and integrated to establish the linkages between identified impacts, discuss trade-offs, define priorities and synergies and make comparisons, possibly by using economic valuation methods.
- During Phase 5 the above results are used to formulate and design a limited number of policy responses, follow-up activities and suggestions for monitoring.

For Phases 1 – 4, different methods and tools are available. Experience indicates that a mix of methods can be used, depending on whether the assessment is *ex-ante* or *ex-post*, the type of policy being analysed, and the impacts being measured.

---

**Explain that Session 2 deals with Phase 1 – the process aspects of the integrated assessment study. Phases 2 - 4 will be discussed in Session 3 on Content and Methodology. Phase 5 will be discussed in Session 4.**

---

The main issues in Phase 1:

Careful planning is necessary to ensure that an integrated assessment meets its objectives in a timely and cost-effective way. Questions of how, when and by whom it will be conducted must be answered before substantive work on the assessment begins.



2-5

In making these decisions, a range of factors needs to be taken into account. First and foremost is the timing of the assessment. This may be dictated by the fact that trade negotiators wish to use it to develop their negotiating positions ahead of a trade round.

Other considerations are the availability of financial and human resources, data limitations, and the level of experience in conducting such studies. Governments also have to ensure that all individuals and groups with an interest in the issues covered by the assessment are encouraged to participate in the process, and that the end product is both credible and useful to policy makers.

## **2. Purpose of the integrated assessment**

---

**Explain that it is important to have a clear understanding of the purpose of the integrated assessment before starting the process.**

---



2-6

The first step of Phase 1 is to define and to reach an agreement on the purpose of the integrated assessment. The following questions need to be discussed:

1. Who are the main target groups and decision makers?
2. What are desirable outcomes to influence decision makers?
3. What policy decisions should be influenced?
4. At what stage is the planning or negotiation process?
5. What level of detail is needed for the integrated assessment?
6. What are the capacity building objectives?



UNEP Ref. Man.  
IA of Trade Policies,  
p. 9-13

### 3. Focus and scope of the integrated assessment

---

**As the focus of this manual is on trade-related policies, include a brief discussion on trade measures, trade liberalization and trade-related policies. This will form the basis for more detailed investigation of the scope and methodology of integrated assessments covered in Session 3.**

---

The focus of an integrated assessment needs to be determined from the outset. The following is a checklist of the important questions to be answered at this stage:

1. What trade policy and policy measures are subject to the integrated assessment?
2. What are the sectors of interest (e.g. the rice sector, the transport sector, etc.)?
3. What is the geographical focus (e.g. poverty-stricken regions, important natural resources, etc.)?
4. What are the environmentally and/or socially critical issues (e.g. biodiversity, social equity, etc.)?
5. What is the time frame?

Concerning Question 1, the following background information is relevant:

#### **Tariffs and related measures**

When tariffs are increased they discourage trade; when they are lowered, or eliminated, they promote trade. Tariffs affect trade flows, making it more expensive for domestic households and companies to buy foreign goods, thus promoting domestic production. Since high tariffs make imported goods more expensive, the higher the tariff imposed, the more difficult it is for the exporting country to access the importing country's markets. In the case of tariff escalation, higher tariffs are charged on goods that are processed to a higher degree.

A country can use tariffs to encourage trade in products that are environmentally benign, or less harmful, by lowering or removing their corresponding tariffs. In the same way, countries can discourage trade in environmentally harmful substances or products by maintaining or increasing tariffs. The effects of international negotiations on tariffs are therefore likely to impact on the environment.

To the extent that tariffs are used to protect domestic production and markets, they can have additional important socio-economic impacts related to employment, innovation, and production practices. The UNEP Country Studies on integrated assessment have confirmed that the practice of tariff escalation can encourage countries to export raw materials, as opposed to processed goods, resulting in the depletion of that country's natural resource base and removing the social and economic benefits such as loss of employment (in terms of processing the raw materials domestically).



2-7



2-8

### **Non-tariff measures**

Non-tariff measures, which include quantitative restrictions, such as quotas or special regulations, can affect imported goods. Non-tariff measures that relate to mandatory regulations and other standards are called *technical barriers to trade* (TBTs). Other kinds of non-tariff measures include those related to food standards to ensure food safety and to protect human health from plant or animal-spread diseases, and regulations to protect plant and animal health from pests and diseases.

### **Trade-related subsidies**

Trade-related subsidies include production subsidies and export subsidies. Both affect the pattern of trade and support uncompetitive production on world markets, and can encourage environmentally harmful behaviour. Production and export subsidies can also be used to promote environmentally friendly production techniques and products. The imposition or removal of trade-related subsidies can also have important socio-economic impacts related to protection of domestic industry, culture and employment.

---

**Emphasize the threat to sustainability inherent in some of the above approaches. Ask participants to nominate other trade-related policies currently in place in their country or region.**

---

These can include:

- Industry and export subsidies, including investment subsidies
- Macroeconomic policies, and exchange rate and current account regimes
- Deregulation and privatization
- Tax policies
- Policies affecting banking and credit systems.



---

**Note that the focus of an integrated assessment will vary according to national and local priorities.**

---

Concerning Question 2, the following background information is relevant:

### **A sector-based approach**

A number of organizations and institutions have adopted a sector-based approach to the assessment of trade policy and trade liberalization. Rather than focusing on economy-wide impacts they examine the impact on a specific sector or product within that sector. The advantage of the sector-based approach is that it is possible to identify early on in the assessment the positive and negative effects of the policy or agreement under consideration. Starting at the sector-level also provides the most effective opportunities for collecting empirical data. The disadvantage of this approach is that economy-wide impacts are not immediately identified and that important cross-sector links may not be captured at the start of the process.

All of the UNEP Country Studies chose a sector-based approach. They include for example the fishing industry in Argentina and Senegal, the cotton sector in China, and cocoa and rubber production in Nigeria (add in local/regional examples of UNEP Country Studies from the listing in handout 2.2.). During group Activity 1, participants will have the opportunity to work on these case studies.



2-10



Handout 2.1  
(Country Studies)

Concerning Question 3, the following background information is relevant:

### **Geographic region/ecosystem**

An integrated assessment can also be focused on a geographic region. It can be conducted at the national level, at the local level, or based on a specific ecosystem or vulnerable area. Although the main focus of the assessment might be domestic, there may also be some cases in which it is useful to extend the analysis to the consideration of cross-border, regional or even global impacts. Such extensions depend upon the economic, social and environmental priorities examined within the study. For example, if the main development focus of an assessment is migration, cross-border effects might be particularly important. And if the main environmental issue under consideration is greenhouse gas emissions, then an assessment might need to consider the potential global impacts.

Concerning Question 4, the following background information is relevant:

### **Sustainable development priorities**

An integrated assessment might also be focused on specific environmental or social issues that reflect the sustainable development priorities of the country, where there is a clear link with a trade policy. Early environmental and social monitoring, based on indicators, can provide early warnings of adverse environmental and social impacts and therefore provide the time to make modifications in the trade policy or to introduce complementary policies to reduce the impacts to an acceptable level.

---

**In the initial planning for the assessment, there is one more vital consideration to be emphasized - the need to consider short, medium and long-term impacts.**

---

Concerning Question 5, the following background information is relevant:

**Time frame**

At the outset, an integrated assessment must determine the relevant time-frame for investigating the effects of the policy. It is necessary to consider those effects that occur in anticipation of a trade-related policy or an international agreement—including strategic adjustment on the part of relevant actors in government and the private sector. Other immediate or short-term impacts might include the confirmation or consolidation of changes already underway, for example, codifying existing practices and legitimizing and stabilizing existing economic and corporate activity. The dynamic nature of the impact of trade necessitates the consideration of medium and long-term impacts.



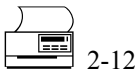
**4. Designing the integrated assessment process**

---

**Emphasize that it is essential that the integrated assessment process is carefully designed. The following sections give guidance on how to properly plan the process.**

---

Having defined the purpose, focus and scope of the integrated assessment, the next step is to design the process carefully. The following checklist could serve as a guideline for the design of the integrated assessment process:



1. What is the best timing for influencing policy makers or serving negotiators?
2. What human resources are available?
3. What financial resources are available?
4. What type of end-product is most useful for policy makers?
5. Which stakeholders need to be involved?
6. What information is required and available?
7. What means of communication can be used?
8. How can capacity building be ensured?
9. Which methods can be applied?

---

**Explain that the following sections will provide background information for Questions 1 - 8. Question 9 will be addressed in Session 3.**

---

## **5. Timing of the integrated assessment**

---

**Relate back to Figure 1.2 of Session 1 and the accompanying text as you expand on the different timing possibilities.**

---



2-13,  
slides 1-16 to  
1-22

There are basically two opportunities during the planning cycle at which an assessment can take place. The decision on timing is critical to the outcome and success of an integrated assessment and crucial to its consequent impact. Each time frame will have a different purpose and a different product.

## **6. (a) Stakeholder Participation (Stakeholder analysis)**

---

**Emphasize that for an integrated assessment to be perceived as legitimate, credible and independent, it is vital to build in a strong component of stakeholder participation. A wide range of actors should be brought into the assessment process. Ask participants to name those they would expect to be the most important stakeholders.**

---



UNEP Ref. Man.  
IA of Trade Policies,  
p. 17-19

Key stakeholders in the process of integrated assessment may include all or some of the following:

- Federal and sub-federal governments
- NGOs
- Trade negotiators
- Policy makers
- Private sector representatives
- Industry groups
- Trade unions
- Industry or sector workers
- The general public
- Other minority groups.



2-14

Where policies or measures have potential cross-border or global sustainability impacts, governments may also want to consult with other countries during the review process.

---

**Summarize the stakeholders mentioned and introduce the main aspects of a stakeholder analysis.**

---



2-15

A thorough stakeholder analysis is essential to any integrated assessment. The objective of this would be to map all relevant stakeholders, meaning those with primary (direct) interest and those with secondary (indirect) interests in the (trade) policy. If possible, it would also be very useful to analyse their interrelations and their power relations.

The following categories can serve as a starting point for the stakeholder analysis. It is important that stakeholders from different sectors are involved.

Categories of relevant stakeholders:

- Local, national and international stakeholders
- Representatives from the private sector, the public sector or civil society
- Stakeholders from different sectors (transport, construction, agriculture, etc.)
- Stakeholders with direct or indirect interests.



Handout 2.2  
(Tool 1)

For stakeholder analysis, different tools can be applied when designing the integrated assessment process. One tool for stakeholder mapping and analysis is presented in Handout 2.3, including further guidelines and matrices.

## 6. (b) Stakeholder participation (Scope)

---

**Explain that having identified the main stakeholders, the scope of their involvement needs to be defined. Explain the difference between *consultation* and *participation* and highlight the main advantages and disadvantages of stakeholder participation.**

---



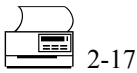
2-16

In deciding on the scope of stakeholder participation, an appropriate balance between the benefits and advantages and the costs and disadvantages has to be achieved according to the particular circumstances. While full participation might seem ideal, in most cases selective participation is more realistic.

It is important to stress the distinction between *consultation* and *participation*. Consultation involves asking for contributions from experts and the general public, without necessarily offering them a substantive role in policy development; participation is a more inclusive process whereby stakeholders are significantly involved in forming and implementing trade policies. Widespread consultation is an important component of any participatory process, but in the context of an integrated assessment where the common goal of sustainable development is shared by many different sectors of society, full participation should be the aim.

Public participation offers the following advantages to those undertaking an integrated assessment:

- |                                 |  |
|---------------------------------|--|
| <b><i>Cooperation</i></b>       | Provides opportunities for cooperation and coordination within and between government and civil society, leading to the creation of long-term collaborative relationships.                                       |
| <b><i>Expertise</i></b>         | Introduces a broad range of ideas, experiences and expertise to the integrated assessment, enhancing the knowledge of policy makers and promoting the development of a comprehensive range of policy options.    |
| <b><i>Ownership</i></b>         | Provides participants with a sense of ownership over the final product, thereby reducing the potential for serious conflict and increasing the likelihood of lasting solutions.                                  |
| <b><i>Capacity-building</i></b> | Ensures that the interests of groups that have traditionally played only a marginal role in policy development can be incorporated into the whole decision-making process, building capacity among those groups. |
| <b><i>Trust</i></b>             | Builds trust among the various stakeholders in the process, making it easier for governments to generate widespread public support for their initiatives.  |



The following constraints are often raised with respect to stakeholder participation:

- Increased costs (for travel, per diem, logistics)
- Time consuming (for communication, negotiation, debate, reporting etc.)
- Expectations might be raised that will need to be met later on.

## **6. (c) Roles and responsibilities in an integrated assessment**

---

### **Explain the different roles and responsibilities of parties within an integrated assessment process.**

---

To further structure the integrated assessment process, it is important to discuss which stakeholders represent or belong to one of the following parties (not all are relevant, depending on the circumstances):

- The initiator of the integrated assessment process and institution ‘owning’ the study
- The funding agency
- The integrated assessment team, i.e. the institutions and people within the team responsible for organizing and undertaking the assessment itself, implementing the methods and tools, drawing conclusions and identifying policy options with stakeholders



- The steering committee is an independent advisory body established to guide and oversee the assessment process, report back to policy makers and inform the public.

The roles and responsibilities of the different parties need to be clarified. In order to assure the independence and therefore the credibility of the assessment, it is useful to include members of the public with knowledge of the issues in the steering committee.

---

**One important question most often asked is ‘Who will initiate an integrated assessment?’**

---

The responsibility for carrying out integrated assessments will most likely lie with one of three ministries: trade, environment or development. One of the advantages of initiating the process in the public sector is that it helps to ensure that its results are translated into policy recommendations. The primary responsibility for the delivery of the assessment may be given to one ministry or department, with others making contributions. It is important to make an effort to involve all relevant government departments in the process, since conducting an integrated assessment requires a broad range of expertise and cooperation between departments also helps to promote integrated policy-making.

---

**Discuss some of the experiences from the UNEP Country Studies giving examples of public participation as well as the roles and responsibilities of the different parties.**

---

In all of the 18 UNEP Country Studies on integrated assessment of trade-related policies, national institutions (NGOs, research institutes, universities or national governmental authorities) were responsible for the over all implementation of the projects. The national implementing institution ensured that the national Ministries of Environment, Trade and other relevant ministries were involved during the period of project implementation.

All national institutions were asked to establish, from the beginning, National Steering Committees comprising experts and stakeholders from government, the private sector, academia and non-governmental organizations to guide project development and implementation. The members of the Steering Committee were responsible for identifying main issues and concerns to be addressed throughout the project, defining project methodologies, identifying local consultants and providing substantive guidance on how project recommendations could best be implemented.

National institutions convened one or more national stakeholder meetings as deemed appropriate to their particular circumstances, to ensure the project reflected the concerns and priorities of varied stakeholders, particularly affected local communities, and promoted stakeholder ownership. Securing this objective was considered crucial to the successful implementation of the study's policy recommendations.

The national stakeholder meetings proved valuable as they offered opportunities to discuss major issues and obstacles as well as providing guidance and constructive feedback. Nonetheless, success of these projects also depended on holding bilateral meetings with government officials and civil society on a regular basis. The fisheries project in Senegal, for instance, established a pilot committee involving a number of stakeholders, including the following representatives:

- The Ministry of Fishing,
- The Ministry of Trade,
- The Ministry of Environment,
- Several professional fishing organisations (FENAGIE, CNPS and GAIPES),
- Different research institutions (CRODT/ISRA, ISE, ENDA), and
- The University of Dakar.

---

**Pause here to reconsider the list of main stakeholders and to summarize the session so far under the headings: Phases of an Integrated Assessment; purpose, focus, timing; participation, roles and responsibilities. Then you may introduce more details on the participatory process.**

---

## 6. (d) Stakeholder participation – how and when

---

**Ask participants for methods to encourage Stakeholder participation, to ensure that stakeholders can participate in an equitable manner**

---

There are different methods and approaches to stakeholder participation. These include:

- Physical presence (workshops, debates)
- Direct representation by mandated representative
- Review and commenting through a number of techniques for soliciting input from groups that do not participate directly in the process, such as open house, written submissions, or public meetings
- Surveying needs of stakeholders and channelling these into the IA process.

A tool for involving key stakeholders groups is presented in Handout 2-3.



2-19



Handout 2.3

(Tool 2)

---

**Emphasize that effective participation and consultation of stakeholders depends on good information made available to them early in the process, as well as transparency and continuous communication throughout the process.**

---

Documentation can include terms of reference for the assessment, advance notice of consultations, a proposed time-frame, key references, minutes from relevant meetings, submissions and comments received from the public or produced within government, and any other information relevant to the assessment. Any *ex-ante* assessments conducted in advance of the consultation and other relevant analyses of trade reforms, are likely to be particularly useful. In determining the level of information that will be provided, account should be taken of:

- Accessibility and complexity of the information
- Issues of language and resources
- Other practical considerations.

To facilitate participation, a point of contact should be established at relevant levels of government, and if possible, the names of the relevant individuals or groups responsible for the integrated assessment should be published. Clear procedures should be established for requesting and receiving information. Periodic and well-publicized briefings would also be helpful to attracting the broadest possible audience. Briefings on issues related to methodology and empirical research might be held in person or through the Internet. These measures will require some human and financial resources.

## **7. Transparency and communication**

---

**Ask participants when and how decision makers and the other stakeholders can be informed of the results of the integrated assessment.**

---

Adequate reporting to inform the public and key decision makers is important throughout the integrated assessment, but is particularly important at the onset of the study and once it has been finalized. This will greatly contribute to a commitment to implementing the proposed policy options identified. The following checklist should provide guidance to ensure transparency and proper communication:

- Make a reference list of all available documents
- Make sure participants are well informed and informed in time
- Organize briefings and handouts to inform key decision makers
- Keep minutes of relevant meetings, workshops, interviews etc.
- Provide adequate response to all feedback
- Post information on relevant Internet sites.



---

**Emphasize the golden rule to keep reports short and to put detailed information in annexes.**

---

---

**Different types of information may be used during the integrated assessment process.**

---

The following checklist should provide guidance on the kind of information that may be used during the integrated assessment process:

- Background documents on the selected trade policy
- Policy and research documents on poverty
- Policy and research documents on environment
- Policy documents on sustainable development and sustainability indicators
- Studies on trade, environment and poverty relations
- Statistics on trade, environment and poverty
- Examples of integrated assessment studies.



2-21

It is particularly important to make a list of relevant documentation during this phase (preparation and planning) of the study, and to ensure that all relevant information is appropriately used.

---

**Emphasize the golden rule to summarize and study available information before undertaking further research.**

---

## 8. Negotiation

---

**Emphasize that policy options will need to be implemented by decision makers. Therefore the policy options identified during the integrated assessment must be negotiated in order to find out which are realistic.**

---

Negotiations are an important part of any integrated assessment dealing with the possible trade-offs between the social, economic and environmental dimensions of sustainable development. Trade-offs become particularly relevant when it comes to defining priority impacts and policy responses. Negotiations can take place between stakeholders and/or decision makers, and the integrated assessment team may facilitate these negotiations. Some ground rules to be followed during the negotiation process include:



- Create trust and an open atmosphere
- Remain polite, avoid accusations
- Map stakeholders and their positions
- Move from positions to interests and values
- Agree upon undesirable impacts
- Brainstorm about alternative options
- Agree upon establishing objective criteria to select the best options
- Make sure the final agreement is well documented.

## 9. Capacity building

---

**Emphasize that capacity building is an important objective in the integrated assessment process. Introduce different ways of achieving this objective.**

---



2-23 / 2-24

Integrated assessment studies should contribute as much as possible to capacity building. Capacity building in this context means building abilities, relationships and values that will enable organizations, groups and individuals to improve their performance and achieve development objectives. Some ways of enhancing capacity building are outlined as follows:

- Give full responsibility to country teams
- Respect locally available tools and methods
- Participation by relevant stakeholders
- Undertaking a needs assessment
- Networking and information exchange
- Providing (on-the-job) training
- Involving local level expertise
- Developing local manuals.

## **Main References for Session 2**

Reference Manual for the Integrated Assessment of trade-related policies, UNEP, 2001.

Environmental Impact Assessment and Strategic Environmental Assessment: Towards an integrated Approach, UNEP, 2004.

Capacity Building for Integrated Policy Design and Implementation, Paper presented at the UNEP meeting, 27-28 March 2004 in Jeju Island, Republic of Korea.

Integrated Assessment and Planning for Sustainable Development, Guidelines for Pilot Projects, Version 1, March 2004.

Integrated Assessment of Trade and Trade-related Policies, UNEP Country Projects –Round II, A Synthesis Report, UNEP, 2001.

Participatory Methods Toolkit, A practitioner's manual, UNU CRIS, 2003.



All together UNEP initiated three round of country projects on integrated assessment of trade-related policies.

The basic aim of the first round projects, conducted in Bangladesh (shrimp aquaculture), Chile (mining), India (automotive industry), Philippines (forest management), Romania (water pricing) and Uganda (fisheries) was to identify the environmental impacts of Structural Adjustment Programmes, particularly their trade liberalisation components. The projects, which were concluded in December 1999, also aimed to formulate policy recommendations – especially market-based economic instruments – which can facilitate environmental conservation and sustainable development in the sector concerned.

Despite the geographical and thematic diversity of the projects undertaken, a certain number of commonly supported conclusions could be identified from the projects, based on the experience of both national project teams and UNEP in its coordinating, supervisory and support role. These are presented thematically below.

While UNEP hoped that the conclusions from the first round of country projects would have a multiplier effect by providing guidance to others addressing sectoral trade-environment problems in their country, region or locality, it was clear through strong country demand that further work on the part of UNEP could enhance both the policy tools developed and this multiplier effect. Accordingly, at the end of 1999, UNEP initiated a second round of Country Projects, tightly focused on trade liberalisation, as well as the development of a Reference Manual for Integrated Assessment of Trade-Related Policies.

The second round of Country Projects was designed using many of the experiences and lessons from the first round. In this case it was also possible to choose six out of 13 projects proposed by country institutions, on the basis of expertise of project executants, environmental and economic importance, prospects of policy formulation and implementation, and contribution to in-country capacity building. The projects selected are in:

- Argentina (fisheries),
- China (cotton),
- Ecuador (bananas),
- Nigeria (cocoa and rubber),
- Senegal (fisheries) and
- Tanzania (forestry).

These projects are complemented by a further three on the design of economic instruments for environmental management in:

- Chile (mining sector),
- Kenya (waste management) and
- the Philippines (forest management).

From the beginning, in December 1999, work on the country projects selection process was developed on a parallel track with the initiation of work on a reference manual on integrated assessment. The manual is intended to provide a menu of options for policy-makers wishing to assess the environmental, as well as the economic and social effects, of trade and trade-related policies. As these parallel tracks have developed they have increasingly been integrated, both in terms of the participants in each, and in their analytical focus and ultimate objectives. In particular, capacity building for developing countries has increased in importance as an objective of both country projects and the reference manual. An associated UNEP-UNCTAD initiative has been developed, the Capacity Building Task Force on Trade, Environment and Development (CBTF), has capacity building for assessment as one of its main objectives.

The combination of the second round of country projects and the reference manual have delivered new lessons and reinforced some of those emanating from the first round. As work on assessment proliferates internationally, and the policy tool itself begins to mature, new challenges are also appearing.

The third round of country projects, initiated in 2002, focused on integrated assessment of trade-related policies in the agricultural sector (rice sector in particular) and covered Columbia, Nigeria, Indonesia, Senegal, China, Viet Nam, and Ivory Coast.

## Tools and techniques that can be applied in an integrated assessment

### *Tool 1: Stakeholder analysis and mapping*

**Aims:** To map stakeholders, i.e. those with primary (direct) and secondary (indirect) interests in the planning process, analyse their interrelations and power relations and set priorities for their involvement in the planning/assessment process.

**Guidelines:**

1. Determine which stakeholder groups are directly **affected** and which are **interested** in the current development patterns and the proposed interventions. Consider:
  - Their interests in the planning process and sector involved
  - Different positions along the product chain (producers, traders, consumers, etc.)
  - Local, regional, national and international levels
  - Government, civil society and the private sector.
2. Determine which stakeholder groups would fall within the category of marginalized groups that need to receive special attention. Box 1-1.1 outlines the most common categories of marginalized groups.
3. Indicate interrelations between stakeholders, and type of relationship (e.g. legal / contractual, market, information exchange, interpersonal, power, ...). Indicate which stakeholders appear to have mutual or conflicting interests. You can either briefly describe their dependencies or interests or you can make a visual presentation of these relationships, for instance form of a matrix (see Box 1-1.2).
4. Define the key stakeholders for targeted involvement. Box 1-1.3 offers a possible method for definition of key stakeholders which uses the following criteria:
  - Stakes / interests in the planning process and its substance
  - Formal position or power with respect to the planning substance
  - Poverty status and dependency on the sector.

*Box 1-1.1: Categories of usual marginalised groups*

- Poor groups (e.g. forest dwellers, pastoralists in arid regions, farmers in remote areas)
- Minority groups (e.g. hunter-gatherers, certain ethnic groups)
- Deprived groups (e.g. labourers, urban squatters, landless)
- Women (e.g. women farmer groups, women cooperatives) and children (e.g. youth groups)
- Children (future generations)
- Outside communities (e.g. downstream communities, areas of immigration)

*Box 1-1.2 Example of matrix that indicates relationship between stakeholders*

	<i>Large landowners</i>	<i>Small landowners</i>	<i>Traders</i>	<i>Banks</i>	<i>Extension Dept.</i>	<i>Local NGOs</i>
<i>Large landowners</i>		!	+	+	+	0
<i>Small landowners</i>	!		0	!	0	+
<i>Traders</i>	+	0		+	+	!
<i>Banks</i>	+	!	+		+	!
<i>Extension Dept.</i>	+	0	+	+		0
<i>Local NGOs</i>	0	+	!	!	0	

+ = mutual interests; 0 = neutral; ! = conflicting

*Box 1-1.3 Example of matrix for identification of key stakeholders for targeted involvement*

<b>Category</b>	<b>Stakeholders</b>	<b>Interests</b>	<b>Power status</b>	<b>Poverty</b>	<b>Priority</b>
Local communities	Large landowners / cooperative	High	High	Low	High
	Small landowners / cooperative	High	Medium	Medium	High
	Women	Medium	Low	High	Medium
	Upstream watershed forest owners	Low	Low	Medium	Low
Authorities	Ministry of Planning	Medium	High	Low	Medium
	Ministry of Environment	High	Medium	Low	Medium
	Local territorial authorities	High	Medium	Low	Medium
Companies in agricultural sector	Traders providing agricultural inputs	Low	Low	Medium	Low
	Local / national commodity traders	High	High	Low	High
	International commodity traders	Low	Medium	Low	Medium

*Stakeholder Participation - How and When*

---

**Tools and techniques that can be applied in integrated assessment**

*Tool 2: Involving key stakeholder groups*

**Aim:** To adequately involve the key stakeholder groups in the integrated assessment process in order to:

- To raise awareness, create insight, solve conflicting interests
- To obtain views on different issues and solicit proposals
- To achieve legitimacy and obtain commitment and support in implementing the plan.

**Key principles:**

1. Determine the key moments of participation during the planning / assessment process. Ideally, participation is ensured within each planning element.
2. Determine what level of influence you wish to provide to key stakeholders and other stakeholder groups. There are different possible levels of participation and levels of influence (see Box 1-2.1). Be realistic since participation arrangements will depend on the existing culture of participation and available resources.
3. Determine the most appropriate techniques for participation. Box 1-2.2 outlines the most common approaches or techniques. Note that in many cases it is difficult to directly involve marginalised groups, as they do not have sufficient capacities or means to participate actively.
4. Inform these stakeholders about the forthcoming planning and assessment process, review with them the proposed methods for their involvement and incorporate their suggestions (bearing in mind available financial resources and time).
5. Determine the resources, expertise and funds required to ensure participation during the planning process.

*Box 1-2.1: Participation ladder*

1. Being informed, listening, with no possibilities for feed-back
2. Giving information and feed-back only on request of the planning authority
3. Being consulted upon the initiative of the planning authority, but without sharing of information
4. Functional participation to achieve pre-set goals by the planning authority
5. Interaction, within a framework set by the planning authority
6. Self-mobilisation, including the design of the planning process

*Box 1-2.2: Possible approaches of involving stakeholder groups*

- *Physical presence*; this may require active support to ensure access to information and effective participation, maybe additional training.
- *Direct representation by dully mandated representative*; for instance by a mayor or NGO leader whose actions on behalf of the given stakeholder group are accountable and legitimate.
- *The normative observer* by an independent expert who is recognised in the given field but does not directly represent the interests of any stakeholder group. This role can be performed by external agency in the processes.
- *Review and commenting* through, for example, open house, written submissions, public meetings or any other techniques for soliciting inputs from groups that do not take direct part in the planning and assessment process.
- *Surveying needs and aspirations* of key stakeholder groups and channelling these views into the planning process by e.g. community organiser.

---

## Materials for Session 3

### *For trainer/facilitator*

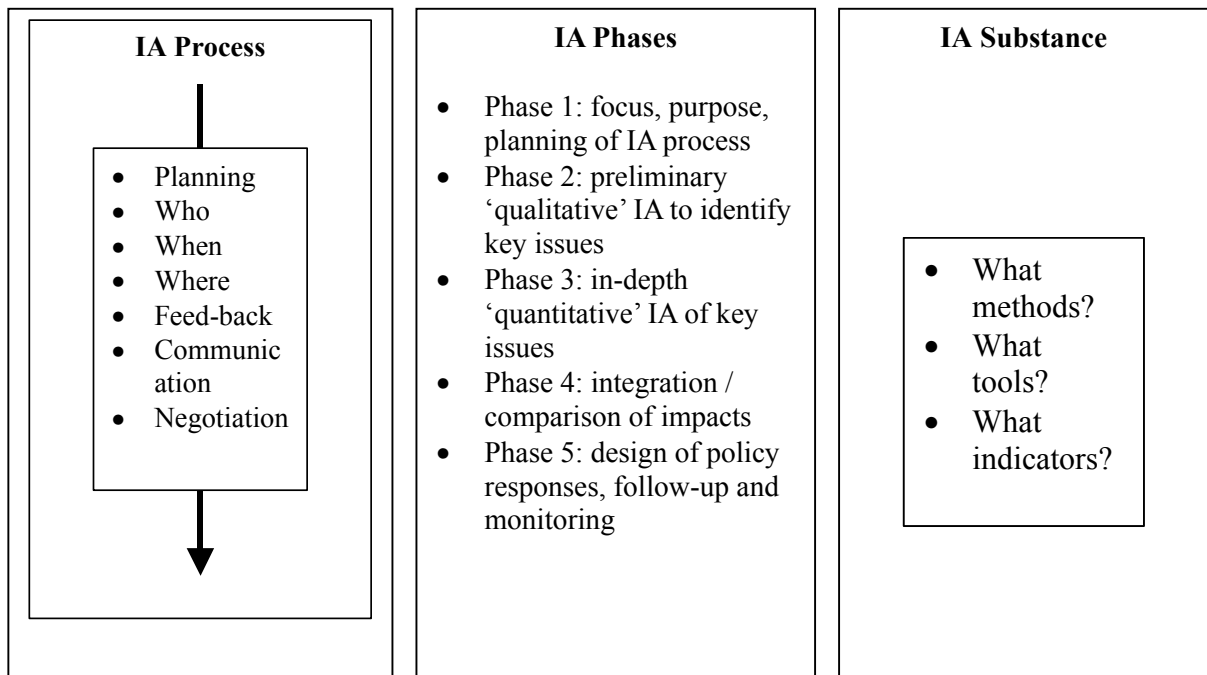
Session presentation  
Slides

### *Handouts for participants*

Handouts 3-1  
Handout 3-2  
Handout 3-3  
Print out of slides

---





# Session Presentation

## Session 3: Contents and Methods of Integrated Assessments

---

**Welcome participants back to the course presentation. Briefly sum up Sessions 1 and 2, including participants' input, and encourage participants to contribute their own knowledge and experience of any local assessments, recent or underway.**



3-1

**Briefly refer to the navigation chart provided at the beginning of this session.**

**Note that print outs of slides and additional handouts will be available and that you will be cross-referencing topics to the *Reference Manual on Integrated Assessment of Trade-Related Policies* as you go along.**

---

### **Purpose of this session**

---

**Introduce the purpose of Session 3 and provide an overview of the main topics discussed.**

---



3-2

This session will introduce the analytical methods to be used to identify the impacts of trade agreements or policies, to compare impacts, and to set priorities. This session should enable participants to select the appropriate methods in order to undertake an integrated assessment within their particular context.

It is assumed that participants have followed Sessions 1 and 2. Some of the issues raised during Session 1 will be expanded in this session.

#### ***Evaluation question:***

Participants should be able to indicate what integrated assessment methods they will use, and explain why the selected methods are most suitable to the purpose, scope and focus of the assessment, as well as the envisaged stakeholder participation and capacity building.

---

## Overview of the main topics of this session



3-3

1. General guidelines for choosing appropriate methods
2. Preliminary assessment methods (Phase 2)
3. Detailed assessment methods using qualitative and quantitative methods (Phase 3)
4. Integration and comparison of impacts (Phase 4)
5. Sustainability framework and indicators

### 1. General guidelines for choosing methods

---

**Before explaining the methods, introduce some general guidelines for choosing appropriate methods.**

---

The guidelines for selecting appropriate methods are as follows:



3-4

- Use simple methods for analysis if these can serve your purpose
- Use *qualitative* methods for insight into broad relations
- Use *quantitative* methods for more detailed / specific insights into priority issues
- Make use of methods already known in-country.

In addition to the identification of negative impacts (current and potential) of trade policies, also identify positive impacts (see example from Argentina in the Synthesis Report), as well as opportunities for strengthening positive linkages between trade, environment and/or poverty (see Session 1: win-win options).

For instance, trade might stimulate use of more environmentally friendly techniques, more efficient production methods and more efficient use of expensive agricultural inputs. Increased export revenues might allow for investment in more efficient production methods, more secure resource ownership or access rights to natural resources for producers. Trade may encourage improved accessibility to remote areas for rapid transport of goods to export markets, or help establish industries with added value and local employment.

If possible include examples from on methods from UNEP's experiences.

---

**Refer back to the phases of the integrated assessment process that have been introduced in Session 2. Explain that Session 3 will focus on phases 2, 3 and 4.**

---

## 2. Preliminary assessment using qualitative methods (Phase 2)

---

**Introduce Figure 3.1 and explain that in Phase 2 *qualitative* methods can be used to do a preliminary assessment.**

---



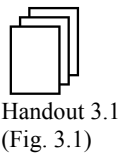
Phase 2 of the integrated assessment process aims to make a preliminary assessment of the environmental, social and economic impacts of a policy using only available information. During the preliminary assessment, use will be made of mainly *qualitative* methods. The aim is to identify the key issues that will require more detailed and predominantly *quantitative* impact assessment later on.

To help identify the key issues, it is useful to consider a policy – impact chain, moving from trade policy to economic measures, changes in production systems and environmental or social impacts.

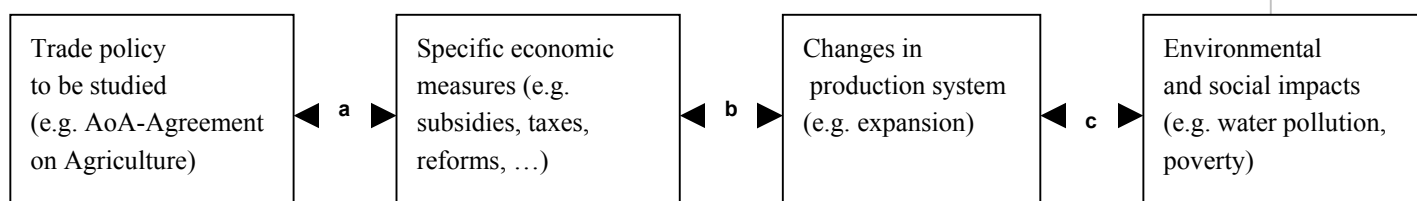
On the chain from policies to impacts (Figure 3.1), three critical connections can be found:

- The first one (a) concerns the specific measures falling under a certain trade agreement or policy, and the way these are being implemented by different ministries and agencies;
- The second one (b) concerns the changes in production systems (land-use, agricultural, etc.) as a result of the application of specific measures;
- The third one (c) concerns the consequences of the change of production systems on the environment, on social parameters (poverty, health, etc.) and microeconomic parameters (incomes, added value, employment, etc.).

Each of these connections needs to be investigated. The interactions are two-way and methods should focus on understanding the whole chain before focusing on critical issues.



**Figure 3.1: Comprehensive trade policy cause-effect chain**



*Source: UNEP, 2004 (this training resource manual)*

---

**Briefly introduce matrices as one qualitative method that can be used for preliminary assessments in Phase 2.**

---



The matrix is the most commonly used format to document, visualize and report on impacts that have been observed. It can be used to document both qualitative and quantitative assessments. In most cases, on the vertical axis one finds the policy, policy measure or activity, for instance land-use expansion as a result of a trade agreement. On the horizontal axis one finds the impact category, being an indicator, a value or any other parameter, for instance poverty or environmental indicators.

Completing such a matrix can be easily done in a participatory manner, meaning during a stakeholders' workshop or using participatory rural appraisal (PRA) methods (see matrix in Figure 3.3). PRA techniques are good for involving local communities and stakeholders in the qualitative assessment of impacts.



The impacts can be indicated by quantitative figures, such as numbers or frequencies, or by qualitative figures, such as a 5 point scale from ++ (highly positive), + (positive), 0 (no influence), - (negative) and - - (highly negative). These qualitative indications can be the result of public consultations or participatory rural assessments (PRAs), thus reflecting the proportion of people with a negative or positive opinion about the observed impacts.

**Figure 3.2: Matrix for preliminary assessment of impacts**

		Expected positive and negative impacts on environmental, social, or micro-economic parameters					
		1	2	3	4	5	6
Trade policy, measures or activities	I						
	II						
	III						
	IV						
	V						

Source: UNEP, 2004 (this training resource manual)



UNEP Ref. Man.  
IA of Trade Policies,  
p. 25-28



3-9

---

**Introduce the OECD method as one proven qualitative method to do a preliminary assessment of the impact of trade-related policies.**

---

There are many ways of assessing environmental and sustainable development effects of trade policies or trade liberalization. One approach is the environmental assessment methodology of the OECD (1994), which qualitatively assesses the impacts of trade on the environment. It can be similarly used to assess the social impacts of trade policy. It takes into account the full range of effects - direct and indirect - that trade reforms may have on the environment and on society. Five broad categories of environmental impacts from trade reforms can be identified:

**Product effects.**

These effects occur when the products themselves have an impact on the environment or development. Some of the products traded may be environmentally friendly, while others may be hazardous to the environment. Overall product effects therefore can be positive or negative, depending on the nature of the products traded as well as their volume.

**Technology effects.**

Increased trade may lead to change in the use of production technologies. Again, these technologies may be harmful or friendly to the environment in terms of their pollution effects. There is a positive technological effect when a trade policy allows the flow of environmentally friendly technologies, and a negative effect when it prompts the use of harmful technologies.

**Scale effects.**

Scale effects occur as trade reforms often raise the overall level of economic activity. This is usually accompanied by a higher rate of use of natural and environmental resources. This could be offset if efficiency is improved, or if higher economic growth makes greater investment in environmental projects possible.

**Structural effects.**

Trade liberalization could lead to changes in the composition of a country's economy, as it tends to specialize in the production of goods or services where it has comparative advantage. If the changes favour the less-polluting industries, then positive environmental effects could be felt in that country. On the negative side, the products where the country has comparative advantage may have higher pollution intensity, or may require a greater use of the country's natural resources.

**Regulatory effects.**

Trade reforms may have an impact on environmental regulations and standards. On the positive side, trade agreements may explicitly include measures to improve environmental standards. But it is also possible that particular provisions of trade reforms may impinge on a government's ability to set environmental protection standards.

A preliminary identification of the five environmental and sustainable development effects of trade policies or trade liberalization could be carried out using a matrix as shown below.

**Figure 3.3: Impacts of trade liberalization on the economy and on the environment**



3-10

	<i>Globalization - related activity</i>	<i>Anticipated economic effects</i>		<i>Anticipated pollution/resource use effects---</i>	
				<i>--at home</i>	<i>--at cross-border transport</i>
Scale effects	Change in the volume of exports and imports; increase in cross-border transport	(+)	(+)	(+)	(+)
Structural effects	Change in the composition of exports and imports; increase in cross-border transport	(+, -)	(+, -)	(+, -)	(+, -)
Product effects	Change in the composition of exports and imports; increase in cross-border transport	(+, -)	(+, -)	(+, -)	(+, -)
Technology effects	Change in the composition of exports and imports; increase in cross-border transport	(-)	(-)	(-)	(-)

*Source: Reference Manual for the Integrated Assessment of Trade-related Policies, p.27*

The Table could help identify what impacts may be related to the various trade-related effects given in the first column. Entries to this matrix may range according to no impact / insignificant impact to severe environmental, health, or equity impacts denoted by negative or positive symbols on a scale from 1-5. For each value indication in the matrix it is important to refer to the information sources that have been used, data sources or other evidence. The matrix provides a good way of selecting which issues an integrated assessment could focus on for more quantitative assessment, particularly given financial and time constraints.

---

**Give an example of how the OECD approach can be applied in practical terms. Refer to its application in Chile (p.28).**

---

### **3. Detailed assessment using *qualitative and quantitative* methods (Phase 3)**

---

**Explain that based on the key issues identified in Phase 2, Phase 3 of the integrated assessment process aims to make a detailed assessment using *quantitative* as well as *qualitative* methods (if possible). Refer to Figure 1.1 (environmental, social and economic dimension) as you introduce the table in Figure 3.4 showing the different methods available.**

---



3-11 / 3-12

During Phase 3, once the intricate task of tracing all the major causal links of specific activities or policies on the environment is completed using the various approaches described above, the next step is the **quantification and valuation** of these impacts. There is a range of methods that can be used for this in-depths analysis. It can be done qualitatively by means of matrices and participatory tools and approaches, such as participatory rural appraisal (PRA) methods. In addition to the qualitative tools, a number of quantitative methods are also available that can be used for integrated assessment. (Valuation methods will be discussed in section 5.1.)

Policy makers can only make decisions on the trade-offs between economic gains, environmental impacts and social effects if these impacts are reasonably accurately assessed and if possible measured. The environmental impacts of trade agreements, for example, can be measured using a range of methodologies chosen to best suit the nature of the system being examined.

A good assessment is likely to use a mix of methodologies depending on the type of policy being analyzed and the impacts being measured. The Reference Manual gives suggestions on the appropriateness of their use together with some case studies on their application (p.29-44). It concentrates on the impact of trade on the environment, but similar methods can be used to assess the social implications of trade policy. It is a good introduction to the links between trade and environment

and the full range of effects, both direct and indirect, which trade reforms may have on environment and society.

Ideally, a method should be chosen which best suits the nature of the system being examined. In practice, the choice may be constrained by factors such as data availability and the user's familiarity with the method.

Figure 1.1 in Session 1 showed the different possibilities of conducting impact assessments - either focusing on one aspect (environmental, social or economic) or aiming to integrate different aspects (integrated assessment and sustainability assessment). The following table shows which methods can be used for a certain appraisal and how the methods fit in a sequence.

**Figure 3.4: Overview of methods for integrated assessment, (based on the type of assessment presented in Figure 1.1)**

Purpose (see Fig. 1.1)	Examples of available methods
A. Environmental appraisal	<ul style="list-style-type: none"> <li>• Environmental impact assessment</li> <li>• Strategic impact assessment</li> <li>• Biodiversity impact assessment</li> <li>• Life cycle analysis</li> <li>• Health impact assessment</li> </ul>
B. Social appraisal	<ul style="list-style-type: none"> <li>• Social impact assessment</li> <li>• Health impact assessment</li> <li>• Social risk assessment</li> <li>• Poverty assessment</li> </ul>
C. Economic appraisal	<ul style="list-style-type: none"> <li>• Benefit-cost method</li> <li>• Contingent valuation</li> <li>• Macro-economic models (e.g. general equilibrium model)</li> <li>• Micro-economic models (e.g. partial equilibrium model)</li> </ul>
D. Integrative appraisal	<ul style="list-style-type: none"> <li>• Valuation methods</li> <li>• Options appraisal</li> <li>• Multi-criteria analysis</li> <li>• Comparative risk assessment</li> </ul>
E. Sustainability appraisal	<ul style="list-style-type: none"> <li>• Sustainability assessment</li> <li>• Sustainability indicators</li> </ul>

*Source: Environmental Impact Assessment/Strategic Environmental Assessment: Towards and integrated Approach, UNEP, 2004.*



Handout 3.2  
(Fig. 3.4)



UNEP Ref. Man.  
IA of Trade Policies,  
p. 38-44

---

**Provide some background for the use of methods for more detailed assessment within the context of trade-related policies.**

---

Any method will require a clear definition of the policy measures to be assessed, as well as identification of the impacts to be included, which might include product, technology, structural and/or scale effects. The regulatory impact of trade agreements may also be considered.

There are three broad categories of methods, those for:

- Macroeconomic analysis
- Microeconomic (sector-based) analysis
- A group of other methods.



3-13

---

**Introduce and highlight important aspects of the most common methods. Again, refer participants to the Reference Manual for more detailed explanations.**

---

**Macroeconomic analysis**

The first stage for macroeconomic analysis is to define the boundary of the system to be studied and the method or model to apply. If the analysis can be restricted to one sector or ecosystem, then a **partial equilibrium model** will be most appropriate. Another consideration in choosing the scope of the analysis is the extent of environmental externalities. Where the impacts are localized, then a national model may be sufficient, but where there are significant cross-country effects, a regional analysis may be more appropriate. There are three broad groups of models, which can be used to assess the linkages between trade and environment. These are:

- Input-output models and social accounting matrices
- General equilibrium models
- A group of other macroeconomic models.

**Sector-based microeconomic analysis**

These models include:

- *Partial equilibrium models* which calculate the effects of policy changes on one sector (or goods or ecosystem) only.
- *Environmental Impact Assessment* which is designed to identify the environmental impacts of proposed proposals and the ways in which these impacts can be mitigated.
- *Cost-Benefit analysis (CBA)* which provides a framework for comparing the monetary costs and benefits of an activity, project or policy. It is a useful way of converting all the information relevant to the assessment of a proposed action into a comparable and easily understood form.



3-14



3-15

- *Risk Assessment* procedures to balance what is known for certain, what is estimated as a potential and probable threat, and what is unknown. A risk-based approach is likely to be useful in integrated assessments, since policy impacts can be subject to considerable uncertainties, including the difficulty of establishing causal relationships and the problems involved in the accurate measurement of scale effects.
- *Multi-criteria analysis* where the trade-offs between conservation and development goals are assessed in an attempt to take into account the preferences of stakeholders in the use of natural and environmental resources. The process is participatory.
- *Extended domestic resource cost analysis* (originally applied to agriculture) to measure distortions (such as taxes) in the domestic sector, so that the gains from trade liberalization can be correctly estimated.

#### Other approaches

- *Life-cycle analysis* is aimed at the development of a product policy to reduce environmental impacts along the entire life cycle of the product.
- *Global commodity chains analysis* which evaluates the social and economic relationships between all the actors involved in the chain, including a sustainable livelihood approach and the planning tool of scenario building.



3-16

---

#### **Discuss the results that can be achieved by using these methods. Briefly introduce the results of the assessment of trade liberalization in the country studies.**

---

For example, the project in Argentina identified the following positive and negative effects of trade liberalization policies, introduced mainly in the 90s.

#### **Positive effects:**

- increase in exports (scale effect);
- improvement and growth of fisheries fleet (technology and scale effects);
- technological innovation in the sector (technology effects);
- increased research facilities and skills;
- opening of new markets and trade relations;
- increase in public income (scale effect); and
- regional infrastructure investments (ports, other infrastructure, new firms, etc.) (structural effect).



3-17



3-18

#### **Negative effects:**

- degradation of the fisheries biomass;
- increased costs for fisheries regulation and control (regulatory effect);
- increased operation costs;
- fiscal costs (subsidies, regulatory effect);
- non-diversification of catches (product effect); and
- investment oversizing (overcapitalization of fleets).

#### **4. Comparison and integration of impacts (Phase 4)**

---

**Move on to Phase 4 of the integrated assessment process that aims to compare and quantify the impacts. Refer to Figure 1.1.**

---



3-19 / 3-20

Phase 4 of the integrated assessment process aims to evaluate and compare the different impacts identified. This step is essential to achieving an integrated assessment of the environmental, social and economic impacts. The methods that are available for comparison and integration are summarized in Figure 3.4 (category D) and some are discussed in the overview above. However, experience from the UNEP Country Studies shows that analysing the integration of impacts is a real challenge as it is difficult to compare essentially different issues (“apples and pears”). Economic valuation is the most common method used for comparison.

---

#### **Introduce the different methods for economic valuation.**

---



3-21

Economic valuation methods assume that all social and environmental values can be represented by cost indications. This assumption is somewhat debatable for environmental issues (How can one value the possible loss of a species? How can one value the cultural significance of a landscape?). One important example is how to value the environmental deterioration associated with any policy change, which may usefully be classified into health and non-health effects. The health impacts result from exposure to air or water contaminants that are associated with a production cycle. Non-health impacts may include the loss of ecosystem functions and damage to the natural resource base associated with trade reforms.



3-22

Valuation techniques used within the context of trade-related policies can be classified into conventional market-based, surrogate market-based and constructed market-based approaches, discussed in the following:

### **Conventional market-based approaches**

Valuation techniques that make use of market prices, properly adjusted for inefficiency, have traditionally been used where the goods and services being examined are traded in the market. These techniques include the change in productivity approach, cost of illness approach, and cost-based approaches. The latter includes defensive and preventative expenditures, and the replacement cost method. Examples of conventional market-based approaches include:

- Change in productivity approach
- Cost-based approaches.

### **Surrogate market-based approaches**

Where no price is available for non-marketed environmental commodities, it may be possible to use the prices of related marketed goods to estimate their value. For instance, the markets for property, labour, and recreational services can be used as surrogate markets to infer the value of the environmental characteristics of particular areas, labour markets, and national parks, respectively. Two applications of the surrogate market-based approach are:

- Hedonic pricing
- The travel cost methodology.

### **Constructed market-based approach**

The absence of markets for most environmental goods and services has not deterred environmental economists from putting monetary values to these goods and services. This works by constructing hypothetical market situations where preferences for the environmental good can be observed. This approach uses the following methodologies:

- Contingent valuation methodology
- Contingent ranking.

---

### **Ask participants what are the main factors affecting the choice and use of valuation methods, and summarize the most important aspects.**

---

For policy makers this is an important question.

Cost will always limit the use of valuation techniques. Budget constraints may mean that surveys are undertaken with a limited sample size and some of the more expensive data collection methods, such as field studies, may be sacrificed altogether. Policy makers must, however, trade off any benefits in cost reduction against the risk of undermining the credibility of the final results of any study.



Other important factors include:

- The availability of data, particularly time series information, which may be a limiting factor in the conduct of integrated assessment
- Carefully designed and implemented surveys are preferable to those that are planned and carried out in a short space of time (contingent valuation methodology, for instance, is susceptible to many biases, and careful attention is needed to avoid or minimize these biases)
- Choice of discount rate (a higher discount rate gives lower preference to future consumption, and can be thought of as “anti-conservation”, in the sense that it will discriminate against projects with high future returns. A lower rate, however, can discriminate against current consumption, and may mean that fewer resources are available for investment in economic activities and development)
- The expertise available in the use of the technique.

---

**Emphasize that it is important to make a distinction between negotiable and non-negotiable impacts.**

---



3-24

It is important to make a distinction between:

- Values that are not negotiable, being generally accepted or internationally agreed upon, and thus not subject to cost-benefit analyses or economic valuation.

Examples are: a certain amount of clean water for everyone, no loss of biodiversity, and no reduction of access to land for indigenous communities.

This means that there are certain “DOS and DON'TS” as well as BOTTOM-LINE STANDARDS that need to be taken into account in undertaking an integrated assessment and working on any policy reform.

- Values that are negotiable, and that can be exchanged or substituted. These can be subject to cost-benefit analyses and economic valuation to elaborate different policy options and to find the optimum policy. It implies looking at the trade-offs between environmental, social and economic dimensions, and negotiating to minimize overall negative impacts and strengthen possible synergy.

## 5. Sustainability framework and indicators

---

### **Introduce the use of sustainability indicators to operationalize the sustainability framework.**

---



UNEP Handbook  
IA in Agr.Sect.,  
p. 26-30



Handout 3.3  
(Sust. Ind.)



3-25 / 3-26

It was presented in Session 1 that there is need for a sustainability framework (including issues and indicators) to assess the environmental, social and economic impacts of, for example, trade policies. While integrated assessment focuses on the impacts HERE and NOW, a sustainability framework focuses on the impacts THERE and LATER. A sustainability framework thus states and defines the criteria and norms expressed by stakeholders on issues of major long-term and large-scale concern, i.e. what should be sustained for future generations here and there (see Figure 1.1, component E). A sustainability framework might be derived from sustainability policies or international agreements, and/or might be developed by means of a stakeholder process whereby public concerns are developed into a set of sustainability criteria, indicators and standards.

To assess impacts and to subsequently monitor trends, indicators are required. In contrast to primary statistical data, indicators provide meaning beyond what is being directly measured.

Examples of economic indicators include:

- Average real income
- Net fixed capital formation.

Environmental indicators are those that measure:

- Environmental quality of air, land and water (such as those measuring levels of acidification of lakes)
- Biological diversity
- Other natural resource stocks.



3-27

Social indicators measure:

- Employment.
- Poverty
- Equity and income distribution
- Health and education
- Factors affecting minorities.

Indicators are particularly useful when primary data would be impossible to collect, or could only be observed after a time lag. They can provide a useful early indication of trends, and suggest causal relationships. Their use can reduce the amount of information that needs to be collected to monitor a situation, and may also provide a simplified way of presenting results. Regular measurement of indicators is required to determine their condition. Changes in status can then be tracked, and trends identified and evaluated.



3-28

It is recommended to use the S-M-A-R-T criteria to select good indicators. This means they should be:

- Specific: specific for the country or region and sector or issue concerned
- Measurable: can be quantified
- Acceptable: easy to understand and credible
- Realistic: particularly sensitive to trade or economic measures
- Time-bound: capable of showing changes over time.

There are many sets of indicators produced by international agencies. The United Nations Commission on Sustainable Development (CSD) has, for instance, approved a work programme to create a set of indicators that can be used by national governments to measure progress towards sustainability. These existing sets of indicators provide an excellent resource for governments and agencies wishing to select specific indicators for the purposes of an integrated assessment.



3-29

Possible ways of defining appropriate indicators include the following:

- Making use of available national documents (sustainability, sectoral, poverty, etc...) what is meant with it exactly
- Making use of CSD indicator sets (however, these are not specific)
- Making use of indicator frameworks to define indicators.



3-30

---

**Briefly summarize the main aspects of Session 3.**

---

Session 3 has presented and discussed a range of qualitative and quantitative approaches and methods for conducting an integrated assessment. Some approaches allow inter-sectoral/country modelling, while others are more specific to a given sector or commodity. There are macro-models and micro-level assessment methods, with the latter being fairly well developed, having been applied in project level/ commodity level analyses in the past.

The use of models is fairly recent, but is expanding rapidly. While models are useful when analysing the impacts of different sources of environmental damage in several countries, this approach has its limitations. The biggest problems are data, time and cost limitations. Partial equilibrium approaches may therefore be more practical while data sets are being built up, so long as it is recognized that these will fail to capture cross-sectoral and economy-wide effects.

One approach towards analysing, qualifying and quantifying the effects of trade policy is not better than the other. Many of the approaches discussed are likely to complement not substitute each other, and different methods will be appropriate in different situations. This emphasizes the importance of using, where possible, a mix of methods.

There are some important lessons to be learnt from developing country experiences in integrated assessment. Integrating development considerations into environmental assessment of trade and trade liberalization is no easy task, in large part because there are few experts/policy makers who combine environmental and development perspectives on an equal footing. Therefore both types of experts need to be included in an integrated assessment process, and those who can be said to adopt what one might describe as a 'sustainable development perspective' are particularly valuable. Environmental and social data sets in developing countries are less comprehensive than those in developed countries, implying that assessment approaches in developing countries require even more flexibility, innovation and inspiration.

Capacity building remains the key to increasing the ability to use integrated assessment to maximize the net development benefits of trade and trade-related policies.

---

**Briefly summarize the ground that has been covered in Sessions 1 to 3, highlighting the different phases of the integrated assessment process. Indicate that Session 4 will focus on Phase 5 and discuss policy responses based on the results of an integrated assessment. End the session by checking for questions or comments.**

---

### **Main References for Session 3**

Reference Manual for the Integrated Assessment of trade-related policies, UNEP, 2001.

Integrated Assessment of Trade and Trade-related Policies, UNEP Country Projects – Round II, A Synthesis Report, UNEP, 2001.

Handbook on Integrated Assessment of Trade-related Measures: the Agricultural Sector, UNEP, 2004 (still unpublished).

Environmental Impact Assessment/Strategic Environmental Assessment: Towards and integrated Approach, UNEP, 2004.



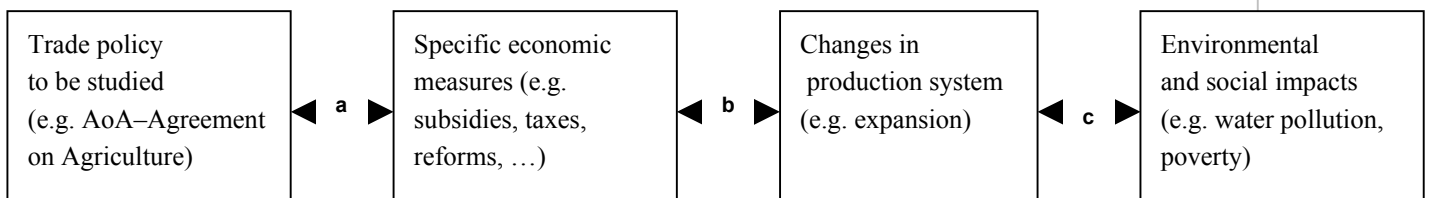
Trade Policy Cause-Effect chain

On the chain from policies to impacts, three critical connections can be found:

- The first one (a) concerns the specific measures falling under a certain trade agreement or policy, and the way these are being implemented by different ministries and agencies;
- The second one (b) concerns the changes in production systems (land-use, agricultural, etc.) as a result of the application of specific measures;
- The third one (c) concerns the consequences of the change of production systems on the environment, on social parameters (poverty, health, etc.) and microeconomic parameters (incomes, added value, employment, etc.).

Each of these connections needs to be investigated. The interactions are two-way and methods should focus on understanding the whole chain before focusing on critical issues.

Figure 3.1: Comprehensive trade policy cause-effect chain





Methods for Integrated assessment

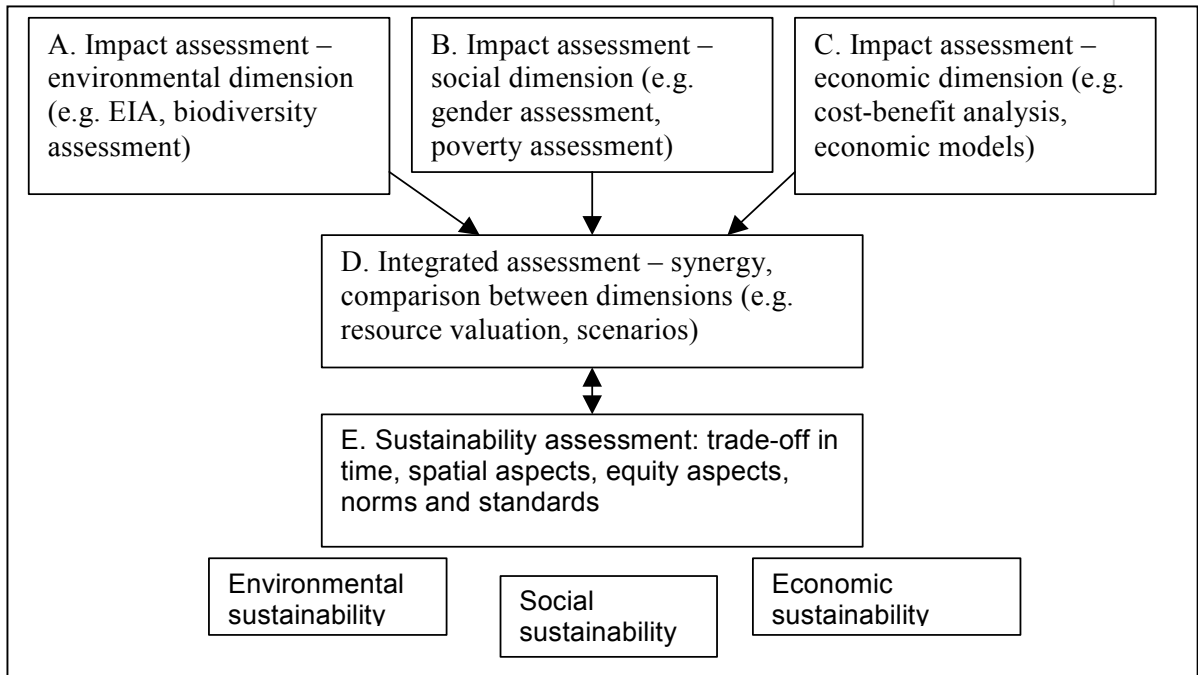


Figure 1.1 Development from impact to integrated assessment

Policy makers can only make decisions on the trade-offs between economic gains, environmental impacts and social effects if these impacts are reasonably accurately assessed and if possible measured. The environmental impacts of trade agreements, for example, can be measured using a range of methodologies chosen to best suit the nature of the system being examined.

A good assessment is likely to use a mix of methodologies depending on the type of policy being analyzed and the impacts being measured. Ideally, a method should be chosen which best suits the nature of the system being examined. In practice, the choice may be constrained by factors such as data availability and the user’s familiarity with the method.

There are different possibilities of conducting impact assessments - either focusing on one aspect (environmental, social or economic) or aiming to integrate different aspects (integrated assessment and sustainability assessment). The following table shows which methods can be used for a certain assessments and how the methods fit in a sequence.

**Figure: 3.4: Overview of methods for integrated assessment**

Purpose (see Fig. 1.1)	Examples of available methods
A. Environmental appraisal	Environmental impact assessment Strategic impact assessment Biodiversity impact assessment Life cycle analysis Health impact assessment
B. Social appraisal	Social impact assessment Health impact assessment Social risk assessment Poverty assessment
C. Economic appraisal	Benefit-cost method Contingent valuation Macro-economic models (e.g. general equilibrium model) Micro-economic models (e.g. partial equilibrium model)
D. Integrative appraisal	Valuation methods Options appraisal Multi-criteria analysis Comparative risk assessment
E. Sustainability appraisal	Sustainability assessment Sustainability indicators

## Session 3 Handout 3-3

### Sustainability Indicators

---

**From: Handbook on integrated Assessment of Trade-related Measures: the Agricultural Sector, UNEP, 2004 (still unpublished), p. 26-30**

Assessing and tracking impacts requires identification of indicators that can be measured to show changes over time. Indicators should be selected on a case-by-case basis and should be specifically tailored to the identified sustainability priorities and likely impacts. The selection of indicators will depend on the specific issue being examined. Selection will also depend on geographic locations, the priorities of those undertaking the IA and of the stakeholders involved in the process. Where there are limitations based on data availability, proxy indicators might be selected, and note should be made to encourage the collection of additional necessary data for future assessments and policy-related activities.

The aim of identifying indicators is to:

- to monitor and compare conditions and trends on a local, regional & global scale;
- to assess the effectiveness and impacts of (proposed) policies;
- to assess progress towards stated benchmarks or targets;
- to track changes in public attitudes and behaviour;
- to ensure understanding, participation and transparency;
- to forecast and project trends; and
- to provide early-warning information.

The effective monitoring of indicators can be hampered where too many indicators are identified and where human and financial resources for monitoring are not sufficient. Therefore, the number of indicators chosen should be limited and focus on the key sustainability issues identified. Thus, there is a close linkage between the identification of indicators and the earlier strategic analysis of the sustainability context, as elaborated in section 2.5. Indicators can usefully be presented in terms of one of the frameworks presented below. Monitoring pressures and driving forces allow one to forecast trends and provide early-warning signals. Monitoring responses can generate information on successful initiatives to be strengthened.

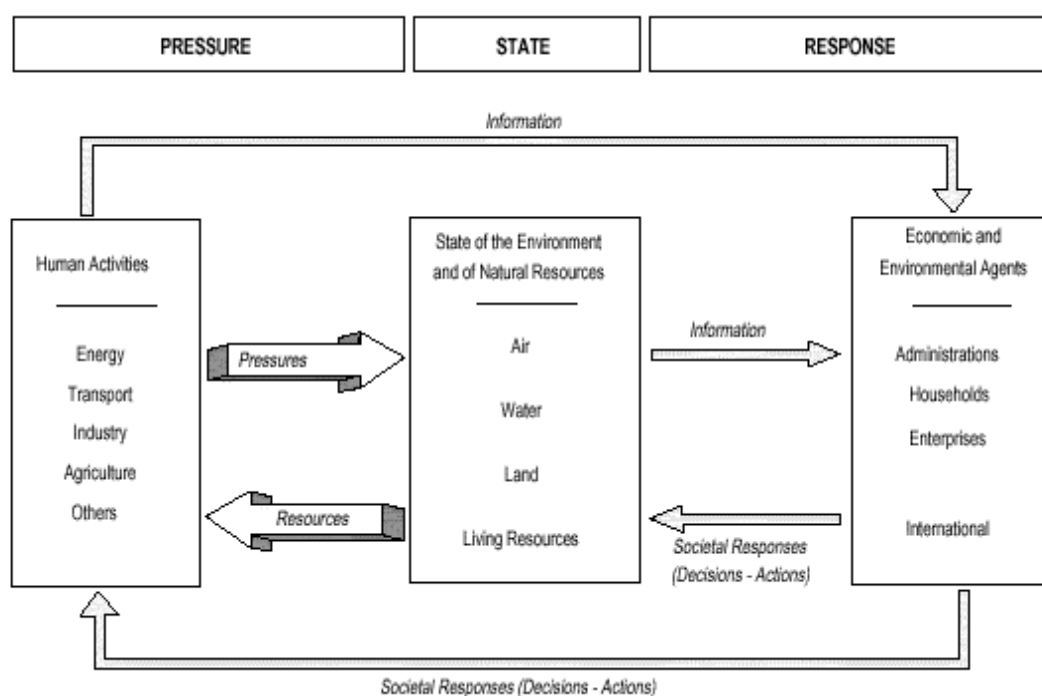
#### **Indicator Frameworks**

There are a number of frameworks available in which to consider frameworks. Two are presented here and should be used to the extent that they are helpful in illustrating the inter-relationships between various economic, environmental and social issues, including trade.

### The Pressure-State-Response Framework

The Pressure-State-Response Framework states that human activities exert pressures (such as pollution emissions or land use changes) on the environment, which can induce changes in the state of the environment (for example, changes in ambient pollutant levels, habitat diversity, water flows, etc.). Society then responds to changes in pressures or state with actions at household, private enterprise or public policy levels, intended to prevent, reduce or mitigate pressures and/or environmental damage.<sup>1</sup>

**Figure 1: Pressure-State-Response Framework**



Source: OECD. 1993. *OECD Core Set of Indicators for Environmental Performance Reviews. Environment Monographs 83. OCDE/GD(93)179. Paris: OECD.*

### The Driving Force-Pressure-State-Impact-Response Framework

Although the PSR framework is conceptually clear and relatively straightforward to apply, it is constrained in this context by difficulties in addressing social indicators. The PSR framework has thus been adapted to replace the term “pressure” by the term “driving force” in order to accommodate the addition of social, economic, and institutional indicators.<sup>2</sup> In addition, the use of the term "driving force" allows for impacts on sustainable development to be both positive and negative.

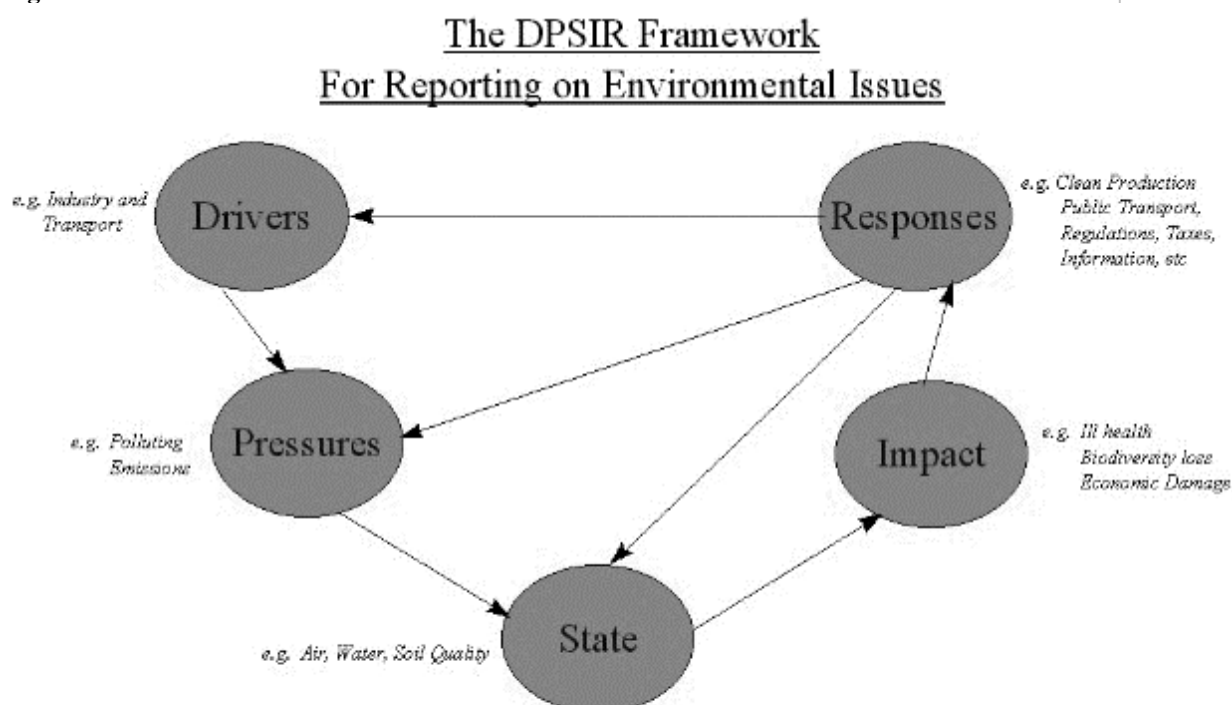
<sup>1</sup> OECD. 1993. *OECD core set of indicators for environmental performance reviews.* OECD Environment Monographs No. 83. OECD. Paris.

<sup>2</sup> OECD, 1996.

This framework builds on experiences with previous frameworks, and can better take into account different cultural, social, economic, institutional, political, and environmental variables. It is structured to follow causal chains from an indirect root cause (“driving forces”) to a direct pressure and finally a management response.<sup>3</sup> The framework assumes an understanding of cause-effect relationships between interacting components of social, economic, and environmental systems, which are:

- Driving forces of change
- Pressures on sustainability
- State of sustainability
- Impacts on population, economy, ecosystems
- Response of the society.

Figure 2:



**The Role of the EEA is:  
To provide information on the DPSIR Elements and their  
Inter-connections, and on the effectiveness of Responses**

Source: European Commission. 1999. *Towards Environmental Pressure Indicators for the EU*.

<sup>3</sup> For further information see European Commission. 1999. *Towards Environmental Pressure Indicators for the EU*.

Table 4 presents an example of the application of the DPSIR framework to the issue of declining water quality, as a result of the intensification of farming practices.

<b>Table 4: An Example of the Application of the DPSIR to agriculture</b>	
	<b>Examples of indicators</b>
<b>Driving force</b>	<ul style="list-style-type: none"> <li>• Social: rural emigration rate; level of education of young farmers</li> <li>• Environmental: climate change, increasing incidence of crop pests</li> <li>• Economic: subsidy rates of agricultural inputs, privatization of agrochemical commerce</li> <li>• Institutional: environmental laws and regulations and their enforcement</li> </ul>
<b>Pressure</b>	<ul style="list-style-type: none"> <li>• Social: the amount of agrochemical being used, the use of banned pesticides</li> <li>• Environmental: run-off from farmland, change of temperatures (resulting from the driving force of climate change)</li> <li>• Economic: The efficiency of agrochemical use; farming practices; efficiency of fishing techniques; the export of farm products</li> <li>• Institutional: capacities of decentralized institutions, responsibilities of farmers cooperatives</li> </ul>
<b>State</b>	<ul style="list-style-type: none"> <li>• Social: employment in farm sector</li> <li>• Environmental: Water quality in surface and groundwater</li> <li>• Economic: income of farmers</li> <li>• Institutional: functioning of farmers cooperatives in land management</li> </ul>
<b>Impact</b>	<ul style="list-style-type: none"> <li>• Social: Incidence of diseases due to contamination of drinking water sources</li> <li>• Environmental: Eutrophication, soil degradation</li> <li>• Economic: poverty rate</li> <li>• Institutional: collapse of farmers associations, proportion incomes from export</li> </ul>
<b>Response</b>	<ul style="list-style-type: none"> <li>• Social: Improved training and protection for farm workers</li> <li>• Environmental: Promotion of IPM and organic fertilisers</li> <li>• Economic: Change of subsidy levels to reduce environmental pollution, adjustment of trade policies</li> <li>• Institutional: Tighter regulations on pesticide and chemical fertilizer use</li> </ul>

### **Sampling of indicators related to agriculture**

The ultimate selection of specific indicators should be guided by the criteria in Box 1. In some cases indicators reflect pressures, in other cases the state of an economic, social or environmental issue and in others, possible responses to sustainability challenges. It is up to individual practitioners to select an appropriate mix of indicators for a specific issue or region on a case-by-case basis.

*Box 1: Criteria for selecting indicators*

- Linked directly to the results and recommendations of the assessment;
- Meaningful by being linked to key sustainability issues;
- Able to show trends over time;
- Easily understood by non-specialists;
- Relevant to trade policy and related policy initiatives;
- Linked to existing monitoring programmes and institutional capacity to evaluate the results;  
and
- Measurable without the commitment of an unacceptable level of financial and personnel resources.

Annex 2 presents examples of specific indicators for the agricultural sector covering economic, environmental and social domains, particularly those discussed in Sections 2.1-2.3. They also incorporate, as relevant, indicators for the Millennium Development Goals, noted with MDG1 to MDG8 (Box 2). The indicators are intended to illustrate a range of variables associated with agriculture, the most relevant of which should be included in an IA.

*Box 2: Millennium Development Goals*

MDG 1: Eradicate extreme poverty and hunger

MDG 2: Achieve universal primary education

MDG 3: Promote gender equality and empower women

MDG 4: Reduce child mortality

MDG 5: Improve maternal health

MDG 6: Combat HIV-AIDS, malaria and other diseases

MDG 7: Ensure environmental sustainability

MDG 8: Develop a global partnership for development



---

## Materials for Session 4

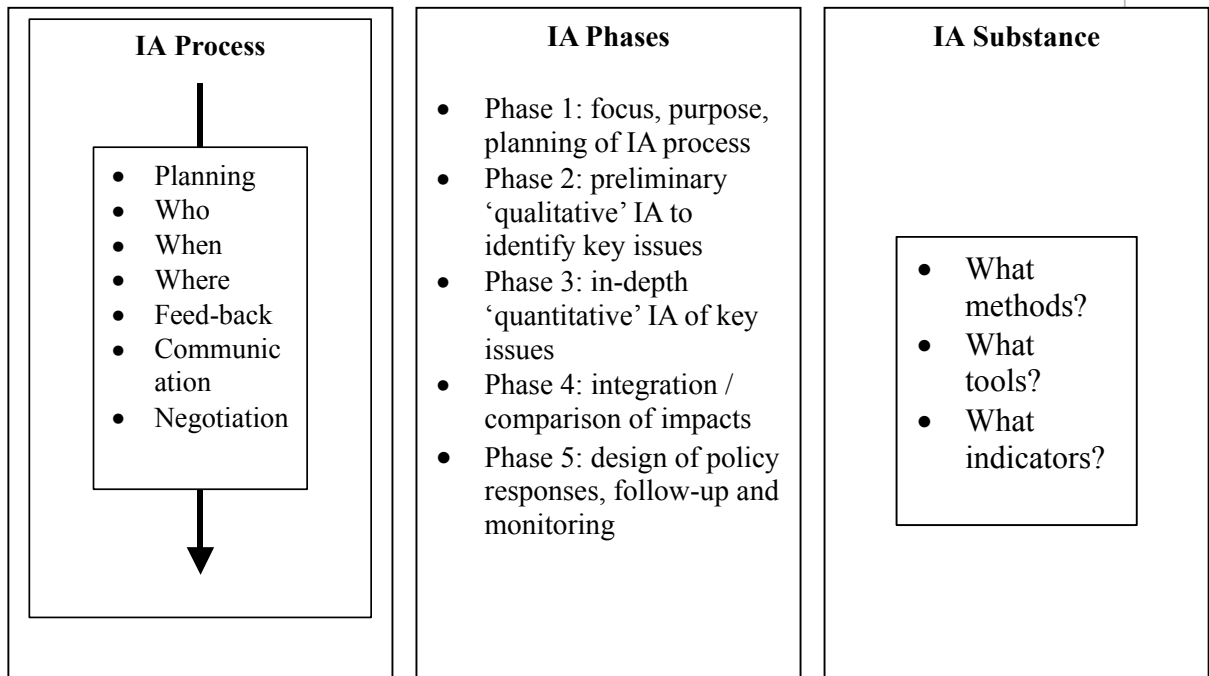
### ***For trainer/facilitator***

Session presentation  
Slides

### ***Handouts for participants***

Handout 4-1  
Print out of slides

---



# Session Presentation

## Session 4: Policy Responses and Follow-up

---

**Welcome participants back to the course presentation. Briefly sum up Sessions 1, 2 and 3.**

**Note that print outs of the slides will be available and that you will be cross-referencing topics to the *Reference Manual on Integrated Assessment of Trade-Related Policies* as you go along.**



4-1

**Briefly refer to the navigation chart provided at the beginning of this session.**

**Begin this last session by asking participants what the main objectives of the integrated assessment process are.**

---

Refer to Session 1 (section 5) for objectives of integrated assessment:

Integrated assessment aims to support a structured and well-informed negotiation between relevant stakeholders during a planning process. It aims to ensure that stakeholders have sufficient insight into the risks and opportunities of a policy (including environmental and social issues), and the possibilities to take actions. The application of integrated assessment helps to ensure that environmental and social aspects are considered on a par with economic aspects, and to provide the information necessary for informed decision-making.



4-2

### **Purpose of this session**

---

**Introduce the purpose of Session 4 and provide an overview of the main topics to be discussed.**

---



4-3

This session aims to introduce guidelines on how to design appropriate policy responses and recommendations, and follow-up activities to help implement these policies. It gives an overview of the different options for policy reform and emphasizes the importance of implementation and monitoring.

It is assumed that participants have followed Sessions 1, 2 and 3. Some of the issues raised during Session 1 will be expanded in this session.

---

***Evaluation question:***

Participants should be able to describe how the results of the integrated assessment can be used to design appropriate policy responses and recommendations, and follow-up activities that are relevant, realistic and feasible to be implemented. They should be able to give an overview of different policy options as well as the main aspects of a monitoring system.

---

## Overview of this session



1. Criteria for defining policy responses
2. Categories of policy responses
  - 2.1 Modifying policies
  - 2.2 Complementary measures
3. Follow-up
4. Monitoring
5. Scope of improvement



---

**Refer back to the phases of the integrated assessment process that were introduced in Session 2. Explain that Session 4 will focus on Phase 5. Also refer back to Figure 1.2 (Session 1) on the planning cycle.**

---

### 1. Criteria for defining policy responses

---

**Explain that the policy responses to be developed at the end of an integrated assessment should be based on well-defined criteria.**

---



As a result of an integrated assessment a wide range of policy responses and recommendations can be developed. The following set of criteria can help in defining the most suitable policy responses:

- *Relevancy*, by addressing the key impacts and main opportunities identified during the integrated assessment, as well as sustainable development priorities (including development interests, environmental protection priorities, capacity and institutional dimensions, and the impact on poverty)
- *Realistic*, by being consistent with other policies. (Policies should be consistent with domestic and international legal regimes and designed to avoid duplication.)

- *Cost-effective*, by taking into account resources and capacities for implementation. (Policies should be prioritized according to urgency and reflect the existing regulatory, institutional and financial capacities in the affected areas.)
- *Feasibility*, by considering what has been negotiated with decision makers, and ensuring their commitment to implementing the policy responses and proposed recommendations.

During this phase of formulating *relevant*, *realistic* and *feasible* policy responses, many of the issues discussed in Session 2 concerning the process aspects are highly relevant. In particular:

- Stakeholder participation
- Transparency and communication
- Information supply
- Negotiation skills
- Capacity building aspects.

Ultimately, it is more effective to propose a single policy response that meets all of the above criteria, than a number of separate responses to meet each one.

If possible included examples from UNEP's experiences.

## 2. Categories of policy responses

---

**Explain that there are two broad categories of policy responses.**

---



4-8

A policy response proposed at the end of an integrated assessment can be divided into two main categories:

1. Recommendations to *modify* a policy:  
For example, modifying and extending a trade agreement or policy by the inclusion of safeguards.
2. Responses that suggest complementary measures or flanking policies:  
For example, by implementing complementary environmental and social policies to enhance the benefits and mitigate negative impacts.



Preference should be given to the first option, for the following reasons:

- This is a more proactive approach where the aim is to avoid negative impacts rather than compensating or mitigating them with flanking policies (that have high transaction costs).
- Win-win options can be incorporated at the early stages and at intersectoral policy levels.
- It could help decision makers to reconsider the trade policy and take into account key sustainable development issues.

## 2.1 Modifying policy responses



UNEP Ref. Man.  
IA of Trade Policies,  
p. 46

---

**Introduce different options for policy responses that aim to modify existing policies. Start off by asking participants for examples. Give further examples that are typical within the context of trade-related policies.**

---

Examples for modifying policy responses include:

- The nature or level of a subsidy
- The timing or sequencing of measures
- Inclusion of safeguards, standards or bottom-lines
- Inclusion of win-win options
- Focus on national sustainability goals
- Inclusion of institutional measures.



Within the context of trade-related policies, adjustments might be proposed to the mechanisms within a trade liberalization agreement. For example, a dispute resolution mechanism to allow for a significant environmental or social issue could be proposed. Or exceptions designed to protect environmentally and socially sensitive issues could be included.

Modifications may also address the timing of the implementation of the trade measures. For example, by maintaining negotiated commitments but delaying the implementation of certain measures to allow time for the introduction of complementary mitigating policies. Where an integrated assessment shows that a policy has a potentially disruptive social or environmental effect, under the terms of an agreement, a government might also phase the measure to allow a longer period of time for adjustment through incremental liberalization. Where there is a positive impact, an agreement might provide for accelerated tariff-reduction on environmentally or socially beneficial products.

If a trade measure is seen to have significant adverse environmental or social impacts, it may also be possible, following an *ex-ante* assessment, to propose a parallel institutional approach in order to consider and act on environmental and social concerns. Such an institution could operate at the national level. Where the issues are cross-border or global (or where there are capacity concerns at the national level), it might be appropriate to propose an institutional response at the regional or multilateral level. This occurred in the early 1990s in conjunction with the passage of the North American Free Trade Agreement (NAFTA). NAFTA came into force alongside two parallel agreements, one on labour issues and one on environmental issues. In both cases, joint institutions were created by the United States, Canada and Mexico, to implement programmes on issues of common interest and to consult stakeholders.

In an extreme case, the results of an integrated assessment might suggest that environmental and social issues cannot effectively be considered within the negotiating framework. Then, in theory, it might be necessary to seek an agreement to abandon the proposed policy altogether and revisit it once appropriate consideration has been given to its impact on sustainability.

## 2.2 Complementary or “flanking” measures



4-11

---

**Introduce Figure 4.1 to explain the different options for complementary measures. Start off by asking participants for examples.**

---

There is a range of policy measures, which can be implemented to complement the positive impacts and reduce or offset the adverse impacts of a certain policy. Categories for complementary measure are the following:

- Command-and-control measures
- Market-based / economic measures
- Engaging the public / voluntary measures
- Institutional measures.



Handout 4.1  
(Fig. 4.1)

Figure 4.1 gives an overview of these complementary measures and the available instruments appropriate to environmental policy making.

**Figure 4.1: Instruments for Environmental Policy Making**

<i>Category of instrument</i>	<i>Common types of instruments</i>	<i>Innovative types of instruments</i>
Environmental regulations ('command and control')	Standards, regulations, zoning, conservation areas, bans, quotas, permits, benchmarking	Buffer zoning, bio-regional approach, eco-efficiency standards
Market-based	Making use of existing markets Targeted subsidies, subsidy removal, levies and tax exemptions, user fees, charges	Differential land-use taxes, 'polluter and beneficiary' pays taxes, tourism charges, international transfer payments
	Creating markets Property rights, tradable permits, tradable credits, land titling, resource ownership	Protection rights, product certification, carbon offset trading, bio-prospecting deals, fair trade, tradable development rights, intellectual property rights
Engaging the public ('social approach' / 'communicative')	Public participation, information disclosure, communication, awareness raising, education, training	Co-management, covenants, agreements between government and private sector, partnerships, joint fact finding, participatory monitoring, private enforcement

*Source: Based on the World Bank (1997). Five years after Rio: Innovations in environmental policy. Rio+5 edition. World Bank, Washington DC.*

Traditionally, governments have addressed pollution-related environmental management problems through the use of "command-and-control" (CAC) measures and regulations. However, there is now increased interest in the use of economic or market-based instruments for environmental management and ways of "engaging the public". In addition, investment in institutions - such as those responsible for environmental standards, monitoring, research and analysis, policy development and implementation - can broaden the range of options available to a country.

#### **Command and control policies**

Command and control policies rely on the direct control of market flows by governments, rather than on the price system and market forces. Command and control policies include measures such as land zoning, licensing and legal reform, regulatory measures, standard setting, and insurance and liability-related policies.



4-12

### **Market-based instruments / Economic instruments**



4-13

Market-based instruments can be used to address market distortions arising from environmental and social externalities. These might be the result of government-support measures (such as subsidies) that encourage the over-exploitation of resources without considering the cost. Market-based instruments are often considered as part of a package to offset the adverse impact of international agreements. Market-based instruments include a range of macroeconomic and microeconomic policies such as:

- Tax policies
- Subsidies
- Deposit refund systems
- Environmental funds
- User fees and administrative charges
- Monetary and credit policies.

Tax policies include:



4-14

- Environmental taxes
- Emission and effluent taxes (imposed directly on the pollutant)
- Differential tax structures (levied according to the amount of pollution generated)
- Tax differentiation (e.g., as applied to leaded and unleaded gasoline, with leaded gasoline charged at the higher level)
- Investment tax incentives (such as investment tax credits and accelerated depreciation for pollution control equipment and waste treatment facilities).



4-15

Subsidies can be used to promote sustainable development, and can be removed from products that have negative environmental impact. For example, the removal of subsidies on pesticide use in agriculture could help offset the negative environmental impact of expanded agricultural production due to trade liberalization.

---

**Introduce the idea that there are alternative measures available to policy makers that are more process oriented in developing responses to the findings of integrated assessments.**

---

**Engaging the public / voluntary measures**

Engaging the public begins with an effective integrated assessment that not only mobilizes ideas, but also mobilizes the people who contribute to the process. A participatory process can accommodate perspectives and concerns of various stakeholders, and provide ownership of the results to a broad cross-section of society, thereby building trust in the process and confidence in the policies under consideration. The importance of a participatory process in an integrated assessment points also to the importance of enhancing the capacity of the full range of stakeholders.

The results of an integrated assessment might also point to the need for mechanisms to enhance transparency in the consideration of trade-related policies and liberalization agreements. Policy measures appropriate to ‘engage the public’ include the following:

*Voluntary measures* have gained popularity during the last decade, both with the private sector and with governments. Examples include voluntary agreements, programmes, standards, codes of conduct, guidelines, and principles, agreed by companies and industries, in conjunction with governments and interest groups. The private sector may benefit from greater flexibility in reaching targets, and from the public relations opportunity. Governments may benefit from enhanced dialogue with the private sector and raising their awareness of environmental issues. Notable examples of voluntary measures include *eco-labels* and *energy efficiency standards*.

*Transparency* is essential to assessing the adverse impact of policy changes that arise from rent seeking, corruption, and denial of access to information to marginalized groups. In order to increase transparency and promote effective public participation, it is critical to provide stakeholders with comprehensive information in a timely fashion. Such information might include statistical data, research results, project-related information, negotiation results and recommended policies. The timely dissemination of this information may well require the establishment of mechanisms through which such information can be released automatically.

**Institutional measures**

As indicated above, some countries lack the institutional capacity to deploy some policies effectively. Therefore, capacity building and institutional strengthening are important policy responses and recommendations to keep in mind when developing responses to deal with undesirable impacts of trade policies. This might involve proposing a parallel institutional approach in order to address environmental and social concerns in conjunction with the implementation of the liberalization.



### 3. Follow-up of the integrated assessment process

---

**Emphasize that it is very important to clearly define and agree upon the follow-up of an integrated assessment. Refer back to Figure 1.2 showing the complete planning cycle (Session 1).**

---



4-17 / 4-18

It is important that the integrated assessment process does not just end with defining policy responses. It should be followed by an implementation phase. Figure 1.2 in Session 1 introduced the planning cycle in which the “final (adjusted) formulation of a policy” is followed by “implementation of the policy”. The following checklist can serve as a guideline for designing appropriate follow-up activities:

- Elaborate a detailed action plans laying down the different activities, responsibilities and time frames
- Negotiate further with decision makers and stakeholders
- Strengthen existing institutions to help implementation of the policy responses
- Conduct case studies or pilot projects to test the proposed policy responses
- Continue the assessment process using a more detailed integrated assessment method (if required).

### 4. Monitoring

---

**Emphasize that effective monitoring is essential to keeping track of identified impacts that should be mitigated or avoided, and to identify policy response successes and failures. Refer back to Figure 1.2 on the planning cycle. Outline some possible approaches.**

---



4-19 / 4-20

Monitoring is essential in order to verify first, whether the proposed policy responses have been implemented and second, whether the negative impacts as identified during the integrated assessment have been effectively avoided or mitigated, and/or whether positive impacts or opportunities have been realised. Figure 1.2 introduced the planning cycle in which “implementation of the policy” is followed by “monitoring, review, minor adjustments” and “evaluation, major adjustments of plans”.

The following criteria could be used in order to establish an effective monitoring system. The monitoring system should be:

- *Cost-effective*, by making optimal use of existing data banks, institutions and capacities
- *Focused*, by measuring a limited set of indicators that are related to key issues identified

- *Accountable*, by ensuring that relevant institutions are involved to adjust policies
- *Transparent*, by making information available through a clear and publicly available reporting system.

Monitoring should be based on indicators that are specifically associated with the targeted sector and the impacts or issues that are of relevance for the policy (see Session 3 for indicators). Relevant indicators are identified during the integrated assessment, and will include sustainability indicators.



4-21

An institutional framework is needed to undertake the monitoring activities. Different institutional options are available. Three are presented in the following:

- **Mandate a competent research institute**  
One option is to mandate a competent research institution to design an indicator-based monitoring programme to ensure, as far as possible, that the monitoring results show the impact of the policy reform (including any ancillary policies) only and not the combined influences of other extraneous factors.
- **Link to ongoing government initiatives**  
A second option is to identify a current government initiative already in place such as national-level ‘State of the Environment’ reporting. A number of countries have a legal requirement for such reports to be prepared on a regular basis (for example biannually) by a designated institution. Early in the assessment phase the impact indicators need to be compared with those being tracked for the State of the Environment reports. Any additional indicators needed for the trade policy impact tracking can be added to the existing list. Some extra resources may need to be made available for this option to be credible and effective. Subsequently, the institution provides regular evaluations of the indicators’ status as part of its reporting function, but perhaps at different points in time from the publication of the report. The results will not be able to demonstrate conclusively that an impact is due to a trade initiative alone, but the balance of probability could be determined.
- **Establish an independent commission**  
A third option would be to establish an independent commission of specialists and stakeholders to report on the impacts of trade policies.

For each of these options it is important to keep in mind:

- Involve stakeholders where possible.
- Ensure adequate capacities and funding for the monitoring activities to be undertaken.
- Use an appropriate mix of the above options.

---

**Ask participants for any local examples of monitoring and evaluation of integrated assessments. How difficult were these to establish? Have they been instrumental in activating policy changes? If nothing is happening in these areas, can they suggest why?**

---

## 5. Scope for improvement



4-22

---

**Conclude the session by asking participants how integrated assessment could contribute to improving the current trade system. Also ask for suggestions on how to improve the integrated assessment process.**

---

There is scope to improve and develop the use of integrated assessments. Efforts to strengthen capacity in integrated assessment should build on past experiences, including:

- **Expanding the use of *ex-ante* assessments:** Forward-looking integrated assessments have already proven to be a powerful tool for policy makers. Avoiding major trade-related costs – such as those identified in UNEP Case Studies – and maximizing benefits requires evaluating the impacts of proposed, as well as past, policies. By looking forward, *ex-ante* assessments can provide policy makers with the information they need to develop fully integrated and coherent policies for sustainable development.
- **Enhancing the quality of trade:** Just as important as the volume of trade is its quality. Integrated assessments can help policy makers to ensure that liberalization promotes the movement of goods and services that most benefit their economy and society in a manner that protects the environment.
- **Making trade work for the poor:** Integrated assessments can identify ways to ensure that trade also works for the poor. Assessments can suggest ways to promote trade in areas that benefit the poor, and can suggest ways to minimize or mitigate negative impacts on these individuals and communities. As such, integrated assessment and policy-making approaches should form an integral part of national strategies to reduce poverty.
- **Encouraging trade as a means of implementing sustainable development:** The recent World Summit on Sustainable Development (WSSD) in Johannesburg in 2002, identified trade as a critical means of implementing sustainable development. Integrated assessments allow policy makers to understand the linkages between trade, the economy, society and the environment, and to develop approaches that ensure trade can help to deliver on the goals set out in the WSSD *Plan of Implementation*.

Current methodologies need to be further developed and adapted to suit the conditions and priorities of governments and other actors undertaking them. Nevertheless, the techniques are powerful, and are already being applied by a number of countries to increase net development gains from trade.

---

**Briefly summarize the topics that have been covered in the training workshop. End the session by checking for any questions or comments.**

---

### **Main References for Session 4**

Reference Manual for the Integrated Assessment of trade-related policies, UNEP, 2001.

Economic Instruments for Environmental Policy Making, UNEP, 2004.

## Session 4 Handout 4-1

### Instruments for Environmental Policy Making

There is a range of policy measures, which can be implemented to complement the positive impacts and reduce or offset the adverse impacts of a certain policy. Categories for complementary measure are the following:

- Command-and-control measures
- Market-based / economic measures
- Engaging the public / voluntary measures
- Institutional measures.

Figure 4.1 gives an overview of these complementary measures and the available instruments appropriate to environmental policy making.

<i>Category of instrument</i>	<i>Common types of instruments</i>	<i>Innovative types of instruments</i>
Environmental regulations ('command and control')	Standards, regulations, zoning, conservation areas, bans, quotas, permits, benchmarking	Buffer zoning, bio-regional approach, eco-efficiency standards
Market-based	Making use of existing markets	Targeted subsidies, subsidy removal, levies and tax exemptions, user fees, charges
	Creating markets	Property rights, tradable permits, tradable credits, land titling, resource ownership
Engaging the public ('social approach' / 'communicative')	Public participation, information disclosure, communication, awareness raising, education, training	Differential land-use taxes, 'polluter and beneficiary' pays taxes, tourism charges, international transfer payments Protection rights, product certification, carbon offset trading, bio-prospecting deals, fair trade, tradable development rights, intellectual property rights Co-management, covenants, agreements between government and private sector, partnerships, joint fact finding, participatory monitoring, private enforcement

*Source: Based on the World Bank (1997). Five years after Rio: Innovations in environmental policy. Rio+5 edition. World Bank, Washington DC.*



---

# Materials for Group Activity 1

## ***For trainer/facilitator***

Suggested instructions for case study exercise

## ***Handouts for participants***

Case Study 1 (GA 1-1)

Case study 2 (GA 1-2)

Case Study 3 (GA 1-3)

Case Study 4 (GA 1-4)

Questions for group discussion (GA 1-5)

Lessons learned (GA 1-6)

---



## Group Activity 1 – Information for Trainers

### Case study exercise on integrated assessment

---

*Title: Integrated assessment of trade-related policies in real life.*

*Background: This exercise is based on the country projects on integrated assessment of trade-related policies that were supported by UNEP. The projects have been published in 2002 and summarized to serve as case studies for this exercise. In the context of this training resource manual, they are used as samples for study purposes only and do not want to provide any statement on the policies of the countries involved.*

*Aim: The aim of the exercise is to enable participants.*

*To understand for what purposes an integrated assessment can be undertaken.*

*To understand how integrated assessment is carried out, in terms of methods and participatory process.*

*To gain some perception of what might be involved in the process in their country or region.*

*Group size: Depending on the total number of participants, form groups of 3 to 6 persons. A total number of four case studies are currently available. Choose the ones considered most appropriate for the particular group.*

*Duration: Two to three hours for the exercise, including presentations by participants.*

*Preparation: The trainers need time to familiarize themselves with the case studies and further background material available. Trainers might identify additional relevant information, which could be used to assist working groups by bringing in additional information on the county projects. The following handouts are available to be distributed to participants:*

- Case study synopsis 1 to 4 (synthesis report and complete case study if available),
- Questions for group discussion,
- Background note on lessons learned (after group work).

*The trainers can be provided with or download from UNEO ETB's website the complete country project publication including the synthesis report (see reference list).*

---

**Resources required:**

- Sufficient copies of the case study synopsizes (at pages XX\_XX) and questions for discussion (at page XX).
  - Paper or overhead transparencies to present results of group discussion.
  - Markers or OHP markers.
  - Space where groups can gather (best around a table).
- 

**Suggested procedures for the group work:**

## Introduction to the exercise:

- Trainers explain objectives and give instructions for group work (*Each group works on one case study according to the questions provided and prepares a presentation to report their results back to the plenary*).
- Trainers divide the participants into groups and distribute the relevant case study and questions for group work.
- Trainers explain that group work aims to look back at the projects as they were carried out, but groups will also be asked their opinion and ideas.

## Group work:

- Groups work on the case study following the training session and using the questions provided. There can be 4 group work sessions progressing on the same case study or they can also be done in two sets (session 1+2 and session 3+4).
- Groups select a rapporteur and prepare a presentation.
- Trainers facilitate the group work and provide further information if available and if necessary.

## Presentation and discussion of results:

- Groups meet in plenary to briefly present the results of their discussion after each group work session.
- Trainers facilitate the following discussion summarizing the most important points of the presentations and focusing on the lessons learned for the participants' own country cases.
- Trainers discuss the background note X with overall lessons learned from the country studies with participants.

# Case Study 1

Integrated assessment of the impact of trade liberalization  
on the fisheries sector in Argentina (GA 1-1)

---

*Argentina has been categorized as the world's fastest growing fishery (GEO, 2000). The exploitation of fisheries resources was insignificant in Argentina until export-oriented growth took place. The sector is now almost exclusively export-oriented and provides a stark example of the environmental and socio-economic impacts of trade liberalization.*

Fisheries has been one of Argentina's most dynamic economic sectors for the past 15 years. Value added has grown steadily and exports grew 478 per cent between 1985 and 1995 (in comparison, total exports increased 159 per cent). Besides its economic relevance, activity in the sector also has important social implications. Twenty-five thousand jobs depend directly on the fisheries harvesting and processing sectors. Estimates indicate that indirect employment in the fisheries sector could be as high as 100,000.

Until the 1990s, only national flag fleets could fish and disembark in national ports and fishing vessels could only hire national crews. In 1991, new reforms were introduced, paving the way for an Agreement with the European Union (EU) in 1994. The Agreement regulated the entry of European vessels and capital into Argentina. It facilitated the import of vessels from the EU and the formation of joint ventures. The Federal Fisheries Law of 1998 changed the issue of provincial domain over natural resources. The Agreement establishes objectives and defines authorities and different mechanisms to regulate all aspects of fishing activities in Argentine waters. It sets controls, finance and research mechanisms as well as conservation and protection goals. Further, it explicitly regulated fisheries exploitation and established sanctioning systems.

The integrated assessment study examined the social, economic and environmental impacts of trade liberalization policies on the Argentine fisheries sector, and is one of the clearest studies of a situation before and after trade liberalization. A strong international dimension is present in current patterns because of the growth in international trade, a heavy reliance on foreign markets, and the transnationalization of capital.

A number of institutions and individuals were involved in the study. The *Centro de Estudios Ambientales* (CEDEA, Centre for Environmental Research) was the national institution in charge of conducting the project.

The main stakeholders involved in the assessment process were:

- representatives from the Ministry of Foreign Affairs, International Trade and Religion,
- the Ministry of Social Development and Environment,
- the Secretariat of Agriculture, Animal Husbandry and Food, and
- the Secretariat of Environmental Policy.

Also included were representatives:

- from provincial government and local authorities,
- the armed forces,
- private sector organizations in different areas of the fishing industry,
- labour unions, professional associations and academics, and
- international and non-governmental organizations.

The methodology used in the study was a qualitative data assessment combined with a cost-benefit analysis. Secondary and primary data were compiled from multiple information sources from national as well as international institutions. Secondary data came from review of relevant literature, analysis of economic trends in the fisheries sector, and examination of norms and laws directly and indirectly relevant to the fisheries sector. Primary information was elicited from multi-stakeholders' debates and in-depth interviews with relevant actors.

The literature review looked at the social and employment issues related to fisheries exploitation in Argentina in the 1990s, and the effects of increased exploitation on the depletion of species. First, the study analysed the trend and structure of fisheries exploitation in the period after reforms were introduced in macroeconomic and trade policy. Second, it compared these trends against national and international norms and laws that have a bearing on the fisheries sector. Finally, it also analysed administrative organizations in the fisheries sector, both at the national and sub-national levels. A cost-benefit analysis was applied to specifically value the export-oriented exploitation of the *Merluccius hubbsi* species.<sup>4</sup>

The study established a strong link between over-fishing and the related depletion of fish stocks to subsidies from developed countries for fishing overseas. Further, it reported a significant shift in the structure of the industry. Traditional fishing communities changed from fishing for locally consumed species to export-oriented ones.

The policies, which created the conditions for the expansion of the fishing industry and the increase of exports, included:

- deregulation of numerous economic activities and markets,
- price stabilisation and dollar parity policy,
- easier credit availability,
- free movement of foreign capital, and
- reduction of import tariffs and export taxes.

The main negative impacts identified were:

- degradation of fisheries biomass,
- increased costs for fisheries regulation and control,
- increased operation costs,
- non-diversification of catches and
- increasing fishing effort.

---

<sup>4</sup> Argentine hake.

The assessment also revealed the problem of high fiscal costs (caused by subsidies), oversized investments, increasing unemployment and a decline in working conditions in some areas. Most of these negative impacts were directly related to overcapitalisation of the fleet, which favoured large producers.

The positive impacts identified included:

- an increase in fisheries production,
- an increase in exports leading to increased foreign exchange earnings and development of infrastructure,
- improved access to new markets,
- enhanced technological innovation in the sector, and
- improved research facilities.

The study highlights the fact that although it is agreed upon that the fisheries sector in Argentina is in crisis, the roots for this crisis are not agreed upon by all stakeholders involved, and in order to implement corrective policies, the causalities and failures need to be determined and analysed. Among the multiple issues that have led to the situation, the study points to information failures, research and analysis deficiencies, command and control failures, and market failures.

The integrated assessment has demonstrated that the causality factor is multidimensional, and the policy response approach must therefore also be multidimensional. Policies, which are regulatory in nature, must be implemented together with market-based approaches – they are not separable in the problem and they are not separable in the solution.

The policy recommendations for the Argentine fisheries thus included economic as well as command and control instruments for sustainable fisheries management, including a market-based quota management system.

The government had already introduced a market-based quota management system (QMS) for fisheries exploitation in its National Fisheries Law of Argentina in 1997, where individual tradable quotas (ITQs) are exchangeable via a secondary market. With this it attempted to reduce the over fishing. The law, however, has not been applied due to resistance by local governments and industry, lack of definition vis-à-vis property rights and lack of capacity.

Enforcement of the quota management systems could have strong implications for the labour force during the adjustment process. The transformation from an open access to a quota system would not necessarily be a win-win situation for all stakeholders. It might be the case that the industry will have to adapt and employment may decrease. An analysis of the impacts showed that the length of fishing seasons and the catch per unit of effort might increase, whereas the harvesting employment might decrease.

Other measures that were identified to improve the management of Argentina's fisheries resources include:

- changes in the sector's productive and economic structures,
- changes from commodity mode to use of resources with value added,
- technological and exploitation mode changes, which in this case would mean re-dimensioning of fishing fleets, and
- modification of fishing gear.

Exploitation mode changes aim at a diversification of species in order to reduce the pressure on a particular resource. In addition, overhauling command and control mechanisms were suggested since one of the most serious problems of trade liberalization has been the lack of control over resource extraction.

Finally, since a general theme throughout the study is the international dimension of Argentina's fisheries sector, the main issues and corrective measures do not relate only to local economic and command and control issues, but also to international political factors. There should be active support for the modification of international systems such as consumption patterns, global fisheries status, regional management and failures in international economic systems (e.g. disloyal competition, tariff escalation and subsidies).

#### Follow-up

With the support of UNEP, the Secretariat of Fisheries and Aquaculture of Argentina and the *Centro de Estudios Ambientales* (CEDEA) launched a follow-up project to assist national teams in prioritizing and implementing the policy options. This follow-up project aims to further examine quota management systems and the use of individual tradable quotas (ITQ), in particular.

The objectives of the project are:

- to enhance coordination and cooperation between relevant organizations working on fisheries-related activities,
- to enhance capacity of policy makers and the private sector, and
- to increase understanding of the constraints to the successful implementation of economic instruments.

One of the main objectives of the project is to develop guidelines for the practical application of the ITQs. The project should outline the general features needed for ITQs in order to achieve sustainable development of the fisheries sector in Argentina. It should also include an analysis of the relationship between public and private rights and ownership of resources in Argentine Law.

## Case Study 2

### *Integrated assessment of the impact of trade liberalization on the cotton sector in China (GA 1-2)*

---

*This study was undertaken before China's entry into the World Trade Organization (WTO) in September 2001, and examined the economic, social and environmental impacts of projected agricultural imports with particular focus on the cotton sector. The main objectives of the assessment were to propose policy recommendations for the sustainable management of the cotton industry and to strengthen China's negotiating capacity in subsequent rounds of trade talks.*

*China is a huge agricultural country, and large quantities of chemical fertilizers, pesticides, plastic film and irrigation water are used in agricultural production. China is also one of the largest cotton producing countries in the world, with around 300 million people working in this sector. From 1978 to 1984, China's cotton output increased steadily, and reached a historic high of 6.26 million metric tons in 1984. Afterwards cotton output fluctuated between 4.1 - 5.7 million metric tons, but dropped to 3.8 million metric tons in 1999.*

*The policy assessed in China was the projected impact of import liberalization rather than export expansion. The study examined the impact of tariff rate quotas (TRQs)<sup>5</sup> on the production and import of selected agricultural products, focusing on the cotton and related sectors (such as textiles and clothing).*

*As the study was based on theoretical projection, two assumptions were made. First, it was assumed that the bilateral trade concessions given by China to the US (under the US-China Bilateral Agricultural Agreement of 1999) would have to be extended on a most favoured nation (MFN)<sup>6</sup> basis to all member countries of the WTO subsequent to China's accession. Second, it was assumed that the entire TRQ would be imported, irrespective of whether the imports are competitive with domestic products.*

The prospect of China joining the WTO is expected to bring both opportunity and challenge in the agricultural sector generally and in the cotton sector in particular. While increased agricultural exports are expected to bring opportunity, there are major concerns about the expected influx of agricultural imports in the early period of China's accession to the WTO (due to TRQs), which could have huge impacts on the domestic market.

Thus, the objectives of the integrated assessment included:

- (1) enhancing the country's understanding of the implications of WTO membership,
- (2) promoting trade liberalization of the cotton sector in a sustainable manner, and
- (3) enhancing its negotiating capacity in future rounds of trade talks.

---

<sup>5</sup>. For goods subject to a TRQ, a specified quantity of import (a quota) may enter at a low tariff rate and additional imports are assessed at a higher tariff.

<sup>6</sup> MFN means that every time a member state improves the benefits that it gives to one trading partner, it has to give the same "best" treatment to all other WTO members, so that they remain equal.

In particular the study aimed to assess the potential environmental, social and economic impacts of China's trade liberalization in the cotton sector and to formulate a proposed policy package designed to mitigate the identified negative impacts and maximize the positive ones. The integrated assessment process also aimed to enhance coordination between related national entities, to increase national expertise and to enhance national capacity for international trade policy-making and research.

The methodology used in the study was a Jiangsu Agricultural Policy Analysis (JAPA) model with partial equilibrium and econometric sub-models. (The JAPA model was designed only for the Jiangsu province. So for the purposes of this study, it was necessary to divide the total TRQs into the different provinces of China according to production share.) The study forecasted for 2002 the potential effects of importing three selected commodities (wheat, corn and cotton) on the basis of current consumption patterns and utilization of resources. An economic valuation was made of the simulated impacts and finally a cost-benefit analysis (CBA) was conducted by comparing the total costs and total benefits of the impacts of the TRQs for the three agricultural commodities listed above.

The results of the model scenario analysis showed that the large number of agricultural imports predicted to enter the Chinese market in this period were likely to provoke significant shifts in overall crop production structures. While these agricultural imports could help China to solve shortages in some agricultural commodities, they could also cause reduced cultivation of some crops and output decrease (of wheat corn and cotton). The large agricultural imports could cause price decreases in all agricultural products and cause farmers to increase production of other products, causing a producer surplus. The last two impacts might create a decrease in income for farmers.

It was projected that as a side effect of the decrease in cultivated land, agricultural employment would also decrease. This could lead to a situation where, after adjustment of the agricultural production structure, the utilisation rate of cultivated land would decrease and valuable land would lie waste or be used for non-agricultural purposes. This could lead to increased poverty and problems of social instability.

Reduced cultivation is expected to have a positive environmental impact due to the reduced application of chemical fertilizers and pesticides, but could also have a negative impact because valuable cultivated land may be lost and used for non-agricultural purposes such as city extension, industry and building.

The CBA estimated that there would be a net cost of importing the three commodities of 1,303.31 million RMB (157 million US \$)<sup>7</sup>. However, this estimated net cost applied only to the agricultural sector in Jiangsu.

For the cotton sector, further specific problems were identified. An increase in imports of cotton due to trade liberalization could seriously affect domestic cotton production and sales. China's WTO accession could also increase uncertainty for Chinese textile and clothing exports and could cause enormous fluctuations in the production and price of textiles. As the cotton sector is closely linked to the textile industry, import liberalization in the textile sector will also affect the cotton sector. In accordance with the impacts identified for the three agricultural products, the integrated assessment suggested that there would be a decrease in land cultivated for cotton and cotton output, a decrease in the price of cotton in the domestic

---

<sup>7</sup>Renminbi.

market, a decrease of agricultural employment as well as the income of cotton farmers. The decrease of cotton farmer's income could increase poverty in rural areas, and might cause social instability.

On the basis of the integrated assessment, a series of policy recommendations was proposed to mitigate the negative and enhance the positive impacts.

These included:

- recommendations on how to increase the competitive advantages of Chinese cotton,
- on how to maintain the basic balance between supply and demand, and
- how to stimulate sustainable management of the cotton sector.

An increase in the competitive advantage of Chinese cotton could be achieved by supporting agriculture with 'green box' policies,<sup>8</sup> by promoting new cotton variety breeding and 'special purpose' cotton production, and by establishing cotton production cooperatives (or sector associations). A basic balance between supply and demand could be achieved by completing the multi-channel cotton marketing system.

Measures could include:

- the promotion of lateral cooperation among different cotton marketing entities,
- the promotion of cotton production to order,
- the improvement of the cotton wholesale market, and
- the establishment of a textile exporter association and an agricultural consulting system.

Sustainable management in the cotton sector could be promoted by:

- taking measures to decrease the applied quantity of chemical fertilizers,
- establishing a pest and disease prevention service and banning the production, marketing, and application of all highly toxic pesticides.

In addition, an environmental pollution tax could be introduced, the efficiency of irrigation could be increased and the production of organic cotton could be further promoted.

In making these recommendations, it was recognised that different regions have different natural conditions and different degrees of dependency on unsustainable production methods. Therefore, in transition to developing sustainable cotton production, there should be alternative methods to choose from. The Chinese Government also has to consider parallel policy objectives such as increasing income, improving equality, enhancing technology and reducing financial constraints.

---

<sup>8</sup> In order to limit the trade distortions caused by domestic agricultural support policies, the AoA requires countries to quantify all domestic support deemed to have a distortionary effect on trade. This is known as the Aggregate Measure of Support (AMS). 'Green box' policies are policies that are not deemed to have a major effect on production and trade.

## Follow-up

To assist China's national institutions to prioritize and implement the policy recommendations, UNEP is supporting a follow-up project. The main objectives of the follow-up project are to enhance the capacity of policy makers and the private sector to develop economic instruments to promote sustainable management of the cotton sector.

To initiate the implementation phase of the project, the Agricultural Economical Research Institute of the Nanjing Agricultural University (AERI), which has also been the main national institution in China responsible for undertaking the study, convened a national workshop involving all the stakeholders who contributed to the first phase of the country project.

Participants were invited from:

- Ministry of Agriculture and Ministry of Trade,
- universities,
- farmers,
- the private sector, and
- NGOs.

In the follow-up of the workshop, the Chinese State Environment Protection Administration (SEPA) in cooperation with the AERI, prepared an Action Plan and have decided to start implementing the first measures.

These include:

- lowering the use of chemical fertilizers,
- improving management of genetically modified cotton,
- banning the use of toxic fertilizers, and
- encouraging the efficient use of pesticides.

The scientific expertise of AERI will contribute to implementing the last two measures. A detailed report on the implementation phase is being developed.

Further, as part of its third round of country projects on integrated assessment, UNEP has launched a new project in cooperation with SEPA on trade liberalization in the agricultural sector. This project seeks to enhance the country's understanding of the environmental, social and economic implications of implementing the WTO Agreement on Agriculture (AoA), with specific focus on the rice sector. It also aims to contribute to formulating China's positions and a negotiating mandate with regard to the ongoing WTO negotiations on agriculture. The objective of the country project is again to formulate policy response packages to correct identified negative impacts of liberalized trade and to maximize the positive ones. The methodologies applied for the integrated assessment will be similar to those used in the first country study.

## Case Study 3

### *Integrated assessment of the impact of trade liberalization on the cocoa and rubber sectors in Nigeria (GA 1-3)*

---

*This study examined the effects of macroeconomic policy reform, including trade liberalization and export promotion, on the export crop sector of Nigeria, with particular focus on cocoa and rubber. The study indicated that the advantages of trade liberalization should be weighed against the possible environmental and social costs of increased production.*

Agriculture is the mainstay of Nigeria's economy, even though crude oil provides the largest proportion of revenue to the country. It contributes significantly to the country's GDP, export earnings and food availability. Cocoa, rubber, fish and shrimps, and cotton are Nigeria's major agricultural export commodities, with cocoa and rubber being the most relevant.

This study aimed to assess the impacts of trade liberalization and trade-related policies on the environment, and consider the linked social and economic effects focusing on the cocoa and rubber sectors. It examined the impact of Nigeria's trade policies through assessment of soil degradation, impact on farm size, the effects on rubber and cocoa output, impacts on profitability, social impacts and the overall environmental impacts. From this assessment a comprehensive policy package was produced, supported by detailed recommendations and plans for government intervention.

Six policy regimes were identified in Nigeria:

- (1) before and during the civil war (1960 – 1970);
- (2) post-war reconstruction (1970-1973);
- (3) the oil boom (1974 – 1979);
- (4) the austerity period (1980 – 1985);
- (5) period of structural adjustment (SAP) (1986 – 1993); and
- (6) the post structural adjustment period (1994 – 2000).

The trade liberalization policy came into being during the SAP period. Trade reforms in the agricultural sector were aimed at:

- expanding the export capacity of the sector through increased domestic production of export crops,
- increased domestic production of tradable semi-manufactured goods from agricultural raw materials,
- increased import of agricultural inputs such as fertilizers, agrochemicals, farm implements, farm machinery,
- increased import of agro-industrial inputs, and
- a relative increase in resource allocation from non-tradable to tradable crops in agriculture.

A number of institutions and individuals were involved in the implementation of the study. The University of Agriculture (UNAAB) in Abeokuta was the main national institution responsible for undertaking the study.

In June 2000, a National Stakeholders' Workshop comprising about 55 participants took place to sensitize the public and launch the study. A National Steering Committee was formed to guide and focus the study. Thereafter, a sectoral inputs workshop, was convened by the National Steering Committee to design procedures and methodology. The stakeholders that participated in the workshop included international groups and agencies, national and regional government, industry representatives, workers, consumer groups and minorities.

A range of methodologies was used and was based on secondary and primary data collection. Secondary data were collected from the public and private sectors including:

- the Cocoa Research Institute of Nigeria (CRIN),
- the Rubber Research Institute of Nigeria (RRIN),
- the Nigerian Institute for Social and Economic Research,
- the National Tree Crop Development Unit (NTCDU),
- the State and Federal Ministries of Agriculture and Natural Resources, Rural Development, Environment, Finance and Economic Planning,
- the Central Bank of Nigeria (CBN),
- the Federal Office of Statistics (FOS) and
- the Association of Cocoa Exporters (ANCE).

Primary data was collected using the Rapid Rural Appraisal (RRA) methodology. Analysis was made using two regression analysis models – an output response model and a pesticide demand model. A graphical and statistical analysis was performed to reveal any trends. Finally, a cost-benefit (CBA) was performed to value the overall environmental impacts.

Study findings indicated that economic liberalization had no perceptible effect on the environment in the case of cocoa production. This appears to be because the response of farmers to the incentives created was to rehabilitate farms abandoned during SAP rather than to expand the cultivated area.

In the case of rubber, however, there was an increasing trend for new areas to be planted. In addition, over-tapping of rubber (slaughter tapping) led to the early death of trees, which were not replaced, thus reducing soil cover. This had negative consequences for nutrient cycles, soil erosion and the ecosystem in general.

The economic impacts identified included:

- an improved contribution of agriculture to Nigeria's gross domestic product,
- improved opportunities for unskilled and semi-skilled people to work on the cocoa and rubber farms,
- a reduced rate of abandonment of old cocoa farms thereby leading to a more productive use of natural resources, and
- higher incomes for crop farmers.

However, higher income disparities occurred among farmers in the same communities. Increased import of agrochemicals also had negative social impacts. Due to a lack of knowledge on their correct use, there were reported cases of body itching, painful sensations in the eyes and swollen hands, and some farmers used the chemicals to treat toothache and stomach ache. Also, promotion of tree crop farming only benefited male farmers and discriminated against women since the land tenure systems in the southern areas of Nigeria do not allow women to inherit land, and only rarely can they purchase farmlands without the permission of their husbands.

Several policy recommendations were made and practical action plans provided on the basis of the study results.

These included:

- the establishment of a control mechanism to advise on and monitor the rate of expansion of export crop farms;
- the establishment of a Farm Development Advisory System (FDAS);
- the establishment of an effluent charge on pollutants arising from the activities of rubber processing industries;
- the establishment of health centres in cocoa and rubber producing areas;
- the establishment of a product development and marketing programme as well as conservation, and
- rehabilitation programmes in areas where degradative processes are about to set in.

Besides mitigating the negative impacts, the study recommends enhancing the positive impacts of trade liberalization in Nigeria. To do so, the Federal Government was asked to ensure only a small margin between the producer prices of exportable crops and world prices so that farmers can benefit from international trade. This would require the dissemination of market prices on a regular basis via electronic and print media in English and the vernacular. The Government should also legislate on the processing of cocoa beans to increase the value added and generate employment opportunities at the grassroots level. There should be increased government support for agriculture through the construction of rural infrastructure - roads, water supplies, health and education. The Government should also increase the research and training funds for environment, agriculture and trade, so as to have regular detailed information about what is happening in these sectors.

Finally, Farmers' Associations need to continually educate their members about environmentally degrading practices through training, workshops, seminars, etc., and reinforce advice on sustainable tapping techniques in order to avoid the slaughter tapping currently practiced.

## Follow-up

As a result of the integrated assessment, a policy plan has been set up. Some of the practical steps recommended for the first phase of putting this policy plan into action include the organization of a National Steering Committee/Stakeholders' workshop to present the report, sensitize policy makers to the merits of the report, and publish the report for circulation to stakeholders and international organizations.

In addition, meetings on the various recommendations made in the study have been held with the Minister of Agriculture and Rural Development and some of the staff and management of the Cocoa Research Institute of Nigeria. The Ministerial meeting resulted in the establishment of an Agricultural Development Fund of 10 billion Naira (74,77 million US \$) by the Federal Government in 2003. This has led to the establishment of a (Farm) Advisory System to be strengthened in the Agricultural Development Programmes of the State Ministries of Agriculture and Forestry.

A further high level meeting with the President of Nigeria resulted in directives to the modified Nigerian Agricultural, Cooperative and Rural Development Bank to give priority to the funding of projects engaging in the processing of tree crop fruits and beans from its 6 billion Naira (44,86 million US \$) loan portfolio.

The 2002 Annual National Conference of the Farm Management Association of Nigeria (FAMAN) was devoted to environmental issues in agriculture. A concise version of the integrated assessment was presented to the Conference. Late in 2003, the Ministry of Commerce carried out a review of national trade policies with some inputs from the findings of the study.

Some state governments are introducing programmes to assist farmers in replanting their old rubber, cocoa and oil palm trees as well as encouraging intensive tree crop production through the opening up of more land. The recent Federal Government subsidy of 25 per cent on fertilizers, and some State's subsidies, have encouraged greater use of the chemicals. The Federal Government and concerned States see these as priorities and are pursuing them with vigour.

While direct contact with ministries and the Presidency has been instrumental in gaining acceptance for the study findings, there has as yet been no legislative backup. Due to lack of funds the recommended training workshops/seminars on environmental economics to enhance the capacity building of researchers/lecturers, ministry officials, and extension agents could not yet be undertaken. While contact with the Ministries of Agriculture and Trade at the State and Federal levels has been profitable, contact with the Environment Ministry is still pending. The Federal Government has not yet adopted the recommendation of ensuring a small margin between the producer prices of exportable crops and world prices.

## Case Study 4

### *Integrated assessment of the impact of trade liberalization on the fisheries sector in Senegal*

---

*This study examined the effects of trade liberalization and other trade-related policies on the fisheries sector in Senegal. It revealed that trade distortions such as subsidies, along with bilateral fishing agreements and preferential trade agreements, were largely responsible for steadily diminishing annual catches.*

Fishing is an essential component of rural development in Senegal and is strongly integrated with the rest of the economy and society. It plays a strategic role in ensuring the sustainable growth of the national economy by contributing to the balance of payment deficit and creating employment. The fisheries sector generates about 100,000 direct jobs (i.e. fishermen) for nationals, of which more than 90 per cent are in small-scale fishing. Other jobs related to the sector employ about 15 per cent of the working population, which amounts to about 600,000 people. The fisheries sector provides about 75 per cent of the protein needs of the population.

In the late 1980s, due to poorly performing traditional fishery exports, the government intervened in the fisheries sector by establishing several export support mechanisms for expansion of its markets. As a result, the fisheries sector became more commercially viable and export-oriented.

These export support mechanisms included:

- non-reciprocal advantages under the Lomé Agreements authorizing Senegalese piscatorial products to enter the European market with the exemption of custom duties;
- direct and indirect export subsidies;
- devaluation of the CFA franc; and
- fishing agreements concluded with a number of foreign fleets, especially the EU.

This development was favourable to European fleets and to some extent to export firms with distribution networks in the European market. But EU countries (and other developed countries) were keen to fish in Senegalese waters instead of giving preferential tariff rates for Senegalese fish products, so that the export sector did not benefit to the extent it could have.

Nevertheless, the export support mechanisms caused a major shift of fishing effort from domestic market oriented pelagic fishing (species living in the near-surface waters, often far from shore) to export-oriented demersal fishing (species living near the seabed). This led to over fishing of the demersal stocks with high market value (for export), which are currently fully exploited and in some cases over-exploited. In addition, the reduced supply of fish to the domestic market has created a serious protein shortage for the population.

The integrated assessment study was led by ENDA *Tiers Monde*, a national institute for research and policy dialogue in Senegal. A number of other institutions and individuals have been involved in the implementation of this study. The First National Stakeholders' Meeting was held in Dakar in July 2000 and comprised more than three dozen participants, including representatives from the Ministries of Fisheries, Environment and Trade and the Minister of Fisheries. Also attending the meeting were representatives from the private sector (CNPS), fishing and trade unions (ADPES, FENAGIE), and international and regional organizations (WWF, CREDETIP) and research institutions (CRODT/ISRA).

The study was based on qualitative data assessment of the species concerned and their biomass over a period of time. Point estimates have been used where time series were not available. While the study clearly indicated the species most at risk and quantified the stocks of those species, it did not attempt any economic valuation of the species depletion or the cost of possible eventual exhaustion of stocks.

Study findings showed a negative overall effect of trade expansion on the environment. Resource scarcity became serious for some species, particularly for coastal demersal species (deep lying fish) with high market value (for export). The sector faces serious disruption both in terms of resource exploitation and market supply. In addition, resource scarcity and competition have exacerbated conflicts among small-scale fishermen and between industrial and small-scale fishermen.

All those involved in the sector have acknowledged that the increase in global fishing effort and processing capacities have led to the over-exploitation of marine resources.

The main reasons identified for over fishing in Senegal included:

- insufficient measures in place for planning small-scale fishing (which accounts for two-thirds of the total catch and benefits from free access to the fisheries);
- difficulty in controlling industrial-scale fishing; and
- the absence of planning for the conservation of sea resources while fishing efforts and processing capacities were expanding.

Despite the danger that stock depletion represents, and the threat to national food security, the small-scale sector continued to favour export-oriented catch rather than catch for the domestic markets. Market signals also favour fishing for the export market, rather than for domestic consumption where prices are lower and costs are higher. While the operating costs of small-scale units have increased for inshore fishing, the costs of coastal demersal fishing have not raised at the same rate.

The main policy recommendations of the study focused on achieving sustainable management of fisheries through resource preservation. It was suggested to simultaneously set up market-based instruments and regulations together with institutional measures (to secure the participation of stakeholders) and support product development.

Market-based or economic instruments that are likely to facilitate resource preservation involve access to resources. The problems with regulation of quotas, fishing agreements, and capture components support mechanisms must be addressed. It was recommended that authorities exercise their regulating powers and improve the application of existing rules. In addition, new regulations on the export of endangered species should be established, including banning or surtaxing endangered species, freezing fishing efforts on demersal catch and freezing issuing licences for industrial ships.

With regard to institutional measures, the study recommended consultation with the community and possible delegation of management powers to specially established committees, such as for example a licensing committee. Structural cooperation should also be improved, for example between the Oceanographic Research Centre of Dakar and the Economic Observatory of Senegalese Fisheries.

Product development could be achieved through various government interventions and market-based mechanisms. The government needs to construct infrastructure and provide better support to fisheries. For example, the high value added semi-industrial sardine fishing could be revived. A system for collecting rejections from industrial fishing units using pirogues assembled in secondary coastal surveillance centres, would contribute to increasing the supply to the domestic market and small-scale processing. Offering an ice subsidy would reduce the costs of the fish trade considerably and contribute to improving product quality, especially for the rural population.

The value of production could be increased by adopting market-based mechanisms and economic measures such as:

- granting tax and customs advantages proportional to value-added,
- facilitating the use of technologies adapted to industrial and small-scale processing (through credit incentives), and
- supporting exploration of new markets.

#### Follow-up

The first project identified the need to assist national institutions to implement the recommended instruments. A follow-up project was launched with the Senegalese Ministry of Fisheries and ENDA Tiers Monde to mobilize national teams to select and implement policy options within the ones identified. The objectives were to enhance coordination and cooperation between relevant national organizations working on fisheries-related activities and enhance the capacity of policy makers and the private sector to implement strategic management responses – particularly economic instruments to promote the sustainable management of fisheries.

In the UNEP country study closing workshop on the Implementation of a Policy Response Package to Promote Sustainable Management of Senegalese Fisheries, ENDA and the Ministry of Fisheries shared with the principal stakeholders the project's main findings.

The project's proposals for improved management included:

- restricting access to the resources through the establishment of fees,
- fishing zones and the involvement of local councils;
- improving enforcement of existing regulations as well as the creation of new regulations;
- introducing proposed criteria to assess fees; and
- identifying specific harmful impacts of fishing techniques.

Participants, most notably fishermen and their representatives, enthusiastically endorsed the proposed methods for improved management. They also highlighted several other key considerations.

These included:

- the need to update Senegal's fishing laws and its code of conduct more regularly than the current practice of every 11 years;
- the importance of addressing the regular conflict that occurs between industrial and small-scale fishers;
- the value of open dialogue to bring together diverse actors in the fisheries sector;
- the need to further educate and train both fishermen and enforcement agents on sustainable fishing practices; and
- the importance of a follow-up to this work.

A programme on *Fish, Trade and Environment in West Africa*, has been organized by ENDA Prospectives Dialogues Politique and WWF, with sponsorship from the Dutch Government. It is a two-year programme, beginning in 2003, to define solutions to fishery resource management at the regional level in the context of rapidly depleting fish stocks, export growth and trade liberalization and to ensure food security. The programme is being conducted in two phases. The first phase involves country studies in each of the six countries implicated (Senegal, Gambia, Guinea, Guinea Bissau, Mauritania, and Cape Verde) to assess the linkages between fisheries, trade and environment and provide policy recommendations for improved fisheries management. The second phase will feed the country findings into national and sub-regional dialogues in an effort to develop common strategies for sustainable management.

# Group activity 1

*Case study exercise on integrated assessment*

## *Questions for group discussion (Handout GA 1-5)*

---

### **Steps of the exercise**

- Individual study of the case
- Group discussion according to the questions below
- Election of a rapporteur for the group
- Preparation of a presentation
- Report back to the plenary

### **Questions for group work**

#### *First set of questions*

- 1) What has been the main focus of the country project on integrated assessment (theme, sector, spatial area, etc.)?
- 2) What has been the situation in the country, with respect to trade, the environment and development? What linkages can you see between these different aspects (both negative and positive)?
- 3) Is the integrated assessment more ex-ante or more ex-post? Please explain. Please mention the advantages and disadvantages of both approaches.
- 4) Who have been the owner / initiator of the integrated assessment project? What is the key role to play by the owner?
- 5) How have the different stakeholders been involved in the process? Do you think any stakeholder has been missing? What is your opinion on the participatory process?
- 6) How can such a project contribute to capacity building? How would you evaluate if capacities have been built?

### **Presentation to report back to plenary**

It is suggested that the report back to the plenary should cover answers to above questions, as brief as possible (bullet points on overheads, flipcharts).

## **Questions for group work**

### *Second set of questions*

- 1) Which methods (and data) have been used for the integrated assessment? What is your opinion about the results obtained with these methods? What additional or alternative methods would you propose ? Please mention both quantitative and qualitative methods.
- 2) What are, based on your experience, advantages and disadvantages of qualitative and quantitative methods? Please give examples from experience.
- 3) Which impacts of the policies have been identified (environmental, social, economic impacts, etc.), both positive and negative? Which ones do you think are the most important? Please explain why.
- 4) From the policy responses that have been recommended to improve the situation in the country, which are the ones that you would choose to implement? Please explain why.
- 5) What is your opinion about the follow-up activities that have been carried out? What further activities would you suggest?
- 6) What is your overall opinion about the outcome of the integrated assessment project? Where do you see the main benefits and difficulties of such a project?

### **Presentation to report back to plenary**

It is suggested that the report back to the plenary should cover answers to above questions, as brief as possible (bullet points on overheads, flipcharts).

# Group Activity 1

## *Case study exercise on integrated assessment*

---

### **Overall lessons from the UNEP Country Projects**

*The following notes provide background information on the introduction to the group activity and answers to questions, which may be generated by the groups as they address the assigned case study.*

#### **Three rounds of country projects**

Altogether UNEP has initiated three rounds of country projects on integrated assessment of trade-related policies. The first round of projects was conducted in Bangladesh (shrimp aquaculture), Chile (mining), India (automotive industry), Philippines (forest management), Romania (water pricing) and Uganda (fisheries).

The second round of country projects, initiated in 1999, covered Argentina (fisheries), China (cotton), Ecuador (bananas), Nigeria (cocoa and rubber), Senegal (fisheries) and Tanzania (forestry). These were designed using the experiences and lessons learned from the first round, which attempted to identify the environmental impacts of Structural Adjustment Programmes (SAP), and particularly their trade liberalization components.

The third round of country projects, initiated in 2003, focused on integrated assessment of trade-related policies in the agricultural sector, and on the rice sector in particular in Colombia, Nigeria, Indonesia, Senegal, China, Viet Nam, and Ivory Coast.

Even though the variety of sectors chosen for specific analysis has been wide – forest reserves, urban automobile sector, shrimp aquaculture, water resources, mining and fisheries – the choice of basic instruments and approaches, such as economic valuation and full-cost pricing of natural resources, was remarkably similar in all cases. However, each country's situation is different, and whilst the broad choice of instruments may be similar, their individual designs will be different.

Capacity building remains the key to reducing developing countries' suspicion of the motives behind the assessment of trade liberalization, and also to increasing their ability to use the tool to maximize the net development benefits of trade and trade-related policies.

UNEP's approach to enhancing capacity by engaging and supporting national actors in project identification, formulation and implementation has proven to be very effective. Throughout these capacity building activities, UNEP has placed emphasis on 'learning by doing' rather than on the traditional 'learning' by showing' approach.

### **Some general observations**

- Command-and-control policies have been most commonly used, are generally in need of revision, and require supplementary market-oriented policies to enhance environmental protection.
- It is especially important to distinguish export promotion from trade liberalization in the context of developing countries. Export promotion is a large part of the development strategy of many developing countries, but it is not the same as trade liberalization although it is often mistaken for that.
- Coordination at the national level between government ministries, industry and non-governmental organizations must be actively encouraged if this multi-stakeholder process is to evolve efficiently and deliver useable products in terms of policy tools. Some case studies show how coordination of this could be done in a successful manner.
- The case studies have shown that there are important linkages between trade, environment and poverty. Environmentalists, trade negotiators and others need to enhance their understanding of these linkages. However, there remain institutional, procedural and political complexities in developing assessment methodologies and defining policy responses.
- Linking generic methodology development with actual assessments on the ground enriches both the design of the assessment tool and its application.

### **A multi-stakeholder process**

- Country 'ownership' of projects is an essential factor in ensuring successful project and policy implementation. Moreover, wide stakeholder participation further ensures that the causes of environmental and social problems are more accurately identified and that policies respond to a full spectrum of stakeholder needs and objectives.

An open, transparent and informed multi-stakeholder assessment process, allowing for sharing of perspectives, expertise and experience, is crucial to effective and accurate assessment, the development of the assessment tool itself, and its subsequent application.

- There are few experts/policy makers who combine environmental and developmental perspectives on an equal footing. Therefore, both types of expert need to be included in an integrated assessment processes, and those who adopt what one might describe, as a ‘sustainable development perspective‘ are particularly valuable.
- ‘*Cultural preferences*’ – often different from ‘*rational economic preferences*’ – are a major factor in the acceptance of new policies. Multi-stakeholder consultations thus play a very important role in the eventual acceptability and sustainability of any policy reforms based on these assessments.

### What is needed to support the process?

- Only modest financial support is needed to launch this process and promote the development of future action.
- Decision makers, while initially reluctant to adopt strengthened environmental policies, can become strong advocates of proactive environmental policy after awareness-raising activities provide them with an appreciation of the linkages between trade, environment and development.
- These projects also demonstrated that while there is no shortage of relevant in-country expertise, there is a great need to build bridges and networks between national actors with potential contributions to the process. What is needed is strengthened capacity to initiate, integrate and sustain these activities. Process-oriented capacity building can effectively address this need.
- Assessment methodologies will always have to be adapted to local conditions, needs and priorities. This requirement for flexibility also implies that a range of methodologies is needed from which the most appropriate ones can be selected for any given locality.
- Methods of data gathering and the techniques of integrated analysis should be further developed so that the causes of environmental problems can be more clearly identified and the benefits of market-based approaches can be systematically assessed.

### New challenges in assessment

- As assessment methodologies are developed and increasingly deployed, some commentators highlight the potential for them to be abused for political or trade protectionist objectives. This issue will have to be addressed in the design and application of the assessment.
- Liberalization of trade based on exploiting resources under the sovereign control of one country as opposed to ‘open access ‘ resources (e.g. high seas fisheries) present different challenges for both assessment and effective policy responses. These are beginning to be addressed in the second round of UNEP’s country projects but the differences and their implications need to be addressed more systematically and thoroughly.
- There is also a need to address illegal trade and other practices outside the rule of law that can be associated with, or at least grow with, liberalized trade and other trade-related policies.

- It is necessary to do more to ‘telescope‘ assessment design, application, and formulation and implementation of policy responses. This implies engaging senior decision makers at an early stage in the assessment process, enabling them to see its inherent value and also develop some ownership of its ultimate policy product.
- The assessment work to date has underlined the need to assess the environmental effects of trade-related policies other than liberalization (e.g. of subsidies for commodity production), as these also often have significant implications for the environment and sustainable development.
- So far, UNEP's work in this area has largely been focused on retrospective assessment of the effects of trade liberalization and other trade-related policies. However, the value of *ex-ante* assessment of trade-related policies is increasingly being recognized as a means to enhance policy integration, and in particular to capture ‘win-win ‘ opportunities where trade liberalization can benefit the environment. More effort will have to be directed to developing such methodologies.

---

---

# Materials for Group Activity 2

## The role play / simulation

### ***For trainer/facilitator***

Suggested instructions for role play / simulation

### ***Handouts for participants***

The scenario (GA 2-1)  
Stakeholder 1 (GA 2-2)  
Stakeholder 2 (GA 2-3)  
Stakeholder 3 (GA 2-4)  
Stakeholder 4 (GA 2-5)

---



## Group Activity 2

### Description of the role play / simulation

---

Title:	Implementing Policy Recommendations
Aim:	To enable participants to understand the differing viewpoints of stakeholders in the integrated assessment process.  To enable participants to understand the policy options and communication strategies available to them in supporting the case for integrated assessment.
Group size:	4 participants and one observer
Duration:	One to two hours

#### Resources required:

- One copy of the general scenario for each group member (Handout X)
- Descriptions of the roles of the main stakeholders (Handouts X to X)
- Paper observer to record his / her observations
- Markers or OHP markers
- Rooms where groups can gather

---

#### Description of activity:

- The trainer introduces the simulation, outlines the objectives and suggests some communication strategies and the possibilities of negotiating compromises.
- Participants prepare their roles and undertake the simulation.
- The observer takes notes of the communication / negotiation process.
- After the simulation, first the observers give feed back to their respective groups. All members of the group then discuss the simulations and record their main conclusions and lessons learned.
- The groups reconvene in a plenary session to discuss these conclusions facilitated by the trainer.

---

## **Reminder of information provided in Session 2**

Negotiations are an important part of any integrated assessment dealing with the possible trade-offs between the social, economic and environmental dimensions of sustainable development. Trade-offs become particularly relevant when it comes to defining priority impacts and policy responses. Negotiations can take place between stakeholders and/or decision makers, and the integrated assessment team may facilitate these negotiations. Some ground rules to be followed during the negotiation process include:

- Create trust and an open atmosphere
- Remain polite, avoid accusations
- Map stakeholders and their positions
- Move from positions to interests and values
- Agree upon undesirable impacts
- Brainstorm about alternative options
- Agree upon establishing objective criteria to select the best options
- Make sure the final agreement is well documented

## Group Activity 2

*The role play / simulation*

### *The scenario (GA 2-1)*

---

In the country, fishing is an essential component of rural development and strongly integrated with the rest of the economy and society. It plays a strategic role in ensuring the sustainable growth of the national economy by creating employment and contributing to government revenue. Fishing involves several stakeholder groups with different interests. The main stakeholders involved in the fisheries sector are the small-scale fishing units, the industrial fishing units, the government and an institute for policy research (IPR). But besides them, the fish wholesalers and the women transformers as well as the local people consuming the fish have a substantial interest in this sector. The fisheries sector provides about 75% of the protein needed by the population.

In the late 1980s, the government intervened in the fisheries sector by establishing several export support mechanisms since the traditional fishery exports were poorly performing. These export support mechanisms included:

- non-reciprocal advantages under the Lomé Agreements, authorizing piscatorial products to enter the European market with the exemption of custom duties;
- direct and indirect export subsidies in support of small-scale fishing such as reduced tax on boat motors and fishing gear, fuel subsidies and direct export subsidies;
- fishing agreements concluded with a number of foreign fleets.

These export support mechanisms caused a gradual shift of fishing efforts from domestic market oriented pelagic fishing (species living in the near-surface waters, often far from shore) to export-oriented demersal fishing (species living near the seabed), which was more profitable. Besides that, local people employed in other sectors, for example farmers and storekeepers (non-professional small-scale fishermen), shifted to the fisheries sector because of the higher profits. The export support mechanisms improved the operating accounts of the small-scale fishermen (professional and non-professional) and contributed significantly to the reduction of the balance of payment deficit of the country. However, the government's intervention threatened the fish stocks. The export support mechanisms led to overfishing of the coastal demersal species, which are fully exploited and threatened by biological extinction. This situation compromises future export yields. In addition, the reduced supply

of fish on the domestic market caused an increase in prices of locally consumed species and a serious shortage of animal protein supply for the domestic population.

The impacts of the export support mechanisms have been examined using the integrated assessment methodology. The integrated assessment process concluded with a set of recommendations for a better preservation of the piscatorial resources and a more sustainable management of the fisheries sector.

The study was led by a Pilot Committee that was set up to bring together all the stakeholders concerned. This committee included representatives from the Ministries of Fisheries, Environment and Trade, professional fishing organizations (for small scale and industrial fishing) and research institutions. They identified the following measures as priorities:

- Effective regulation of the sector including new regulation for licensing resource access for small-scale fishing units and prohibition or taxation of non-processed products;
- Better observation of the industrial fishing units;
- Revision of the content of the existing fishing agreements concluded with foreign states, including reassessment of the access price to the resource. (concerning this measure, the government already worked out some changes).

Today representatives of the different stakeholder groups meet again to discuss the different recommendations and their implementation.

## Group Activity 2

*The role play / simulation*

### **Stakeholder 1: Institute for Policy Research (IPR) (GA 2-2)**

---

IPR is interested in contributing to the sustainable development of the fishing sector. It provides a platform for stakeholder discussion trying to involve as many stakeholders as possible. Within this discussion, IPR has the role of a mediator rather than being a real player. Its task is to facilitate the discussion, to bring the process forward and to make suggestions for a sustainable solution.

IPR underlines the importance of restricting access to the resources through an effective concession system regulating the access rights. It suggests establishing an appropriate legal framework for the recipient of the concession.

IPR concluded from several discussions between the stakeholders and the fisheries administration that the best institution to receive the access rights concession is the local fishing council. For the concession rights system to function well, the stakeholders, the local elected officials and the decentralized administrative structures such as the police and the judicial power have to be involved.

The local fishing council should decide on who has the right of resource access on the basis of precise criteria as well as on the maximum number of fishing units that a maritime territory under its control can support. To reduce the overall fishing effort, IPR proposes to freeze the global small-scale fishing effort. It does not recommend excluding non-professional small-scale fishermen, as it fears that this could contribute to increasing poverty.

IPR's recommendation for a better regulation of industrial fishing is to place an observer on board of each vessel (domestic and foreign) to ensure that regulations regarding fishing zones, mesh sizes etc. are respected. This requires a sustainable and transparent system to control the work carried out by the observers.

IPR criticises that the previous modifications in the fishing agreements concluded with foreign states do not go far enough since sustainability aspects are not sufficiently addressed. It suggests further reassessments of their content or even their existence to introduce more radical changes.

## Group Activity 2

*The role play / simulation*

### **Stakeholder 2: Government (GA 2-3)**

---

The government established several export support mechanisms (see general scenario) in the fisheries sector in the late 1980s to reduce the balance of payment deficit and unemployment. The resulting expansion of piscatorial exports contributed to overfishing. Another grave factor that has aggravated this problem are the foreign fishing fleets with which the government concluded several fishing agreements.

The government works with IPR in the process of finding a stable solution for the sustainable development of the fisheries. The main concern of the Ministers, however, is to be re-elected in the next election. To ensure the re-election, the government carefully has to sense the public opinion on whether it is better for the vote to retain the status quo or to change the policy since the public is unsatisfied with the current situation. In the case of the fisheries policy where the Ministry of Fisheries and the Ministry of Economic Affairs are involved, they have to find out whether it is better to maintain the export-oriented policy or to pursue a more sustainable one.

Since the government is still in the process of sensing the opinion of the small-scale fishing units and the industrial fishing units, the upcoming discussion is very important for it. It needs to come to a conclusion on how far it wants to go in changing its fisheries policy. But independent of the public opinion, the government wants to maintain the control of the problem solution and not a decentralized system that might increase power of local fishing councils.

The government has an interest in keeping fishing agreements concluded with foreign states in order to secure further revenues. To improve the situation, the government negotiated higher payments for fishing within its waters and demanded an increase of the number of domestic fishermen to be employed on the foreign vessels from 33% to 50%.

Besides that, the government required the foreign states to contribute to the conservation of fish stocks by scientific research and evaluation of the state of fish stocks and by collaboration on the development of a control and monitoring system for the fisheries sector. A first step towards a monitoring system could be the placement of an observer on board of each vessel (domestic and foreign).

## Group Activity 2

*The role play / simulation*

### **Stakeholder 3: Industrial Fishers (GA 2-4)**

---

The industrial fishing sector focuses on catching fish for the export market. Since the single units in this sector are rather big, they can survive without receiving any subsidies or other financial aid from the state. Before the government established export support mechanisms for small-scale fishermen, the industrial fishing sector hardly had any competitors. But with the upcoming export support mechanisms, a rivalry between these two sectors arose.

This rivalry caused overfishing since the two sectors now specialize on catching the same species of fish. Especially the industrial fishing sector contributed significantly to this problem with its harmful fishing practices. The industrial fishermen waste 75% of their captures by throwing them back into the sea as a result of selective measures. But they see the situation from a different angle. Since they were the first to concentrate on the export market, they are convinced that the small-scale fishing sector has to be more regulated in order to achieve a regeneration of fish stocks. For that reason, they push for the establishment of a concession system for access rights to restrict resource access of small-scale fishermen. But by having this opinion, they should keep in mind that 40% of their products are provided by small-scale fishermen (deals are often made off shore).

For the observation of their fishing activities, the industrial fishermen show no willingness to collaborate with the fisheries administration. They also do not want to change their fishing practices.

The industrial fishermen think that besides the small-scale fishermen, the accelerating number of fishing agreements concluded with foreign states contributed to overfishing on a big scale. Therefore, they demand a progressive reduction of the number of these agreements.

## Group Activity 2

The role play / simulation

### *Stakeholder 4: Small Scale Fishers (GA 2-5)*

---

The small-scale fishing sector focused on supplying the domestic market until the government started to establish several export support mechanisms. After this, a gradual shift of fishing efforts from locally consumed species (pelagic) to export-oriented ones (demersal) occurred, since the latter brought higher profits. This caused overfishing and with it a decline of fisheries productivity.

The professional small-scale fishermen think that the non-professional small-scale fishermen are the origin of the ailments of the sector. In order to contribute to the regeneration of fish stocks, the professional fishermen suggest restricting access of non-professional fishermen by the means of a resource access regulation. But they are also aware that solely replacing non-fishermen by persons coming from fishing families would not change the situation. A concession system for access rights would be needed in order to restrict resource access.

Overall, the fishermen perceive the payment of resource access rights positively as a means of regulating resource access. But they demand a warrantee that their licenses will be worth something, meaning that enough fish stocks will remain to be caught in the future. Further, the fishermen claim that no other expenses or taxes should be introduced after issuing the fishing license without prior consultation with them.

For the control and surveillance of fishing activities, the small-scale fishermen indicate that they are prepared to work in collaboration with the agents of the fisheries administration without actually doing the work in their place.

The small-scale fishermen criticise the harmful fishing practices of the industrial fishermen who throw 75% of their captures back into the sea because of selective measures. They insist on better surveillance and the implementation of effective sanctions in order to minimize the discards of marketable species. In addition, they want the coastal region forbidden to trawlers (pirogues) to be extended. But by making these claims, they have to bear in mind that they also provide the industrial fishermen with fish (deals are often made off shore).

The small-scale fishermen propose that other solutions should be found with respect to the fishing agreements concluded with foreign states, for example by linking the payment of resource access rights for small-scale fishing to a progressive reduction of fishing quotas

offered in the fishing agreements. They consider these agreements to be a grave factor that has led to over fishing.

---

# Materials for Group Activity 3

## Country specific planning

### ***For trainer/facilitator***

Description of group activity

### ***Handouts for participants***

Questions for group discussion (GA 3-1)



## Group Activity 3

### Country-specific planning for integrated assessment

---

Title:	Designing an integrated assessment
Aim:	To identify current priorities, stakeholders, funding requirements, training needs and local/regional expertise likely to be required for integrated assessment in a specific country
Group size:	5-10 participants
Duration:	Up to one day if this is a designated planning exercise and if subject matter experts or decision-makers are involved.

*Note that this exercise can be run within 2 hours if it is part of the two-day course programme or is being used as an introduction for decision-maker.*

---

#### **Resources required:**

- Paper or overhead transparencies for recording the groups' conclusions.
  - Markers or OHP markers.
  - Room where group can gather.
- 

#### **Description of activity:**

- Select a group member to facilitate the discussion.
  - Select a group member to record the discussion.
  - Discuss along the questions provided in Session 2 / Phase 1 for designing an integrated assessment process. Highlight the questions that are most relevant in the particular situation.
- 

#### **Presentation and follow-up:**

- At the end of the discussion period have the rapporteur check the main points of the written record with the group.
- If there are several group, let the groups present their result to the other.
- After the discussion, seek agreement from participants how they will proceed in the future. Suggest follow-up activities and try to agree on time for the next meeting.

## Group Activity 3

### *Country-specific planning for integrated assessment*

#### *Questions for group discussion (Handout GA 3.1)*

---

#### **Purpose of the integrated assessment:**

1. Who are the main target groups and decision makers?
2. What are desirable outcomes to influence decision makers?
3. What policy decisions should be influenced?
4. At what stage is the planning or negotiation process?
5. What level of detail is needed for the integrated assessment?
6. What are the capacity building objectives?

#### **Focus and scope of the integrated assessment:**

1. What (trade) policy and policy measures are subject to the integrated assessment?
2. What are the sectors of interest (e.g. the rice sector, the transport sector, etc.)?
3. What is the geographical focus (e.g. poverty-stricken regions, important natural resources, etc.)?
4. What are the environmentally and/or socially critical issues (e.g. biodiversity, social equity, etc.)?
5. What is the time frame?

#### **Design of the integrated assessment:**

1. What is the best timing for influencing policy makers or serving negotiators?
2. What human resources are available?
3. What financial resources are available?
4. What type of end-product is most useful for policy makers?
5. Which stakeholders need to be involved?
6. What information is required and available?
7. What means of communication can be used?
8. How can capacity building be ensured?
9. Which methods can be applied?

## References and Further Reading

---

**The following references have been quoted directly, adapted or used as a primary source in developing this training resource manual.**

Building Capacity for Integrated Assessment and Planning for Sustainable Development, UNEP Brief, March 2004.

Capacity Building for Integrated Policy Design and Implementation, Paper presented at the UNEP meeting, 27-28 March 2004 in Jeju Island, Republic of Korea..

Economic Instruments for Environmental Policy Making: Opportunities and Challenges, UNEP, 2004.

Environmental Impact Assessment/Strategic Environmental Assessment: Towards and integrated Approach, UNEP, 2004.

Five years after Rio: Innovations in Environmental Policy. Rio+5 edition. World Bank, Washington DC, 1997.

Handbook on Integrated Assessment of Trade-related Measures: the Agricultural Sector, UNEP, 2004 (still unpublished).

Integrated Assessment and Planning for Sustainable Development, Guidelines for Pilot Projects , Version 1, March 2004.

Integrated Assessment of Trade and Trade-related Policies, A Country Study on the Export Crop in Nigeria, UNEP, 2002.

Integrated Assessment of Trade and Trade-related Policies, A Country Study on the Ecuador Banana Sector, UNEP, 2002.

Integrated Assessment of Trade and Trade-related Policies, A Country Study on the Forestry Sector in Tanzania, UNEP, 2002.

Integrated Assessment of Trade and Trade-related Policies, A Country Study on the Fisheries Sector in Senegal, UNEP, 2002.

Integrated Assessment of Trade and Trade-related Policies, A Country Study on the Argentina Fisheries Sector, UNEP, 2002.

Integrated Assessment of Trade and Trade-related Policies, A Country Study on the Cotton Sector in China, UNEP, 2002.

Integrated Assessment of Trade and Trade-related Policies, A Country Study on the Export Crop Sector in Nigeria, UNEP, 2002.

Integrated Assessment of Trade and Trade-related Policies, UNEP Country Projects –Round II, A Synthesis Report, UNEP, 2001.

Participatory Methods Toolkit, A Practitioner’s Manual, UNU CRIS, 2003.

Reference Manual for the Integrated Assessment of Trade-related Policies, UNEP, 2001.

Training Resource Manual on Environmental Impact Assessment, UNEP, 2002.

**Further Reading**

(To be completed)

# Pre-course Questionnaire

(Version for Training-of-Trainers)

## Personal Information

1. Full name of organization you are representing and country of location:

\_\_\_\_\_

2. Contact Information (of the person that will participate in the training):

Your name and title: \_\_\_\_\_

Position / function: \_\_\_\_\_

## Information about your Organization

3. On which level does your organization operate?

International

Sub-regional

Regional

National

If regional or sub-regional, please specify region or sub-region:

\_\_\_\_\_

4. Area(s) of specialization of your organization (tick most appropriate categories):

Trade

Trade-Environment interface

Development (incl. sustainable dev.)

Environmental Technology

Economics

Environmental Impact Assessment

Environmental Economics

Political Integration

Poverty issues

Other, please specify: \_\_\_\_\_

5. Type(s) of activity your organization undertakes (tick all appropriate categories); please also note your typical target audience:

Research

Target audience: \_\_\_\_\_

\_\_\_ **Policy development**

Target audience: \_\_\_\_\_

\_\_\_ **Training**

Target audience: \_\_\_\_\_

\_\_\_ **University education**

Target audience: \_\_\_\_\_

\_\_\_ **Technical assistance**

Target audience: \_\_\_\_\_

\_\_\_ **Trade promotion and/ or facilitation**

Target audience: \_\_\_\_\_

\_\_\_ **Other, please specify:** \_\_\_\_\_

Target audience:  
\_\_\_\_\_

## Training Experiences

Questions 6 to 11 only need to be answered if your organization is offering training workshops, training courses and / or seminars.

6. **For which subjects does your organization offer training workshops / seminars?**

\_\_\_\_\_

7. **Does your organization conduct training workshops on a regular basis or on request?**

\_\_\_\_\_

**If on a regular basis, how often do they take place approximately?**

\_\_\_\_\_

8. **How many participants approximately attend one training workshop / seminar?**

\_\_\_\_\_

9. **Which is the target audience of your training workshops / seminar?**

\_\_\_\_\_

10. **How many trainers (or potential trainers) are available in your organization?**

\_\_\_\_\_

**11. Which methods does your organization usually use during training workshops?**

- Presentations by trainers                       Group work on case studies  
 Brainstorming to collect experiences        Presentations by participants  
 Discussions     Role Plays  
 Other, please specify: \_\_\_\_\_

Questions 12 only needs to be answered if your organization does not regularly undertake training workshops / seminars.

**12. Is your organization interested in conducting training workshops / seminars?**

\_\_\_\_\_

If yes, what kind of support would you request?

\_\_\_\_\_

**Experiences with respect to Integrated Assessment**

**13. Do you (personally) already have any experiences with integrated assessment?**

\_\_\_\_\_

If yes, please specify: \_\_\_\_\_

**14. Has your organization already been involved in an integrated assessment?**

\_\_\_\_\_

If yes, please specify (when, which sector, what was your role...):

\_\_\_\_\_

**Your Expectations and Intentions**

**15. What are you looking for from this training workshop?**

- Background knowledge on Integrated Assessment  
 Chance to network  
 Specific skills in undertaking training workshops  
 Other, please specify \_\_\_\_\_

**16. Do you intend to conduct training workshops / training courses / seminars on integrated assessment in the future?**

---

If yes, what kind of support would you request?

---

**17. Is your organization interested in initiating an integrated assessment process?**

---

If yes, what kind of support would you request?

---

*Training Session Evaluation*

---

*Integrated Assessment*

---

Session leader:

---

Date:

---

Location:

---

Your comments on the following aspects of the training session you have just attended would be most valuable. Please add any comments to support your assessment, and contact details if you would like further information, or can provide local materials/insights that could improve the relevance of the session.

**Was the event relevant for your work?**

**Were the objectives clearly stated?**

**Did the event meet your expectations?**

**Did you learn anything new?**

**Would you recommend this activity to others?**



---

**Comments:**

---

How could the session be improved?

---

Will the handouts/overheads be useful to you in the future?

---

Can you suggest any follow up activities? Any case materials, which might improve understanding of the local situation?

If so, could you please leave contact details with the trainer.

---

**Your details**

---

Professional background

Organisation/agency

Position/function

First language

---

*Thank you for your participation in this session*



## *Acronyms and Glossary*

---

CSD	Commission on Sustainable Development (UN)
ECLAC	Economic Commission for Latin America and Caribbean (UN)
FTAA	Free Trade Agreement of the Americas
JPAC	Joint Public Advisory Committee (NACEC)
MEA	multilateral environmental agreement
NACEC	North American Commission for Environmental Cooperation
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development
SEA	Strategic Environmental Assessment
TPRM	Trade Policy Review Mechanism (WTO)
TRIMs	Trade-Related Investment Measures (WTO)
TRIPS	Trade-Related Aspects of Intellectual Property Rights (WTO)
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
UNHCR	United Nations High Commissioner for Refugees
URL	Uniform Resource Locator
USTR	United States Trade Representative
WTO	World Trade Organization
CBD	Convention on Biological Diversity



## **Methodologies and concepts**

### **Agenda 21**

Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations system, governments, and major groups in every area in which human activities impact on the environment. At over 300 pages, it puts forward a plan of action for achieving sustainable development in the 21st century. Agenda 21, the Rio Declaration on Environment and Development, and the Statement of principles for the Sustainable Management of Forests were adopted by more than 178 governments at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, 3-14 June 1992.

### **Benefit Cost-Analysis**

Benefit cost analysis is a tool used to compare costs and benefits of an action-be it a policy, a project or a simple activity. Where benefits exceed costs, then, the action is deemed desirable. Through discounting, the stream of costs and benefits over time are compared using such evaluation criteria as net present value (NPV), benefit-cost ratio (BCR), and internal rate of return (IRR). The most reliable criterion is that of the NPV which says that an action is desirable if the present value of benefits exceeds the present value of costs, or simply, if the NPV is positive. When comparing mutually exclusive competing alternatives, the option with the highest NPV is preferred.

### **Change in Productivity Analysis**

This technique entails relating production levels to varying levels of inputs. One of these inputs relates to the environment, measured directly (e.g. tons of soil loss, tons of biochemical oxygen demand) or indirectly using some index of environmental quality such as degree of soil loss or water pollution. A change in the level of inputs is expected to bring about a corresponding change in the output levels or productivity of the system under question. With the environmental variable of interest, different levels of environmental input will result in varying levels of output-thus making it possible to measure the changes in productivity associated with changes in the environment.

### **Concurrent Integrated Assessment**

A concurrent *integrated assessment* is one that is undertaken in conjunction with the negotiation of a trade liberalization agreement or the implementation of a trade-related policy.

### **Contingent Valuation Methodology**

In the absence of markets for most environmental goods and services, the use of hypothetical markets to elicit demand for these environmental commodities has gained wide acceptance in resource valuation. The contingent valuation methodology (CVM), also a form of market research, asks respondents how much they are willing to pay for an improvement in the environment or the avoidance of an environmental deterioration. The responses obtained through such a question are contingent on how the "commodity" is defined, the form of payment, and the payment vehicle. This technique has wide applications in valuation of changes in air and water quality, recreation, biodiversity, risks to life and health, alterations in natural habitat, and water, sanitation and sewerage.

### **Cost of Illness Analysis**

Changes in the environment, particularly air and water quality, once they exceed critical levels, can have serious health impacts. Economic impacts on health can be measured by the costs of medical treatment (paid for by the victims and also subsidized by the state) and the foregone earnings (or wages) from a reduced capacity to work. This measure is often viewed as a lower bound estimate of health impacts since it does not include the pains and sufferings of the victims.

### **Deposit Refund Systems**

This is an economic instrument used to reduce disposal of potentially-environmentally harmful products. A deposit is paid when the potentially harmful products are acquired. Once these products are returned, thus avoiding the environmental harm, a refund follows.

### **Ecosystem**

Ecosystem refers to a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit. It does not necessarily correspond to an "ecological zone", but can refer to any functioning unit at any scale. An ecosystem could be, for example, a grain of soil, a forest, a biome or the entire biosphere.

### **Environmental Funds**

Environmental funds are basic instruments for the implementation of projects, programmes and even policies to sustain needs for the protection of the environment and its related resources. The main purpose of environmental funds is to provide financial support for environmental protection investments. The major sources of these funds are generated from user fees, disposal charges and non-compliance fines, among others.

### **Environmental Impact Assessment (EIA)**

The systematic and interdisciplinary identification, prediction, evaluation, mitigation and management of impacts from a proposed development and its reasonable alternatives. The results are presented to decision-makers, and stakeholders, in a report often known as an environmental statement to be used in the decision-making process on the future of the proposal. Sometimes known as environmental assessment.

### **Ex ante Integrated Assessment**

An *ex ante integrated assessment* is one that is undertaken prior to the negotiation of a trade liberalization agreement or a decision to adopt a trade-related policy.

### **Ex post Integrated Assessment**

An *ex post integrated assessment* is one that is undertaken following the implementation of a trade liberalization agreement or a trade-related policy.

### **'Flanking' Policies**

'Flanking' policies are complementary economic, environmental and social policies introduced in conjunction with or following a trade liberalization agreement or trade-related policy. These policies can be designed to promote any beneficial impacts of the trade-related policy or trade liberalization agreement, or to mitigate any negative impacts.

### **General Equilibrium Models (GEM)**

General equilibrium models are one of the basic tools of microeconomic. This approach is more often applied to exchange systems involving only consumers (and not producers) and is applied to all systems consisting of a set of actors and a set of goods. A GEM is guided by the behavioural assumption that the agents involved will choose more preferred bundles of goods over less preferred bundles. The solution-a competitive equilibrium-is one wherein the distribution of resources is such that there is no excess demand for any good (Whitmeyer 1997).

### **Global Trade Analysis Project (GTAP)**

GTAP is a multi-regional AGE (applied general equilibrium) model which captures the world's economic activity. Essentially, the theory behind the GTAP model has little difference to that of other standard multi regional AGE. Two sets of equations are accordingly important in this model: a) the accounting relationships which ensure equilibrium between the receipts and expenditures of every agent in the economy; b) behavioural equations, based upon microeconomic theory. The optimising behaviour of the different agents in the economy is an integral part of these equations, i.e. demand functions (see Brockmeier, 1996).

### **Hedonic Pricing Approach**

This approach works on the basic premise that the value of a property reflects its characteristics (size, location, neighbourhood factors like peace and order conditions, access to markets, etc.), one of which is its environmental attribute. The environmental attribute may refer to the level of air or noise pollution in the locality, the distance from the solid wastes disposal area, and so on. Through regression analysis using large data set, the implicit price of the environmental variable can be derived. The technique will work in situations where property markets are active and where people perceive that differences in environmental quality can affect property values.

### **Indicators**

An indicator is a statistic which beyond its direct meaning can be used to derive information about an underlying situation. Indicators are particularly useful when primary data would be impossible to collect, or can only be observed after a time lag. They can provide a useful early indication of trends, and suggest causal relationships. Their use can reduce the amount of information that needs to be collected to monitor a situation, and may also provide a simplified way of presenting results.

### **Integrated Environmental and Economic Accounting**

Integrated environmental and economic accounting is the process of accounting for stocks and flows of environmental resources, i.e. accounting for the depletion and degradation of natural resources in order to reflect the actual cost resulting from economic activities. In 1993 the United Nations Statistic Division (UNSD) published a handbook of national

accounting entitled Integrated Environmental and Economic Accounting. In 2000, UNEP in collaboration with UNSD published a reference document for the implementation of integrated environmental and economic accounting at the national level, entitled Integrated Environmental and Economic Accounting: An Operational Manual.

### **Input-Output Models (I-O models)**

I-O models focus on how industries trade with each other, and how such inter-industry trading affects the total demand for labour and capital within the economy. These models show the flows of goods and services within an economy while illustrating the connection between producers and consumers.

### **Life cycle analysis**

This analysis is linked with the concepts of life cycle assessment which emblemises the outgrowth of environmental management practices from incipient end-of-pipe solutions to the expansion of integrated environmental approaches resolved to encompass the entire “life cycle” of the product.

### **Multi-Criteria Analysis**

As a participatory approach, multi-criteria analysis considers the preferences of multiple stakeholders and the trade-offs among the competing goals of these various groups. The process requires the identification of an overall objective for the decision process; the identification of the options or alternatives under consideration; the elaboration of the criteria to be used in evaluating the options; and the method by which the alternatives will be ranked and the preferences aggregated.

### **Non-Tariff Barriers**

Non-tariff barriers are potential barriers to trade that are not based on tariff levels. They can include quantitative restrictions such as quotas or special regulations. Non-tariff measures that relate to mandatory regulations and other standards are called technical barriers to trade. Another example of non-tariff measures is related to food standards that ensure food safety and protect human health from plant or animal-spread diseases, or regulations that protect plant and animal health from pests and diseases.

### **Partial Equilibrium Models**

Partial equilibrium analysis basically examines the effects of policy actions in the markets which are directly affected. This analysis either overlooks effects in other industries of the economy or assumes that the sector in question is small and therefore has little if any impact on other sectors of the economy.

### **‘Pressure-State-Response’ Model**

A conceptual model developed to help identify environmental indicators. It is based on a simple linear sequence of cause and effect. Initially, there are identifiable pressures on environmental components, e.g. overfishing, which result in changes in the state of the component e.g. a decline in certain fish stocks and reduced catch/unit of fishing effort. The state of the components elicits a social response such as quotas or moratoria on fishing in certain areas or at certain times. The response can subsequently lead to alterations in the pressures.

### **Risk Assessment**

Risk assessment is fundamentally connected with how to measure known scientific and other data, with uncertainty (e.g. uncertainty over cause-effect relationship, irreversibility of some effects and uncertainty about the scale of effects). Under this procedure, the important focal point is balancing what is known for certain, what is estimated as a possible and conceivable threat, and what is unknown.

### **Scenario Building**

This approach is designed as a planning tool to anticipate developments and changes that may come along the way of a certain project or programme. This approach heavily relies on forming alternative scenarios based on a variety of assumptions. Scenario building is very useful in considering strategies which will be most effective and prudent in future planning.

### **Structural Adjustment Programmes**

Structural adjustment programmes were initiated by the International Monetary Fund (IMF) and the World Bank during the early 1980s in response to the financial crises facing most developing countries. They were mainly intended to introduce macroeconomic structural reforms to enable those countries to overcome the financial crises and enable them to pay and service their debts.

The World Bank’s structural and sector adjustment loans are the most commonly used adjustment instruments. The structural adjustment loan (SAL) supports reforms that promote growth, the efficient use of resources, and a sustainable

balance of payments over the medium- and long-term. The sector adjustment loan (SECAL) supports policy changes and institutional reforms in a specific sector. SECALs focus on major sectoral issues such as the incentive and regulatory frameworks for private sector development, institutional capability, and sector expenditure programmes. Adjustment loans are available to IBRD and IDA borrowers not in arrears to the Bank group. Eligibility for an adjustment loan also requires agreement on monitorable policy and institutional reform actions, and satisfactory macroeconomic management.

Adjustment loans were originally designed to provide support for macroeconomic policy reforms, including reforms in trade policy and agriculture. Over time, they have evolved to focus more on structural, financial sector, and social policy reform, and on improving public sector resource management. Adjustment operations now generally aim to promote competitive market structures (for example, legal and regulatory reform), correct distortions in incentive regimes (taxation and trade reform), establish appropriate monitoring and safeguards (financial sector reform), create an environment conducive to private sector investment (judicial reform, adoption of a modern investment code), encourage private sector activity (privatization and public-private partnerships), promote good governance (civil service reform), and mitigate the short-term adverse effects of adjustment (establishment of social protection funds).

Coordination with the IMF is an essential part of the preparation of adjustment loans, which have traditionally been channeled through the enhanced structural adjustment facilities (ESAF) of the IMF. The ESAF was a concessional lending facility set up to help IMF's poorest members in their efforts to achieve rapid economic growth and a sustained improvement in their balance of payments. In September 1999, the ESAF was replaced by a poverty reduction and growth facility (PRGF). The PRGF was established to respond to the IMF mandate to integrate the objectives of poverty reduction and growth more fully into its operations in the 80 poorest countries. Under the PRGF, the IMF and the World Bank will continue to support strategies elaborated by borrowing countries in a Poverty Reduction Strategy Paper (PRSP) which will be prepared with the participation of civil society and other development partners.

[www.worldbank.org](http://www.worldbank.org); [www.imf.org](http://www.imf.org)

### **Sustainable Development**

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of sustainable development implies limits imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities. Sustainable development acknowledges that meeting essential needs requires economic growth, but requires that this be done while at the same time ensuring environmental protection and enhancement and promoting social equity.

The term came into popular use following the 1987 report of the World Commission on Environment and Development (WCED), *Our Common Future*. The WCED, headed by Gro Harlem Brundtland, was set up as an independent body in 1983 by the United Nations. Its mandate was to re-examine the critical environment and development problems on the planet and to formulate realistic proposals to solve them, so as to ensure that human progress would be sustained through development without bankrupting the resources of future generations.

### **Tariffs**

Tariffs are monetary levies on imports of a particular category of goods as listed in the tariff schedules of importing countries. When tariffs are increased they discourage trade; when they are lowered, or eliminated, they promote trade. Tariffs affect trade flows, making it more expensive for domestic households and companies to buy foreign goods, and promoting domestic production. Higher tariffs make imported goods more expensive. The higher the tariff imposed the more expensive it is for the exporting country to access the importing country's markets. In the case of tariff escalation, higher tariffs are charged on goods that are higher up the level of processing.

### **Trade Policy Review Mechanism (TPRM) WTO**

The Trade Policy Review Mechanism (TPRM) was established in 1989, on a provisional basis, following the mid-term review of the Uruguay Round. It was confirmed as an integral element of the WTO in Annex 3 of the Marrakesh Agreement. The aims of the mechanism are to contribute to improved adherence by all members of the WTO to its rules and discipline, and thus to the smoother functioning of the multilateral trading system. The reviews aim to achieve greater transparency in and understanding of the trade policies and practices of members. The mechanism enables the regular collective appreciation and evaluation by the members of the full range of individual members' trade policies and practices in all areas covered by the WTO Agreements, and their impact on the functioning of the multilateral trading system. Reviews are conducted in the Trade Policy Review Body (TPRB), a full-membership body of equal ranking to the General Council and the Dispute Settlement Body.

### **Travel cost analysis**

This technique uses travel costs as a proxy to the price of recreational use of natural resources such as parks, forests, wetlands and water bodies. The travel costs include the direct expenses of visitors in getting to and from the site, and to cover fares, fuel and other incidentals. It also includes the value of time travelling to the site and on the site. The technique involves a survey of visitors to the site and hence only captures the use value of the resource. The survey information

allows the derivation of a demand function for the resource in question from which the total benefit from the use of the resource can then be estimated.

### **TRIMs**

Trade-related investment measures (TRIMs) are investment measures that affect trade in goods by restricting or distorting that trade. They include such measures as rules that discriminate against foreigners or foreign products, investment measures that lead to quantitative restrictions, measures which require particular levels of local procurement by an enterprise and measures which limit a company's imports or set targets for the company to export. TRIMs can affect the use or transfer of environmental products and technologies through foreign investment and the environmental performance of foreign firms.

### **TRIPS**

The WTO Agreement on trade-related aspects of intellectual property rights (TRIPS) is based on a recognition that increasingly the value of goods and services entering into international trade reside in the know-how and creativity incorporated into them. The agreement holds WTO members to minimum standards of protection over intellectual property through instruments such as copyright for books and patents for industrial design. By protecting innovators' right to sell their innovation TRIPS may encourage such innovation, including the development of new technologies and processes that will benefit sustainable development. On the other hand, such innovation might be slower to make a contribution if new, more environmentally benign technologies or if prices for pharmaceuticals become so expensive as to be inaccessible by the countries and people most in need.

---