Capacity strengthening in climate change vulnerability and adaptation strategy assessments

Practical training guide

In collaboration with:

Training objectives

Overall objective: The aim of this training course is to create and/or strengthen the capacities of participants and institutions in developing countries to assess vulnerability and adaptation strategies in order to face up to climate variability and change. By **training trainers/users,** the impact being sought is to reduce the dependence of developing countries and their institutions on existing expertise and know-how in the developed countries. At the same time, the creation of capacities will help to improve cooperation and exchange of experiences between developing countries, increase the participation and know-how of national representatives in international negotiations, and enhance the monitoring of national policies on climate change and natural disasters.

Pedagogic objectives: At the end of the course, participants should be in a position to make rational use of relevant information, methods and tools available for making appropriate assessments, in order to help in the planning and take the best possible policy decisions regarding the implementation of strategies and actions to reduce vulnerability and improve adaptation options.

Target audience: Negotiators, decision-makers and politicians, technical advisors, consultants, scientists, and professionals from regional and national institutions in developing countries.

Key considerations:

- All training activity should be **proactive:** learning by doing, through practice, according to the capacities of users;
- **Guided by demand** that is responding to the needs of users, institutions and countries;
- **Integrated** approach in the form and content of the training, so as to assure the building of capacities and support for ongoing processes; and
- Finally, it should be **sustainable** so that while the training sessions themselves are limited in time, the networking and exchanges that will occur between trainers should ensure that the process continues.

Session organization

The course may be completed over a period of three to five days, depending on the time available and the needs of the users. As an illustration, an annotated agenda is outlined below as a guideline for the organization of the various training course activities and modules over four days.

Day 1 - Module 1: Introduction to vulnerability and adaptation

Schedule	Theme and/or activities
9:00 - 9:15	Introduction to course objectives, methodologies and structure
9:15 - 9:45	Introduction of participants
9:45 -10:45	Brainstorming on course expectations
10:45 -11:15	Break
11:15 -11:45	Vulnerability and adaptation: an Introduction
11:45 -12:30	Questions/discussion
12:30 -14:00	Break

Session objective:
At the end of this session, participants should know the course objectives and structure and should have defined their expectations. The facilitator should then have an idea of the participants' previous knowledge and expectations, from which he/she can adapt the course accordingly. The presentation on the general background to the assessment of vulnerability and adaptation strategies will give participants the basic information they need to initiate the assessment process.

PowerPoint presentations:
Objectives, methodology and structure of the Training of Trainers workshop

Vulnerability and Adaptation: An Introduction

Documents:
Background Paper on International Debates in Climate Change Policy

Glossary of terms and concepts

Background on frameworks, methods and tools for vulnerability and adaptation assessments: How to move from reactive to proactive approaches

Vulnerability and Adaptation Bibliography and Internet links (for Modules 1 & 2)

Preparation:
- Read the trainer's guide closely, especially the material covering the basics for assessments of vulnerability and adaptation strategies.
- Read and analyze the PowerPoint presentations on the training objectives and structure and the introduction to vulnerability and adaptation.

Procedure:
- Short presentation of the training course objectives and structure
- Introduction of participants (institution and area of work, etc.)
- Brainstorming on course expectations: Each participant should write two main expectations on separate sheets of paper. The sheets should be fixed to a board/wall and

organized by the facilitator into groups of similar issues. The results can be used to compare expectations to the course objectives and adapt the course according to the needs and expectations of the participants. The results can also be used during the course evaluation session to compare expectations to the results of the course.
- Presentation of the general background information on vulnerability and adaptation
- Questions and discussion of basic needs with regard to vulnerability and adaptation assessments

Important note: In the context of this training of trainers' activity, Module 1 includes a presentation on the objectives, structure and methodology of the training. This introductory presentation will need to be adapted in function of the users and the specific goals of the training activity when used by the trainers themselves.

Day 1 - Module 2: Vulnerability and adaptation: Concepts, frameworks, methodologies and tools for vulnerability and adaptation assessments

Schedule	Theme and/or activities
14:00 -14:30	Concepts, frameworks, and methodologies for vulnerability and adaptation assessments
14:30 -14:45	Questions/discussion
14:45 -15:15	Tools for vulnerability assessments and adaptation strategies
15:15 -15:30	Questions/discussion
15:30 - 15:45	Break
15:45 - 16:00	Introductory videos
16:00 - 17:30	Brainstorming on methods and tools

Session objectives:
At the end of this session, participants should be able to understand approaches, frameworks, methodologies and tools for evaluating vulnerability and adaptation in the face of climate variability and change. However, in addition to theoretical ideas, participants should be given the chance to carry out an analysis and discussion of the use and practical limitations of the approaches, frameworks, methods and tools. This will give a firm basis for moving from theory to practice.

PowerPoint presentations:
Concepts, frameworks and methodologies for vulnerability and adaptation assessments

Inventory of tools for vulnerability and adaptation assessments

Introductory videos:
Vulnerability: The tragedy of natural disasters (3.47 min)
The consequences of vulnerability: Aid and reconstruction (2.17 min)
The implications of vulnerability: Social impacts resultant from disasters (1.34 min)

Documents:
Glossary of terms and concepts

Toolkit for vulnerability and adaptation assessments

Background on frameworks, methodologies and tools for vulnerability and adaptation assessments: How to move from reactive to proactive approaches

Vulnerability and Adaptation Bibliography and Internet links (for Modules 1 & 2)

Preparation:

- Read closely the material on basic ideas for evaluating vulnerability and adaptation strategies, contained in the trainer's guide, especially the material on basic ideas for evaluating vulnerability and adaptation strategies and the glossary of terms and concepts.
- Read the *Toolkit for vulnerability and adaptation assessments* paper.
- Read and analyze the PowerPoint presentations on the concepts, frameworks, and methodologies for vulnerability and adaptation assessments and the inventory of tools for vulnerability and adaptation assessments.
- Review the introductory videos to assist in the organization of the brainstorming session on approaches, methods and tools.

Procedure:

- Presentation of the concepts, frameworks, methodologies and the tools for evaluating vulnerability and adaptation strategies.
- Presentation of the introductory videos to assist in the brainstorming session and the discussion of needs in vulnerability and adaptation assessments.
- Brainstorming session on approaches, frameworks, methodologies and tools. Participants should write down the approaches and frameworks most suited to their needs and to the ongoing processes in their institution or country. These submissions should be fixed to the board/wall and organized by the facilitator into like groups. Subsequently, participants should write down the methods and tools needed for carrying out vulnerability and adaptation assessments according to the chosen approaches and frameworks. These submissions should also be organized into like groups and fixed to the wall/board. Based on the results, discussion can be initiated to analyze and compare the usefulness and limitations of the various approaches, frameworks, methodologies and tools.

Important note: Highlight the concepts, frameworks, methodologies and tools that create confusions, explain the glossary of terms and concepts and the toolkit for vulnerability and adaptation assessments, and bring to the participants' attention the importance of having a common language. If there are a large number of participants (over 20) the brainstorming session should be conducted in groups of 5-6 people in order to facilitate discussion and participation.

Day 2 - Module 3: Vulnerability and adaptation: From theory to practice

9:00 - 9:30	Case study 1: From the assessment of vulnerability to decision-making: Natural disasters and climate change in Central America
9:30 - 10:00	Case study 2: Vulnerability of coastal areas to climate change: The example of Senegal
10:00 - 10:15	Break
10:15 - 10:45	Case study 3: An evaluation of the vulnerability of agriculture and adaptation strategies aimed at achieving food security in the Sahel: The example of the Niayes in Senegal

10:45 – 11:15	Case study 4: Food Security and Climate Change: Building Adaptation Strategies for Bangladesh
11:15 – 11:45	Case study 5: Water resource management strategies in response to climate change in South Africa: Specific focus on municipal water in arid regions
11:45 - 12:30	Questions/discussion
12:30 – 14:00	Break

Session objectives:
At the end of this session, based on the practical case studies of different regions, situations and scales, participants should be able to move from theory to practice in the evaluation of vulnerability and adaptation. The aim of the module is to demonstrate and pass on basic ideas for putting into practice what was previously learned on approaches, frameworks, methodologies and tools in group exercises.

PowerPoint Presentations:

Case study 1: From the assessment of vulnerability to decision-making: Natural disasters and climate change in Central America

Case study 2: Vulnerability of coastal areas to climate change: The example of Senegal

Case study 3: An evaluation of the vulnerability of agriculture and adaptation strategies aimed at achieving food security in the Sahel: The example of the Niayes in Senegal

Case study 4: Food Security and Climate Change: Building Adaptation Strategies for Bangladesh

Documents:

Case study 5: Water resource management strategies in response to climate change in South Africa: Specific focus on municipal water in arid regions

Reference material: Not if but when: Adapting to natural hazards in the Pacific Islands Region.

Case Study Bibliography and Internet links

Preparation:
Read and analyze the PowerPoint case study presentations in order to identify the methods and tools for evaluating vulnerability and adaptation strategies. You may also choose refer to the reference material.

Procedure:
- Case study presentation. Any one of the 5 case studies can be selected.
- Organize the discussion based on the case study presentations, emphasising the analysis of the usefulness and limitations of the various approaches, frameworks, methodologies and tools.

Important note: Depending on the needs and interests of participants, the trainer can select other case studies that may be suitable and useful for training purposes. Case studies are illustrated examples and can be adapted to fit the users' needs and interests and the goals of the training.

Day 2 - Module 4: Practical exercises: Objectives and organization

14:00 - 14:15	Objectives and organization of the practical exercises
14:15 - 14:30	Form groups for the proposed exercises
14:30 - 16:00	Group work on the proposed exercises (Stages 1-2)
16:00 - 16:15	Break
16:15 - 18:00	Group work on the proposed exercises (Stages 3-4)

Day 3 - Continue Module 4: Practical exercises: Group work

9:00 – 10:45	Group work on the proposed exercises (Stages 5-6)
10:45 - 11:15	Form groups for the proposed exercises
11:15 - 12:30	Group work on the proposed exercises (Stages 7-8)
12:30 - 14:00	Break

Session objectives:
At the end of this session, participants should be able to apply their acquired knowledge to gain a sound understanding of the various evaluation approaches, frameworks, methodologies and tools applied to different situations. The session aims to put into practice the theoretical knowledge on approaches, frameworks, methodologies and tools and the practical knowledge derived from the case studies, using group exercises based on a range of themes. The challenge of the exercises is to try to reflect on and develop appropriate applications for decision-making at different levels, which encompass vulnerability and adaptation options for different groups, sectors, resources or regions.

PowerPoint Presentation:
Objectives and organization of practical exercises

Documents:

Exercise 1: Food security and climate change

Exercise 2: Vulnerability indicators

Exercise 3: Multi-criteria analysis for the identification of national adaptation strategies

Preparation:
- Read and analyze the PowerPoint presentation on the objectives and organization of the practical exercises.

- Read and analyze the documents relative to the different exercises on food security, vulnerability indicators and multi-criteria analysis.
- Identify possible groups according to participants' interests and capacities.

Procedure:

- Divide participants into groups based on the themes of the practical exercises and according to their interests and needs.
- Ensure that each group contains a range of disciplines so that the exercises can be carried out smoothly.
- Each group should agree on a working method and on how to present the results. Each should appoint a moderator and a rapporteur, the latter will present the results of the group's analysis and the lessons derived from them.
- The groups should read and use the supporting document for each exercise. The supporting documents contain the objectives, illustrations and examples of tools for carrying out the assessment.
- It should be kept in mind that the development of the practical exercises, and the knowledge acquired concerning frameworks, methodologies, tools and case studies should be used to carry out a critical analysis of all the lessons learned and the errors to avoid for the course evaluation.
- Group work should be guided to ensure that groups:
    1. Select the geographical location for the exercise (region, country, town)
    2. Undertake a rapid evaluation of the key problems and themes
    3. Identify clients and key users
    4. Undertake an evaluation of the stakeholders involved
    5. Revise and group key ideas
    6. Identify problem time scales
    7. Identify assessment time scales
    8. Evaluate relevant spatial scales and targeted levels of decision-making
    9. Evaluate and select appropriate methods and tools
    10. Undertake a rapid revision of expected results

- **Important note:** The trainer's main task during the practical exercises is not to guide the work of the groups, but to provide the necessary guidance and support in the event that problems in choosing methods and tools, understanding the issues or analysing and using the results arise.

Day 3 - Module 4 Cont'd: Practical exercises: Preparing and presenting the results

14:00 - 16:00	Preparation and presentation by each of the groups of the results on the proposed exercises
16:00 - 16:15	Break
16:15 - 18:00	Presentation of the results by each group

Session objectives:

At the end of this session, participants should be in a position to prepare a synthesis of the exercises and present the results in a plenary session. The aim of this session is to confront participants with the need to communicate complex, appropriate results for decision-making openly, clearly and pragmatically. These results should encompass vulnerability and adaptation options for different groups, sectors, resources or regions.

PowerPoint Presentation:

Working Groups' reports (prepared by each group)

Materials required:

Video projector
Boards, paper and markers

Preparation:
The trainer's main task during the preparation of the exercise results is to guide and support the work of the groups in producing their synthesis report.

Procedure:

- The results are presented by group. Each group has 10 minutes to present the results and 10 minutes for a question and answer session.
- Please note that the results of the practical exercises will be used to develop a critical analysis and a list of lessons learned and errors to avoid.

Important note: It is essential that the trainer guides the groups towards producing a synthesis report from the outset, so that they do not get to the end and still have information that is too complex.

Day 4 - Module V. Conclusions and lessons learned: Errors to avoid

9:00 - 9:45	General discussion of the results of the practical exercises
9:45 - 10:45	Conclusions and lessons learned: Errors to avoid
10:45 - 11:00	Break
11:00 - 12:30	Course evaluation
12:30 - 13:00	Final discussion and prospects

Session objectives:
Based on the theoretical learning, case studies and practical exercises, this module analyses and draws out the lessons learned and conclusions on the usefulness and limitations of the approaches, frameworks, methodologies and tools, the processes and stages required for the assessments and the information that is useful and relevant to decision-making. At the same time, a course evaluation is vital in examining the usefulness and relevance of activities, and improving and adapt materials for future courses. At the very least, an evaluation should be drawn up of the course objectives and content, the structure and sequence of the training activities and the educational support materials and documents.

PowerPoint presentations:

Conclusions: Errors to avoid (prepared by the trainer)

Document:

Course evaluation form

Preparation:
- After the groups' results have been presented, the facilitator should develop a summary of the main lessons learned, errors to avoid and other training course conclusions. This presentation should draw from general workshop discussion and the group work results.
- Give the course evaluation forms to each participant to fill out.

Procedure:
- Lead the discussion on the exercise results in a manner so as to elicit the main lessons learned and other conclusions.
- Quickly present the synthesis of the lessons learned and errors to avoid. Give participants time to discuss these results.
- Conduct an on-the-spot course evaluation using the evaluation form contained in Module 5. This should help to validate the lessons learned and improve future courses.
- Ensure that the evaluation forms are returned, summarise them and inform participants of the positive and negative aspects of the course.
- Lead the final discussion on the lessons learned and place future training needs into perspective.

Important note: Inform participants that the evaluation forms are anonymous to ensure that all the required information is obtained.

Analysis of needs: Depending on targets and users, the trainer should direct the introductory phase towards the creation of solid foundations for an evaluation of vulnerability and adaptation strategies, and at the same time analyse the specific needs of participants. If the target consists mainly of local elected representatives, the content will not be exactly the same as if they were representatives from the Ministry of Agriculture or the Environment. The same applies if they are experts taking part in negotiations, or if they act as advisors to decision-makers. The trainer therefore needs to apply a certain degree of flexibility and adaptability. It is strongly recommended that he/she analyzes specific needs through exercises that will enable him/her to evaluate participants' knowledge and expectations.

With this in mind, it is recommended that he/she starts the introductory session with an Accelerated Participative Analysis of Needs, which can be broken down into the following stages:
- Presentation of the overall theme.
- Each participant writes his/her three main expectations on separate pieces of paper.
- The papers are affixed to a board, grouped by theme.
- After providing a brief overview, the trainer may highlight the elements that the group was unaware of or at least did not mention. He/she may draw together and present the various elements that will be tackled during the training session.
- He/she may then start to ask questions about the participants' experiences in evaluating vulnerability and adaptation strategies. This allows the trainer to adapt the course according to the group's level of knowledge, expectations and needs.

The trainers' preparation

Reading the trainer's guide will help you to familiarize yourself with the content of the training course, the basic ideas behind the assessment of vulnerability and adaptation strategies and teaching suggestions (oral and written questions, training, discussion-leading and exercise management methods). You may also gather further information according to needs and users (national guidelines on climate change, on-going processes, statistics and information on vulnerability and adaptation). If you are running the entire course, please read the manual from start to finish and set aside plenty of preparation time.

Before starting the session, it is a good idea to find out whether the participants have already attended other courses on the assessment of vulnerability and adaptation strategies. This will give you an opportunity to explore the possibilities of collaborating with other programmes or activities that may help to improve the course.

Ideally, the work of the trainer should fit into the framework of a training plan. Such a plan should answer some of the following questions:

- What are the intended target groups/categories of representatives for this course and what are the training needs of these categories/groups?
- What human and financial resources are available, and how can they be used?
- What types of activities could be used as a follow-up to the course or for further follow-up courses?
- How will the training programme be monitored or evaluated?

This training course is designed to be used with groups of 8 to 24 participants. A larger number of participants could undermine the quality of the course.

When you embark on the administrative and logistical aspects of preparing the course, you should ask yourself the following questions:

- ✓ Participants: Do they have the required qualifications; has their position or role been clearly defined; have they been invited or identified as a result of their qualifications; have participants been given sufficient advance warning so that they can make themselves available?
- ✓ Premises: Are the premises in which the course is to be held suitable in terms of size, ventilation, temperature, light, sound insulation and equipment (number of seats)?
- ✓ Materials/supplies: Are there enough materials/supplies for all the expected participants?
- ✓ Finally, you often need to issue a certificate of attendance at the end of the course – has a template been prepared?

Some practical hints for the trainer

How to organize group exercises:

- **Quickly explain** the aim of the role-play or exercise, highlight its importance and interest from an educational point of view.
- **Make diverse teams**, with representatives from different categories together.
- Ask participants to **read the description** of their respective roles or the aim of the exercise.
- **Describe how** the role play or exercise will operate and how long it should last.
- **Discuss the expected outcomes** of the activity; make sure that participants **agree on the principles**. Clarify that feedback is recommended, not compulsory: this will help to create a relaxed the atmosphere.
- **Provide your own comments** after participants have finished making theirs.

How to provide feedback on participants' work:

- **Comments should be specific**. "That was good" is less helpful than "I liked the way in which you suggested a way of evaluating vulnerability that helped players to produce relevant information for communicating with partners".
- **Make positive remarks** before suggesting improvements. Encouragement helps participants to progress.
- **Be clear and make suggestions** rather than issue judgments. For example: "It was unusual, the way in which you..." or: "I think that, for better understanding, you should..." is preferable to: "Your response was jumbled and confused".
- **Concentrate on what can be improved**.
  "You have interrupted ……….several times", rather than "you've been very brusque with ……."
- **Remain moderate.** "You don't appear to be taking much interest in his problem", rather than "you look as if you couldn't care less".
- **Inform and suggest** rather than order.
  "………. was waiting for you to write the instructions" and "You should perhaps note the instructions …….." rather than "You should have noted the instructions."
- **Confirm the comments**. In the case of a group, you can check with other group members to see whether they agree with the comments.

How to lead a group discussion:

- **Assert your role as trainer** at the start of the course, but do not set yourself up as an inaccessible “expert”, as this could be damaging to group discussions.
- **Do not make personal comments** during discussion and remain neutral throughout the training course.
- **Create an environment in which everyone feels free** to express his/her opinion without worrying about negative reactions from the other participants.
- **Listen carefully to participants** and don’t interrupt them.
- **Allow participants time** to intervene and express ideas.
- **Encourage participants to express** their different points of view.
- **If the group does not participate very much**, which is sometimes the case at the start of a course when participants don’t know each other well, it may be helpful to ask a question and allow everyone a few minutes to write down his/her answer. Then, ask **some of the participants to share** their answers with the rest of the group.

Course evaluation

To evaluate a course, we generally begin by focussing on lessons learned and errors to avoid. In Module 5 you will find a questionnaire/form to use as a template for the course evaluation. This template may be used to collect information on the training course in general (objectives and content, structure and sequence of the training course and materials) along with information on the perception and evaluation of the usefulness of the activity. Participants' observations will be very useful in improving materials and adapting activities, and will help you prepare for future courses.

Please note however that this method of evaluation does not measure the progress achieved by participants in the field of vulnerability and adaptation. It is also important to note that, at the end of the course, participants should show a sound understanding of the techniques and tools used to evaluate vulnerability and adaptation. However, they will need several months of practice to fully master these techniques. Similarly, it will be some time before they can truly evaluate the effectiveness of the course. Below, you will find two suggestions to help you evaluate the effectiveness of the course in terms of both knowledge and technical skills. These may also help you to develop your own evaluation.

Review session: A review session is a good short-term evaluation tool that will help you to evaluate participants' knowledge and skills and the effectiveness of the training programme.

Each participant can develop an individual work plan, setting out his/her strengths (what he/she should continue to do) and weaknesses (what he/she would like to improve upon).

It is important to emphasise that we continue to learn after the course and that we must seek to continually improve, and to learn to integrate teams. During the meeting, you may also:

- Ask participants to talk about their experiences with C3D materials;
- Check that there are no points to clarify;
- Inquire on how and to what extent the course has helped to reassure participants of the effectiveness of the approach;
- Resolve any remaining problems; or
- Ask participants for their opinions on the training programme so that it can be improved in future.

Finally, as you go through the course, take note of all the problems that you are called upon to solve, so that you are in a position to offer the best possible course in the future.

Observing skills: Participants are required to use their skills in their workplace; it is therefore useful to evaluate their skills during a course. To do this:

- Draw up a list of skills and of the level/standard for each one.
- Explain to participants when and how you are going to observe them.
- During the observation, make sure you do not upset the people concerned and check that your presence is not causing a problem to anyone.
- Take a few notes that you will expand on orally shortly after the sessions.
- Search for signs that suggest that the participant has made the best use of the resources available.

We must accept the fact that participants always pose problems that are more complex than anything we could envisage in theory. Therefore, if possible, give participants your opinion on their skills and advise them as to how they might improve.