

CVCA CRiSTAL Workshop Report

November 17-20, 2008
Hotel Terminus, Niamey, Niger

INTRODUCTION

The International Institute for Sustainable Development (IISD) and CARE International organized a four-day training workshop in Niger to provide participants with a framework for understanding vulnerability and adaptation to climate change, and to enhance capacity to integrate climate change vulnerability and adaptation considerations into project design and management. Specifically, this training workshop provided participants with an introduction to some of the basic concepts and approaches to climate change adaptation and to two tools to mainstream climate change adaptation into development projects: the Community-Based Risk Screening Tool – Adaptation and Livelihoods (CRiSTAL) and the Climate Vulnerability and Capacity Analysis (CVCA) framework. Group work and practical application were strongly emphasized. This was the first CVCA CRiSTAL training workshop offered in Francophone Africa and participants came from various humanitarian, environmental and development organizations in West Africa. The participants list is included as Annex 1. Funding for this workshop was provided by the Norwegian Agency for Development Cooperation.

DAY 1: OPENING AND INTRODUCTION TO THE TOOLS

1. Opening session

1.1 Welcome by CARE and opening address by the Minister of Environment and the Fight against Desertification

The Country Director of CARE International in Niger, William Stringfellow, welcomed the twenty-one workshop participants, as well as the special guests invited to the opening session, i.e. the Minister of Environment and the Fight against Desertification, the Coordinator of the Second National Communication of Niger on Climate Change, and the Climate Change Focal Point at the Department of the Prime Minister.



Speakers during the workshop opening session

Mr. Mohamed Akotey, Minister of Environment and the Fight against Desertification, emphasized the importance of climate change adaptation in Niger and thanked IISD, CARE International and NORAD for their support in building capacity for climate change adaptation in the region.

1.2 Presentation on climate change (Dr. Kamaye Maâzou, Coordinator of the Second National Communication of Niger on Climate Change)

Dr. Kamaye Maâzou presented an overview of the basic science of climate change. He presented the UNFCCC and IPCC definitions of climate change; explained the greenhouse phenomenon, effects and sources; and mentioned the major contribution of human activities to the rise in greenhouse gas concentrations and global temperatures. Climatic trends and impacts in the Sahel were presented. The temperature rise in the Sahel has been in greater than the average global temperature rise. Since the end of the 1970's, the temperature has increased by 0.2 to 0.8 degree Celsius in the Sahel. There is a decreasing trend in annual precipitations and in the length of the growing season, and an increasing trend in drought frequency. Water resources in watersheds have decreased by 20 to 40% since the 1970's and there has been a decrease in groundwater levels. Dr. Kamaye Maâzou also presented future predictions and stressed the urgency of preventive action. In the Sahel region, the mean temperature rise between 1980/99 and 2080/99 is expected to be 3-4 degree Celsius, so about 1.5 times more than at the global level. This is expected to lead to a significant decrease in agricultural production in the region and to an increase in the frequency of diseases spread through insect vectors.

1.3 Presentation on climate change impacts in Niger (Mrs. Bako Safi Solange, Climate Change Focal Point, Department of the Prime Minister, Conseil national de l'environnement pour un développement durable , Niger)

Mrs. Solange presented a brief overview of the impacts of climate change in Niger. She started by presenting climatic trends in Niger and the National Adaptation Programme of Action (NAPA). The Niger NAPA allowed the identification of 1) the sectors, communities and areas most vulnerable to climate variability and change, 2) the adaptation strategies and needs of vulnerable sectors, communities and areas, and 3) various adaptation options. The main climate hazards identified in the NAPA included: droughts, extreme temperatures, flooding, insect infestations, strong winds and sand storms. The most vulnerable sectors included: agriculture, livestock rearing, forestry, water resources and health. Mrs. Solange then presented the first adaptation project in the agricultural sector in Niger, called *Mise en œuvre des interventions urgentes et prioritaires pour renforcer la résilience et la capacité d'adaptation du secteur agricole aux changements climatiques au Niger*.

1.4 Introduction to climate change vulnerability and adaptation (Béatrice Riché, IISD)

Ms. Riché gave an introduction to climate change vulnerability and adaptation. Adaptation was defined as adjustments in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities (IPCC definition). The rationale for adaptation rests in the fact that even if greenhouse gas emissions are reduced to

zero today, the global climate is locked into a pattern of change for at least the next century due to past emissions and the way in which the Earth's climate system is responding to them. Different adaptation types (autonomous, planned) and approaches (ranging from top-down, scenario-driven, to bottom-up, vulnerability-driven) were also presented. Overall, adaptation was characterized as a context-specific, multi-level process which links micro- to macro-levels, engages a wide range of stakeholders, addresses current climate vulnerability and prepares for future changes, builds on local knowledge and capacity, and uses an integrated, holistic approach.

The type of adaptation undertaken is largely a function of a system's vulnerability. Vulnerability to climate change was defined as a function of exposure to climate stress and adaptive capacity. Exposure is generally determined by geography, therefore difficult to control. Our efforts should therefore focus on developing adaptive capacity. Adaptive capacity is determined by the availability of, access to and control over livelihood resources (including natural, physical, human, social and financial resources). Availability, access and control are in turn determined by policies, institutions, and power structures. To facilitate adaptation, resource availability, access and control must therefore be addressed.

Mainstreaming climate change adaptation was described as the integration of measures and policies that address climate change into development planning and decision-making. Mainstreaming ensures the long-term sustainability of interventions, avoids activities that increase vulnerability, and ensures that development activities reduce climate change vulnerability.

1.5 Brief introduction to the tools (Béatrice Riché, IISD and Abdou Garba, CARE Niger)

Workshop facilitators briefly introduced participants to CRiSTAL (Community-Based Risk Screening Tool - Adaptation and Livelihoods) and CVCA (Climate Vulnerability and Capacity Analysis) Framework as mechanisms for supporting for the integration of climate change adaptation in development interventions. The presenters and participants also discussed linkages and complementarities between CRiSTAL and CVCA.

CRiSTAL aims to facilitate the integration of climate change adaptation in community-level projects. It was developed by IISD, IUCN, Intercooperation and SEI-US. It is based on the rationale that community-level projects may improve or constrain local adaptive capacity. The tool purposes are to help users: 1) systematically understand the links between livelihoods and climate; 2) assess a project's impact on community-level adaptive capacity; and 3) make project adjustments to improve project impacts on adaptive capacity. The tool is divided into two modules and four key questions. It is available in multiple formats (Excel, hardcopy) and languages (English, French and soon Spanish). For more information or to download the latest version of the tool, please consult the following website: http://www.iisd.org/security/es/resilience/climate_phase2.asp

CARE's CVCA framework is an approach that includes a set of tools designed to: 1) gather information on vulnerability and adaptive capacity; 2) help local stakeholders understand the implications of climate change for their livelihoods; and 3) facilitate dialogue within communities and between communities and local institutions on climate change vulnerability issues. CVCA

examines four aspects of vulnerability and adaptive capacity: resilient livelihoods, disaster risk reduction, local capacity development, and underlying causes of vulnerability. The analysis focuses on three levels: national, local government/community, and household/individual. The CVCA framework can be used for 1) designing targeted adaptation programs to reduce vulnerability to climate change, 2) advocacy – using community-level information as evidence of the impacts of climate on vulnerable people, and 3) mainstreaming climate change into other relevant programs and projects (agriculture, water, livelihoods) to ensure that they are contributing to adaptive capacity.

For mainstreaming purposes, the data collected using the CVCA framework can be fed into the CRiSTAL process. Using CRiSTAL to analyze projects requires a solid understanding of the local context, and the CVCA tools for the household/individual level can be used to gather this information. In order to do this, CVCA's guiding questions and set of tools can be divided according to CRiSTAL's four key questions: i) what is the climate context?; ii) what is the livelihood context?; iii) what are the impacts of project activities on key livelihood resources?; and iv) how can project activities be adjusted to reduce vulnerability and improve adaptive capacity?

Questions/Discussion (All!)

- At what point in the project cycle should you use these tools?
These tools can be used at any point, but probably most useful at the project design phase.
- Scale of use? Do we have to differentiate between different groups?
You do not have to, but it is recommended if you want an accurate idea of the local context.
- Do we have to use the two tools together?
No – but they are highly complementary.
- Comment: Tools can prompt ministers to take climate change into consideration and can help with the implementation of the NAPA.
- Sustainable livelihoods approach – vulnerability in terms of environment only?
No, vulnerability is understood in terms of vulnerability to of all sorts of shocks and stresses whether they be associated with the environment, economy, health etc. And environment is only one of five categories of livelihood resources.

2. Introductions and expectations

The afternoon session started with each participant introducing themselves to the group and writing down their expectations for this training workshop.

The two main objectives of this training workshop were to:

- 1) Provide participants with a framework to understand vulnerability and adaptation to climate change

- 2) Build capacity to integrate climate change vulnerability and adaptation in project planning and management

Expectations from workshop participants included:

- Gain understanding of climate change in general, and more specifically of climate change in the Sahel region
- Gain understanding of climate change vulnerability in West Africa and enhance my capacity to assess, address and reduce vulnerability
- Share visions on the concept of vulnerability
- Gain knowledge on easy-to-use decision-making tools for climate change adaptation
- Get to know and learn how to use and integrate CRiSTAL and CVCA
- Understand the place and use of these tools in project planning and management
- Understand linkages between the two tools, as well as their limitations
- Gain sufficient technical expertise to contribute to climate change vulnerability reduction and climate change adaptation in the communities/countries where I work, particularly through the use of CRiSTAL and CVCA
- Learn how to integrate climate change adaptation in development projects and programmes
- Share knowledge and experiences within and between organizations
- Enhance existing partnerships and create new partnerships

The workshop agenda was also presented and discussed with participants. The agenda is included as Annex 2.

3. CRiSTAL and CVCA more in-depth (Béatrice Riché, IISD and Abdou Garba, CARE Niger)

CRiSTAL and CVCA were presented in more depth than during the morning session, highlighting complementarities, and briefly introducing the process that will be used during this training workshop.

The CRiSTAL Users' Manual was presented, as well as the excel version of the tool. A CRiSTAL application in Zambia, including the process used and results obtained, was also presented. The CVCA framework, including guiding questions and associated sets of tools, was presented in more details, highlighting how the collected data can be inputted into CRiSTAL.

DAY 2: DEFINITIONS, TOOLS AND FIELD VISIT

1. Definitions and tools

Definitions and examples were provided to participants for the following concepts:

- **Climate hazards:** Potentially damaging physical events or phenomena that result from weather or climate conditions. Examples: drought, floods, desertification, wildfires

- **Climate hazard impacts:** The consequences of hazards on natural and human systems. Examples: crop damage, loss of income, reduced soil fertility, food insecurity
- **Coping strategies:** Methods for using existing resources to achieve beneficial ends during abnormal or adverse conditions. Examples: liquidation of assets, rural/urban migration, rainwater harvesting, food rationing
- **Livelihood resources:** These can be divided into five categories:
 - **Natural resources:** The natural resource stock upon which people rely both directly or indirectly.
 - **Physical resources:** The basic infrastructure and productive capital for transport, buildings, water management, energy and communications.
 - **Financial resources:** The stocks and flows of money that allow people to achieve their livelihood objectives.
 - **Human resources:** The skills, knowledge, capacity and good health important to the pursuit of livelihoods.
 - **Social resources:** The formal and informal social relationships and institutions from which people draw in pursuit of their livelihoods.

This was followed by presentations and groups exercises on community-level CVCA tools, including:

- **Hazard mapping:** Tool used to identify important livelihoods resources in the community; identify areas and resources at risk from climate hazards; and/or analyze changes in hazards and planning for risk reduction.
- **Seasonal calendar:** Tool used to identify periods of stress, hazards, diseases, hunger, debt, vulnerability, etc.; understand livelihoods and coping strategies; analyze changes in seasonal activities; and/or evaluate use of climate information for planning.
- **Historical timeline:** Tool used to get an insight into past hazards, changes in their nature, intensity and behaviour; make people aware of trends and changes over time; and/or evaluate extent of risk analysis, planning and investment for the future.
- **Vulnerability matrix:** Tool used to determine the hazards that have the most serious impact on the community; determine which livelihood aspects are most vulnerable; and identify coping strategies currently used to address the hazards identified.

2. Preparation to the field visit

Preparation to the field visit involved:

- Reviewing field guides with workshop participants
- Dividing participants into 6 working groups, which were assigned to 2 different field projects and different community sub-groups (men, women, youth)
- Providing participants with tips on how to facilitate community group discussions

- Informing participants on reporting guidelines

3. Field visit to Soudoure

Workshop participants and trainers undertook a half-day field visit to Soudoure to experiment with different tools to gather information on community-level climate change vulnerability and adaptive capacity.



Soudoure Village surroundings



Soudoure participants listen to introductory remarks

Following welcome addresses and introductions, workshop participants assembled into working groups and undertook consultations with their respective community sub-groups. Workshop participants facilitated discussions with community members and experimented with two community-level tools: hazard mapping and the vulnerability matrix. Trainers from IISD and CARE provided support to the 6 working groups.



A group of men in Soudoure Village are drawing their hazard map



A group of women are drawing their hazard map

DAY 3: UNDERSTANDING VULNERABILITY

Each of the 6 working groups was asked to answer the following guiding questions:

- What are the most important livelihood resources in your community group?
- What are the biggest climate-related hazards faced?
- What changes in climate is the community group observing?
- What coping strategies are currently employed to deal with shocks and stresses?

All participants then discussed the following questions:

- Are there differences between community groups concerning livelihood resources, climate hazards and coping strategies?
- Are certain groups particularly vulnerable?
- What information are we lacking in order to do a good-quality vulnerability assessment?

This was followed by a discussion on the difference between *coping* and *adaptation*. Coping strategies were described as short-term responses to climate hazards to minimize current negative impacts, while adaptation was seen as a longer-term sustainable response to deal with observed and predicted climate change and exploit beneficial opportunities.

Back into their working groups, participants were provided with the CRiSTAL tool and introduced to the first module: Synthesizing Information on Climate and Livelihoods. Participants were then given time and support to enter data collected during the field visit into Module 1 of the tool.

DAY 4: ADJUSTING PROJECTS, REFLECTING ON THE PROCESS

1. Adjusting projects

Participants were introduced to Module 2 of CRiSTAL: Planning and Managing Projects for Climate Change Adaptation. Further information was provided on synergies and barriers to project adjustments for climate change adaptation.

Participants were then introduced to CVCA tools at the community/institutional and national levels which can help in identifying synergies and barriers to adaptation. The tools presented included:

- **Policy Analysis:** Decisions made at the central level in governments can have a profound effect on the ability of communities to adapt to climate change. Therefore, an understanding of the policy environment is critical to identifying synergies and barriers to local adaptation. Relevant policies include sectors such as water, agriculture, health, infrastructure, and economic development.
- **Institutional Mapping:** This includes analyzing the roles and responsibilities of different organizations (governmental and non-governmental), target areas and sectors of work,

interactions with target populations, interactions between organizations, strengths and weaknesses, capacity gaps, and plans and policies.

- Interviews with key informants: Key informants include decision makers in sectors such as climate change, water, agriculture and economic development, civil society representatives, donor organization representatives, policy analysis experts in relevant sectors, local governments, community group representatives, women group representatives, etc.

These tools facilitate an analysis of the enabling environment for adaptation at the local level.

Back into their working groups, participants were then given time and support to complete Module 2 of CRiSTAL, i.e. finish the analysis started the previous day.

2. Reflecting on the process

2.1. *What were the most useful things you learned at this training, and what were the biggest challenges you encountered?*

Each of the 6 working groups were asked to identify the two most useful things they learned at the workshop, as well as the two biggest challenges they encountered. Participants were asked to be specific and focus on content rather than logistics.

Issues or aspects of the workshop deemed **most useful** included:

- Understanding of the need to integrate climate change into development activities
- Basic understanding of the tools
- Practical application of the tools in their intended settings – i.e. CVCA in the field, CRiSTAL in the (workshop) room.
- Ability to reorganize programme activities so they reduce vulnerability
- Discussions
- Specific to CRiSTAL:
 - Using / analyzing information systematically (through a computer programme) enhances analysis
 - Forces users to focus on the essential, the priorities (by only allowing users to identify ‘top 3’ hazards, resources, etc.)
 - Helps users to better understand (organise) the context of project activities, realities on the ground.

The identified **challenges** were similarly wide-ranging, with many presented as recommendations:

- Collecting and analyzing data requires a good understanding of the context – i.e. not enough to know about hazards, impacts, coping, livelihood resources, etc. The context in which these exist and interact is important for understanding how they relate to adaptation.

- With the CVCA, users cannot collect all of the information needed to complete the CRiSTAL analysis. Users may want to gather some community members after the CVCA activities to participate in the CRiSTAL analysis.
- Still need to demonstrate what measures actually reduce risk, which new/modified livelihoods are better adapted or adaptable (i.e. monitoring & evaluation)
- Also need to go back to the community to validate the CVCA-CRiSTAL analysis, having different social groups interact with project administrators
- Need more time in the workshop to complete the CRiSTAL analysis and then share results with other participants/groups in the workshop
- Would be useful to collect ALL of the CRiSTAL-relevant information from the field site (time constraint)
- Need to be clearer about when and how exactly these tools are relevant to different stages in the project cycles – from conception, negotiation, reformulation, evaluation, etc.
- Should recommend using the CVCA-CRiSTAL analyses mid-way through a project
- CRiSTAL can open the door for negotiations between all stakeholders in a project, as different groups can go through the analysis themselves and compare results.

2.2. *What is the biggest constraint to the uptake and use of these tools in your work?*

Participants were asked to identify the biggest obstacle or constraint to using the CVCA and CRiSTAL tools in their work. The following issues were raised (in order of importance):

- Time:
 - To experiment with the tools, master, modify and apply them
 - Also to simply go through the different steps of analysis. May project/programme managers are already spending their time using other tools, approaches
- Lack of financial resources to:
 - carry through new or revised project activities that support adaptation
 - provide training to people who want to learn about the tools
 - integrate adaptation into programmes and projects (requires a certain amount of financial flexibility that may not exist for an organization or project)
- Mastery of the tools
 - Unfamiliarity (non-mastery) of the CRiSTAL cell formulas
- Lack of in depth understanding of the realities in communities
- Competing priorities: In Niger, poverty is the first priority, so tools must demonstrate and address the link between poverty and climate change
- Language barriers: Not available in local languages
- Institutional awareness of adaptation and therefore the availability and need to use such tools
- Availability of good quality information / data in project area
- Acceptance of these tools by funders
- Need a critical mass of people who will use and disseminate the tools

2.3. *Short- and long-term follow-up to the training*

Participants were asked to a short-term action and longer-term objective related that would demonstrate the implementation of what they learned at the workshop. Responses included:

Short-term action	Long-term objective
<ul style="list-style-type: none">• Share workshop report with colleagues• Practice using the tools• Read the CRiSTAL User's Manual• Apply/integrate the tools into ongoing projects• Adjust project/programme documents and proposals to include the use of these tools	<ul style="list-style-type: none">• Share the tools with colleagues and other institutions in my country• Organize trainings and put in place a network of trainers within my organization• Use and promote the use of these tools within and outside my organization in order to: integrate climate change considerations into development projects; adjust project activities; and support the implementation of the NAPA• Integrate elements of CRiSTAL and CVCA in household vulnerability assessments

2.4. *Recommendations from participants*

- Must monitor those who have received CVCA-CRiSTAL training to see if they go on to apply them – training workshop is not enough. Perhaps a follow-up workshop in late 2009 early 2010?
- Create an experience-sharing platform
- Do the field work in a real field project site (rather than in a random community) so that results from the analysis can be useful to a project team or municipality
- Allow more time:
 - to use the different tools in the field and collect the required data (at least one full day in the field)
 - to input data into CRiSTAL and complete the analysis
 - to discuss results, debate, and debrief on the workshop
- Send tools and background documents to workshop participants in advance, so that they can take time to explore these tools before the training workshop
- Create a flowchart to demonstrate CRiSTAL's analytical process step-by-step



CVCA CRiSTAL workshop participants in Niamey, Niger



ANNEX 1: PARTICIPANTS LIST

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ANNEX 2: WORKSHOP AGENDA

HEURE	SESSION
JOUR 1	
9:00-9:15	Bienvenue et introductions
9:15-9:30	Discours d'ouverture
9:30-10:00	Introduction aux changements climatiques
10:00-10:30	Conséquences des changements climatiques en Afrique de l'Ouest
10:30-11:00	PAUSE
11:00-11:30	Introduction à la vulnérabilité et à l'adaptation aux changements climatiques
11:30-12:30	Introduction aux outils
12:30-1:00	Discussion/feedback des invités spéciaux
1:00-2:00	LUNCH
2:00-2:30	Introductions and attentes
2:30-3:30	CRISTAL

3:30-4:00	PAUSE
4:00-5:00	CVCA
JOUR 2	
9:00-9:30	Récap du jour 1, révision du programme pour le jour 2
9:30-10:30	Contexte climatique, risques climatiques actuels, stratégies d'adaptation et moyens d'existence (1)
10:30-11:00	PAUSE
11:00-1:00	Planification pour le travail de terrain
1:00-2:00	LUNCH
2:00-2:30	Voyage jusqu'au site
2:30-4:30	Des exercices sur le terrain
4:30-5:00	Voyage de retour
JOUR 3	
9:00-9:30	Récap du jour 2, révision du programme pour le jour 3
9:30-10:30	Comprendre la vulnérabilité
10:30-11:00	PAUSE
11:00-12:00	Adaptation temporaire (<i>coping</i>) vs. adaptation durable
12:00-1:00	Contexte climatique, risques climatiques actuels, stratégies d'adaptation et moyens d'existence (2)
1:00-2:00	LUNCH
2:00-2:30	Impacts des risques climatiques sur les moyens d'existence
2:30-3:30	Influence des moyens d'existence sur les stratégies d'adaptation
3:30-4:00	PAUSE
4:00-5:00	Impacts des activités de projet sur les moyens d'existence and examen de la durabilité
JOUR 4	

9:00-9:30	Récap du jour 3, révision du programme pour le jour 4
9:30-10:15	Synergies et obstacles à l'adaptation (1)
10:15-11:00	Synergies et obstacles à l'adaptation (2)
11:00-11:30	PAUSE
11:30-1:00	Réflexion sur le processus (1)
1:00-2:00	LUNCH
2:00-2:30	Réflexion sur le processus (2)
2:30-3:00	Intégration des changements climatiques: que nous manque-t-il?
3:00-3:30	PAUSE
3:30-4:30	Intégration des changements climatiques: la voie à suivre
4:30-5:00	Evaluation et clôture