

CRiSTAL Training of Trainers
Northern Nimba Conservation Area in Liberia
Sanniquellie, Nimba, Liberia
21 to 24 March, 2012



Workshop Report

Introduction

The International Institute for Sustainable Development (IISD) was invited by Conservation International (CI) Liberia to hold a four day training workshop in Nimba, Liberia, from 21 to 24 March, to provide participants with a framework for understanding vulnerability and adaptation to climate change, to enhance their capacity to integrate climate change vulnerability and adaptation into project design and management, and to enhance the understanding of the links between climate change and forest conservation. Specifically, this workshop, this training of trainers workshop provided participants with an introduction to some of the basic concepts and approaches to climate change adaptation and to a tool to mainstream climate change adaptation into development projects: the Community-based Risk Screening Tool – Adaptation and Livelihoods (CRiSTAL). Group work and practical field application formed an essential part of this training. Presentations and discussions around the linkages between climate change and forests complemented the programme. Participants included professionals from governmental and non-governmental organizations, most of which work and/or live in the Nimba region. This report summarizes the programme, content, and other information on the training workshop. Please refer to the annexes for the workshop programme and participant's list.

Day 1: Wednesday 21 March 2012

The programme of the first day consisted of an opening session, introductions to climate change, as well as to the concepts of vulnerability, adaptation and risk, and a first introduction to the CRiSTAL tool and its field application.



Borwen Sayon opened the workshop on behalf of Conservation International (Photo: Marius Keller)

Opening Session

Borwen Sayon opened the workshop on behalf of funder and organizer Conservation International. A representative of the Superintendent of Nimba County also welcomed participants.

An icebreaker activity allowed for all participants to introduce themselves. Participants were asked to stand on a line, their position depending on their previous knowledge on climate change. Each one said what they knew about climate change and what their expectations for the workshop were. The most important expectations included:

- Learning and sharing information with other people
- Learn more about the causes and impacts of climate change, how to communicate the concept to local communities, and how to deal with impacts, specifically in agriculture
- Get to know tools that help to gather empirical evidence in Liberia and help generate data from communities and analyzing the results
- Knowing how to use the CRiSTAL tool
- Learn more about climate finance

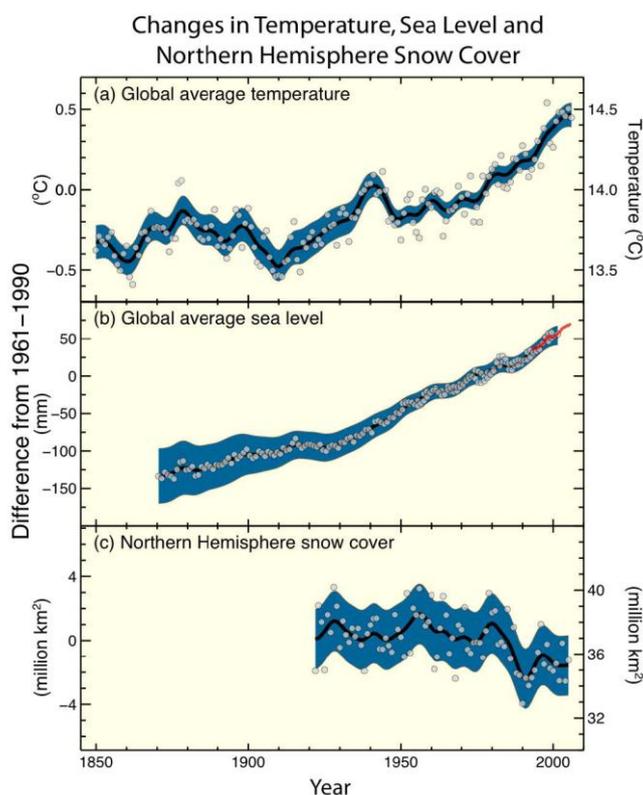
During this exercise, participants also identified observed changes in the climate, such as changes in seasonality and rainfall patterns, possible causes of climate change such as deforestation, concession operations and human activities and perceived consequences such as melting of ice, extinction of species, ozone depletion, sea level rise and scarcity of water.

The organizers highlighted their own expectations, which included the understanding of climate change adaptation, the ability to use of the CRiSTAL tool to inform decision makers, help communities and integration of its use in activities of Conservation International and other organizations.

Next, the workshop agenda was presented (see Annex 2).

Presentation on Climate Variability and Change by Marius Keller (IISD)

Marius Keller (IISD) presented an overview of the basic science of climate change. He explained the differences between weather and climate and between climate variability and climate change, emphasizing the importance to understand and differentiate key concepts; the greenhouse phenomenon, its effects and causes; and mentioned the major contribution of human activities to the rise in greenhouse gas concentrations and global temperatures. Climatic trends were discussed. For example, there is an increase in frequency in climatic events such as floods and cyclones, compared to earthquakes (which are not a climate event, but a geological one). The Earth's surface temperature has been increasing with an increase of 0.74 °C over the last 100 years. Sea level is rising and the snow cover is decreasing. Rainfall patterns have been altered. Climate change impacts in the world were also discussed (on sectors such as agriculture, water, forests, human health and coasts). In particular, a distinction between the ozone hole problem and the climate change phenomenon was made (the former was restricted by small activities and specific gases that could easily be replaced, contrarily to climate change, which is much broader, is caused by all sorts of human activities and affects the whole world). Other points emphasized included that the emissions are only a by-product of activities that increase well-being. The challenge is then to increase well-being through strategies that help us develop without using emission-intensive economies. And that mitigation and adaptation have to go together.



Temperature, sea level and snow cover changes (Source: Intergovernmental Panel on Climate Change)

Participants highlighted that a country such as Liberia has only a limited role in reducing emissions in global terms, but it has to adapt to the causes of climate change, being disproportionately hit by these impacts. Liberians can already “act”, knowing the consequences also bring about opportunities, for example by tapping into the financial resources available to fund sustainable strategies in Nimba. It is important to forget the debate out there and do things simply because there are important and beneficial for “us”. The challenge is to identify adequate measures to help these communities close to forests that depend on them, and that have adopted unsustainable strategies in order to survive.

Presentation on Climate Change Impacts and Risks in Liberia: Implications for Development by Kumeh S. Assaf (UNDP)

Kumeh S. Assaf briefly presented what climate change is and what its impacts are. He then discussed factors increasing Liberia’s vulnerability to climate change (e.g. its economic activities are heavily dependent on climate and it has limited institutional capacities) and the evidence for climate change in Liberia. Even though there is not much empirical evidence (there are no early warning systems, no data collection and monitoring of temperature changes, land cover changes, etc.) in Liberia, some changes are already visible, such as coastal erosion/sea level rise affecting coastal cities like Robertsport, Buchanan and Monrovia; more frequent invasion of pest species (e.g. caterpillar); and sea water intrusion.



Impacts of coastal erosion in Monrovia (Photos. Kumeh S. Assaf)

Kumeh S. Assaf briefly presented what climate change is and what its impacts are. He then discussed factors increasing Liberia's vulnerability to climate change (e.g. its economic activities are heavily dependent on climate and it has limited institutional capacities) and the evidence for

Q/A session on climate change and variability

The morning presentations were briefly recapitulated and a session of Q/A was opened. Major concerns expressed by workshop participants included:

- From a conservation side, the issues are more related to land use planning, benefit sharing, the link between conservation and climate change. In addition, an important issue in Liberia is how concessions (for mining) are distributed.
- Public awareness is concentrated in the cities therefore participants were wondering if UNDP or other partners had any plans to raise awareness in the communities. The answer was that UNDP does not have particular plans. However, the REDD programme gives budget for REDD awareness and in-country local preliminary consultations. At CI, they are working on an awareness strategy for this coming June to capture climate change. In Nimba County more specifically, CI has continuous workshops where climate change is brought up.
- The absence of weather stations and early warning system is a major problem for Liberia and remains to be dealt with.
- Concern was raised about the encroachment of Mango swamps/forests forests, which act as a buffer zone.
- An update on the National Climate Change Secretariat was demanded. The Secretariat is still there, but not much is being done. A workshop in Monrovia planned in the coming months.
- Participants asked whether there were any environmental complaint procedures in Liberia and what policies are in place. They highlighted the need to sensitize the government on these issues (as people in drier seasons have to get water from boreholes where this water is often polluted by toxic wastes from attributed concessions). There are

environmental standards, laws and policies and the Environmental Protection Agency (EPA).

Presentation on Vulnerability, Adaptation and Risk by Marius Keller (IISD)

Marius Keller started by asking participants about how climate change can be tackled. Some ideas that came up included the importance to engage with the national level, with the government to make sure that the policies were implemented as well as the need for more awareness at the local level. Then, he defined and explained key concepts of what is a climate risk, the two main strategies (mitigation and adaptation) to address climate change, vulnerability to climate change, resilience and the difference between coping and adaptation strategies. He highlighted the importance of understanding why and how we can deal with climate change at the local level.

It is possible to reduce the negative impacts of climate change at the local or national level, because climate risk is a function of a climate hazard (climate shocks and stress) and the vulnerability (susceptibility to damage depending on the internal characteristics of a system, determined by the socio-economic and political context) to that hazard ($R = H \times V$).

The two main strategies to address climate change are: Mitigation, which aims at reducing the hazard and has to happen at a broad level, calling for a global strategy. Adaptation aims at reducing vulnerability to climate change, adapting socio-economic systems in order to reduce negative impacts and/or take advantage of opportunities that climate change might bring. It is much more focused at the regional and local level, as impacts are regionally/locally differentiated.

Vulnerability is composed of several elements: Exposure, sensitivity and adaptive capacity. Exposure is generally determined by the geographical location of human or economic system, therefore difficult to control. Sensitivity is the susceptibility of the system to climate hazards (e.g. susceptibility of certain crops, or certain economies mainly based on agriculture). Adaptive capacity (AC) is determined by the availability of, access to and control over livelihood resources (including natural, physical, human, social and financial resources), therefore all the elements of AC relate to development aspects. The AC is what we try to increase, what can be influenced, especially with work at the community level.

The concept of resilience is close to AC concept. Resilience is “the capacity of a system to resist, absorb and recover adequately and efficiently from the effects of a hazard, preserving or re-establishing its basic structure, functions and identities”. A community with high AC is a resilient community.

Community-based adaptation was discussed with examples. The need to know what are the key resources communities need for their livelihoods was highlighted, in order to be able to increase their adaptive capacities by increasing access and control over these resources. This approach is based on local knowledge, the need to take into account the different social groups and the combination of short and long-term adaptation measures. Community-based adaptation is context-specific.

Adaptation and coping has to be distinguished. The former is long-term and preventive, whereas coping is reactive and more short-term.

Finally the difference between adaptation and development was discussed. Climate change presents itself as an additional shock among all other shocks and pressures on development. Adaptation improves the sustainability of the development path.

Brief introduction to CRiSTAL by Marius Keller (IISD)

Marius Keller presented CRiSTAL, what it is, its rationale, objectives, methodology, and what it does. CRiSTAL aims to facilitate the integration of climate change adaptation in community-level projects. It was developed by IISD, IUCN, Intercooperation and SEI-US. CRiSTAL is based on the idea that any community level development project can negatively or positively impact the adaptive capacity of a community, therefore project planners and managers need to evaluate these impacts and adjust their activities to strengthen adaptive capacities. The tool purposes are to help users to: 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 project in question does not need to be a project on climate change. CRiSTAL has also been used without screening a specific project. The main information comes from focus groups community consultations and is entered into Excel spreadsheets. It is divided into two broad modules: Module 1 - "synthesizing information on climate and livelihoods" and module 2 - "planning and managing projects for adaptation".

What are the climate-related hazards, impacts and coping strategies in your project?

Enter the main climate-related hazards that affect your project area, their associated impacts, and the primary coping strategy for each impact. To view definitions of "hazard", "impact" and "coping strategy", place your cursor over the word. To see examples of hazards, impacts and coping strategies, place your cursor over the associated text box.

If the answer to either "Is the strategy working?" or "Is the strategy sustainable" is no, enter an alternative coping strategy.

Hazard 1: Floods and something else					
Impact	Coping strategy	Is the strategy working?	Is the strategy sustainable?	Alternate coping strategy	
1: impact 1.1	coping 1.1 and something else	yes	yes		
2: impact 1.2	coping 1.2 and something else	yes	yes		
3: impact 1.3	coping 1.3	yes	yes		

Hazard 2: Drought					
Impact	Coping strategy	Is the strategy working?	Is the strategy sustainable?	Alternate coping strategy	
1: impact 2.1	coping 2.1 and something else	yes	yes		
2: impact 2.2	coping 2.2 and something else	yes	yes		
3: impact 2.3	coping 2.3 and something else	yes	yes		

CRiSTAL Screenshot (Source: IISD)

Presentation of CRiSTAL Field Guides by Marius Keller (IISD)

The field guides guide consultants on how to get the information needed for the CRiSTAL analysis from focus group discussions with communities. The field guides are composed of 8 elements (please refer to the field guides for further information). Marius Keller gave an

introduction on some of the participatory tools used to gather information/data for module 1 of CRiSTAL (Refer to the actual field guide to go through the steps).

Key preparation steps are understanding the context and deciding on what focus groups are wanted, for example consult different genders, defining the focus questions and think about why you want to apply CRiSTAL. Specific tools include a hazard map (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) and a 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).

Preparation of the field visit

As a last order of day 1, the field visit for the next day was prepared. This included:

- The two locations were revealed: Yollowee and Geipa
- Dividing participants into 4 working groups, which were assigned to 2 different communities (2 groups per community, subdivided into 2 focus groups by gender)
- The need to identify leaders for each activity was highlighted

Day 2: Thursday 22 March 2012

On the second day, a field visit took place with the objective to apply the field guides in two communities, with one male group and one female group in each community.



CRiSTAL consultations with male group in the community of Yollowee (Photo: Natalia Zamudio)

In each community, following welcome addresses and introductions, workshop participants assembled into working groups and undertook consultations with their respective focus groups.

Workshop participants facilitated discussions with community members and applied mainly with three community-level tools: hazard mapping, the vulnerability matrix and impacts and coping strategies. IISD trainers provided support to the four working groups.



Hazard map drawn by female focus group in the community of Geipa (Photo: Marius Keller)

The focus group discussions lasted about four hours. The workshop participants then boarded the vehicles to return to the workshop location in Sanniquellie.

Day 3: Friday 23 March 2012

The third day of the workshop began with a quick presentation of field visit results and a discussion, and then consisted mainly of entering the information gathered during the field visit into the CRiSTAL spreadsheet and thus to conduct the analysis.

Presentation of focus group discussion results from field visit

The participants had a few minutes to talk through their results and impressions from their fieldwork and prepare a brief presentation of their results (hazard map, vulnerability matrix, impacts and coping strategies). Then, each group presented the main results. Key points from that discussion include:

- Men focus more on bush (they hunt), while the women's group focused more on water quality issues.
- In terms of human resources, the visions of each focus group are very different (depends on their activities mostly).
- Human, social and financial: the women were more concerned about water and health, while the men were more concerned about the financial means.
- There was some confusion between climate hazards and socio-economic hazards. CRiSTAL focuses on climate hazards, however if other hazards stand out, note them down on the side.

Participants also discussed some challenges and observations on the field visit and the methodology:

- Communities were not informed enough time ahead of the consultations
- Time was short – time planning and management should be improved.
- There should be food available for the community, as the time they spent with the facilitators is time normally spent in their farms and community people complained about the lack of food, the time spent on the exercises and the uncomfortable room where the consultation took place.
- There were some arguments among the facilitators themselves, thus it is important to plan among the facilitators beforehand.
- The way questions were asked to the community influences their answers.
- Facilitators were not sure about the questions and the different steps that they needed to follow, which made it hard to be organized and do everything that was required.
- There were some misunderstandings on the aim of the exercises (e.g. focusing on what resources they don't have instead of the ones they have and depend on).
- Some men came around the women's group and tried to influence the answer, however it is very important to get both perspectives independently.
- Difficulty in selecting the stakeholders within the community: instead of having everyone, better to have smaller groups to facilitate discussion, however with everyone it is possible to collect more varied information.
- Language barrier: Did not take into account the time needed for interpretation.



Presentation of focus group discussion results (Photo: Natalia Zamudio)

These issues should be taken into account when organizing proper consultations. The discussions also led to a few further recommendations for future focus group discussions:

- It is important to prioritize. For example take the most important hazards for the communities rather than randomly choosing them.
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- One should not ‘correct’ the results of the focus group work, such as the hazard maps. The idea is to take the communities’ perspective.
- CRiSTAL focuses on climate hazards, thus information collected on socio-economic threats could be noted on the side.
- Try to have full participation and avoid someone dominating the conversation.
- Have clear roles among the facilitators and plan and manage time well.

Application of CRiSTAL by workshop participants

Marius Keller gave a second, more detailed presentation on CRiSTAL. He gave a quick recapitulation of CRiSTAL structure, the agenda for the day’s workshop for CRiSTAL (module 1 and 2) and explained how to complete CRiSTAL Excel sheets.

Workshop participants spent a few hours putting the results of the community consultations and some other information into the CRiSTAL Excel spreadsheets. They were first asked to fill in the spreadsheets belonging to CRiSTAL module 1, which focus on climate hazards, impacts and coping strategies as well as the impact of hazard on key livelihood resources, and the importance of the same resources for the coping strategies.



CRiSTAL application in group work (Photo: Marius Keller)

After lunch, Borwen Sayon gave a brief overview of CI project activities in the Northern Nimba Conservation Area. He presented the project called “Ensuring long term sustainable financing for key protected areas in the Upper Guinean Forest Ecosystem”, which aims to: increase available funding, demonstrate the benefits of innovative approaches (conservation agreements through consultations in 9 locations – feasibility assessments for conservation) to biodiversity conservation and human well-being in priority areas (as well as through a training in IBAT: Integrated Biodiversity Assessment Tool); combine conservation and development dimensions; inform/produce recommendations for the new National Land Use Plan; conduct an assessment for national trust fund mechanism; and to harmonize the message from all institutions/NGOs in conservation matters.

Marius Keller also summarized key information about climate change in Liberia and West Africa as an input for the CRiSTAL application.

Participants then moved on to fill out module 2 of the tool, in which they screened the project presented by CI in terms of its impacts on adaptive capacity of the communities.

At the end of the day, the four groups presented their CRiSTAL results with a focus on Module 2 of CRiSTAL (project activities and revised activities). The changes made to the project activities were discussed as well as why such changes were proposed.

Observations arising during the use of CRiSTAL:

- Not everyone has the same knowledge base.
- When revising project activities, it should relate to the direction of the impact on the livelihood resources.
- It was difficult to generate new ideas in the context of the selected project activities.
- The “project activities” sheet was slightly confusing to fill out. Writing notes to the specific boxes was a bit confusing
- The inclusion of regional climate projections was difficult.

Recommendations to take on board for future CRiSTAL applications:

- One danger of CRiSTAL is to think that after filling up tables, you are done, while it is important to analyse the results and write a report. CRiSTAL is a tool that helps to highlight things but does not replace individual thinking.
- In revising the activities keep in mind all the results, conversations from the field.

To close the day, workshop participants were asked to write down some feedback from the work of the day, of what they would like to go through again on the next and final day.

Day 4: Saturday 24 March 2012

The last workshop day, which ended after lunch, was dedicated to recapitulating the application of CRiSTAL as well as to discussing the links between forests and climate change, with a particular focus on REDD+ schemes.

Recapitulation of CRiSTAL and key concepts by Marius Keller (IISD)

Marius Keller recapitulated key concepts and the CRiSTAL process, addressing the issues and difficulties raised by the workshop participants the previous day.

Introduction to Mitigation by Marius Keller (IISD)

Marius Keller introduced the climate change mitigation concept, reminding participants of the difference between adaptation and mitigation, and gave a brief history of the international climate change regime (UNFCCC, Kyoto Protocol, Durban Platform). Carbon credits, i.e. credits from projects that reduce the concentration of greenhouse gases in the atmosphere, were also

introduced, with references made to the CDM (Clean Development Mechanism) and REDD+ (Reducing Emissions from Deforestation and Forest Degradation, while ensuring social and environmental benefits).

Presentation on Climate Change and Forests and Introduction to REDD by Natalia Zamudio (IISD)

Natalia Zamudio gave a presentation on climate change and forests, on the impacts of climate change on forests and on the impact/role of forests for climate change. The carbon cycle in forests was explained and the importance of forests (wind breakers, medicine, air quality, habitat, timber products, NTFPs, agricultural productivity, climate regulation) as well as the type of ecosystem services (provisioning, regulating and cultural services) they provide were discussed. Ecosystems services contribute to human well-being, support their livelihoods, hence the vital need to preserve them. These ecosystem services were linked to the livelihood resources discussed in CRiSTAL.

In Liberia, 70% of the population is largely dependent on rain-fed subsistence farming, forestry and fishing, which means that changes in forest ecosystem services affect the population directly, in terms of income as well as social and cultural aspects.

The two questions addressed were: how are forests impacted by climate change and how do forests affect climate change. There are no simple answers to either part of this question, as it is highly context-specific, forests being heterogeneous as well as climate change impacts. Briefly, forests absorb CO₂ (forests are a natural way to do mitigation, they are the single largest biomass carbon reservoir on earth), but can also release it if humans deforest or degrade forest soils. Forests can either be a sink or a source of CO₂.

The causes of deforestation were further discussed and seen as varied: agriculture, logging, wood for energy, etc. Illegal logging is a very important business in West Africa. Deeper causes of deforestation include poverty, i.e. small-scale needs as well as large-scale commercial interests. Moreover, the causes vary by region. In Africa most deforestation (over 55%) happens because of small-scale agriculture. Other factors include institutional and political issues, market failures, which lead to undervaluation of ecosystems services; land tenure systems, infrastructure development and population growth.

Future climate change impacts could affect the potential of forests to store carbon. Biodiversity is at risk from climate change, and this will in turn affect ecosystems services with further socio-economic implications. Impacts will depend on the context, but disproportionately and immediately affect forest-dependent communities.

REDD was defined and its rationale, objectives, weaknesses and strengths were briefly introduced. REDD stands for “Reducing emissions from deforestation and forest degradation”. The rationale is based on the idea that countries are willing and able to do so should be financially compensated for this. It is a type of offset scheme that aims to attach a financial value to the carbon stored in forests. REDD+ on the other hand aims to not only address climate change but also rural poverty, biodiversity conservation, by sustaining vital ecosystem services. Main criticisms on REDD include: hard to measure the reference levels, hard to monitor, general critic

of carbon offset schemes, difficulty of how to make it pro-poor and development oriented, difficulty of equally and equitably distributing the benefits, forest communities could lose out to the benefit of logging companies, UNFCCC definition of forests fails to distinguish plantations from natural forests, among others. Strengths include: cost-effective mitigation potential, remuneration of forest nations for their service, deforestation needs to be addressed urgently and this might be the only current viable way to do so, there are many co-benefits of reducing deforestation.

Presentation on REDD+ in Liberia, by Kumeh S. Assaf (UNDP)

Kumeh S. Assaf briefly recapitulated what REDD means, distinguished and defined concepts such as deforestation and degradation. He explained the history of REDD, where the REDD process stands in Liberia and the different components of REDD process specifically in Liberia.

REDD and REDD+ are: “Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries”.

Deforestation is the permanent removal of forest cover and withdrawal of land from forest use., while degradation is the gradual reduction of the quality of the forests (e.g. undermines quality of the soils, biodiversity). In some countries degradation is a larger source of GHG emissions than deforestation and overall deforestation accounts for 20% of global GHGs. Forests act as carbon sinks, as well as organic litter, soils and inorganic mineral soil.

REDD process in Liberia: the Carbon Consultative Group submitted a Readiness project Idea Note (R-PIN). The group was later transformed to the REDD Technical Working Group. Liberia has already started the R-PP (REDD Preparation Proposal) process with finance from World Bank. R-PP shows a country’s readiness for REDD, outlines a strategy, has to undertake country consultations and provides a framework for drawing national situation with respect to deforestation & degradation.

The finance and safeguards components are still being discussed. The UN-REDD programme just released a document with the 7 safeguards needed for a country to be ready for REDD.

Questions raised at the end of the presentation included:

- How to measure the conditionality upon which REDD payments depend on?
- How to do monitoring and evaluation (MRV)? Some tools suggested comprised GIS (Geographical Information Systems).
- How to mainstream climate change into conservation agreements especially into the MRV system? Maybe some tools like CRiSTAL can help measure, monitor the changes and the evolution of REDD + components.

Closure of the workshop

The Superintendent of Nimba Country, Edith G. Weh, was invited to hand over the workshop certificates to each participant.



Superintendent Weh hands over workshop certificates (Photo: Marius Keller)

Then, Marius Keller (IISD), Borwen Sayon (CI) and Joel Gamys (CI) gave closing remarks on the workshop, thanking everyone for their active participation.

As a last contribution, participants were also asked to evaluate different aspects of the workshop ranging from achievement of objectives to time management on a flipchart. The results are shown in the figure below. As the results indicate, only time management and the quality of the food served during the workshop attracted some dissatisfaction.

Workshop Evaluation			
Objectives achieved:	😊	😐	😞
- Climate Change	✓✓✓✓✓		
- CRISTAL tool	✓✓✓✓✓		
- Forests & REDD	✓✓✓✓✓		
Usefulness for my work	✓✓✓✓✓		
Methodology	✓✓✓✓✓	✓	
Facilitators	✓✓✓✓✓	✓	
Venue & Book	✓✓✓✓✓		
Food	✓	✓✓✓✓✓	✓✓
Field Visit	✓✓✓✓✓		
Time	✓	✓✓✓✓✓	✓✓✓✓✓

Workshop evaluation results (Photo: Marius Keller)

Annex 1: Participants List

	Name	Organization
1	Charles O. Smith	SADS
2	Kumeh S. Assaf	RTWG/UNDP
3	Saye Thompson	CMC
4	Joel Gamys	CI
5	Renee A. Murray	CI
6	Borwen L. Sayon	CI
7	Roger W. Luke	ENNR/FDA
8	Leleh W. Gornor-pewu	RICCE
9	K. Margaret Korkpor	Daughters of Nimba
10	Lucia S. Gerteh	Daughters of Nimba
11	Joseph M. Kollie, JR	Min. Youth & Sports
12	Luogon P. Lah	Agriculture Relief Services
13	Joseph D. Torlon	MIA
14	Nelson T. Mentroe	ACDIVOCA
15	Alphonse T. Kiedar	FEE
16	Nyononpine B. Williams	AML
17	Aletha K. Dolo	MOGD Nimba
18	Samuel G. Johnson	CFMB
19	Dekontee D. Howard	CI
20	U. Yormie Karsiah	CFMB
21	Y. Anthony Mankuah	Principal
22	Dahn Gono	Liabala
23	Chea, Sampson K.P.	EPA
24	Evang. Joe G. Wallace	MIA
25	Wing. Yunn Crawley	AML

Annex 2: Workshop Programme

Wednesday, 21 March		
09:00 – 09:45	Welcome and introductions <ul style="list-style-type: none"> Welcome speeches Introductions and expectations of participants Objectives and programme of the workshop 	CI, IISD
09:45 – 10:45	Climate variability and change <ul style="list-style-type: none"> Trends and projections Causes and solutions 	IISD
10:45 – 11:00	<i>Coffee Break</i>	
11:00 – 12:15	Climate change in Liberia <ul style="list-style-type: none"> Climate information Impacts and risks 	UNDP
12:15 – 13:30	<i>Lunch</i>	
13:30 – 14:30	Vulnerability, adaptation and climate risk <ul style="list-style-type: none"> Components of climate risk 	IISD

	<ul style="list-style-type: none"> Adaptation and climate risk reduction 	
14:30 – 15:30	Quick Introduction to CRiSTAL <ul style="list-style-type: none"> Background and objectives CRiSTAL modules 	IISD
15:30 – 15:45	<i>Coffee Break</i>	
15:45 – 17:15	Participative Community Tools <ul style="list-style-type: none"> Hazard mapping Vulnerability matrix Seasonal calendar 	IISD
17:15 – 17:45	Preparation of Field Visit	IISD
17:45 – 18:00	Closure of Day 1	CI, IISD
Thursday, 22 March		
08:00 – 15:00	Field Visit using participative community tools	CI, IISD
15:00 – 17:00	Results of Field Visit <ul style="list-style-type: none"> Presentation of group work Discussion 	IISD
Friday, 23 March		
08:30 – 09:30	Thinking about the future climate <ul style="list-style-type: none"> Applying climate projections to local context Evolution of climate hazards and impacts Sustainability of coping strategies 	IISD
09:30 – 10:45	Detailed introduction to CRiSTAL <ul style="list-style-type: none"> Objectives Modules Case studies 	IISD
10:45 – 11:00	<i>Coffee Break</i>	
11:00 – 13:00	Exercise: CRiSTAL Module 1: Climate and Livelihoods	IISD
13:00 – 14:00	<i>Lunch</i>	
14:00 – 14:30	Existing project activities in the Northern Nimba Area	CI
14:30 – 16:00	Exercise: CRiSTAL Module 2: Planning and Managing Adaptation	IISD
16:00 – 16:15	<i>Coffee Break</i>	
16:15 – 17:30	Exercise Results <ul style="list-style-type: none"> Presentation of each group Discussion 	IISD
17:30 – 17:45	Closure of Day 3	CI, IISD
Saturday, 24 March		
08:30 – 09:00	Recapitulation of Previous Days	IISD
09:00 – 10:30	Climate change and forests <ul style="list-style-type: none"> Key impacts on forests Forestry contribution to emissions; REDD 	IISD
10:30 – 11:00	<i>Coffee Break</i>	
11:00 – 12:00	Reducing emissions from deforestation and degradation (REDD) and other climate change activities in Liberia <ul style="list-style-type: none"> REDD activities Adaptation plans and actions 	REDD-TWG/UNDP
12:00 – 12:30	Questions and Answers	IISD, REDD-TWG/UNDP
12:30 – 13:00	Closure of Workshop and Workshop Evaluation	CI, IISD
13:00 – 14:00	<i>Lunch</i>	