



Introductory Course on  
Reducing Emissions from Deforestation  
and Forest Degradation (REDD):

# A Training Manual

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# **A Training Manual**

**By Peter Stephen, IDSS Pty Ltd**

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## About Our Organizations



**The Nature Conservancy:** Founded in 1951, The Nature Conservancy is a non-profit 501(c)3 organization whose mission is to preserve the plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. Headquartered in Virginia, the Conservancy employs over 3,500 staff working in chapters and programs in all 50 U.S. states and in more than 30 countries on six continents. To date, the Conservancy has protected more than 117 million acres of land and 5,000 miles of rivers worldwide, and we operate more than 100 marine conservation projects globally.



**The Climate, Community and Biodiversity Alliance (CCBA)** is a partnership between leading companies, NGOs and research institutes seeking to promote integrated solutions to land management around the world. With this goal in mind, the CCBA has developed voluntary standards to help design and identify land management projects that simultaneously minimize climate change, support sustainable development and conserve biodiversity.



**Conservation International** works in over 40 countries throughout Asia, Africa and Latin America, and is dedicated to protecting the Earth's biological diversity ([www.conservation.org](http://www.conservation.org)). CI believes that the Earth's natural heritage must be maintained if future generations are to thrive spiritually, culturally, and economically. Its mission is to conserve the Earth's living heritage – our global biodiversity – and to demonstrate that human societies are able to live harmoniously with nature.



**GTZ:** As an international cooperation enterprise for sustainable development with worldwide operations, the federally owned Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH supports the German Government in achieving its development-policy objectives. It provides viable, forward-looking solutions for political, economic, ecological and social development in a globalised world. Working under difficult conditions, GTZ promotes complex reforms and change processes. Its corporate objective is to improve people's living conditions on a sustainable basis.



**The Rainforest Alliance** works to conserve biodiversity and ensure sustainable livelihoods by transforming land-use practices, business practices and consumer behavior. Based in New York City, with offices throughout the United States and worldwide, the Rainforest Alliance works with people whose livelihoods depend on the land, helping them transform the way they grow food, harvest wood and host travelers. From large multinational corporations to small, community-based cooperatives, the organization involves businesses and consumers worldwide in its efforts to bring responsibly produced goods and services to a global marketplace where the demand for sustainability is growing steadily. The Rainforest Alliance sets standards for sustainability that conserve wildlife and wildlands and promote the well-being of workers and their communities. Farms and forestry enterprises that meet comprehensive criteria receive the Rainforest Alliance Certified™ seal. The Rainforest Alliance also works with tourism businesses, to help them succeed while leaving a small footprint on the environment and providing a boost to local economies.



**World Wildlife Fund:** Since its incorporation in 1961, World Wildlife Fund's mission has been the conservation of nature. Using the best available scientific knowledge and advancing that knowledge, the World Wildlife Fund works to preserve the diversity and abundance of life on Earth and the health of ecological systems by protecting natural areas and wild populations of plants and animals, including endangered species; promoting sustainable approaches to the use of renewable natural resources; and promoting more efficient use of resources and energy and the maximum reduction of pollution. The World Wildlife Fund is committed to reversing the degradation of our planet's natural environment and to building a future in which human needs are met in harmony with nature.

## **ACKNOWLEDGEMENTS**

This manual is the result of a collaborative effort by experts in some of the leading organizations on conservation and forest carbon to draw upon our field-based knowledge and distill it into an easy-to-use set of training manuals on Reducing Emissions from Deforestation and Forest Degradation (REDD).

We would like to thank Peter Stephen of IDSS Pty Ltd for creating this manual. Peter brought an immense amount of energy and creativity to each lesson presented here as well as extensive training expertise.

We would also like to acknowledge the following individuals for their contribution to this manual:

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### **Rainforest Alliance**

Jeff Hayward, Climate Initiative Manager

### **World Wildlife Fund**

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### Introduction

Reducing Emissions from Deforestation and forest Degradation (**REDD**) is a concept that has been gaining momentum in climate change policy negotiations at both the international and national levels. REDD mechanisms have been included in the Bali Roadmap of the UNFCCC; recent discussions have been held on U.S. climate change legislation that includes funding for REDD; a number of government funds have been established to support REDD activities, such as the Australian Forest & Climate Initiative, the German Climate Protection Program and the Norwegian government's fund; and a number of developing countries have announced initiatives to address emissions from deforestation and degradation. At the same time, conservation organizations, project developers and governments are beginning to implement voluntary market-based REDD pilot activities on the ground in developing countries. Yet despite the increasing levels of interest and activity in REDD, there is a great deal of confusion that still surrounds the concept. The broad range of stakeholders interested and involved in REDD have very different levels of understanding on REDD processes, practices and outcomes.

Key stakeholder groups (such as national, provincial, and local governments; the private sector; in-country NGOs, local communities and indigenous peoples' groups) often have widely differing perceptions and expectations of REDD, often based on partial or even incorrect information. As these groups must also be fully engaged in designing and implementing REDD programs, it is vitally important that they are also aware of the opportunities, risks, and challenges inherent in REDD.

The confusion surrounding REDD is unfortunately leading to unrealistic expectations (both positive and negative), opportunistic land speculation by investors, and naïve assumptions about what it takes to implement a REDD program.

Our organizations - Conservation International, the Climate, Community and Biodiversity Alliance, the German Technical Cooperation (GTZ), The Nature Conservancy, Rainforest Alliance and The World Wildlife Fund - are some of the leaders in developing REDD demonstration projects, and we share the objective of seeing robust incentives for forest carbon in climate policy. Because of our work implementing projects on the ground, our field staff interact closely with many of the organizations and individuals that will be key to the success of REDD. We recognize the need for further understanding about this vital issue and are poised to act. This training program designed by CCBA, CI, GTZ, RA, TNC and WWF is aimed at enhancing the capacity and basic understanding of a broad range of stakeholders in REDD processes and practices. From this it is hoped that they will engage more fully in REDD activities based on accurate and up-to-date information. The ability of stakeholders to actively engage with, debate, evaluate and ultimately implement successful REDD programs is a core reason for the development of this training program.



## How Was This Training Manual Developed?

The combined efforts of CCBA, CI, GTZ, RA, TNC and WWF led to the development of this training program. The reasons for doing this as a collaborative effort were to:

- Reduce duplication of effort by working together to create a common and uniform set of training materials;
- Disseminate a consistent and high quality message to governments and stakeholders;
- Reduce confusion among stakeholders and more effectively influence the way REDD is perceived and implemented in the countries where the consortium partners work.

The technical material was developed in mid-2008 and is 'global' in nature. Starting at the 'global' level was a deliberate action by the developers of this program as the current global dialogue and debate will create the ground rules for national and project-led developments in REDD. But equally important for this training program is allowing the many lessons now emerging from pilot activities to feed upwards to inform national and international dialogue, and recognizing that many technical and political issues are still be formulated. There is therefore much to be learned and this training program has been established to facilitate both a dialogue process and a learning process. This material is only a starting point for discussion, not an end point.

In order to develop this training program, each of the collaborating organizations was assigned a particular theme or topic for which a background fact sheet and PowerPoint presentation was developed. A training workshop held in Bali between 16 and 18 of September 2008 served as a pilot for the training material, and based on session outcomes, observations and participant feedback, this *training manual* has been developed. The factsheets have been further developed and revised to form a participant's *resource manual*.

To complement this training package (the training manual plus participant resource manual), online resources have also been developed. These online resources will feature a self-guided training course on REDD that will interactively guide visitors through information modules and an information clearinghouse with current papers and articles on REDD. The online content will be available to the public and the website will also serve as a place to post follow-up information after REDD trainings and other important information resources.

## Setting the Objectives of the Training Program

The Bali workshop was based on the following objectives:

- 1) To instill a basic level of understanding regarding the REDD concept, the current status of policy developments around REDD, and the underlying technical and methodological issues;
- 2) To enable participants to follow and constructively engage in REDD policy negotiations at the national and international levels;
- 3) To facilitate the development of credible REDD pilot activities in key countries and the development of national REDD programs; and
- 4) To create a vehicle for developing national and regional networks of REDD practitioners (conservationists, policy developers, and project implementers) that can share experiences and understandings of REDD.

These objectives were developed for the Bali audience, but it is fully expected that the objectives for further training programs will have to be adapted and refined to match the

particular needs and requirements of different audiences and a different set of supporting organizations.

For future trainings it is vitally important that a needs assessment be conducted from which appropriate training objectives can be set and the training material adapted accordingly.

## Approach of the Training Manual

REDD is a quickly expanding and evolving field of practice, based upon complex interactions between financial markets, national and community governance frameworks, scientific and methodological advances and international negotiations. This training package has not been produced to provide 'the answer' or a 'blueprint for project implementation' Therefore, a word of warning: the training package will not provide the skills and knowledge for an inexperienced forester to implement a complex and challenging REDD program. But there are some fundamental 'building blocks' in any REDD activity. The training program seeks to identify and explore these building blocks in a participatory, fun and insightful manner.

The session plans presented are based on participatory and adult-centered learning processes. This is not to diminish the importance of the theoretical and technical nature of the material that must also be covered during the training, but to ensure an interactive and participatory learning process is balanced with technical presentations that may be led by specialists and experts. This balance will depend on the trainer or facilitator leading the program and her or his own unique style, but to enhance learning outcomes, participants need to actively contribute to the learning process.

To allow for easy adaptation of the material, the training manual sets out a number of stand-alone modules or sessions and provides an indication of the time each will take if the full session is run. Again it is fully expected that the trainer and facilitator will select, adapt and revise sessions to meet the audience needs and time available. For instance, some sessions could be combined, some of the sessions shortened, or a resource person invited in to provide some detailed knowledge on a particular issue.

PowerPoint presentations are provided with this training manual that support many of the sessions. These PowerPoint presentations are provided as a guide only and will need to be adapted to suit the audience needs, geographical location of the training and time available.

The training manual and supporting PowerPoint presentations are not meant to be used as a book that starts on page 1 and has to be strictly followed. Understanding the participants' needs and being flexible and adaptable to these needs are the keys to a good training.

### »» COMMENT

While some participants may be completely new to REDD, other participants may be from organizations implementing REDD projects and working through the task of balancing social, economic, environmental and policy issues. The sharing of their experiences and lessons learned should be encouraged and incorporated into all sessions.

## COMMENT

To encourage a participatory, learner-centered training program, please remember that adults learn best when it:

- Is self-directed: Adults can share responsibility for their own learning because they know their own needs.
- *Fills an immediate need*: Motivation to learn is highest when it meets the immediate needs of the learner.
- *Is participatory*: Participation in the learning is active, not passive.
- *Is experiential*: The most effective learning is from shared experience; learners learn from each other, and the trainer often learns from the learners.
- *Is reflective*: Maximum learning from a particular experience occurs when a person takes the time to reflect back upon it, draw conclusions and derive principles for application to similar experiences in the future.
- *Feedback is provided*: Effective learning requires feedback that is corrective but supportive.
- *Shows respect for the learner*: Mutual respect and trust between trainer and learner help the learning process.
- *Provides a safe atmosphere*: A cheerful, relaxed person learns more easily than one who is fearful, embarrassed, nervous, or angry.
- *Occurs in a comfortable environment*: A person who is hungry, tired, cold, ill or otherwise physically uncomfortable cannot learn with maximum effectiveness<sup>1</sup>.

### Who Will Use the Training Manual?

The training manual is not designed for direct intervention in project development or implementation. The manual has been prepared primarily for trainers and organizations wishing to enhance the knowledge of their staff and partners in REDD mechanisms and processes. It is expected that the trainers or facilitators using these materials will already be knowledgeable and experienced in learner-centered training approaches and adult education principles as well as having some experience in sustainable forest management, climate change or REDD mechanisms.

The training manual is also provided to assist trainers to organize their thoughts and actions to meet their learners' needs. This is not a static process, but one of constant planning, action, review and reflection. It is hoped the training manual allows this flexibility and adaptation.

The target audience for the 'trial' Bali training was based around the staff and partners of the six collaborating organizations, with most of the participants already exposed to the basics of REDD. It is expected that participants in future trainings will come from a much broader range of organizations and groups, be familiar with the implementation of forest conservation projects and have had some limited exposure to REDD processes and practices (this exposure is, however, expected to be quite variable within each group of participants).

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<sup>1</sup>Based on the RECOFTC Training Manual: *The ART of Building Training Capacities in Community Forestry Development*

The audience may be involved in the:

- Political negotiation of REDD, whether at the international, national or project level;
- Technical assessment or design of REDD projects;
- Governance issues surrounding the successful implementation of any REDD project or program;
- Provision of realistic advice and assessment on REDD projects and programs within their own organization as well as actively disseminating REDD-related information to partner organizations; and
- Assessment of the requirements and consequences for an organization agreeing to be involved in a REDD project.

For participants, the training package can be used to review issues, investigate new information and re-examine options. The learning exercises for each session have also been designed to act as learning and analysis tools to help participants dig deeper into the issues with their colleagues and stakeholders. Again, participants are encouraged to use and adapt the learning exercises to help them understand the issues in a participatory and collaborative way.

The training should actively support those participants seeking greater knowledge and skills to really drive the successful development and implementation of REDD projects and programs that will achieve broad scale social, economic and environmental successes.

### **What is in this Training Manual?**

This set of training materials provides a broad overview of the key elements of a REDD activity. The training manual is based on a series of sessions that have been designed to be fully flexible to meet a wide range of audience requirements and needs. Each session plan outlines the:

- Session objectives;
- Materials required for the implementation of the session;
- Time required to fully complete the session;
- Preparation required for delivery of the session;
- Steps that walk through the session development; and
- Issues and areas that the trainer should be aware of before implementing the session.

To complement the majority of sessions in this training manual, PowerPoint presentations are provided as a guide. These presentations are included with this training manual.

Each session is presented in very simple language with a step-wise guide to session and exercise development. Most sessions are also supported by a background fact sheet (see *Participant Resource Manual*) that briefly explores the key technical or theoretical issues and this, in turn, is supported by links to further reading resources and key websites.

The training material is presented under five broad themes. The intention is to assist trainers new to the field and not to provide a rigid structure. But the trainer will need to carefully select and adapt each of the sessions to meet the needs of her/his audience.

**Section 1: Setting the Context of the Training:** It is important to both set a friendly environment and an environment in which participants understand both the process and content that they will work through during the training. Sessions include:

- Getting to know each other
- Setting the context and introducing the training program
- Exploring expectations
- Developing norms

**Section 2: The Background on REDD:** This section allows participants to explore and understand the key contextual issues that have allowed REDD to become such an important forest conservation mechanism. Sessions include:

- Introduction to climate change
- The role of forests in climate change
- Drivers of deforestation
- Strategies for reducing deforestation
- Institutional arrangements

**Section 3: International Considerations:** International negotiations currently underway are shaping and will continue to shape national and project-level REDD activities. Understanding how international debate and frameworks will impact on such activities is important. Sessions include:

- REDD overview
- Technical elements of REDD
- REDD policy context
- Introduction to carbon markets
- Social considerations
- Considerations for biodiversity and other ecosystem services
- Legal aspects of REDD

**Section 4: National Considerations:** Each country has a unique opportunity to design REDD systems that match their own context and circumstances. This presents both challenges and opportunities for those assisting with national processes. Sessions include:

- The scale of REDD: national- and project-level activities
- National-level REDD program guidelines
- REDD National Program Case Study

**Section 5: Project Considerations:** Each REDD project will be unique, but implementation will still need to meet social, economic and environmental criteria if REDD is to live up to its expectations. Sessions include:

- Project standards
- Project life-cycle
- REDD project case study

The training manual will be updated and expanded as more and more training programs are implemented. Feedback from trainers and participants on areas for improvement are greatly appreciated. Comments on how to improve the training manual and training exercises should be sent to: Rane Cortez at [rcortez@tnc.org](mailto:rcortez@tnc.org)



## **SECTION 1:** **SETTING THE SCENE FOR THE TRAINING**

- 1.1 Getting to Know Each Other**
- 1.2 Setting the Context and Introducing the Training Program**
- 1.3 Exploring Expectations**
- 1.4 Developing Norms**



## Session 1.1: GETTING TO KNOW EACH OTHER

### OBJECTIVES

At the end of the session the participants:

- Will know more about other participants, the trainers and how they are involved in REDD projects and programs.

### MATERIALS

- Flip charts
- Marker pens

### TIME

- 30 minutes (depending on number of participants).

### PREPARATION

- Write interview questions on a flip chart or whiteboard so that all participants can clearly see.

### STEPS

1. Explain that before we start the workshop, it would be nice to know about those participating in this training and how they are involved in REDD processes and practices.
2. Ask each participant to find a partner that she or he does not know.
3. Once pairs have been made, ask each person to interview each other based on three questions:
  - Name?
  - Organization?
  - How is she or he involved in REDD?
4. Allow 3 minutes for each participant to interview their partner and note down the information.
5. Once each participant has finished interviewing their pair, ask them to introduce their partner one by one till all participants and trainers are introduced.



### COMMENT

The above is based on a simple pair interview exercise. Interview questions can be adapted to suit training circumstances and time allocated. For instance, instead of asking how participants are involved in REDD:

- A more humorous question might be to ask what REDD stands for. (In this case participants are to make up a definition for the acronym REDD that does *not* stand for Reducing Emissions from Deforestation and Forest Degradation).
- Another way to introduce participants might be to get them to draw how they are involved in REDD.



## Session 1.2: SETTING THE TRAINING CONTEXT

### OBJECTIVES

At the end of the session the participants will be able to:

- Explain the training objectives and understand the importance of these objectives.
- Explain the flow and approach to the training program.

### MATERIALS

- PowerPoint presentation
- Handout material that illustrates the training objectives and training schedule
- Flip chart with all training objectives clearly written down

### TIME

- 30 minutes

### PREPARATION

- Develop a PowerPoint presentation that clearly outlines the training objectives, the training schedule and any important logistical issues.

### STEPS

1. Introduce the session by explaining that the training objectives and training schedule will be reviewed. Encourage participants to ask questions during the presentation so that any misunderstandings on the training objectives, flow, approach and schedule are dealt with early on in the training.
2. Read through each of the training objectives and briefly indicate why the objectives have been set and their importance.
  - Post a flip chart with the training objectives in the training room where all participants can clearly see them and leave them there during the training. During the presentation, highlight these objectives.
3. Present the training schedule, clearly outlining start and end times as well as key breaks during the day. Get participants to read the schedule and seek questions or comments on the training schedule.
4. Outline the participatory training approach by noting the various learning methods used during the training (these may be 'expert' presentations, small group work, case studies, simulations, field exercises and tours, etc).
  - Ask participants how much adults remember from hearing (20%), seeing and hearing (40%) and from experiencing (80%).
  - Emphasize that the training will use a range of training approaches, but will focus on interactive learning processes based on the participants' experiences.
5. Outline any logistical issues that participants should be made aware of. This may include food, accommodation, transportation, financial issues, etc.
6. Invite questions or comments from participants to ensure that the training objectives, schedule and approach are clearly understood and that there are no outstanding issues.





## Session 1.3: PARTICIPANT EXPECTATIONS

### OBJECTIVES

At the end of the session the participants will:

- Have clearly identified what they expect from the training and what they do not want (or do not expect) from the training.

### MATERIALS

- Flip Chart
- Three to five index cards or post-it notes per person
- Marker pens

### TIME

- 45 minutes (depending on number of participants)

### PREPARATION

- Flip chart with 2 key questions:
  1. What do you WANT (expect) from the training; and
  2. What do you NOT WANT (expect) from the training

### STEPS:

1. Introduce the session by explaining that the training objectives have been outlined and these are the expectations of the trainers and the supporting organizations. But the participants might have very different expectations and it would be useful to explore these to ensure that the training matches their expectations.
2. Post the flip chart in clear view of all participants and get each participant to freely write down their responses to the following questions:
  - What do you WANT (expect) from the training? and
  - What do you NOT WANT (expect) from the training?
3. After five minutes, form groups of 3 to 6 and get the group to cluster and summarize their responses to the two questions. Each group's response is to be clearly outlined on a flip chart.
  - Allow approximately 15 minutes for this group summary process.
4. Once the groups have finished this process get each group to post their flip chart on the training room walls.
5. Each group is then to report their outcomes back to the plenary.
6. The trainer should briefly respond to each of the expectations to ensure that the training will meet the participants' expectations. Where the training will not meet the participants' expectations, the trainer should outline why and how this expectation could be achieved through other channels.



### COMMENT

During the group feedback, it is important for the trainer to clearly link participant expectations to specific sessions. It is therefore useful to have the training schedule clearly outlined during this feedback process so that these connections are made visually.

This will illustrate to participants when and where their expectations will be met and will remind the trainer to refer to certain expectations during different sessions throughout the training course.



## Session 1.4: DEVELOPING TRAINING NORMS or GROUND RULES

### OBJECTIVES

At the end of the session, participants will:

- Have agreed on guidelines for group functioning during the training.

### MATERIALS

- Flip chart
- Colored markers

### PREPARATION:

- Prepare a flip chart - Suggested Group Norms (see Session Support Material)
- [Optional - prepare a flip chart with participants assigned to working groups for the duration of the training].

### TIME

- 30 minutes (depending on number of participants)

### STEPS:

1. Explain the purpose of the activity. Indicate that the training will run much better if there are some agreed-upon standards, guidelines or norms on how the group should operate and cooperate.
2. Ask participants to reflect upon other training experiences, and select a positive and a negative experience.
3. Post the '*Suggested norms*' on a training room wall (or via a PowerPoint presentation) and ask the participants to think about them for a minute or two.
4. Encourage participants to discuss their past training experiences to help refine the suggested training norms.
5. Revise the training norms as necessary and then post the norms in a prominent place in the room and refer to them throughout the workshop, as necessary.



### COMMENT

The session can conclude at this point. But if there is time and the training stretches over a week or more, it is also useful to divide the participants into Working Groups.

6. After introducing the training norms, divide participants into working groups to help with the some of the functions of the training. Suggested groups are:
  - **Law Enforcement group** (set rules and regulations based on norms and small penalties when norms/rules are broken).
  - **Reporting and Monitoring group** (responsible for conducting a simple Monitoring and Evaluation (M&E) process at the end of the day and in the first session of the next morning, providing feedback an overview of the topics covered. AnnexOne provides some simple M&E tools.)
  - **Entertainment group** (responsible for conducting an energizer after lunch or at an appropriate time during the training day. Annex Two provides several simple and fun energizers.)

7. Make sure that each working group has a different task assigned to them each day.
8. Seek clarification that the participants understand which group they are in and the responsibilities and activities that they must undertake when assigned a particular working group.

## COMMENT

- The allocation of working groups should be prepared before the training commences as this can be a time consuming and confusing process if done during the session.
- The working groups can work very well, however the trainer needs to work with each of the groups to ensure they know what their responsibilities are. Prepare a handout on simple M&E tools and energizers to encourage participants in these working groups. Also suggest a small fine if any group norms are broken, i.e. the buying of a bag of sweets.

## SESSION SUPPORT MATERIAL

### Flip Chart: Suggested Group Norms

- Everyone has the right to know (meaning they can ask the trainers at any time why something is being done or said, and how it relates to the overall workshop aims).
- Any question is a good question.
- Practice what we are learning.
- Allow everyone to participate.
- Share responsibility for learning.
- Start and finish on time BUT accept flexibility in the schedule.
- No smoking in the training room
- Switch off mobile phones (or turn mobile phones to silent mode).



## **SECTION 2:** **THE BACKGROUND TO REDD**

- 2.1 Introduction to Climate Change**
- 2.2 The Role of Forests in Climate Change**
- 2.3 Drivers of Deforestation**
- 2.4 Strategies for Reducing Deforestation**
- 2.5 Institutions and REDD (Institutional Profiling and Stakeholder Relationships)**
- 2.6 Institutions and REDD (Stakeholder Rights, Responsibilities and Returns)**



## Session 2.1: INTRODUCTION TO CLIMATE CHANGE

### OBJECTIVES

At the end of the session participants will be able to:

- List the signs and impacts of climate change.
- Identify the causes of climate change and which gases are contributing to the greenhouse effect.
- Understand the varying projections for the future.

### MATERIALS

- Flip charts
- Marker pens
- PowerPoint presentation ('Introduction to Climate Change')

### TIME

- 1 hour 30 minutes

### PREPARATION

- Flip Chart with two guiding questions for small group work:
  - What are the signs of climate change?
  - What are the anticipated impacts of climate change on humans, biodiversity and livelihoods based on natural resources?

### STEPS

1. Introduce the session by explaining that this session may cover material that some participants already know, but is still an important session to ensure all participants have a similar understanding of the fundamental issues regarding climate change.
2. Using a PowerPoint presentation, provide a brief scene-setting introduction by:
  - Defining climate change
  - Suggesting that climate change is happening and will continue to happen
  - Discussing why our climate is changing
  - Outlining the key gases that are enhancing the greenhouse effect
  - Discussing some of the projections for climate change
  - The above issues are outlined in Parts 1 and 2 of the power point presentation.
- Finish the introductory power point presentation and introduce the small group exercise.
- For the exercise, participants will be broken into small groups of 4 to 6 and asked to respond to two guiding questions:
  - What are the signs of climate change (for instance temperature increase)? and
  - What are the anticipated impacts of climate change on humans (such as health, social systems), biodiversity and livelihoods based on natural resources (rural economies, water availability, etc)?

The groups are to discuss and write their responses on a flip chart. The participants should be as specific as possible and give examples if they know any. Each group will have to report their findings to the plenary after the exercise.

- Now break the group into smaller groups and allow approximately 30 minutes for the group work. At the end of this period reconvene the group and get each group to read out what they have discussed.

- Use a 'snowballing' method (one group reads out their outcomes and subsequent groups only add additional information) to present the outcomes.
- Conclude the session by outlining areas that participants have not covered. The use of the PowerPoint presentation may help this task.
  - Part 3 of the presentation illustrates the signs of climate change.
  - Part 4 of the presentation illustrates the impacts of climate change

## »» COMMENT

If a PowerPoint presentation is used, try and adapt the presentation so that any examples highlighting the signs or impacts of climate change are specific to the country or region where the training is to be held.



## Session 2.2: THE ROLE OF FORESTS IN CLIMATE CHANGE

### OBJECTIVES

At the end of the session participants will be able to:

- Understand the importance of forests in the global carbon cycle.
- Identify the carbon 'pools' in a forest.
- Describe ways that forests can help mitigate climate change.

### MATERIALS

- Flip charts
- Marker pens
- PowerPoint presentation ('The Role of Forests in Climate Change')
- Resource person – A specialist in forest sequestration

### TIME

- 1 hour 30 minutes

### PREPARATION

- Draw the global carbon cycle on a flip chart that participants can see (see Session Support Material)

### STEPS

1. Introduce the session with a brief introduction to the role of forests in cycling and storing (*sequestering*) carbon and the global carbon cycle. Explain that because of the ability for trees to store or sequester carbon, they have become an important tool in climate change mitigation.
2. Introduce the exercise by explaining that the group will now split into small groups and each group is to draw a forest and discuss where forests may store carbon – commonly known as carbon 'pools'. Provide participants with a hint: there are 6 commonly recognized carbon 'pools' (see Session Support Material).
3. Break the participants into groups of 4 to 6 and allow 25 minutes for the entire exercise (small group work and discussion).
4. Once groups have completed this task, allow each group to report back their findings.
5. Initiate a discussion based around the following guiding questions:
  - What are the 6 main carbon pools that have been identified?
  - Where is the majority of carbon stored in a forest ecosystem?
  - What are the carbon pools that are easily measured, and why?
  - What are some of the likely disturbances, natural and human-made, that would affect these carbon pools?
  - Use the PowerPoint presentation to highlight some of the key issues arising from the discussion.
6. Now explain that forests play an important role in both causing and mitigating climate change. In order to understand the potential for REDD, we must also understand the extent of the problem – of the impact of deforestation and forest degradation on greenhouse gas emissions.
7. Ask the resource person to present a short (15 to 20-minute) interactive presentation covering the issues of regional deforestation rates and why forests can act as 'sources' as

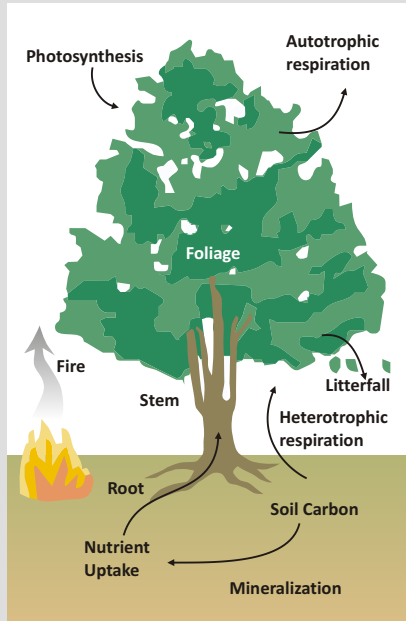
well as 'sinks' for greenhouse gas emissions. Allow the resource person to conclude the short presentation by outlining the potential for forests to also assist in mitigating against climate change by reducing deforestation and forest degradation rates.

8. During the presentation by the resource person, encourage questions and debate.

## SESSION SUPPORT MATERIAL

### The cycling of carbon between a tree and the atmosphere:

#### Carbon Pools in Forests:

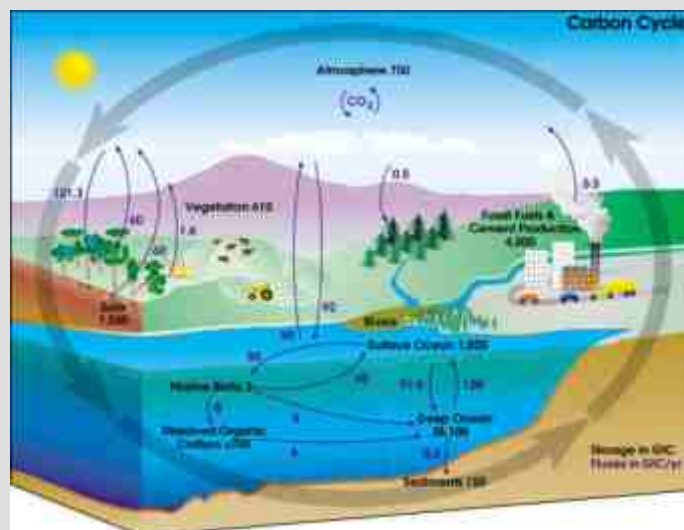


- 1. Aboveground live tree biomass** - all tree components from stem to tops, leaves, and bark. Typically measured for trees greater than 5-10 cm dbh, calculated using allometric equations based on dbh for tree species densities.
- 2. Belowground live tree root biomass** - coarse and fine roots, often calculated using formula.
- 3. Coarse woody debris (CWD)** - standing (greater than 5-10 cm dbh) and downed (greater than 10-15 cm small end diameter, 1.5-3 m length), often measured.
- 4. Non-tree aboveground live biomass** - herbaceous vegetation, regeneration and small diameter trees, and multi-stemmed shrubs.

5. Organic litter (Oi) and duff (Oe, Oa) - often only measured if affected by management.

6. Inorganic mineral soil (A, E, B layers) - rarely measured because of wide variability.

#### THE GLOBAL CARBON CYCLE:







## Session 2.3: DRIVERS OF DEFORESTATION

### OBJECTIVES

At the end of the session participants will be able to:

- Identify and differentiate between the direct (or proximate) causes of deforestation and the underlying (or root) causes of deforestation
- Identify and prioritize 'root causes' of deforestation that must be considered when establishing REDD processes
- Develop a greater understanding of the interconnected reasons for deforestation

### MATERIALS

- Flip charts
- Marker pens
- Index cards
- Glue or tape
- PowerPoint presentation ('Drivers of Deforestation')

### TIME

- 1 hour 30 minutes

### PREPARATION

- Photocopy sample Deforestation Root Cause Analysis for each participant (see Session Support Material)

### STEPS

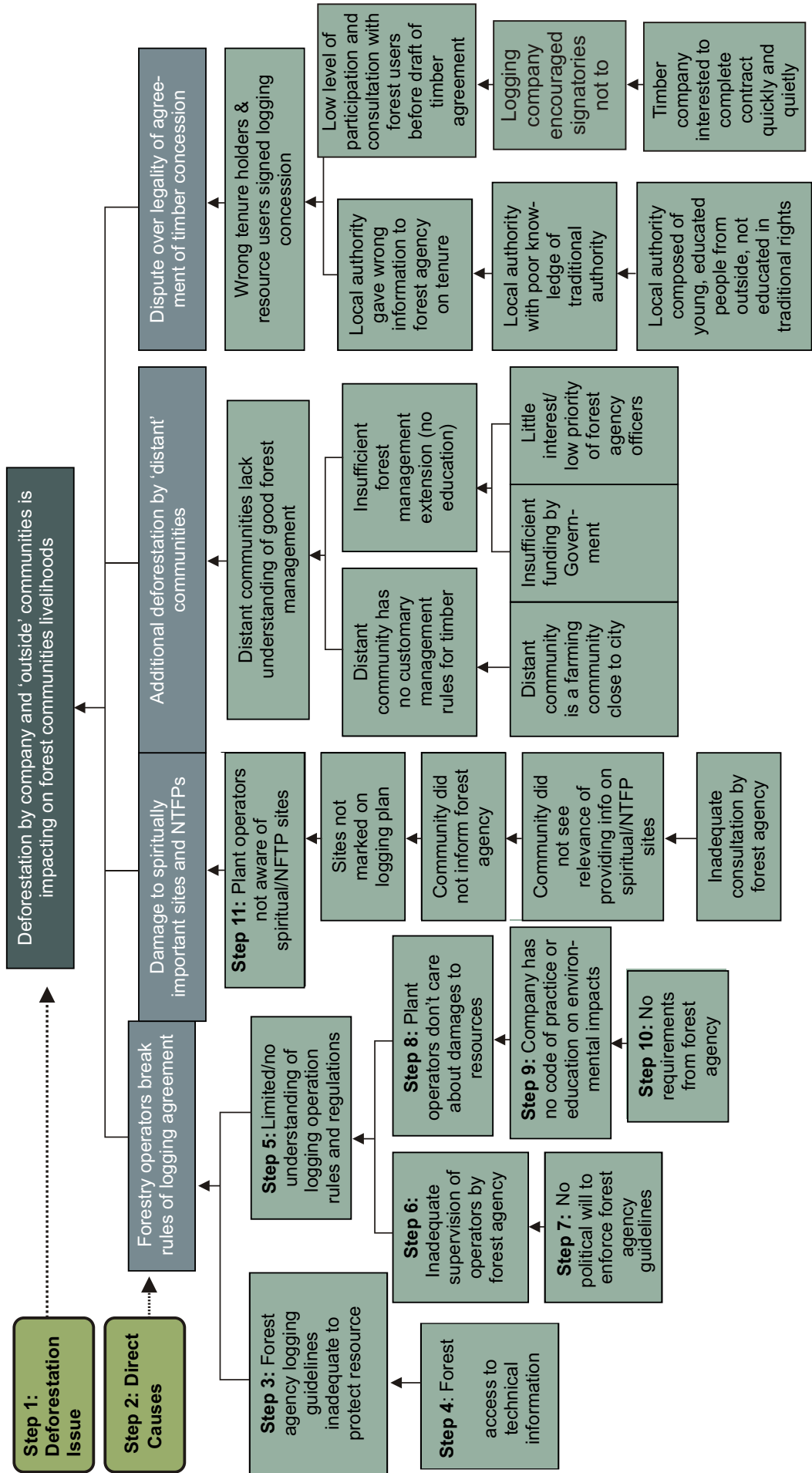
1. Remind participants that in the previous section we explored the importance of forests in the carbon cycle, the emissions of greenhouse gases through deforestation and forest degradation and the importance of forests in any climate change mitigation strategy.
2. Introduce this session by illustrating the scale of deforestation and explain that we will now focus on the causes of deforestation and implications for any proposed REDD mechanism.
  - Where possible use country-specific data.
3. Explain that direct or apparent causes of deforestation are often only symptoms of more complex, underlying causes or 'root' causes.
4. Hand out a copy of the sample 'Deforestation Root Cause Analysis' (see Session Support Material) to illustrate a 'root' cause map. Explain that this mapping tool is a very useful and powerful way to explore both immediate and underlying causes of deforestation.
5. Break participants into small groups (small groups based on geographical areas will work best for this exercise) and explain the following small group work:
  - Each group is to clearly identify a geographical area that is currently being deforested – even if not all group members have intimate knowledge of the particular area, they should at least be able to provide input to the discussion.
  - Write the deforestation problem or issue on a card and place at the top of the flip chart (refer to Session Support Material to illustrate – Step 1).

- The group is then to brainstorm the direct (or proximate) causes leading to deforestation. Each reason should be written on a card and placed below the deforestation heading on the flip chart (Step 2).
  - Then, for each of the direct causes identified, the group should work 'downwards' by asking 'why this event or activity is happening'. At each level participants should clearly identify the reason, or cause. These reasons need to be written on a card to help fully explore the 'roots' of the deforestation problem (Steps 3-10).
  - Once the first direct cause has been fully explained, participants need to explore the second direct cause (Step 11) and so on.
  - The group members need to continue to ask 'why' until the 'root causes' of the deforestation problem are identified.
  - The same process needs to be undertaken for each of the immediate causes.
  - Finally the group members should connect all the index cards with lines that show the linkages between cause and effect. Remind participants to check their logic by repeating the process of asking 'why?' down through the levels of cause.
6. The trainer will need to spend some time with each of the groups to ensure that the groups have understood the task and that their logic in asking 'why?' and responding is correct.
  7. When the small-group work is completed, reconvene the participants and get one member from each group to briefly outline their main findings.
  8. At the end of the presentations initiate a discussion with the following questions:
    - What were some of the problems in completing the problem tree (confusion between cause and effect?)
    - What were the common direct and underlying causes of deforestation between the groups?
    - What were the regional differences between the group outcomes?
    - How does this activity help us think about the causes of deforestation?
    - How does this activity help us to think about possible REDD mechanisms to reduce emissions from deforestation?
  9. Conclude that any REDD mechanism must not only consider the obvious or apparent causes of deforestation, but also the underlying causes, which are generally institutionally entrenched in a county's economic and social systems.

## »» COMMENT

- The root cause analysis tool (or problem tree) is useful for participants to explore and understand the context and interrelationship of the deforestation problem, and the potential impacts when targeting projects and programs toward specific issues.
- Be sure to stress to participants that the outcome of the 'problem tree' is never static, and constant review and monitoring of deforestation rates and causes will be required throughout the life of any REDD project.
- Many of the linkages will be based on assumptions. Areas where more information is required should be noted as the analysis is being conducted.

**SESSION SUPPORT MATERIAL:**  
**An Example Of A Deforestation 'Root Cause' Analysis**





## Session 2.3a: CASE STUDY - DRIVERS OF DEFORESTATION

### OBJECTIVES

At the end of the session participants will be able to:

- Draw lessons learned from a country or region-specific case study.

### MATERIALS

- Resource person
- PowerPoint presentation (made specific to country or region where training takes place)

### TIME

- 30 minutes to one hour, depending on time available

### PREPARATION

- None

### STEPS

- Introduce the resource person.
- The resource person will present a case study of the drivers of deforestation in the country or region where the training is taking place.
- Encourage discussion and debate during and after the presentation – focus on the drivers of deforestation.



### COMMENT

Make sure that the case study is geographically relevant to the majority of participants in the training.



## Session 2.4: STRATEGIES TO REDUCE DEFORESTATION

### OBJECTIVES

At the end of the session participants will be able to:

- Understand the different strategies to prevent deforestation and the strengths and weaknesses of each of these strategies.

### MATERIALS

- Flip charts
- Marker pens

### TIME

- 30 minutes

### PREPARATION

- Find regionally relevant strategies to reduce deforestation by various stakeholders
- Flip chart with key questions for small group work and the four stakeholder groups (see Session Support Material 1)
- Flip chart with examples of strategies to prevent deforestation (see Session Support Material 2).

### STEPS

1. Introduce the session by explaining that we have just examined the direct and underlying causes of deforestation (Session 2.4), but we also need to think about past and current strategies to stop deforestation and assess if these strategies have or are working.
2. Explain that we will explore these strategies from four different perspectives – International Community, National Government, Provincial/District Government and Local Community.
3. Break the participants in four groups of equal numbers and assign each group to one of the above broad stakeholder groups and read out the guiding questions for each group to work on:
  - What strategies are currently in place and being implemented by your stakeholder group?
  - Which other stakeholder groups must work with you to implement these strategies?
  - Which strategies are working? Why?
  - Which strategies are failing? Why?
4. Allow approximately 40 minutes for the small-group work. At the end of this time reconvene the participants and elect a member from each group to report back their findings.
5. After each group has reported their findings, initiate a discussion around the following:
  - What were some of the common reasons for strategies working? [These could be thought of the positive forces 'pushing' for change]
  - Do these strategies overcome some of the root causes or underlying causes of deforestation identified in Session 2.4 on 'The Drivers of Deforestation'?
  - What were some of the common reasons for strategies failing or not working? [These could be thought of as the negative forces 'pulling' against

*change]*

- What could be put in place to make these failing strategies more effective in reducing deforestation rates?
- What is the general evolution in deforestation strategies in your country (or 'in your countries') and why is there a change (try to identify if there is any international or civil society pressure forcing change)?

## » COMMENT

It is important that there is a connection made between this session and the earlier session on Drivers of Deforestation (Session 2.4).

## » SESSION SUPPORT MATERIAL

### **Stakeholder groups:**

- International Community
- National Government
- Provincial/District Government
- Local Community

### **Guiding Questions:**

- What strategies are currently in place and being implemented by your stakeholder group?
- Which other stakeholder groups must you work with to implement these strategies?
- Which strategies are working? Why?
- Which strategies are failing? Why?



## Session 2.5: INSTITUTIONS and REDD: INSTITUTIONAL PROFILING AND STAKEHOLDER RELATIONSHIPS

### OBJECTIVES

At the end of the session participants will be able to:

- Understand the institutional setting (the environment and relationships between stakeholders) involved in a REDD project
- Identify relationships between stakeholders that need improving, reconsidering or establishing

### MATERIALS

- Flip charts
- Marker pens
- Glue or tape
- Colored paper cut into circles of different sizes (about 25 circles per small group)

### TIME

- 2 hours

### PREPARATION

- Flip chart with definitions (see Session Support Material - 1)
- Handout with an example of an institutional profile (see Session Support Material – 2)

### STEPS

1. Introduce the session and explain the importance of assessing the 'framework' or context in which any REDD process or project may emerge. Highlight that within this framework there will be many different actors or stakeholders and that their relationships often determine the success or otherwise of any natural resource project.
2. Briefly review the definition of *Organization* and *Institution* (see Session Support Material) so that participants are clear on the distinction between these terms. Also clearly indicate that institutions can be formal (statutory [written] laws) or informal (customary [spoken] laws). Institutions can also operate at many different levels and across levels – from the international level right down the community household level.
3. Using either a PowerPoint presentation or a flip chart, provide an example of an institutional profile (example provided in Session Support Material – 2) so that participants can visually see what might be expected from them during the session. Clearly state that this is only an example and that variations on the format are encouraged.
4. Explain the exercise that will be undertaken:
  - The participants will be broken into small groups based on a geographical basis. Each group is to select a REDD project or potential REDD project site to analyze the institutional framework.
  - Each group will be given a number of colored circles and on each circle they are to list one stakeholder that is or will be involved in the REDD project. The size of the circle needs to denote the importance of the stakeholder – the bigger the circle the more important/powerful the stakeholder.
  - On a flip chart the REDD project (actual or proposed) is to be clearly written in the middle and the stakeholders are to be arranged around the REDD project. Stick the circles to the

- flip chart paper with glue or tape.
- Relationships between the stakeholders are then to be drawn. The lines between the stakeholders need to illustrate:
    - Relationship type – this may include communication and reporting lines (who talks to whom?), financial (who pays whom?), operational (who takes orders from whom?) etc.
    - Relationship strength – the thicker the line the stronger the relationship.
    - Relationship direction – shown by an arrow (one way, two way?)
    - Relationship quality – dotted lines indicating poor relationships or conflict.
    - Each group can invent their own presentation key to illustrate the relationships.
4. Break the participants into small groups based on geographical regions and allow 45 minutes for the small group activity. At the end of the exercise, reconvene the group and ask a spokesperson for each group to summarize their outcomes.
  5. Initiate a discussion around the following guiding questions:
    - How useful was this activity for understanding the relations and attitudes of stakeholder groups and their institutional settings?
    - What are the similarities and differences in the group outcomes and analysis?
    - What existing institutional relationships are already in place that we could utilize to implement a REDD project and what new ones may have to be established?
    - What are the implications of this analysis for the introduction of any REDD mechanism? Are there any obvious blockages or bottlenecks that have become evident? Are there any stakeholders that might be 'emerging threats'? Are there any positive alliances that can be developed to support any REDD mechanism?
  6. Conclude the discussion indicating that relationships are extremely dynamic and will change during the establishment and implementation of a REDD project, which may exist for 30 or more years. Also indicate that the institutional map has probably underestimated the diversity of stakeholders, the complexity of their relationships and the potential for conflict or disagreement.

## »» SESSION SUPPORT MATERIAL -1

### ***Organizations:***

Distinctive bodies set up to achieve a particular purpose.

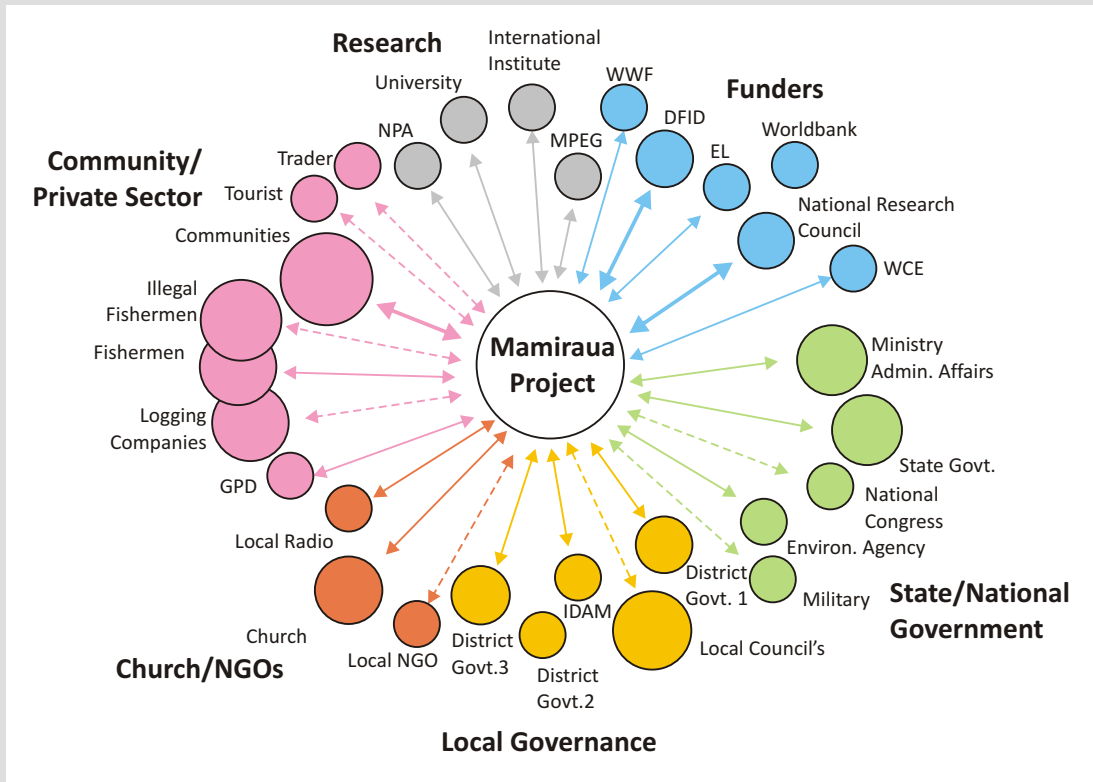
### ***Institutions:***

Sets of structured behaviors and relationships guided by certain norms of conduct (or rules) and put into practice by organizations. Institutions encompass organizations but also the enabling environment of policy, law and customs within which they operate



## SESSION SUPPORT MATERIAL -2

Provided is an example of an institutional profile completed by staff involved in the Mamiraua Sustainable Development Reserve in the state of Amazonas, Brazil. It is a 22,000 square mile reserve of mostly Amazon flood forest.



The profile confirmed and clarified for the team that:

- A very well developed institutional setting had developed for the project. Support from politicians, central government agencies, funding agencies and research institutions had been built and a high public profile had been established.
- But a new, emerging threat was developing from local councillors, who had been inciting non-resident clandestine (some said 'illegal') fishermen to invade the Reserve's protected lakes for political reasons.
- From the discussions during the institutional profiling exercise, innovative solutions emerged, such as strengthening project ties with the local fishing community so that greater local support against clandestine fishermen and councillors could be built.

Example adapted from the DFID booklet 'Shaping Forest Management'. Full reference is; DFID (1999), *Shaping Forest Management: How Coalitions Manage Forests*, DFID London UK.



## Session 2.6: INSTITUTIONS and REDD: STAKEHOLDERS' RIGHTS, RESPONSIBILITIES AND RETURNS

### OBJECTIVES

At the end of the session participants will be able to:

- Examine the rights, responsibilities and returns (both positive benefits and negative costs) of different stakeholders in relation to the introduction of any REDD mechanism.
- Understand the incentives or benefits that each stakeholder would gain from either supporting or rejecting a REDD approach to deforestation.

### MATERIALS

- Flip charts
- Marker pens

### TIME

- 2 hours

### PREPARATION

- Flip chart with:
  - Definition of Rights, Responsibilities and Returns (see Session Support Material – 1)
  - Example of a 3R matrix (see Session Support Material – 2)

### STEPS

1. Explain that this activity will build upon the outcomes of Session 2.6 and that participants should continue to explore the issues examined in Session 2.6.
  - If Session 2.6 has not been conducted, it will not impact on the outcomes of this session, but completing Sessions 2.6 and 2.7 does provide a very good overview of stakeholder relationships, power, rights and benefits.
2. The purpose of this activity is to identify the stakeholders involved in any possible REDD mechanism, what role they are likely to have and incentives (positive and negative) for either supporting or rejecting a REDD proposal.
3. Carefully introduce the terms and definitions for the 3Rs:
  - **Rights:** The access and control over a resource or project, as defined legally (statutory) or informally (customary).
  - **Responsibilities:** The roles and power that a stakeholder has in the management of a resource or involvement in a project – in this case a REDD project.
  - **Returns:** The benefits and costs that a stakeholder derives from a resource or involvement in a project, based on rights and responsibilities
  - Show the sample 3R matrix and explain the design and process for completing the matrix. Confirm with participants that they understand the terms used.
4. Outline the exercise with the participants and expected outcomes.
  - The participants will be broken into smaller groups based on geographical locations.
  - The members of a group should identify an actual, proposed or hypothetical REDD project. Participants will need to be quite specific about where the project will be implemented.
  - Write down all the stakeholders they believe will be involved in the REDD project on index cards (this may have been completed in Session 2.6).
  - Once they have completed their stakeholder analysis, the participants need to draw up

their 3R matrix and describe the current and actual rights, responsibilities and returns for each stakeholder.

- The groups should complete all columns for each stakeholder before going onto the next stakeholder.
  - The groups have 45 minutes to complete this activity.
5. Divide the participants into groups based on geographical locations (this may be district or province) and allow each group time to complete the exercise. The trainer should check that each group understands the terms being used.
  6. At the end of 45 minutes, reconvene the participants and initiate a discussion around the following guiding questions:
    - What did you learn about the stakeholders from completing the 3Rs matrix?
    - How different are the stakeholders regarding their rights to, responsibilities for and returns from the resource?
    - How do differences in these factors affect stakeholders' levels of power or influence over a REDD project?
    - How could these different factors be changed in order to increase the chances of success of a REDD project?

## »» COMMENT

- The 3Rs tool is a very useful tool in preparation for any negotiations concerning REDD activities. It clearly outlines what stakes (or returns) various stakeholders may have in moving forward or resisting any REDD mechanism.
- Make sure that the small groups are very specific about distinguishing stakeholder groups. For instance 'government' provides very little information – encourage groups to really explore which elements with the 'government' will be involved and how.
- While a similar exercise can be conducted at a national level, it is generally much easier for participants to explore the issues through a project-level activity.

## »» SESSION SUPPORT MATERIAL -1

### **Rights:**

The access and control over a resource or project, as defined legally (statutory) or informally (customary).

### **Responsibilities:**

The roles and power that a stakeholder has in the management of a resource or involvement in a project – in this case a REDD project.

### **Returns:**

The benefits and costs that a stakeholder derives from a resource or involvement in a project, based on rights and responsibilities

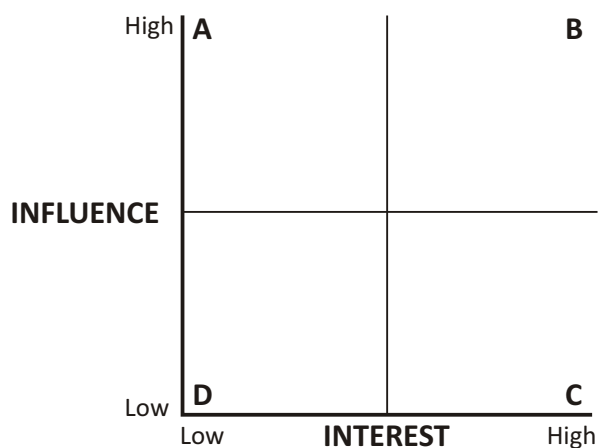
**Example of a 3R Matrix**

Stakeholder	Rights	Responsibilities	Returns
National forest agency	Constitutional mandate to manage the national forest estate	Administering timber concession Ensuring an annual national cut is achieved Implementing biodiversity strategy to meet international commitments	+ Royalties and logging income + New road into area - Weakened biodiversity protection in forest site
Logging company	7-year exclusive lease on 50,000 ha of forest	Road construction	+ Expected timber sales and profit
Village A	Unrecognized customary forest use rights	Continued role in day-to-day management (fire management, controlling forest entry by migrants)	- No further access to needed forest products

**ALTERNATIVE STAKEHOLDER TOOL:**

As indicated, the 3Rs tool is a very powerful tool that can generate a lot of debate and discussion. Another useful and less time-consuming stakeholder tool is a simple influence/interest matrix that allows stakeholders to be identified and analyzed in terms of their power to influence and interest to be involved.

Again stakeholders are identified and written on index cards, but this time placed within the matrix depending on their power to influence and interest in the project outcomes.



**A** = Stakeholders with a strong influence but less interest. They need to be involved but should be kept in check to that their influence is not out of proportion to their 'stake.'

**B** = Stakeholders with a strong influence and a high stake. They need to be closely involved at all stages.

**C** = Stakeholders with a weak influence, but a high stake. They need to be involved and their involvement supported to overcome their lack of influence.

**D** = Stakeholders with a weak influence and only a weak interest. They could be involved in some steps but this is probably not critical to the overall process.



## **SECTION 3:** **UNDERSTANDING THE INTERNATIONAL CONTEXT**

- 3.1: REDD overview**
- 3.2: Technical elements of REDD**
- 3.3: REDD policy context**
- 3.4: Introduction to carbon markets**
- 3.5: Social considerations**
- 3.6: Biodiversity and other ecosystem services considerations**
- 3.7: Legal aspects of REDD**



## Session 3.1: REDD BASICS

### OBJECTIVES

At the end of the session participants will be able to:

- List the basic 'building blocks' of a REDD program.
- Build upon these building blocks throughout the training to present a comprehensive framework for all important elements for a REDD program.

### MATERIALS

- Flip charts
- Marker pens
- PowerPoint presentation ('REDD Basics')

### TIME

- 30 minutes

### PREPARATION

- Large outline of the basic 'building blocks' framework covering 2 or more flip charts and posted on a training room wall in a clear and accessible location (see Session Support Material).

### SESSION NOTE

- A good idea is to follow this session with a project case study during which participants are asked to fill in the REDD building blocks. See Session 5.3 for further details.

### STEPS

- Introduce the session by briefly outlining the possible uncertainty surrounding the introduction of a REDD program or project. But also stress that there is now enough knowledge and experience to clearly identify some basic building blocks of any REDD program.
- Ask participants what they consider to be the basic building blocks of a REDD program. Note answers and responses.
- If there is no clear outcome from the question and answer session, introduce the building block framework by PowerPoint or the flip chart.
- Outline how the blocks are linked and how the policies and actors are linked into the framework.
- Ask if there are any questions, comments or revisions necessary for the framework.
- Indicate to participants that each of the building blocks and processes will be further elaborated and defined throughout the training. The outcomes of most sessions will also be structured so that participants can fill in the 'blanks' of the framework throughout the training.



### COMMENT

If the framework is to be more than a simple and bare flip chart on a training room wall, session outcomes must feed directly into framework and participants encouraged to add details to the framework throughout the training.

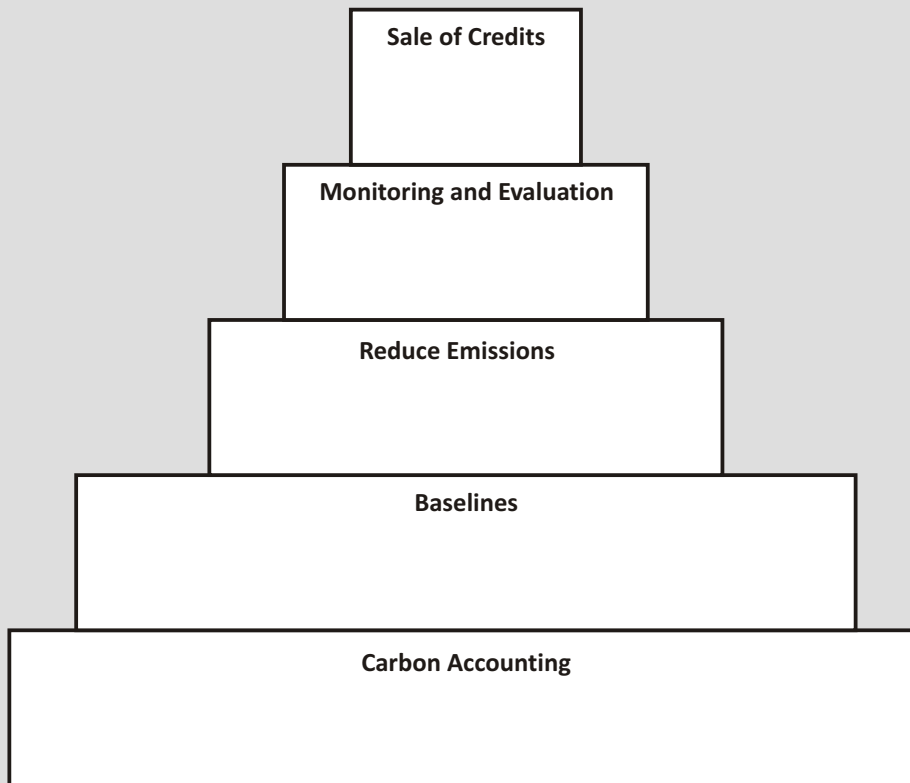


## The Building Blocks of REDD

Policy

Buyers

Actors





## Session 3.2: TECHNICAL ELEMENTS OF REDD

### OBJECTIVES

At the end of the session participants will be able to:

- Describe and outline the importance the following technical elements of REDD:
  - Additionality
  - Baselines
  - Leakage
  - Permanence
  - Measurement
  - Monitoring

### MATERIALS

- Flip charts
- Marker pens
- PowerPoint presentation ('Technical Elements of REDD')
- Ulu Masen Case Study (or other appropriate case study) and guiding questions
- Resource person

### TIME

- 1 hour 30 minutes

### PREPARATION

- Flip chart with definitions of Additionality, Baseline, Leakage and Permanence posted around the training room walls (see Session Support Material)

### STEPS

1. Introduce the session by explaining that there are a number of technical issues and challenges in designing and implementing any REDD project. The main technical issues are additionality, establishing baselines, leakage, permanence, measuring and monitoring. Provide a definition for each of the technical issues and a very brief overview of why each of these issues is important for the successful establishment of any REDD activity. The supporting PowerPoint presentation may assist here.
2. Highlight that a case study will be used to explore each of these technical issues. Participants will be broken into small groups and given a number of guiding questions that they will need to discuss and respond to after reading the case study. Each group will need to write their outcomes on a flip chart
  - Allow 15 minutes to read the case study and 30 minutes to discuss the guiding questions.
3. Break the participants into groups of 4 to 6 and distribute the case study and the guiding questions.
  - If time is short, the participants can be broken into 6 groups, each group assigned a technical issue to examine.
4. Once the groups have completed their work, each group should report back their findings.
5. For each of the technical issues, explore with the participants the major challenges they identified. A resource person will be required to support and complement this discussion.



**Additionality<sup>1</sup>:**

The principle that only those projects that would not have happened anyway should be counted for carbon credits.

**Baseline(scenario)<sup>1</sup>:**

A scenario that reasonably represents the anthropogenic emissions by sources of greenhouse gases (GHG) that would occur in the absence of the proposed project activity

**Leakage<sup>1</sup>:**

Leakage is defined as the net change of anthropogenic emissions by sources of greenhouse gases (GHG) which occurs outside the project boundary, and which is measurable and attributable to the project activity.

**Permanence<sup>1</sup>:**

Permanence refers to the duration of the additional carbon that is stored as a consequence of the forest project. Some systems define 'permanent' as perpetuity or storage for 100 years. This reference generally incorporates securing, *ex ante*, a commitment to store additional carbon over time, as well as measures to manage and replace GHG reductions in the event a project's reductions are reversed.

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<sup>1</sup> ) Definitions taken from the WWF report 'Making Sense of the Voluntary Carbon Market: A Comparison of Carbon Offset Standards,' published in 2008

## CASE STUDY:

### Reducing Carbon Emissions from Deforestation in the Ulu Masen Ecosystem, Aceh, Indonesia

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Aceh province has a population of just over four million people and lies at the northern tip of the island of Sumatra in Indonesia. The province retains the largest contiguous area of forest left in Sumatra, of which the Ulu Masen ecosystem forms the northernmost forest ecosystem. The REDD project area in the Ulu Masen ecosystem covers 750,000 hectares.

The Ulu Masen mountains are known to support a diversity of forest types due to their complex geology, climate types, soil types and altitudinal range. Forest types consist of lowland broadleaf forest, pine forest, submontane broadleaf forest, montane broadleaf forest, and other lesser forest types. Most of the rich lowland forests that covered the plains along the coast have been converted to agriculture and other uses. In most areas above 500 meters there are still substantial areas of high quality forest. The vast majority of the project site is designated as national forest land (*Hutan Negara*).



The Governor of Aceh, an international conservation organization and a carbon broker joined forces to establish a project to reduce emissions arising from deforestation and forest degradation in the Ulu Masen forest estate. This case study outlines some of the key factors taken to prepare for this project.

#### Estimating Forest Carbon Stocks

The most commonly accepted way to estimate forest carbon stocks over larger areas is to apply carbon values to broad forest classes – the 'biome-average approach' (which is an approach required by Tier 1 of the IPCC's National Greenhouse Gas Inventories). Total above ground biomass for a moist tropical Asian forest is estimated by the IPCC at 350 tons per hectare or 225 tons per hectare of carbon. The project proponents, however, averaged out four other biome models with the IPCC model and estimated 188 tons of carbon on average per hectare in the Ulu Masen ecosystem, of which 20% is assumed to be below ground (150 tC above ground and 38 tC below ground). Only above ground biomass is considered; understory vegetation, coarse woody debris, and litter are not included as these values are generally less than 10% of total carbon biomass.

Further assumptions made to estimate forest carbon stocks were as follows:

- Disturbed forests have 75% of the carbon stocks of intact forests;
- 74% (558,382 ha) of the forests in Ulu Masen are intact and 26% are degraded (192,146 ha); and
- Altitude impacts on forest growth and therefore carbon stocks (see table below).

Based on the above assumptions and calculations, the project area has an estimated 140 million tons of forest carbon.

Forest Type		Hectares	Total Carbon	Average tC/ha
Elevation (m)	Condition			
0-500	Intact	132,547	27,834,870	210
	Disturbed	162,759	26,041,440	160
500-1000	Intact	220,814	44,162,800	200
	Disturbed	28,078	4,211,700	150
1000-1500	Intact	143,732	27,309,080	190
	Disturbed	1,309	183,26	140
>1500	Intact	61,289	11,028,520	180
	Disturbed	0	0	n/a
<b>TOTAL</b>		<b>750,528</b>	<b>140,771,670</b>	<b>188</b>

The project proponents consider this to be a conservative figure as it is 15% lower than the IPCC's estimated average for similar forest types.

### Communities

Aceh is typical of many resource-rich regions where resource extraction has not improved the welfare for the majority of the population. Almost 50% of Aceh's population lives below the poverty line – down from 20% in 1999.

The tsunami caused incomprehensible damage and loss of life to the province and the people and economy have further suffered from civil conflict that has been going on for several decades.

Approximately 130,000 people live in communities adjacent to forest areas of the Ulu Masen ecosystem. Dominant agricultural land uses in the lowlands include coconut groves along the coast followed inland by rice paddies, rubber gardens, smallholder coffee and cacao gardens, complex agroforests with fruit trees and nutmeg trees, and to a lesser extent upland fields with annual crops.

There is a small timber industry in Aceh processing around 9,000 cubic meters of timber per year. It is estimated that 4,400 people are employed in the timber industry and a further 2,000 to 3,000 villagers participate in small-scale illegal logging operations for highly valuable hardwood species. The lack of mechanization has meant little conversion of forest to other land uses, and the tsunami and conflict have tended to act as further constraints on illegal logging activities. But with the reduction in tsunami funding from donor agencies, illegal logging is expected to increase as some community members act to supplement their cash income.

Non-timber forest products extracted from the forest include rattan, honey, birds' nests and a variety of bush meats.

Typical boom-bust agricultural trends have occurred at various times, driven by market trends. Wildlife trade has supplemented incomes for several communities, particularly products such as rhinoceros horns, tiger body parts and elephant ivory.

## Biodiversity

The mountain, hill and lowland ecosystems of Aceh support high levels of plant and animal biodiversity including the Sumatran rhinoceros, tiger, orang-utan and elephant. These populations remain the best hope for survival of many of these species in the wild. Some 700 species of vertebrates have been recorded, including 320 birds, 176 mammals, 194 reptiles and amphibians. In the neighboring Leuser ecosystem, 8,500 different species of plants have been recorded.

Threats to the forests of Aceh include logging (legal and illegal) and the conversion of forest for new roads, infrastructure and plantation crops. Official government estimates suggest that the forests of Aceh are disappearing at a rate of approximately 21,000 ha per year. Deforestation and fragmentation are major threats to biodiversity.

## Baseline Projections

In the year prior to the tsunami, 47 companies in Aceh were granted logging licenses. This was a rise of more than 150% over previous years. Since the tsunami and the end of the conflict, there has been a dramatic increase in illegal and unsustainable logging, land clearance and applications for land clearance. New threats are also emerging with the ending of the state of emergency and the opening of the economy for much needed investment. Rapidly developing new markets for palm oil and biofuels are driving a surge in demand for land to establish plantations.

There are currently six logging licenses in the project area, covering 404,704 hectares. These licenses, though currently inactive due to the conflict and tsunami, could be reactivated by the Ministry of Forestry with support from the local governments. In addition to the concessions already granted, almost 60% of the total forest area can be legally logged, whether the area has been assigned as a logging concession or not.

Of Aceh's total forest estate of 739,748 hectares, 310,991 hectares are protected (generally very weakly) and 58% of this area is zoned for logging. A further 428,757 hectares are unprotected forest. Significant logging or forest conversion will occur in the forest estate unless 'dramatic steps are taken'.

Classification	Legal Classification	Forest (Intact)	Forest (Disturbed)	Forests not Classified as Forest	TOTAL
Protected Forest	Protected natural reserve (federal)	13,086	147	2,632	15,865
	Semi-protected forest (watershed)	279,727	3,598	9,316	292,641
	Protected Area (province/district)	1,536	197	752	2,485
	<b>TOTAL PROTECTED</b>	<b>294,349</b>	<b>3,942</b>	<b>12,7</b>	<b>310,991</b>
Unprotected Forest	Zoned for Logging	183,949	76,994	13,245	274,188
	Zoned for Logging: Timber and pulp	43,028	19,532	4,711	67,271
	Community Development Zone (can be logged)	3,313	1,317	651	5,281
	Unprotected Forest (Province/district)	21,634	50,032	10,351	82,017
	<b>TOTAL UNPROTECTED</b>	<b>251,924</b>	<b>147,875</b>	<b>28,958</b>	<b>428,757</b>
<b>TOTAL FOREST ESTATE</b>		<b>546,273</b>	<b>151,817</b>	<b>41,658</b>	<b>739,748</b>

There is a lack of technical guidance for establishing credible reference land use scenarios or reference emissions scenarios for REDD baselines. Plus the cost of developing land use scenarios is not cheap or easy. The project proponents therefore considered three deforestation scenarios:

- A low deforestation scenario with an annual forest loss of 0.86% based on a soon-to-be published study;
- A high deforestation scenario with an annual forest loss of 2.3% based on historical deforestation rates for Sumatra; and
- A project deforestation scenario with an annual forest loss of 1.3% based on 87 unique combinations of elevation, legal class, forest condition and threat.

Using a deforestation rate of 1.3% per annum, an annual loss of 9,630 hectares per year or 289,000 hectares over the project life (30 years) was estimated. This corresponds to 38% of the project area being deforested without preventative action.

Based on this and the estimated carbon per unit area, it is estimated that the Ulu Masen project area will contain 108,364,096 tons of carbon in 30 years time (2039 stocks).

The project will stop an estimated 85% of legal and illegal logging by using carbon finance to reclassify land and permanently eliminate the legal possibility of land conversion and logging (not all legal and illegal logging can be stopped). Therefore the project expects to generate 27,546,438 tons of avoided carbon credits over 30 years (or 101,095,427 CO<sub>2</sub> credits).

	2008 - Current Stocks	2038 Stocks	Emissions	Project Emission Reductions
Baseline	140,771,670	108,364,096	32,407,574	N/A
Project	140,771,670	135,910,534	4,861,136	27,546,438

The project baseline studies also considered:

- Communities: Under the project, sustainable forestry programs are encouraged and therefore the project does not expected significantly different employment outcomes. The project proponents believe that conservation measures will also deliver greater livelihood benefits to communities over the medium to long term.
- Biodiversity: There are no reliable estimates of the biodiversity loss that could be expected from continued deforestation in the project area. But the loss of nearly a third of the forest area over 30 years would have to have a significant negative impact on biodiversity in the project area.
- Water and Soil Resources: Water contamination and soil erosion are likely to increase in a 'business as usual' baseline scenario due to increased deforestation and forest degradation. A study carried out in a neighboring protected area concluded that a deforestation scenario similar to one considered for Ulu Masen results in substantially less water supplied to community households.

**Proposed Project Activities**

The Governor of Aceh has made a commitment to reduce the area of forest for logging and clearing in return for carbon finance. Immediate activities are to revise provincial and district spatial plans, reduce the forest area classified as conversion forest, and increase the area under a range of formal permanent forest estate categories. The Government of Aceh will establish an institutional framework at provincial, district and community levels to oversee and advise forest classification and project implementation. Carbon finance funds will provide incentives to communities, districts and the province to reclassify lands currently slated for logging.

Communities have indicated a strong willingness to participate provided there are financial incentives for conserving forests.

The project will help curb illegal logging through support for enhanced enforcement, community agreements, increased employment and income for local people, recruiting forest wardens, conducting forest monitoring and patrols, and improving synergies through law enforcement and other relevant agencies. The project will also provide alternative livelihoods to forest-adjacent communities and provide funding and technical assistance to communities that agree to protect the forest. The government of Aceh has recently hired almost 1,000 new forest wardens (many whom are community-based) and there are plans to expand this initiative with additional project finance.

The project will use carbon finance to assist reforestation and restoration of mangroves, fruit tree gardens, coffee plantations and woodlots. These will be developed based on needs and priorities identified in the spatial planning and community outreach process of the project.

A project implementation unit, tentatively called the Ulu Masen Implementation Board, will be established at the provincial level for project management and technical assistance. Multistakeholder management boards will also be established within the five participating districts to provide oversight for project implementation at district and village levels. Civil society organizations will also be given a role in independent monitoring of project activities.

### **Timeframe and Project Accounting**

The project timeframe is 30 years to account for changes in carbon emissions between the baseline and project scenario. However, the project will insure permanence of avoided emissions for a period of 100 years. This allows for:

- a) A reasonable estimate in the medium term (30 years) for baseline reviews and carbon accounting, while;
- b) Also ensuring the longevity of carbon credits for a period of time that is relevant for climate change and atmospheric CO<sub>2</sub> levels.

The project will store a significant amount of carbon credits in a buffer account that will be used after the 30 years of the project period to continue implementing and funding core project activities, notably conservation and restoration of forests.

### **Project Risks and Mitigation Measures**

Identified project risks have been divided into short and long-term risks:

Short term

- Baseline risk
- Leakage risk
- Measurement risk

Long term

- Project implementation
- Sovereign, legal and enforcement risk
- Natural risk (fire, disease, pests etc)
- Climate change risk (especially increases in fire)
- Return of conflict to Aceh, other political instability

Risk management arrangements to protect the stored forest carbon have two elements:

1. A 'risk management buffer' of reserved credits, proposed to be 10% of the stream of Verified Emission Reductions (VERs).
2. Placement of 20% of the stream of VERs into a revolving fund, which will invest in other sustainable development projects that are expected to generate further emission reductions or sequestration activities. This may include mini and micro hydro projects, reforestation, agroforestry, biomass power generation, and biofuel production and use.

These risk management arrangements are designed to give assurance to buyers of VERs and Certified Emission Reductions (CERs) of the long-term integrity of the carbon offset, and to maximize the contribution of the project and subsequent carbon financing to economically, environmentally and socially sustainable development. A global reinsurance company has insured credits for 100 years to address issues of permanence.

### **Estimating and Mitigating Leakage**

The project proponents believe the two most critical types of leakage caused by the project will be out-migration of illegal loggers (activity-shifting) and possible increases in forest products in the short term (until reforestation and sustainable forest management programs are at sufficient scale). It is estimated that these two types of leakage will occur in the first five years of the project. The project proponents do not believe negative leakage from activity-shifting or markets will exceed 10%.

The project will address leakage issues through large-scale and integrated activities such as forest conservation, forest restoration and sustainable community forest management. The Ulu Masen project is large enough to eliminate activity-shifting leakage from one community to another. With more forest resources being sustainably grown and managed, there will be less need for loggers to move their operations to other areas.

This project will decrease logging of natural forests, which could theoretically decrease the supply of forest products (price increase). At the same time, planting of trees, orchards, mangroves and fruit farms as well as developing sustainable community forest management practices, including possibly timber production, should increase the supply (price decrease). These counteracting forces should neutralize market leakage.

Monitoring of activities that cause leakages will be extended beyond project boundaries through remote sensing and establishment of permanent plots. Specifically, the project will continue to monitor changes in deforestation rates outside the project area. The project will also track the activities of resource users affected by project activities as an effective means of capturing activity-shifting leakage.

### **Monitoring**

The project will monitor over time: deforestation rates (including legal and illegal logging), biodiversity, livelihoods, leakage (especially offsite climate and community impacts), impacts of climate change on the project area (notably fires), participation of stakeholders and civil society in the evolving project design and implementation, and in-migration (people from surrounding communities coming into the project area to receive carbon finance). The Ulu Masen Implementation Board (UMIB) will develop a monitoring plan for the project.

Radar imagery (likely to be available through the Governments of Indonesia and Australia) will be used to monitor illegal logging in the mountains of Aceh and assess changes that have taken place over time as a result of forest felling, road building, or even landslides and natural tree falls. The project will equip and train airborne monitoring teams to fly 'ultralight' aircraft with high resolution photography to assess and monitor carbon stocks, both in the pilot areas and in surrounding forest blocks. Aerial assessment will be supported through ground truthing of carbon stocks. As the project develops and more sophisticated carbon assessment and modeling tools and techniques are developed, greater accuracy in the monitoring outcomes is expected.

As noted, a credit reserve comprising 20% of credits generated by the project will be held until reconciliation of the project-level accounts against the national baseline. Project proponents believe this is a responsible way to ensure they can 'cover' any detected leakage as the project matures.

The project will also monitor community outcomes of the project, both within and outside the project areas. Emphasis will be placed on benefit-sharing mechanisms to avoid in-migration to the project area. Civil society organizations will be supported to conduct independent monitoring of forest crimes, performance of logging concessions and community logging operations as well as forest protection activities and education and outreach activities.

Full camera trapping programs will commence to monitor flora and fauna changes. Water and hydrological studies and soil surveys will be conducted in critical watersheds to see if the project is having a (possible) impact.

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Information adapted from the Project Design Document titled '*Reducing Carbon Emissions from Deforestation in the Ulu Masen Ecosystem, Aceh, Indonesia: A triple-Benefit Project Design Note for CCBA Audit*', submitted by the Provincial Government of Nanggroe Aceh Darussalam (Aceh) in collaboration with FFI and Carbon Conservation to CCBA on 29 December 2007.



## »» GUIDING QUESTIONS

### ***Additionality:***

- Is the project legally required?
- Could the project be economically viable without carbon payments?
- Is the project typical of management practices in the region?

### ***Baseline:***

- How is the baseline calculated?
- Is the baseline calculation conservative?
- How often should the baseline be calculated?

### ***Leakage:***

- What types of leakage (market and activity) are expected from the project?
- How are these leakage activities going to be managed?

### ***Permanence:***

- What factors would affect the permanence of the forest and carbon stocks in the project area?
- How is permanence dealt with in this project?

### ***Measurement:***

- What factors is the project measuring?
- What challenges do you foresee in measuring these factors?

### ***Monitoring:***

- What factors are being monitored by the project?
- How are these factors being monitored?



## Session 3.3: INTERNATIONAL REDD POLICY CONTEXT

### OBJECTIVES

At the end of the session the participants will be able to:

- Discuss the important historical events that have shaped current REDD discussions
- Consider how forests are being treated in current international climate change negotiations
- Be aware of the outstanding international issues currently being negotiated and possible impacts for national development of REDD programs and projects

### MATERIALS

- Flip charts
- Marker pens
- PowerPoint presentation ('REDD Policy Context')
- Printed exercise cards
- Glue or sticking tape
- Resource person who has an excellent knowledge of the international political negotiation processes and outcomes
- Handout

### TIME

- 30 minutes

### PREPARATION

- Photocopy or write onto sheets of paper or index cards each of the major dates, major events and major outcomes surrounding international negotiation processes.
- Photocopy enough handouts for each participant (to be provided to participants at the end of the exercise).

### STEPS

1. Introduce the session by explaining the importance of the current international negotiations to the development of any national or project-level REDD activity. Also clearly point out that the current negotiations have been influenced by international trends and frameworks since the Rio Treaty in 1992.
2. Explain that a small, fun group exercise will be conducted to explore the major international policy events that are now shaping the current REDD discussions.
  - Each group will be given three sets of cards. One set will have a series of dates that correspond to major climate change events, the next set will have the names of those major climate events and the third set of cards will have the key outcomes of those events.
  - Each group is to place the events and their corresponding outcomes in a historical time line (chronological listing). They will need to glue down their outcomes on a flip chart.
3. Break participants into groups of 4 to 6 and allow 20 minutes for the groups to complete the exercise. At the conclusion of the exercise each group should post their completed flip charts onto the training room walls.
4. Once all groups have completed their activity, encourage all participants to walk around reviewing all group outcomes. Allow discussion and debate between participants.

5. Reconvene the group and ask if there are any outstanding issues or questions.
6. Conclude the small group session.
7. Introduce the major international policy concepts using the PowerPoint presentation as a guide. A resource person who has specialist knowledge in international climate change agreements and outcomes would be required.

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### EXERCISE MATERIAL:

(Photocopy or print each of the major dates, events and outcomes onto an index card. Print enough sets for each small group)

#### Major Dates:

1992	April 2008
1994	June 2008
1997	July 2008
2001	August 2008
2005	December 2008
2007	December 2009
2008	2012

#### Major Events:

Rio Treaty is negotiated
The United Nations Framework Convention on Climate Change (UNFCCC) enters into force
The Kyoto Protocol is negotiated
The Marrakesh Accords are negotiated
Kyoto Protocol enters into force
First Commitment Period of the Kyoto Protocol begins
First Commitment Period of the Kyoto Protocol ends
The 13th Conference of the Parties (COP-13) in Bali, Indonesia
The UNFCCC bodies meet five times during the year to discuss post-2012 agreement
The 14th Conference of the Parties (COP-14) in Poznan, Poland
The 15th Conference of the Parties (COP-15) in Copenhagen



## KEY OUTCOMES:

- Created the United Nations Framework Convention on Climate Change (UNFCCC).
  - The goal of the UNFCCC: 'to stabilize atmospheric concentrations of greenhouse gases at a level that would prevent human-induced actions from leading to dangerous anthropogenic interference with the global climate system.'
  - The UNFCCC also states that 'such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure food production is not threatened, and to enable economic development to proceed in a sustainable manner.'
  - The Convention also seeks to 'cover all relevant sources, sinks, and reservoirs of greenhouse gases.'
- UNFCCC is ratified by 192 countries (including the U.S.)
  - The UNFCCC laid out a process for negotiating specific commitments
  - Parties to the UNFCCC must:
    - Gather and share information on:
      - Greenhouse gas emissions
      - National policies
      - Best practices
    - Launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts
    - Cooperate on preparing for adaptation to the impacts of climate change
  - Convention bodies:
    - Conference of the Parties (COP): is the 'supreme body' of the Convention, that is, its highest decision-making authority. It is an association of all the countries that are Parties to the Convention.
    - **Subsidiary Body on Scientific and Technical Advice (SBSTA)**: provides the COP with advice on scientific, technological and methodological matters
    - **Subsidiary Body on Implementation (SBI)**: gives advice to the COP on all matters concerning the implementation of the Convention
- Key elements of the Kyoto Protocol:
    - Recognition that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere, the Protocol places a heavier burden on developed nations
    - Parties:
      - Annex I: Industrialized countries
      - Non-Annex I: Developing countries
    - Binding targets for Annex I countries for reducing greenhouse gas emissions: 5% below 1990 levels from 2008-2012
    - All six major GHGs included
    - Includes flexible incentive-based implementation mechanisms
  - Flexible mechanisms:
    - International Emissions Trading (IET): trading of carbon credits between Annex I countries
    - Joint Implementation (JI): investing in emission reduction projects in Annex I countries
    - Clean Development Mechanism (CDM): investing in emissions reduction projects in developing countries

- Established the rules for how the mitigation targets laid out in the Kyoto Protocol will be achieved.
  - Including emissions from land use change in developing countries as an eligible mitigation strategy was controversial due to concerns about permanence, leakage, additionality, and the technical capacity to measure and monitor emission reductions.
  - Since the mitigation targets had already been set in the Kyoto Protocol, including new sources of emissions reductions (i.e. from land use change in developing countries) was seen as an 'offset' rather than an additional reduction in emissions.
  - Emissions reductions from avoided deforestation in developing countries was not included as an eligible mitigation strategy.
- The Bali decision calls for the inclusion of REDD as part of a post-2012 mitigation strategy.
  - The 'Bali Road Map' states that the technical capacity to accurately measure and monitor emissions reductions from reduced deforestation and degradation exists.
  - The decision acknowledges that degradation also leads to emissions and needs to be addressed when reducing emissions from deforestation.
  - The needs of local and indigenous communities have to be considered.
  - Demonstration activities and capacity building are necessary for countries that may not be ready to engage in the mechanism by 2012.
- All negotiating bodies met to discuss all of the methodological issues related to a post-2012 agreement.
- A negotiating text for the post-2012 agreement will potentially be tabled for discussion amongst the Parties.
- Goal: to solidify a post-2012 global agreement on climate change.

**Rio Treaty (1992)**

- Created the United Nations Framework Convention on Climate Change (UNFCCC)
- The goal of the UNFCCC: 'to stabilize atmospheric concentrations of greenhouse gases at a level that would prevent human-induced actions from leading to dangerous anthropogenic interference with the global climate system.'
- The UNFCCC also states that 'such a level should be achieved within a timeframe sufficient to allow ecosystems to adapt naturally to climate change, to ensure food production is not threatened, and to enable economic development to proceed in a sustainable manner.'
- The Convention also seeks to 'cover all relevant sources, sinks, and reservoirs of greenhouse gases.'

**The United Nations Framework Convention on Climate Change (UNFCCC) enters into force (1994)**

- The UNFCCC is ratified by 192 countries (including the U.S.).
- The UNFCCC did not create commitments for Parties, but laid out a process for negotiating specific commitments.
- Parties to the UNFCCC must:
  - Gather and share information on:
    - Greenhouse gas emissions
    - National policies
    - Best practices
  - Launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts
  - Cooperate in preparing for adaptation to the impacts of climate change
- Convention bodies:
  - Conference of the Parties (COP): is the 'supreme body' of the Convention; that is, its highest decision-making authority. It is an association of all the countries that are Parties to the Convention.
  - Subsidiary Body on Scientific and Technical Advice (SBSTA): provides the COP with advice on scientific, technological and methodological matters.
  - Subsidiary Body on Implementation (SBI): gives advice to the COP on all matters concerning the implementation of the Convention.

**The Kyoto Protocol is negotiated (1997)**

- Key elements of the Kyoto Protocol:
  - Principle of 'common but differentiated responsibilities' between Parties: Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations.
  - Parties:
    - Annex I: Industrialized countries
    - Non-Annex I: Developing countries
  - Binding targets for Annex I countries for reducing greenhouse gas emissions: 5% below 1990 levels from 2008-2012.
  - All six major GHGs included. Includes flexible incentive-based implementation mechanisms.
- Flexible mechanisms:
  - International Emissions Trading (IET): trading of carbon credits between Annex I countries
  - Joint Implementation (JI): investing in emission reduction projects in Annex I countries
  - **Clean Development Mechanism (CDM)**: Investing in emissions reductions projects in developing countries

**The Marrakesh Accords are negotiated (2001)**

- Established the rules for how the mitigation targets laid out in the Kyoto Protocol will be achieved.
- Including emissions from land use change in developing countries as an eligible mitigation strategy was controversial due to concerns about permanence, leakage, additionality, and the technical capacity to measure and monitor emission reductions.

- Since the mitigation targets had already been set in the Kyoto Protocol, including new sources of emissions reductions (i.e. from land use change in developing countries) was seen as an 'offset' rather than an additional reduction in emissions
- Emissions reductions from avoided deforestation in developing countries was not included as an eligible mitigation strategy

***Kyoto Protocol enters into force (2005)***

- The Kyoto Protocol was ratified by 182 countries (not including the U.S.)

***First Commitment Period of the Kyoto Protocol begins (2008)***

None

***First Commitment Period of the Kyoto Protocol ends (2012)***

None

***The 13<sup>th</sup> Conference of the Parties (COP-13) in Bali, Indonesia (December 2007)***

- The Bali decision calls for the inclusion of REDD as part of a post-2012 mitigation strategy.
- The 'Bali Road Map' conclusively states that the technical capacity to accurately measure and monitor emissions reductions from reduced deforestation and degradation exists.
- The decision includes in its preamble a clear acknowledgement that degradation also leads to emissions and needs to be addressed when reducing emissions from deforestation.
- It also explicitly recognizes that the needs of local and indigenous communities have to be considered.
- Finally, it calls for demonstration activities and capacity building for countries that may not be ready to engage in the mechanism by 2012.

***UNFCCC meetings in Bangkok to discuss post-2012 agreement (June 2008)***

- A work program for negotiating a post-2012 agreement was established.

***The UNFCCC bodies meet five times during the year to discuss post-2012 agreement (2008)***

- The Ad-hoc Working Groups (AWG), Subsidiary Body on Scientific and Technical Advice (SBSTA), and the Subsidiary Body on Implementation (SBI) meet to discuss all of the methodological issues related to a post-2012 agreement.

***The Ad-hoc Working Groups (AWG) meet in Accra to discuss post-2012 agreement (August 2008)***

- Countries presented various proposals for REDD policy incentives and financial mechanisms and moved closer to agreement on REDD.

***The 14<sup>th</sup> Conference of the Parties (COP-14) in Poznan, Poland (December 2004)***

- A negotiating text for the post-2012 agreement will potentially be tabled for discussion amongst the Parties.

***The 15<sup>th</sup> Conference of the Parties (COP-15) in Copenhagen (December 2009)***

- Goal: to solidify a post-2012 global agreement on climate change.



## Session 3.4: INTRODUCTION TO CARBON MARKETS

### OBJECTIVES

At the end of the session participants will be able to:

- Understand how a carbon trading market can be an efficient way to distribute the burden of reducing Greenhouse Gas Emissions for a firm or country
- Understand how the efficiency of a carbon market can be manipulated by differing regulatory frameworks

### MATERIALS

- Flip charts
- Marker pens
- 'Firm' scenario sheet'
- 'Firm' recording sheets
- Emission permits
- Abatement Cost Cards
- Whiteboard or large flip charts to note down market transactions
- Facilitator instruction sheets
- PowerPoint presentation ('Introduction to Carbon Markets')

### TIME

- 1 hour

### PREPARATION

- Ensure the facilitator is familiar with game and trading procedures.
- Set up the room so there is space for each 'Firm' to work and that there is a clear area for trading – known as the 'trading floor'.
- Determine how many 'firms' will be playing the game. A minimum of 6 'firms' with a minimum of 2 participants per firm is required. However the more firms the greater the competition between firms and hence value of the game.
- Determine the 'cap' to be set. This is set by the number of firms, i.e. if there are 9 firms, then the 'cap' is 9 tons of CO<sub>2</sub> equivalents.
- Photocopy 'Firm' scenario sheets – 1 copy per participant
- Photocopy 'Firm' recording sheet – 1 copy per 'firm'
- Identify a participant or training assistant that can play the role of a 'registry representative'. Their task is to note down the trading prices for the sale of carbon credits and who was involved in the trading (i.e. who sold and who bought).

### STEPS

1. Introduce the session by indicating that we will play a very simple carbon trading game where various firms are trying to maximize their profit in a carbon regulated environment. Remind participants that the exercise will be an interesting and fun way to explore carbon trading mechanisms and will not examine the more complex underlying economic principles of pollution abatement through free-market mechanisms.
2. Introduce and explain the game process:
  - Set the scene by saying there is a tiny country called Caroneu whose national economy is based on cement production. Over the years a number of family



firms have dominated the cement market, each with their own cost structure and unique history.

- But strangely enough, each cement company produces 20 tons of cement per year and for each ton of cement produced a ton of greenhouse gases is emitted.
  - Under international protocols, the Environmental Protection Authority (EPA) of Caroneu must regulate the greenhouse gas emissions of the country to meet international agreements. The EPA has decided to establish a 'cap and trade' system to efficiently regulate GHG emissions and achieve a socially optimal level of pollution.
  - But the Caroneu EPA is also experimenting with a number of regulatory rules. Therefore there will be a number of trading rounds as the effects of these regulatory rules are tested.
  - Participants will work for one of the cement 'firms' and will be required to maximize the profit of her or his company once the Caroneu EPA has put into effect a 'cap' on greenhouse gas emissions from the cement sector.
3. Divide the participants into 6 or more 'firms' (2-4 participants per firm and a minimum of 6 firms). Get participants from each 'firm' to provide a name for their 'firm'.
  4. Provide each participant with the '**Firm** scenario sheet' and each 'firm' one '**Firm** recording sheet'. Allow 10 minutes for each of the participants to read the scenario sheet.
  5. Indicate to participants that the EPA is now going to establish its 'Cap and Trade' system and will introduce a number of trading periods (or trading rounds). Each firm will be given a background briefing sheet for each of the trading periods.
  6. Before proceeding ask for any questions and seek clarification.
  7. Distribute to each 'firm' the **No Regulation** background briefing note. Read this out loud to ensure that all participants understand the instructions. Ask each 'firm' to calculate their level of production. Check that all firms have maximized their production by producing 20 tons of cement.
    - This is a non-trading period and is designed to assess production levels, GHG emission levels and profitability in a non-regulated carbon environment.
- ,
8. **Uniform Standard' Round:** *Before starting the trading period, the facilitator needs to establish a 'cap'. For simplicity, each firm is provided permits to produce 10 tons of CO<sub>2</sub> equivalents – therefore the cap is equal to 10X the number of participants.*
    - Read out loud the 'No Trading' background note and ensure the all participants understand. Provide each firm with one emission permit.
    - Allow 'firms' to calculate their production and profit levels.
    - Note outcomes on whiteboard/flip chart and calculate average profit.
    - At the conclusion collect all emission permits.
    - This is to illustrate a 'command and control' approach and the impact of a uniformly applied standard across a sector or country.
  9. **Trading Period 1:** Explain that this will be the first trading period for each of the firms and that the trading will occur in a '**pit market setting**'. Show 'firms' where this trading floor (or 'pit market') will occur in the room. Introduce a 'pit market setting' to the 'firms' by:
    - Providing each firm with an abatement cost card and one emission permit per firm.
    - Explain that the firms are to calculate their position or response to the 'cap' that has been set. Firms wishing to trade carbon credits will then be asked to send a representative to the 'trading floor'. The representative from firms

wishing to sell should loudly announce at what price they wish to sell.

- Once a buyer and seller have agreed to a price, they must report the price to the registry representative.
- The registry representative must record the price at which the permit was traded and the buyer and seller.
- The registry assistant must loudly announce the trading price of the permits and write the price on the trading board so that other traders (buyers and sellers) know what the market price is.
- Allow 10 minutes for market transactions.
- Remind 'firms' to note down their transactions on their record sheets.
- The facilitator should verify with the firms that they have incurred the abatement cost for emitting GHGs that have not been exempted with a permit.
- At the end of the trading period ask all firms what their profit/return was after trading. Note this down and calculate an average profit/return across all firms.

**10. Trading Period 2:** Redistribute the GHG emission permits to the firms and repeat the exercise for Trading Period 1. The average return or profit should be similar to Trading Period 1. This round can be repeated if required.

**11. Trading Period 3:** Explain to the firms that the EPA has received complaints that the uniform allocation of permits was considered very unfair by some companies. As a result the EPA will now issue 15 permits per firm to those firms with the highest abatement costs. (The total allocation of permits should remain the same as Trading Periods 1 and 2).

- Issue the abatement cost cards, but for the firms with the highest abatement costs provide 15 emission permits.
- Tell participants that a 'pit trading setting' will occur again with 10 minutes allowed for trading between firms buying and selling.
- Remind participants that they must: 1) register their transactions and that this transaction must be clearly visible to all firms, and 2) note down the transactions and subsequent returns on their Firms Recording Sheet.

**12. Trading Period 4:** Explain to all firms that an international environmental organization is offering to buy half of the 'cap' permits. But that the environmental organization has not indicated a price at which it will enter the market.

- The facilitator, an assistant or a participant will need to act as the international environmental organization representative buying emission permits on the trading floor. The environmental representative will need to buy half the 'cap' permits as cheaply as it can.
- The introduction of another buyer into the market should increase the demand and therefore increase the trading price of the emission permits.
- Distribute one permit and one abatement cost card to each firm. Allow firms to discuss their positions and then invite them the trading floor.
- Again allow 10 minutes for trading, recording transaction outcomes.

**13. Trading Period 5:** Explain to all firms that emission permits from REDD schemes will now be allowed to be traded on the market. An international conservation organization has been assisting a neighboring country and it is understood that issues of permanence, additionality and leakage have been resolved. The neighboring country is therefore putting carbon credits on the market for sale.

- This is expected to increase supply and therefore lower trading prices. However,

this may be offset by the demand from the international environmental organization introduced in Trading Period 4

- Again distribute ten permits and one abatement cost card to each firm. Allow firms to discuss their positions and then invite them the trading floor.
- Again allow 10 minutes for trading and recording transaction outcomes.

14. Further trading periods and trading scenarios can be introduced if time permits.

## »» COMMENT

- For each of the trading periods, ensure that each firm announces their returns and that an 'average' figure for all firms is calculated. This allows for a comparison between the different trading periods to occur and a discussion on why different outcomes were achieved.
- The session is meant to be a fun way to explore the trading process. However a specialist in carbon trading or a person with knowledge of the financial markets could substantially add to the discussion on why different outcomes were achieved when the regulatory framework for the trading periods were changed.

*This session has been adapted from Anderson, L. and Stafford, S. (1999), Choosing Winners and Losers in a Permit Trading Game, The College of William and Mary, Williamsburg, VA, USA.*

## »» SESSION SUPPORT MATERIAL

### 'Firm' Scenario Sheet

The economy of the tiny country of Caroneu has long been dominated by the cement industry. Your family company is one of several cement companies that has a long and proud history of producing cement in Caroneu.

Your cement is sold on a competitive market at a price of \$12 per ton and your production over the years has remained constant at 20 tons of cement per year. But production of one ton of cement also results in the emission of one ton of CO<sub>2</sub> equivalents.

The Caroneu Environmental Protection Authority (EPA) has decided to establish a permit trading ('cap and trade') system to regulate the amount of greenhouse gases being emitted by the cement industry. This is necessary for Caroneu to meet its international obligations.

But as the Caroneu EPA is only just establishing the countries 'cap and trade' system, it is also experimenting with a number of regulatory rules. You are required to meet the regulatory demands set by the EPA as well as maximizing the profits of your company by engaging in the carbon market established by the EPA.

To maximize your profits and meet the regulations set by the EPA your firm needs to decide how many tons of cement it will produce (for the sake of simplicity, your firm is only allowed to produce 0, 10 or 20 tons of cement).

### **No Regulation**

In preparing for the 'cap and trade' system your firm needs to calculate your level of production (0, 10 or 20 tons of cement) if there is no 'cap' or limit on GHG emissions from your company or your competitors.

Record your outcome on the **Firm Recording Sheet** – disregard columns **d, e** and **f**.

### **Trading Period 1 and 2**

The EPA 'cap' has been set and a trading period will be allowed for firms to reduce their emissions in a profitable way.

A 'pit market setting' will be used for firms to trade emission permits.

Each firm must decide on its level of production and abatement costs if emissions exceed the allowable limit set by the permit. Once firms have decided on the most profitable course of action, a representative from the firm should announce that the firm will either buy or sell permits on the trading floor. The firm can negotiate with one or more firms to achieve the most profitable outcome for the firm.

### **Trading Period 3:**

The EPA has had a number of complaints from cement firms indicating that the uniform allocation of permits was unfair and had a very large impact on those firms with high abatement costs.

The EPA has therefore decided to allocate 15 permits to those firms it considers disadvantaged. Those with low abatement costs will not be issued additional permits.

### **Trading Period 4:**

A large international environmental organization has recently announced that it will buy half the emissions licensed under the EPA 'cap' during this trading period.

Your firm is unsure at what price the environmental organization will be buying permits, but expects a much greater demand for emission permits and therefore a sharp increase in emission permit trading prices.

A 10-minute trading period will be allowed. Transactions must be recorded by the registry and firms must note down the transactions and returns on their Firm Recording Sheet.

### **Trading Period 5:**

The EPA has just announced that emission permits from REDD schemes will now allow to be traded on the market. Your firm understands that an international conservation organization has recently been supporting a neighboring state on various REDD projects and programs and that issues of additionality, permanence and leakage have been addressed.

Your firm is keen to source these 'green' permits due to your firm's corporate social responsibility (CSR) policy as well as playing an important role in profitability meeting production costs under the current 'cap and trade' system.

Firm Recording Sheet

Firm's Trading Name: \_\_\_\_\_

(a) Trading Period	(b) Number of Tons of Cement Produced	(c) Revenue from Production (\$12 x production [b])		(d) Cost of Abatement (cost x production)		(e) \$ Spent on Buying Permits		(f) \$ Earned from Trading Permits		(g) Earnings [c - d - e + f]	
No reg's											
No trade											
1											
2											
3											
4											
5											

## ABATEMENT COST CARDS

### Abatement Card

Your firm has recently upgraded its production plant and has implemented state-of-the-art technology to reduce greenhouse gas emissions. Making additional cuts in emissions will be costly.

Cost of Abatement to reduce emissions of 1 ton of CO<sub>2</sub> equivalents: **\$10/ton**

### Abatement Card

Your firm has always been run efficiently and cleanly. You have implemented a number of policies over the years to reduce all sources of pollution. But you will need to do still more to meet the new regulations.

Cost of Abatement to reduce emissions of 1 ton of CO<sub>2</sub> equivalents: **\$9/ton**

### Abatement Card

Two years ago, your factory installed the latest technology to reduce greenhouse gas emissions. However the technology has failed to meet the required targets. You are now in dispute with the company that installed the technology, and the subsequent costs to meet the Environmental Protection Authority's regulations will be quite high.

Cost of Abatement to reduce emissions of 1 ton of CO<sub>2</sub> equivalents: **\$7/ton**

### Abatement Card

A new factory was built 10 years ago at a time when environmental pollution controls were not important. Over the last 10 years, your firm has been delaying any work to cut emissions and generally clean up its pollution sources.

Cost of Abatement to reduce emissions of 1 ton of CO<sub>2</sub> equivalents: **\$6/ton**

### Abatement Card

Your firm is surprised by the Environmental Protection Authority's decision but has sourced some excellent, efficient and cost-effective technology to reduce emissions.

Cost of Abatement to reduce emissions of 1 ton of CO<sub>2</sub> equivalents: **\$5/ton**

### Abatement Card

Your factory is a very old factory and a major upgrade is planned for parts of the factory in the next 5 years. Including technology to reduce greenhouse gas emissions in this upgrade will require some additional cost.

Cost of Abatement to reduce emissions of 1 ton of CO<sub>2</sub> equivalents: **\$4/ton**

### Abatement Card

Your cement plant is extremely old and some basic upgrades will make a big impact on reducing your emissions.

Cost of Abatement to reduce emissions of 1 ton of CO<sub>2</sub> equivalents: **\$2/ton**

### EMISSION PERMITS

(Make sure to print enough permits so that each firm can emit 10 tons in the beginning (and increasing to 15 tons for some firms in subsequent rounds.)

<i>Permit to emit 1 ton of CO<sub>2</sub> equivalents</i>
<i>Permit to emit 1 ton of CO<sub>2</sub> equivalents</i>
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## Session 3.5: SOCIAL CONSIDERATIONS

### OBJECTIVES

At the end of the session participants will be able to:

- Understand the potential social and community benefits and risks from REDD activities
- Describe activities to maximize benefits and reduce the social and community risks of REDD activities

### MATERIALS

- Flip charts
- Marker pens
- PowerPoint presentation ('Social Considerations')
- Glue or sticking tape
- Index cards

### TIME

- 1 hour and 30 minutes

### PREPARATION

- Outline the steps of the exercise on a flip chart (see Step 2).
- Draw a risk management matrix on a flip chart (see Session Support Material)
- Participants will be asked to identify stakeholders for a possible REDD project. This activity can, therefore, build upon Sessions 2.6 and 2.7.

### STEPS

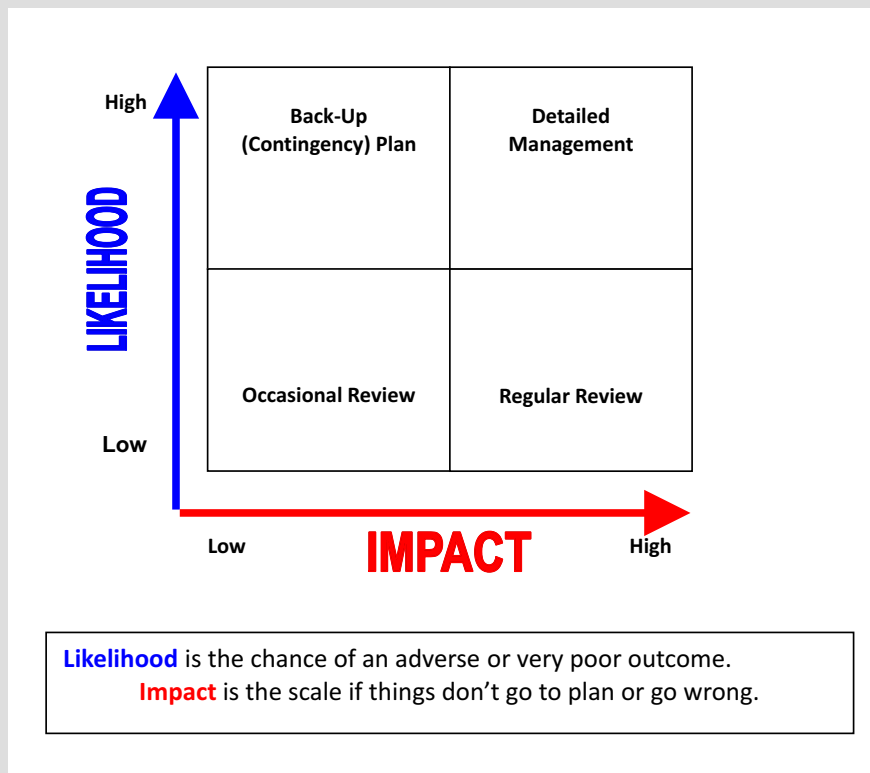
1. Introduce the session by suggesting that REDD has the potential to deliver many positive benefits to forest-dependent communities. But with the possible high monetary value placed on carbon stocks in forests, there will also be great competition to access this monetary wealth by a range of stakeholders.
2. Explain that this session will use a very simple risk assessment matrix to help identify stakeholders that are likely to be negatively impacted by REDD projects. Introduce the risk assessment matrix and explain that the matrix is a useful way to start considering strategies to assist vulnerable groups in overcoming identified risks.
3. Outline the exercise to participants indicating that 4 steps will be taken to explore the potential social and community benefits and possible risks through REDD activities:
  - Step 1:** Participants will be asked to brainstorm all the possible 'groups' that stand to benefit from any REDD project and why. Each group is to be listed on an index card – one group and why per card.
  - Step 2:** Participants will be asked to brainstorm all the possible 'groups' that are at risk of any REDD project and why. On one index card write the group and the reason why – one group, one reason per card.
  - Step 3:** For all the groups that are identified as 'at risk', place on the risk assessment matrix.
  - Step 4:** For groups identified in the high likelihood, high impact corner, participants need to develop up a strategy to stop, avoid or mitigate the risk.
4. Seek questions or clarifications from participants. Break participants into groups of 4 to 6. Allow 45 minutes for the exercise.
5. At the conclusion of the small group work, get each group to report on their outcomes.



6. Initiate a discussion around the following guiding questions:
- What were the groups that will benefit from REDD and why?
  - What are the groups that are at risk from any REDD activities and why? What strategies are there to stop or avoid these risks?
  - How could REDD activities maximize the benefits and minimize or reduce the risks for forest dependent communities?
  - (PowerPoint could be used to support this discussion).

## SESSION SUPPORT MATERIAL

### Risk Assessment Matrix





### OBJECTIVES

At the end of the session participants will be able to:

- Understand the environmental benefits and risks from REDD activities
- Describe activities to maximize benefits and reduce the risks of REDD activities on biodiversity and other ecosystem services

### MATERIALS

- Flip charts
- Marker pens
- PowerPoint presentation ('Biodiversity and Ecosystem Considerations')
- Glue or tape
- Index cards

### TIME

- 1 hour and 30 minutes

### PREPARATION

- None

### STEPS

1. Introduce the session by indicating that at the very center of REDD is a market transaction based around the tradable commodity of carbon. Biodiversity conservation (and for that matter pro-poor development) may be secondary considerations for some firms that buy carbon credits generated from REDD. Therefore certain biologically diverse, low carbon areas might be ignored, or worse, actively degraded in an effort to protect high carbon forests.
2. Outline some of the possible environmental benefits from REDD as well as the possible risks to biodiversity conservation from REDD (the PowerPoint presentation can guide this discussion).
3. Break participants into small groups and get each group to respond to the following questions:
  - What are the major deforestation hotspots currently identified in your country (or province or region)?
  - Would you consider these areas to be biologically rich and important ecosystems to conserve? Or are these areas biologically poor?
  - Would you consider these areas to be carbon rich or carbon poor?
  - Is there a correlation between biological diversity and carbon potential?
  - Suggest ways to 'steer' REDD efforts towards areas of biological importance – particularly if these areas are considered carbon poor.
4. At the conclusion of the small group work, get each group to report on their outcomes.
5. Initiate a discussion around the following guiding questions:
  - Does biological integrity and importance correlate with high carbon stocks?
  - How could REDD activities maximize the benefits and minimize or reduce the risks to biodiversity?
  - (PowerPoint could be used to support this discussion).

6. Conclude the session by noting that risk is not static and a regular risk assessment should be carried out to ensure that any future REDD intervention or activity is not negatively impacting on biodiversity conservation.

#### COMMENT

- This session can be conducted as a stand-alone session or could be combined with Session 3.5 (Social Considerations) if time is limited.
- If combined with Session 3.5, half the participants could consider the biodiversity issues while the other half could consider the social issues. The risk assessment matrix could be used to assess biodiversity risks in the same way it is used to assess social risks.



## Session 3.7: LEGAL ASPECTS OF REDD

### OBJECTIVES

At the end of the session the participants will be able to:

- Understand the existing legal framework relevant for carbon a project that may exist in the country and which has to be considered before carbon can be traded.
- Have an overview of which key players have to be involved in drafting carbon-related regulations.

### MATERIALS

- Pin board
- Brown paper
- Marker pens in different colors

### TIME

- 1 hour and 30 minutes

### PREPARATION

- Understand the national legal framework that may exist in the country where the training will be held.
  - For many countries where REDD is still a very new concept, these may not exist or may not have been considered yet. However there might be regulation for CDM in place and certainly regulations on land tenure, use rights, resource extraction regulations etc., which have to be considered.
- Prepare brown paper (glue 2-4 sheets of brown paper together, so that participant are not restricted by space)

### STEPS

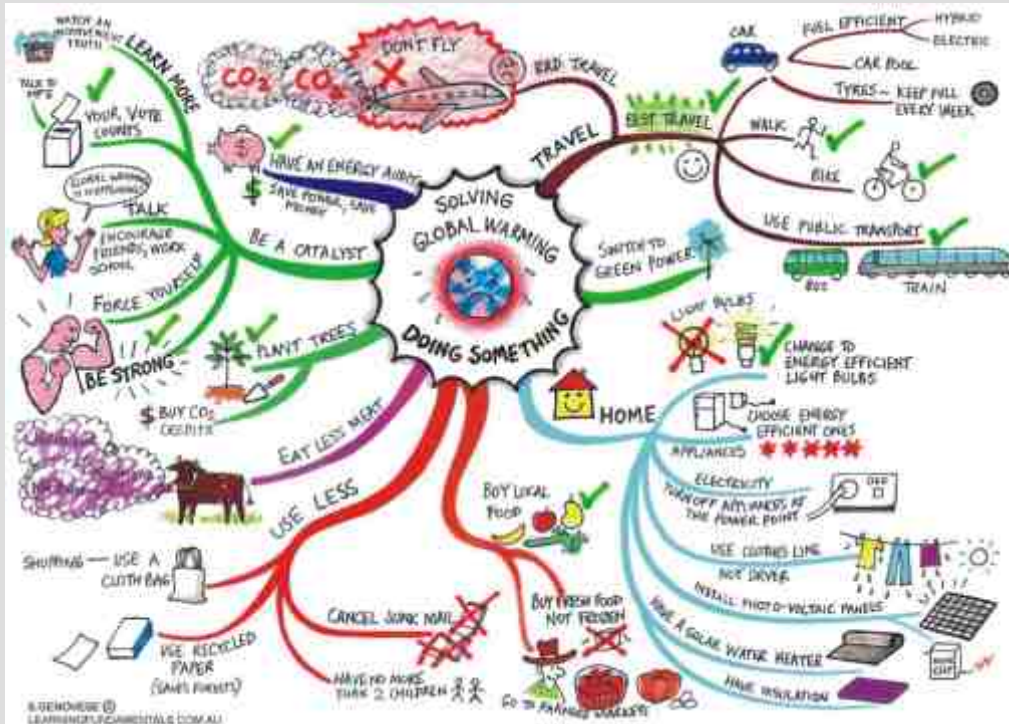
1. Introduce the session by explaining the importance of the legal framework for the development of carbon projects activities.
2. Explain that a group exercise will be conducted to visualize and explore the legal issues relevant to carbon.
3. Explain the concept of a mind map in a related topic (see Session Support Material 1).
4. In front of all the participants, structure the exercise. Write 'REDD legal framework' in the middle, than branch off in four branches: 1. Carbon-related regulations 2. Benefit sharing mechanism 3. Carbon Rights 4. Involved Stakeholders (see Session Support Material 2 and Session Support Material 3 for an example from Indonesia).
5. Break participants into groups of 4 to 6 and allow 20 minutes for the groups to complete the exercise. At the conclusion of the exercise each group should post their completed mind map on the training room walls.
6. Once all groups have completed their activity, encourage all participants to walk around reviewing all group outcomes. Allow discussion and debate between participants.
7. Reconvene the group and ask if there are any outstanding issues or questions.

8. Conclude the small group session.
9. Hand out Session Support Material 4 for further reading on lessons learned from Indonesia.

## SESSION SUPPORT MATERIAL

### 1: Sample Mindmap

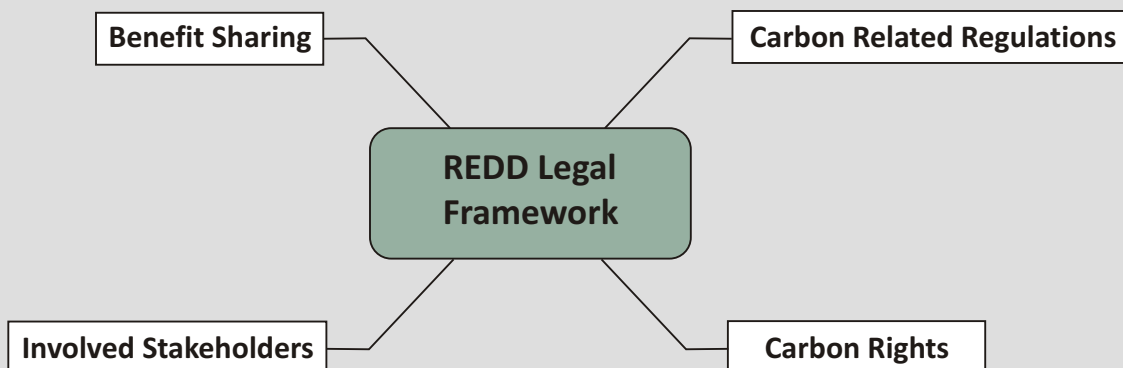
(S. Genovese [www.learningfundamentals.com.au](http://www.learningfundamentals.com.au))



## SESSION SUPPORT MATERIAL 2

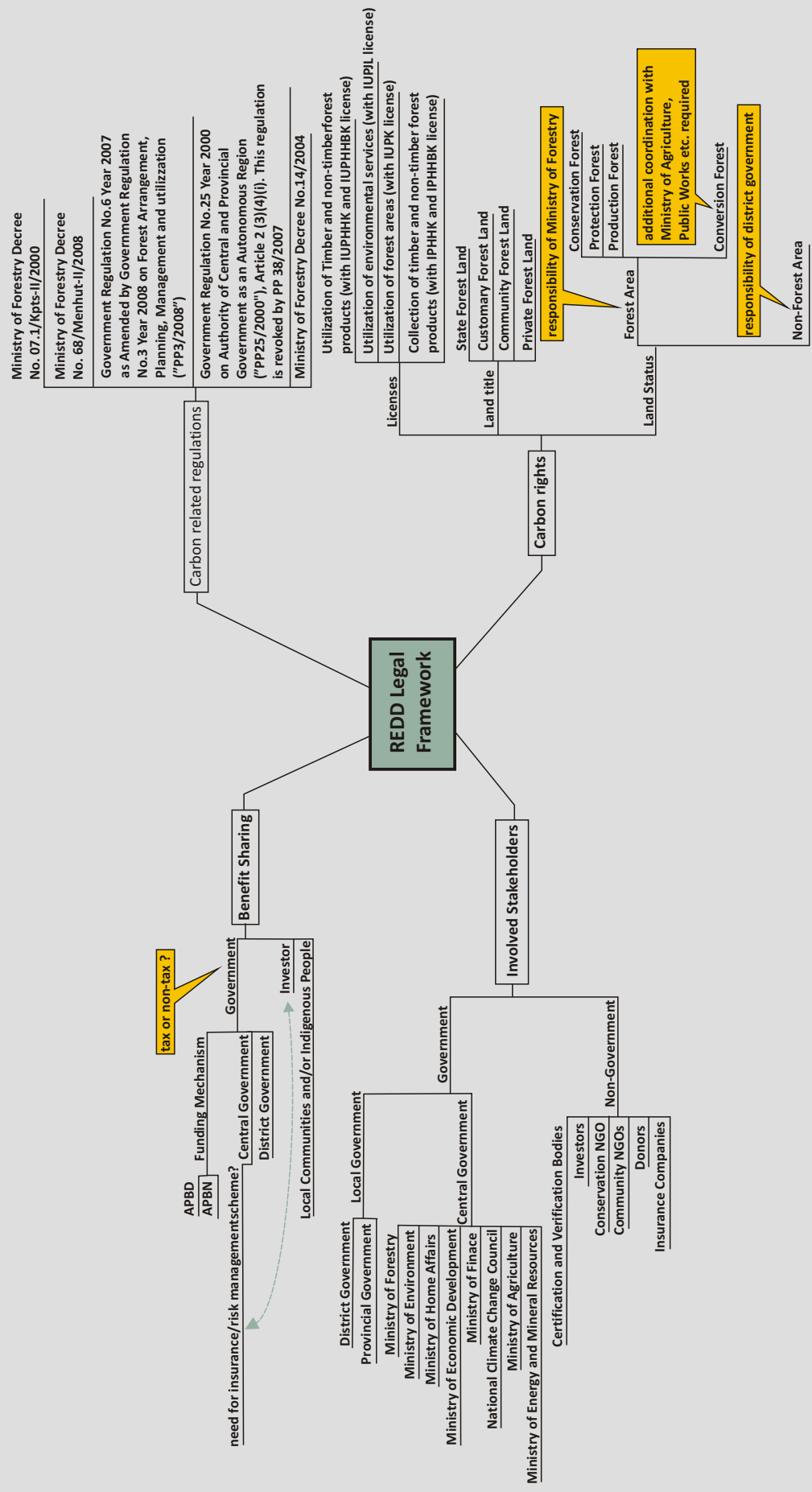
### Legal Framework.

(Mind mapping is a creative process where new subtopics will be identified and branch off. The results of the working groups might be very different).



# SESSION SUPPORT MATERIAL 3

## Sample Mindmap: Legal Framework in Indonesia





## SECTION 4: NATIONAL-LEVEL CONSIDERATIONS

- 4.1. National and Project Linkages**
- 4.2. National-level REDD Program Guidelines**
- 4.3. National REDD Case Study**

*Please Note: Sessions 2.6, 2.7, 3.5 and 3.6 can all be adapted to explore national implementation issues.*



## Session 4.1: NATIONAL AND PROJECT LINKAGES

### OBJECTIVES

At the end of the session participants will be able to:

- List the advantages and disadvantages of performing REDD activities at either a national scale or at a project scale
- Consider linkages that may need to be made between national level approaches and REDD project sites.
- Understand that there will be many different approaches possible under the period of REDD-iness, but the international framework currently being negotiated will influence post 2012 national-project linkages.

### MATERIALS

- Flip Charts
- Marker pens
- Power point presentation ('National-Project')
- Handouts

### TIME

- 1 hour 30 minutes

### PREPARATION

- Understand the national-project arrangements that may exist in the country where the training will be held.
  - For many countries where REDD is still a very new concept, these linkages may not exist or may not have been considered.
- Prepare a flip chart or power point with definitions of national level REDD programs and REDD project activities (see Session Support Material - 1)
- Prepare a flip chart or power point with the REDD spectrum (see Session Support Material - 2)
- Photocopy Session Support Material – 3a (National Level) to be handed out to half the participants and photocopy Session Support Material – 3b (Project Level) to be handed out to the other half of the participants.

### STEPS

1. Introduce the session by reminding participants of the issues discussed in Sessions 3.1 and 3.2 regarding baselines, leakage, permanence and monitoring and then ask participants, “Should REDD be a national-level or project-level mechanism or a combination of both?”
  - Clearly indicate that outcomes from current international negotiations on this issue are still unresolved and that under the period of REDD-iness many options and combinations are being considered and trialled.
2. (If participants are having difficulty in understanding the differences between a national and project response, provide definitions outlined in Support Material 1).
3. Continue to explore and probe this issue by asking participants:
  - Should baselines, leakage, and monitoring of deforestation rates occur at the project or national level?
  - Should the sale or allocation of credits occur at the project or national level?



- Are there opportunities for a combination of project and national responses?
4. Introduce the exercise and explain that the exercise will help us to think about issues of scale and what, if any, linkages will be required at different scales (ie project, provincial, national levels).
  5. Break the participants into two groups and explain that each group has a similar hypothetical REDD case study and that each group is to consider the establishment of:
    - A registry system?
    - A baseline or reference emission level?
    - Systems to deal with leakage and permanence?
    - Systems to determine who will own the credits and how any financial returns generated through the sale of these credits will be fairly distributed?
  6. Break the participants into two groups and hand each group either the 'Caroneu National REDD Program' hypothetical case study or the 'Caroneu REDD project' hypothetical case study.
  7. Ask each group to respond to the questions on their handouts and clearly write their response on a flip chart as each group will be asked to present their outcomes.
  8. Allow 45 minutes for each group to complete the task and then get a representative.
    - During the presentations draw out similarities and differences between the two approaches.
  9. Initiate a discussion around the following guiding questions:
    - Was identifying linkages a difficult task? Why? Why not?
    - How is information and data moving between the various levels? What policies and strategies could assist this?
    - What financial mechanisms were put in place? Were they adequate? Are they transparent and accountable?
    - How are the risks of the activities shared between the various levels?
    - How are the benefits shared?
    - Who owns the carbon?
  9. Conclude by stating that only two very simple case studies were considered, but there will probably be a range or 'Spectrum' of REDD options. Highlight by showing a flip chart or powerpoint of Session Support Material 2 and the opportunities and combinations of REDD activities and indicate what options the country where the training is being held is currently considering.

## »» SESSION SUPPORT MATERIAL 1

**What is a National Level REDD Program:** A national government implements a national accounting system based on a national baseline. Credits are allocated to the national government based on performance against this national baseline. A national monitoring system and credit registry would also be part of the program.

**What is a Project Level REDD Program:** All activities implemented by non-governmental entities and project developers (NGOs, communities, etc). Project developers own emission reductions and credits are allocated to the project developer based on performance against the project baseline.

## SESSION SUPPORT MATERIAL 2

### Spectrum of REDD Options

	Strictly Projects	National Accounting with project implementation	National Accounting with project & national implementation	Strictly National
Accounting/ Registry	Project level	National & project	National & project	National
Baseline/ Reference Emission Level	Project level	National & project	National & project	National
Implementation/ Monitoring	Projects	Projects	National & project	National
Ownership of Credits	Project owner	Projects (nations could receive a %)	Projects and national government	National Government
Approval/ Verification	National/ 3 <sup>rd</sup> party	National/ 3 <sup>rd</sup> party	National/ 3 <sup>rd</sup> party	National/ 3 <sup>rd</sup> party

## SESSION SUPPORT MATERIAL 3a

### CARONEU'S NATIONAL REDD PROGRAM

#### Your Country:

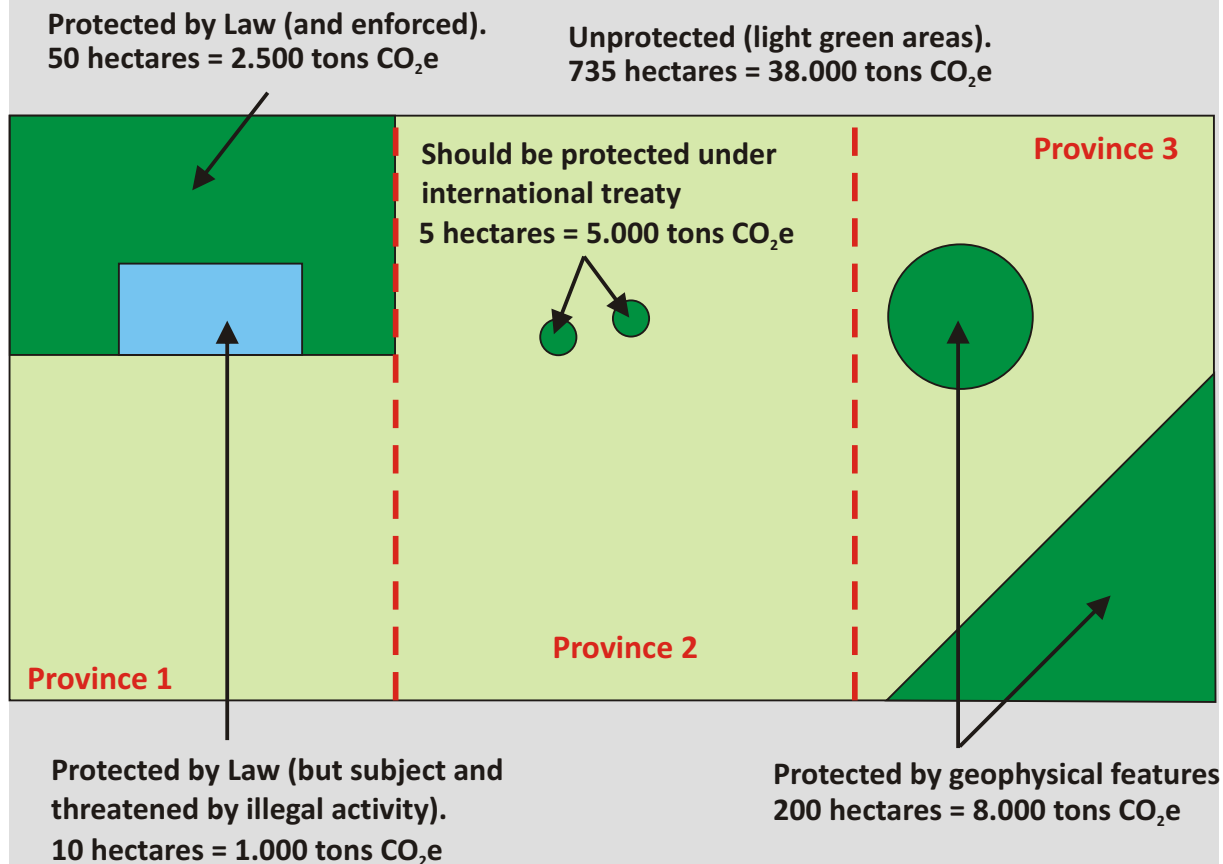
Caroneu is a unique country due to its relatively intact forest estate, and low population density which is still dependent on forest resources to support their livelihoods. It is a federated state but the 3 provinces and 12 districts have a high degree of autonomy. The provinces and districts have been discussing REDD opportunities with private investors and conservation organizations independent of the Central Government.

Caroneu comprises 1,000 hectares and has a number of formally recognized protected areas and a relatively large unprotected or multiple use forest estate, both areas are owned and managed by the Caroneu Department of Forestry. While the population pressure is still considered low, there are increasing pressures for conversion of the unprotected forest estate to agricultural land, plantation crops and illegal logging is becoming an increasingly important issue.

The national vegetation atlas provides a good overview of the current vegetation status of Caroneu. To summarize:

- 50 hectares are protected under law that prevents the conversion of forest into other land uses.
- But 10 hectares in the protected area is being illegally cleared or under threat of clearing in the next 50 years.
- 5 hectares is protected under the RAMSAR convention.
- 200 hectares is not legally protected, but is an inaccessible mountain range and it is reasonably expected that this area will remain under forest for the next 50 years.
- 735 hectares is not subject to any formal protection. Most of this land will be increasingly threatened with conversion to agricultural and plantation crops. In a 'business as usual' scenario, most of this forest will be cleared in the next 50 years.

## Caroneu National Vegetation Atlas



### Caroneu Carbon Balance

	Total	Protected			Tradable	
		Protected by law	Should be protected	Mountains	Protected by threatened	Balance
Hectares	1,000	50	5	200	10	735
Tons CO <sub>2</sub> e	50,000	2,500	500	8,000	1,000	38,000

Under a 'business as usual' scenario it is expected that over a 50 year period:

- 255 hectares of forest will not be converted to other land uses - 11,000 tons of CO<sub>2</sub>e will therefore not be emitted.
- 745 hectares will be cleared with 39,000 tons of CO<sub>2</sub>e being emitted.

Caroneu is now deciding if and how it will comply with expected international rules so that it can maintain the 745 hectares of forest and progressively sell the 39,000 CO<sub>2</sub>e on the international market. For this to occur it must establish a national system.

#### Your Task:

You are part of a National team tasked with establishing a national system for the entry of Caroneu into the international trading market. Your team is to consider how, at the national level, you will establish:

1. A registry system
2. A baseline or reference emission level

3. Systems to deal with leakage and permanence
4. Who will own the credits and how any financial returns generated through the sale of these credits will be fairly distributed?
5. Importantly your team must consider linkages (if any) between the province and district level AND activities that you think could be most efficiently carried out at these levels. (Links may be information, policy, financial, training etc)

You are aware that in each of the 3 Provinces, private investors and conservation organizations are finalizing agreements to set up independent REDD projects with District level support.

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The case study of Caroneu has been adapted from the work of the Terrestrial Carbon Group and their excellent example of a proposed national trading system. Full reference is Terrestrial Carbon Group (2008), *How to include Terrestrial Carbon in Developing Nations in the Overall Climate Change Solution*, Terrestrial Carbon Group July 2008 (<http://www.terrestrialcarbon.org/index.html>)

## »» SESSION SUPPORT MATERIAL 3b

### CARONEU'S REDD PROJECT

#### Your Project:

Your project lies within the small (1,000 hectare) country of Caroneu, which is a federated state with 3 provinces and 12 districts, all of which have a high degree of autonomy. Your NGO has been discussing the establishment of a REDD project with a private investor and you have the support from the District Government. The project area is unique due to its relatively intact forest estate, and low population density which is still dependent on forest resources to support their livelihoods.

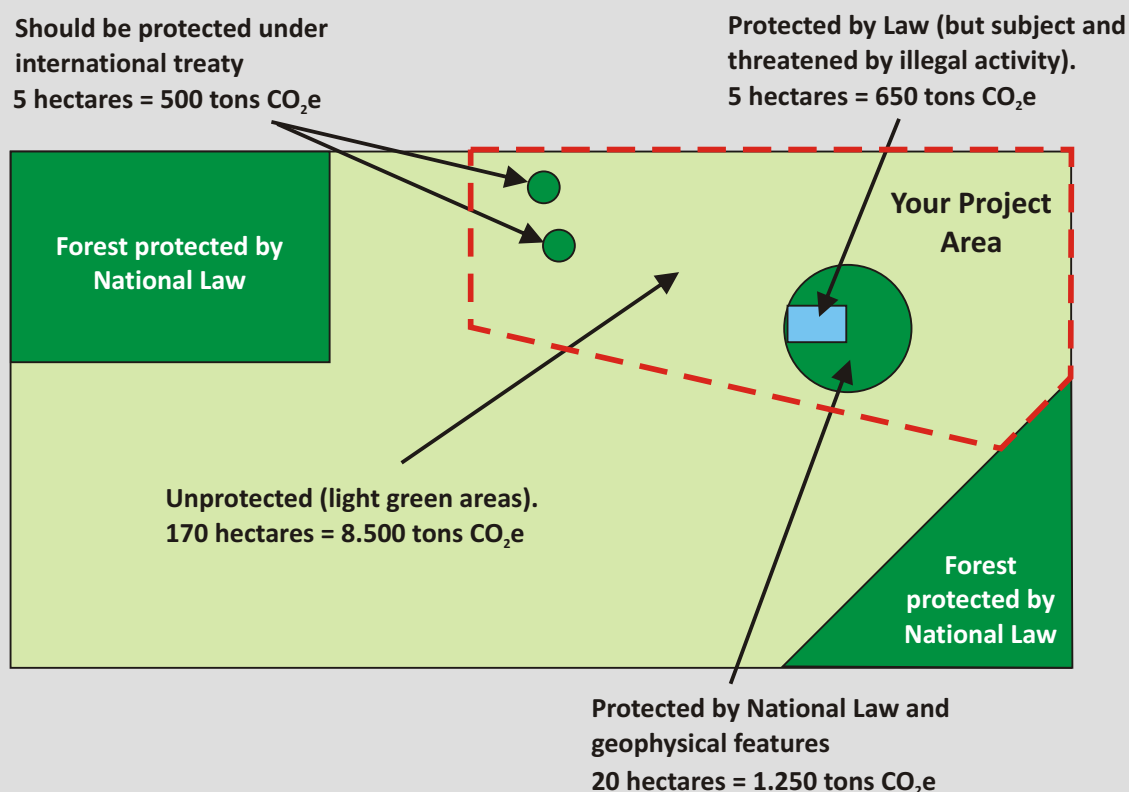
The project area comprises 200 hectares and has a number of formally recognized national protected areas and a relatively large unprotected or multiple use forest estate, both areas are owned and managed by the Caroneu Department of Forestry. While the population pressure is still considered low, there are increasing pressures for conversion of the unprotected forest estate to agricultural land, plantation crops and illegal logging is becoming an increasingly important issue.

The project area contains:

- 5 hectares is protected under the RAMSAR convention and therefore protected under law that prevents the conversion of forest into other land uses.
- 25 hectares is protected by national protected area laws and is also relatively inaccessible due to mountains. While it is reasonably expected that this area will remain under forest for the next 50 years, 5 hectares is considered highly vulnerable to illegal logging.
- 170 hectares is not subject to any formal protection. But most of this land will be increasingly threatened with conversion to agricultural and plantation crops. In a 'business as usual' scenario, most of this forest will be cleared in the next 50 years.

## Project Area

(The project area of 200 hectares is within the red-dotted line. The area outside the project boundary is Caroneu land predominately managed by the Department of Forestry)



## Project Carbon Balance

	Total	Protected		Tradable	
		Should be protected	Mountains	Protected but threatened	Balance
Hectares	200	5	20	5	170
<b>Tons CO<sub>2</sub>e</b>	<b>10,900</b>	<b>500</b>	<b>1,250</b>	<b>650</b>	<b>8,500</b>

Under a 'business as usual' scenario it is expected that over a 50 year period:

- 25 hectares of forest will not be converted to other land uses - 1,750 tons of CO<sub>2</sub>e will therefore not be emitted.
- 175 hectares will be cleared with 9,150 tons of CO<sub>2</sub>e being emitted.

Your project is now deciding if and how it will comply with expected international rules so that it can maintain the 175 hectares of forest and progressively sell the 9,150 CO<sub>2</sub>e on the international market. For this to occur it must establish a number of project based systems that may or may not be linked into a broader national system.

### Your Task:

Your local NGOs in the small, forested country of Caroneu has been approached by a private investors to establish a REDD project in preparation for the sale of REDD credits in the post 2012 international system (which is expected to accept REDD credits as a valid carbon trading commodity).

You are part of the Project team from the district tasked with establishing the project for the sale of carbon credits into the international trading market. Your team is to consider how at the project level you will establish:

1. A registry system
2. A baseline or reference emission level
3. Systems to deal with leakage and permanence
4. Who will own the credits and how any financial returns generated through the sale of these credits will be fairly distributed?
5. Importantly your team must consider linkages (if any) between your project, and district, provincial and national level national government AND activities that you think could be most efficiently carried out at these levels. (Links may be information, policy, financial, training etc)

You are aware that the central government is also developing a national response to REDD to prepare for the country to take advantage of a possible trading market for REDD credits.

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The case study of Caroneu has been adapted from the work of the Terrestrial Carbon Group and their excellent example of a proposed national trading system. Full reference is Terrestrial Carbon Group (2008), How to include Terrestrial Carbon in Developing Nations in the Overall Climate Change Solution, Terrestrial Carbon Group July 2008 (<http://www.terrestrialcarbon.org/index.html>)



## Session 4.2: NATIONAL-LEVEL REDD PROGRAM GUIDELINES

### OBJECTIVES

At the end of the session participants will be able to:

- Name the principal elements of a national-level REDD program.
- Consider how these elements are being developed in the country where the training is being held.
- Understand the importance of multi-stakeholder processes to develop REDD regulations

### MATERIALS

- Flip charts
- Marker pens
- PowerPoint presentation ('National-Level REDD Programs')
- Resource person familiar with the national REDD context in which the training is being conducted

### TIME

- 1 hour 30 minutes

### PREPARATION

- Prepare 5 flip charts for each of the 5 key elements for a national-level REDD program – each flip chart needs to have a title that clearly identifies the element and a list of the guiding questions. Post the 5 flip charts around the training room walls (see Session Supporting Material)

### STEPS

- Introduce the resource person who will support this session.
- Allow the resource person to introduce the five key elements of a national-level REDD program:
  1. National baseline/Reference emission level
  2. Monitoring system
  3. Accounting system (carbon registry)
  4. Credit allocation
  5. Stakeholder consultation process

Ensure that specific reference is made to the national context in which the training is being held.

- If the resource person has not already discussed the following points, make sure they are clearly highlighted:
  - The REDD international policy framework is still being debated and few specifics have been confirmed. The requirements of a 'national-level' REDD framework are therefore still uncertain as is the question of whether a national-level framework is required at all.
  - Nevertheless, it is expected that a national baseline would have to be established, supported by a country-wide carbon accounting system.
  - Credits would then be given based on performance against the national baseline and registered in a carbon registry (the carbon accounting process).
  - Implementation within the country could be conducted by either national institutions, or turned over to provincial/state or local agencies.

- Introduce the exercise by explaining that five key elements of a national REDD system are posted on the training room walls, each with a series of guiding questions. Participants are to select which of the elements they would like to explore.
  - Ask participants to move to the flip chart that describes the key element of a national REDD framework that they would like to explore. Give groups 30 minutes to discuss and respond to the guiding questions.
  - Groups are to write the outcomes of their discussion on a flip chart and elect a spokesperson to provide a summary of the group's outcomes.
  - Each group reports their findings in the plenary.
- Initiate a discussion based on the group outcomes and allow the resource person to complement and add to the discussion.

## SESSION SUPPORT MATERIAL

### Elements of a National-Level REDD Program:

Elements	Guiding Questions:
National baseline/Reference Emission Level	<ul style="list-style-type: none"> <li>● Is there a national baseline or reference emission point in place? What is it?</li> <li>● How was this established?</li> <li>● What sectors does this baseline cover?</li> <li>● What collaboration is there between government agencies and institutes to collect this data?</li> </ul>
Monitoring system	<ul style="list-style-type: none"> <li>● How is forest cover and land use change monitored and who is responsible for it?</li> <li>● Name all institutions that are monitoring forests.</li> <li>● What are the constraints of the current monitoring system?</li> <li>● How could collaboration between/among institutions be achieved to overcome these constraints?</li> </ul>
Accounting system (carbon registry)	<ul style="list-style-type: none"> <li>● Do you know of any working registries (this can be outside the forestry sector)? Name them and briefly explain how they work.</li> <li>● What verification schemes are in place?</li> <li>● What lessons can be learnt from these verification schemes for building a carbon accounting and verification system?</li> </ul>
Credit allocation	<ul style="list-style-type: none"> <li>● What payment distribution channels from the central government to the local level exist in the forestry sector?</li> <li>● Which ones work best, and why?</li> </ul>
Stakeholder consultation process	<ul style="list-style-type: none"> <li>● What is the typical stakeholder consultation process in place in the forestry sector?</li> <li>● Is that process effective? Why or why not?</li> <li>● Explain the consultation process that should be implemented in the context of REDD: Who should be involved? When? How?</li> </ul>





## Session 4.3: NATIONAL REDD CASE STUDY

### OBJECTIVES

At the end of the session participants will be able to:

- Identify lessons learned from the design and implementation of a national-level REDD initiative
- Compare and contrast participants' own experiences with the case study/example presented

### MATERIALS

- LCD
- A resource person with detailed knowledge of national-level REDD program activities.
- Any supporting documentation on the national-level REDD initiative under consideration.
- PowerPoint presentation (an **example presentation** is provided in 'National-Level REDD Programs')

### TIME

- 1 to 2 hours, depending on the resource person and depth of information available on the REDD project example

### PREPARATION

- None

### STEPS

1. Introduce the resource person and encourage discussion and debate on the issues covered in Sessions 4.1 and 4.2.



## **SECTION 5:** **PROJECT-LEVEL CONSIDERATIONS**

- 5.1: Standards for REDD Projects**
- 5.2: Project Life Cycle**
- 5.3: REDD Project Example**



## Session 5.1: STANDARDS FOR REDD PROJECTS

### OBJECTIVES

At the end of the session participants will be able to:

- Explain the purpose of standards
- Describe what standards currently exist for REDD projects

### MATERIALS

- Flip charts
- Marker pens
- PowerPoint presentation ('REDD Project Standards')
- Resource person – an expert on standards for carbon trading

### TIME

- 1 hour

### PREPARATION

- Flip chart with a definition of a 'Standard' clearly written (see Session Support Material - 1)
- Flip chart of an example of criteria and supporting indicators (see Session Support Material – 2)
- Flip chart with working groups (see Session Support Material – 3)

### STEPS

1. Introduce the session by defining what a 'Standard' is (refer to flip chart). Explain how standards would apply to a REDD project, i.e. the criteria and indicators that make up a set of standards allow for the assessment and measurement of key elements of a REDD project such as baseline projections, leakage, net positive climate impacts, community and biodiversity impacts and importantly certified emission reductions.
2. Give an example of criteria and indicators from a set of standards (see Session Support Material – 2)
3. Introduce the activity by explaining that standards are important quality control mechanisms for many different actors in a REDD project, and then break the participants into the following groups:
  - Project owner
  - Project developer
  - Project investor
  - Governments
  - Brokers
  - Final buyer
4. Ask each group to write on a flip chart the purpose or importance of standards for their assigned group. Allow 20 minutes for group discussion and reporting.
5. At the conclusion of group activities, get each group to post their flip chart on a training room wall and encourage all participants to circulate and read all group responses.
6. Initiate a discussion around the following guiding questions:
  - What were the common reasons for different groups to use standards?
  - Where there any particular unusual reasons?

- Are standards able to reduce risk?
  - Would standards be able to stimulate the market?
7. Invite the resource person to discuss, in some depth, a standard that she/he is familiar with as well as a brief summary of the current standards that can be used for emission reduction programs and projects.

## SESSION SUPPORT MATERIAL -1

A 'standard' as defined by the IPCC is:

*A set of rules or codes mandating or defining product performance (e.g. grades, dimensions, characteristics, test methods, and rules for use).*

## SESSION SUPPORT MATERIAL -2

### Sample Criteria and Indicators taken from Climate, Community and Biodiversity Standards (CCBS):

**Criteria:** Offsite Climate Impacts ('Leakage')

**Concept:** The project proponents must quantify and mitigate negative offsite climate impacts; namely, decreased carbon stocks or increased emissions of non-CO<sub>2</sub> GHGs outside the project boundary, resulting from project activities (referred to as 'leakage' in climate change policy).

**Indicators:**

The project proponents must:

1. Estimate potential offsite decrease in carbon stocks (increases in emissions or decreases in sequestration) due to project activities
2. Document how negative offsite impacts resulting from project activities will be mitigated, and estimate the extent to which such impacts will be reduced.
3. Subtract any likely project-related unmitigated negative offsite climate impacts from the climate benefits being claimed by the project. The total net effect, equal to the net increase in onsite carbon stocks minus negative offsite climate impacts, must be positive.

## SESSION SUPPORT MATERIAL -3

### Working Groups:

- **Project owner** – The operator and owner of the physical forest or area where the emission reduction project takes place.
- **Project developer** – A person or organization with the intention to develop an emission reduction project. It could be the project owner, a consultant or specialized services provider.
- **Project investor** – Banks, private equity firms, private investors, non-profit organizations and other organizations may lend or invest equity to fund a project
- **Governments** – Governments of the host country where the emission reduction project is taking place.
- **Brokers** – In the wholesale market, emission offset buyers and sellers can have a transaction facilitated by a broker. Brokers typically arrange transactions for non-standardized products, occasionally traded and often in small volumes.
- **Final buyer** – Individuals and organizations who purchase carbon offsets for counterbalancing GHG emissions.



## Session 5.2: PROJECT LIFE CYCLE

### OBJECTIVES

At the end of the session participants will be able to:

- Describe why a forest carbon project is unique from other forest conservation projects
- List the steps in a forest carbon project and the key activities

### MATERIALS

- Flip charts
- Marker pens
- PowerPoint presentation ('REDD Project Life Cycle')
- Glue or sticking tape

### TIME

- 1 hour

### PREPARATION

- Photocopy each project phase and activity onto an index card (see Session Support Material). Create enough sets for the number of small groups

### STEPS

1. Introduce the session by explaining why REDD projects are similar to other conservation projects, but also have a number of unique characteristics
2. Outline the key phases of a REDD project and explain that participants will now look at each phase in detail.
3. Introduce the exercise by explaining that the participants will be divided into groups and that each group will be given a series of activities that will need to be matched to each of the key phases of a REDD project. Participants are to simply match activities to key phases, stick onto a flip chart and post their completed flip chart on the wall.
4. Break participants into groups of 4 to 6 and allow 20 minutes for the group activity.
5. At the end of the activity, allow all participants to examine the other group outcomes.
6. Initiate a discussion based around the following guiding questions:
  - What were some of the difficult or challenging issues in designing the project life cycle?
  - Where does marketing and financing start and finish during the project life cycle?
  - How often should project verification occur?
  - What period of time would be required for each of the project design phases?



Project Idea Phase
<ul style="list-style-type: none"><li>• <b>Define project scope/concept</b> - Reforestation or REDD?</li></ul>
<ul style="list-style-type: none"><li>• <b>Identify project area</b> - Geographic boundaries of activities? Private or public land? Is land eligible for carbon project?</li></ul>
<ul style="list-style-type: none"><li>• <b>Identify potential partners</b> - Landowners, communities, partner NGOs, etc.</li></ul>
<ul style="list-style-type: none"><li>• <b>Examine legal feasibility</b> - Who owns CO<sub>2</sub> credits? Is the project allowed under national law? What are the requirements for implementation?</li></ul>
<ul style="list-style-type: none"><li>• <b>Begin stakeholder engagement</b> - What groups will be affected?</li></ul>
<ul style="list-style-type: none"><li>• <b>Determine preliminary feasibility</b> - Can the project work?</li></ul>
<ul style="list-style-type: none"><li>• <b>Outcome</b> – Project Idea Note (PIN) or Concept Note.</li></ul>
Project Design Phase
<ul style="list-style-type: none"><li>• <b>Define activities and interventions</b> - How will the project protect standing forests? Which partners will take what roles?</li></ul>
<ul style="list-style-type: none"><li>• <b>Determine expected emissions reductions</b> - How will the project calculate GHG benefits? What carbon pools will be measured? How often?</li></ul>
<ul style="list-style-type: none"><li>• <b>Consult with local communities and stakeholders</b> - What are the social and environmental impacts? How will the project respond to stakeholder concerns?</li></ul>
<ul style="list-style-type: none"><li>• <b>Analyze the financial costs and legal issues</b> - What are the upfront costs and what are the expected financial flows over the life of the project? What agreements must be signed?</li></ul>
<ul style="list-style-type: none"><li>• <b>Outcome</b> – Project Design Document.</li></ul>
Project Design Validation and Registration
<ul style="list-style-type: none"><li>• <b>Third Party Audit</b></li></ul>
<ul style="list-style-type: none"><li>• <b>Has the project used an appropriate methodology?</b> – Has it been applied correctly?</li></ul>
<ul style="list-style-type: none"><li>• <b>Have the appropriate steps been followed?</b> – Have stakeholders been consulted? Have local laws been upheld?</li></ul>
<ul style="list-style-type: none"><li>• <b>Is the project calculating its expected emissions reductions correctly?</b> – Has the baseline been determined correctly? Is the number of expected Emission Reductions correct?</li></ul>
<ul style="list-style-type: none"><li>• <b>Outcome</b> - Project is validated and complies with a certain standard (e.g. CCBS, VCS, CDM)</li></ul>

### Project Implementation

- **Sign and implement all landowner and partner agreements** - Lease land, negotiate site protection or maintenance contracts, government and community agreements, benefit sharing arrangements.
- **Implement project activities**
  - Implement forest protection activities: patrolling or monitoring, fire prevention, conservation incentive agreements, etc.
  - Design alternative livelihood and community benefit activities
- **Monitor project impacts** - Monitor deforestation rates in project site - Monitor and mitigate leakage - Monitor Social and ecological impacts
- **Community Engagement and Education** - Capacity building (project basics and activity specific) - Project partners, community groups, and local government.
- **Outcome** – Trees planted or forest protected.

### Project Verification

- **Third-party verifier (auditor) will determine:**
- **Has the project been implemented according to the project design and methodology?** – Did the project do what it said it would?
- **Has monitoring occurred as planned?** – Quantity of real emissions reductions? Leakage monitored and/or mitigated?
- **What social and environmental impacts (expected or unexpected) have occurred mitigated?** – Have the benefits been realized? Negative impacts mitigated?
- **Outcome** – Project implemented properly and emission reductions achieved – Project is awarded and can sell emission reductions.

### Fund Raising

### Marketing



## Session 5.3: REDD PROJECT EXAMPLE

### OBJECTIVES

At the end of the session participants will be able to:

- Identify lessons learnt from the design and implementation of project-level REDD projects.
- Compare and contrast their own experiences with other REDD projects.

### MATERIALS

- LCD
- A resource person with detailed knowledge of a REDD project.
- The supporting Project Design Document (PDD) for the project under consideration.
- PowerPoint presentation: Example presentations are provided ('Mantadia Project' 'Aceh Project' 'Noel Kempff Project')

### TIME

- 1 to 2 hours depending on resource person and depth of information available on the REDD project example

### PREPARATION

- Photocopy one copy of the REDD Building Block Framework introduced in Session 3.1 (see Session Support Material).
- Inform the resource person of the exercise the participants must undertake during their presentation.

### STEPS

1. Introduce the session by explaining that we will now explore a REDD project in some depth. But as we are coming towards the end of the training, it also a useful time to capture the main insights we have gained during the training. To do this we will utilize our REDD Building Block Framework introduced in Session 3.1. Hand out the Framework to each of the participants if this has not already been done earlier in the training.
2. Explain that a resource person will provide a presentation on a REDD project that they have in-depth knowledge of. During the presentation, participants are to fill out the REDD Building Block Framework, taking particular note of:
  - How carbon is accounted for
  - How baselines are set
  - How emissions are reduced
  - How the project is monitored and evaluated
  - How credits are sold
  - What policies are important
  - What actors are important
  - Who is likely to buy the emission credits.
3. Introduce the resource person.
4. Encourage a wide-ranging discussion on the key issues explored during the training program.



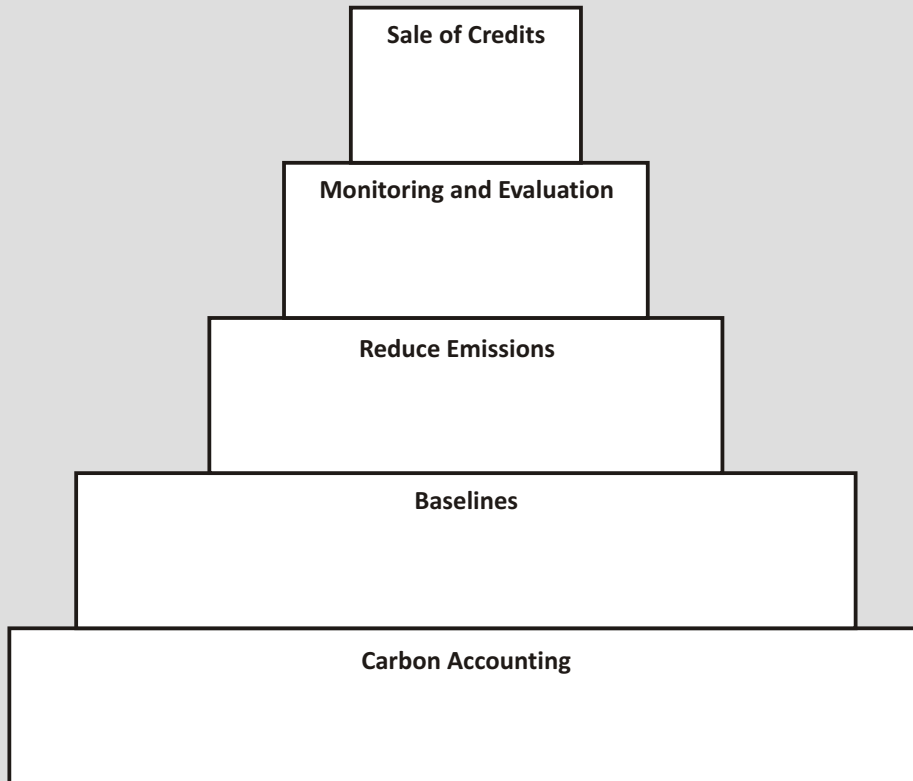


## The Building Blocks of REDD

Policy

Buyers

Actors



## ANNEX ONE: MONITORING AND EVALUATION FOR FEEDBACK

Gaining the participants' feedback and insights throughout the training is an excellent way to adjust the training to meet the participants' needs and pace of learning. The following are some short and simple monitoring and evaluation (M&E) tools that are extremely useful in doing this and can be used at the end of the day or after every couple of days in the training room.

The M&E tools below rely less on answering direct questions and more on small exercises, artistic expressions, and small games. This is done as many groups and individuals often struggle to answer direct questions and may simply say what the trainer wants to hear. A more indirect way, using creative expression to gain information, usually results in richer, deeper, more honest and complete information.

The following monitoring and evaluation tools have been adapted from the Regional Community Forestry Training Centre's (RECOFTC) excellent training manual 'The ART of Building Training Capacities', which can be accessed through the RECOFTC website ([www.recoftc.org](http://www.recoftc.org)).

### Are We On Target?

#### 1. Preparation:

- Draw 5 concentric circles on a flip chart (similar to a dart board)
- Make several pie-like divisions for the training aspects you wish to evaluate; for example, content, methods, facilitators, etc.

#### 2. During feedback time, ask the participants to place their pins or stickers on each pie to reflect their rating (the closer to the center the more impressed or satisfied they are).

#### 3. After all the participants have placed their pin or sticker, invite the participants to take note of the general placement and investigate any pins that fall outside of the general choice of position.

#### 4. Give a summary of the results of the group.

#### Variation:

- If there is a certain hierarchy of learning objectives you can write these objectives in the circles, with the highest in the center. Ask participants to draw an arrow from the outside in the direction of the center as far as they feel they reached with their learning.
- Ask participants to add post-its to the pins or arrows with an explanation of why they placed the pin or arrow at that point, and/or suggestions for improvement.

### Words Remembered

Ask participants to write down words that, for example:

- best describe what you have learned or represent the training experience so far

These questions can be followed with questions like:

- Why did you choose these words? Or Can you say more about the words chosen?

### Piggy Bank or Saving Box

Prepare enough 10, 25, 50 and 100 cent coins and a saving-box to collect the coins in. Ask the participants to select the coin that represents their satisfaction with the day. If fully satisfied they put in a 100 cent coin, if half satisfied, 50 cents, etc, but they can use only one coin.

### **Using Metaphors to Capture Feelings or Learnings**

Ask the participants to compare the training with a meal and write down the meal that best represents the training experience so far, and why this meal was chosen.

### **Using Drawings**

Ask the participants to draw their feelings about the day and ask them why they drew this picture.

### **Feedback Cards**

Distribute cards or post-its. Ask the participants to write a brief answer to the following:

- What was most helpful today? followed by Why? or
- What was most useful, interesting, difficult?, What did you like most?

You can add questions like:

- What was least helpful, useful, difficult?, What did you not like? followed by
- What could have been improved? or Any suggestions?

After the cards are collected, there are different ways to go about it.

If time,

- shuffle, redistribute and have persons read them aloud; or:
- post the cards and ask participants to cluster the cards as they are posted. Discuss after all have been posted and clustered; or:
- Take the cards, summarize them overnight and give the feedback in the morning.

### **Tossing the Ball**

Write a number of key questions on one sheet about the aspects that you would like to monitor. Form a ball with the paper and ask the participants to stand in a circle and toss the ball around as long as you have turned your back to them. Turn around and say 'stop'. Ask the person who has the ball to open it up and answer the first question. If necessary you can ask the others to add or help. Repeat the procedure until all questions are answered. As this is a rather direct way of asking for feedback, do not touch on sensitive issues or feelings with your questions; rather, focus on what they learned.

Variation: use music to signal when it is time to toss the ball and when to stop.

### **Complete the Sentence**

Display (or photocopy for each participant) open-ended sentences directed at the aspects of the training that you want to be evaluated, for example:

- *I find the training effective because...*
- *The training could be improved by...*
- *The facilitators could be more effective if...*

You can have the participants answer all the questions displayed or choose the ones they would like to respond to.

### **Mood Meter**

Prepare a mood meter sheet with a happy, a neutral and a sad face on it. Explain the symbols to the participants and post this sheet at the exit of the room. Ask participants to mark their mood with a sticker or a marker pen.

A variation is to use post-its on which the participants write comments to clarify the moods indicated. It can be useful to use different colors for participants from different regions or institutions; this can show up sharp differences in perceptions. Take care not to break anonymity by making groups too small.

Another variation is to have a continuous mood meter for the whole length of the training course and measure the moods at the end of each morning and afternoon.

### **Resents and Appreciates**

Arrange the participants in a circle, so that all have eye contact with each other. In turn, each participant completes the sentence: *I didn't like it when...*

This may refer to anything that happened during the day. Each person may choose to say nothing or complete the sentence as many times as necessary. No one should pass judgment or comment on what others have said. You, as the trainer, should begin the round and be as honest as you expect the participants to be. After everybody has answered this question, the procedure is repeated for what they appreciated. This time complete the sentence: *I liked it when...* The exercise finishes with the likes, so the participants finish on a positive note.

### **Mural**

Using symbols, group members create a mural, which represents their collective feelings or thoughts about the day. The mural should answer only one question.

### **Human Continuum**

1. Along a long wall post a sign at one end labeled 'nothing learned' and another labeled 'fully competent' at the other end.
2. Explain the continuum on the wall and ask the participants to think where they were at the beginning of the training in terms of knowledge, comfort and skill level.
3. Then ask them to stand up and place themselves on that continuum. After the participants have stopped moving, ask for three or four to share why they placed themselves on that continuum.
4. Next ask them to think about where they are now, at the end of the training, and to place themselves at the appropriate spot on the continuum.
5. Again ask for a few volunteers to explain why they placed themselves where they did.
6. Ask the group to value the activity, making sure to comment on how graphic their self-assessment is.

### **Poster Exhibition**

Write at the top of different posters aspects of the day you would like to have feedback on. Put up the posters and ask the participants to take a marker, walk around and write their feedback related to the aspects mentioned on the posters.

### **Fishbowl**

Part of the group sits in an inner circle facing each other, with the others on the outside. Give them a question related to learning from the day to discuss. For example: *what were the most helpful parts of today? And why?* Only those in the inner circle can speak. Those in the outer circle listen. After a few minutes, have them change places (inner go to the outer and outer to the inner). You can also change the questions being asked. If the group is large (over fifteen people) use three rounds: one group first, then second, then third.

### Monitoring Wheel

Decide which 8 elements of the day you would like to monitor. Write those aspects on a wheel with 8 spokes and copy this wheel for all participants. Ask them to score each aspect (center is low, outer circle is high) and draw a dot on each spoke accordingly. The dots are then linked, so that a web is created. Post all wheels and if time permits trigger a discussion on the outcome.

### Review and Rank Learning Objectives

Ask individuals or small groups to rank cards containing learning objectives, according to learning, usefulness, etc.

### Opposite Scales

Choose a number of aspects you like to receive feedback on, for example, the degree of difficulty, usefulness etc. For each aspect, draw a scale and assign scores to responses (for example, a positive score could get 5 and a negative 1, with 2, 3, and 4 in the middle). To make the answers more useful you can add why, comments, or suggestions.

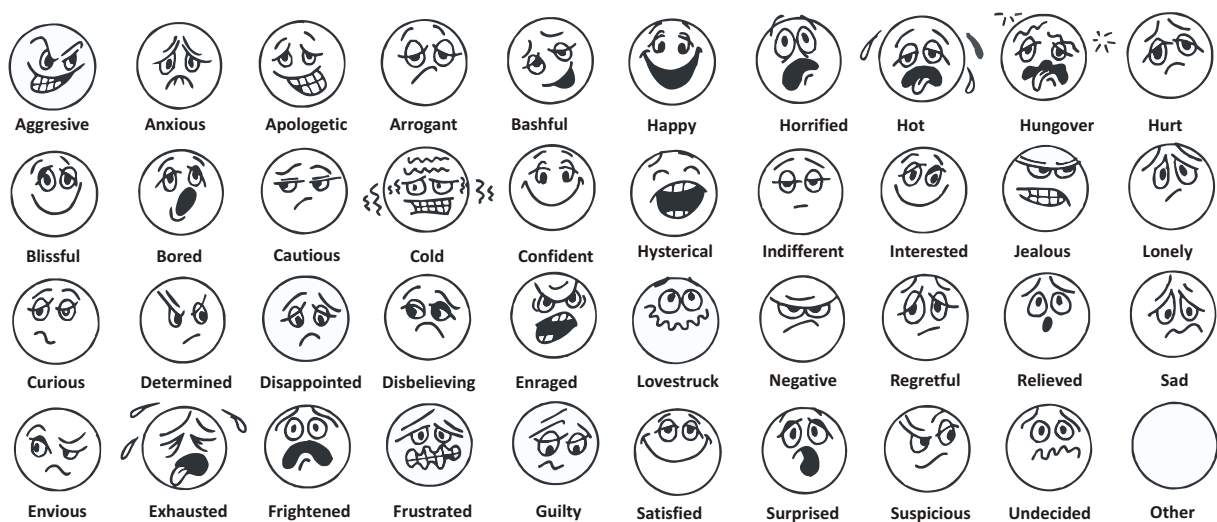
### Dividing a Paper

Ask the participants to think about what they have learned today. Ask them to divide a blank page into free-form sections with each section related to an aspect of the day that was useful to them. They should label each section accordingly and explain why. The different sizes of the sections of the page should be proportionate to the usefulness of that aspect of their learning.

### Faces

Distribute this handout and ask participants to indicate HOW they feel at the end of the day and WHY?

### How Do You Feel Today? Please Mark The Feelings That Apply:



Why do you feel like that? \_\_\_\_\_

## ANNEX TWO: ENERGIZERS

These simple energizers are activities designed to make learning easier and more fun for both the participants and trainers alike. They are very useful to:

- break the ice and to create opportunities to get to know each other better (icebreakers)
- encourage interaction
- stimulate creative thinking
- challenge basic assumptions
- illustrate new concepts
- introduce specific material (warming-up)
- form groups
- enliven sleepy groups (especially after lunch)
- have fun!

Good energizers need to be planned for so that they don't look planned: They should:

- require 30 minutes or less (and often only 5-10 minutes)
- demand little or no advance preparation
- be simple to implement
- not threaten anybody, or make people uncomfortable (some energizers are less suitable for older participants, men and women in mixed groups (body contact) or in certain cultures).
- invite everybody to participate; including facilitators, observers, trainers etc. But never force participants to participate in an activity
- maintain an acute awareness of group development

The following energizer tools have been adapted from the Regional Community Forestry Training Centre's (RECOFTC's) excellent training manual 'The ART of Building Training Capacities', which can be accessed through the RECOFTC web site ([www.recoftc.org](http://www.recoftc.org)).

Other excellent energizers are written up in the booklet '100 Ways to Energise Groups: Games To Use In Workshops, Meetings and the Community' from the HIV/AIDS Alliance (which can be accessed through the HIV/AIDS Alliance web site - <http://www.aidsalliance.org/sw1280.asp>)

### **Which energizer to use and when?**

All energizers are not the same. The list below groups them by their primary function.

#### **Getting to Know Each Other Better**

##### **1. Name Train**

- Ask everybody to stand in a circle. Say your name and add the name of the neighbor to your right.
- Ask this neighbor to say your name, her/his own name and that of the neighbor to the right.
- Continue for all people in the circle, ending with the last person repeating all the names.
- Ask people to change places in the circle and challenge a volunteer to repeat all names.

## 2. Ball Game

- Ask everybody to stand in a circle and throw a ball to somebody, saying your own name, the name of the person you throw the ball to and the name of the person to whom the receiver should throw the ball next.
- The person who receives the ball repeats their own name, the name of the person (s)he was requested to throw the ball to and the name that person should throw the ball to.

Variation:

This exercise can be done first with the name cards still on, and repeated when the cards have been removed.

## 3. Name Game

- Divide the group in two and ask them to place themselves on either side of a sheet, so that neither group can see the other.
- Each group places one volunteer near the sheet.
- The facilitators will drop the sheet on the count of three.
- The two volunteers who are all of a sudden facing each other have to call out the name of the other. The 'loser' joins the group of the winner.
- Repeat this procedure until most people have had the chance to guess once.

## 4. Group Yourselves According To...

- Ask the participants to stand up and group themselves according to:
- height, size, age, number of children, size of feet, number of trees planted in their lives, etc.
- After each ordering, give the participants the opportunity to observe the line to get a feeling for the composition of the group.

Variation: include a competition element by dividing the group into sub-groups. Ask each sub-group to order themselves and sit down when ready. The first group to get themselves into the right order wins.

## 5. Stand Up If....

1. Ask the participants to form a circle with their chairs and explain the purpose and procedure.
2. Ask the first question: stand up if you are a father..... give people time to look around and ask people to sit down again.
3. Ask the next questions in the same way: stand up if you...  
are a mother, like cooking, are a forester, have a girlfriend, like lectures, have been to Thailand before, like sports, like group work, have a boyfriend, do not like Thai food,  
.....(add your own course-specific questions)
4. Ask if any of the participants wants to ask a question to the group.

## Relaxers and Reflectors

### 1. Three Deep Breaths

- Ask everybody to stand up.
- Demonstrate how to take one deep breath, reaching out with your arms and standing on your toes.
- Ask them to repeat this three times while you count slowly from one to three.

## 2. Shoulder Massage

- Form a fairly tight circle.
- Ask all participants to turn to their right and put their hands on the shoulders of the person in front of them.
- Give him/her a good shoulder massage.
- After one minute turn in the other direction and return the massage.

## 3. Meditation

- Ask the participants to close their eyes, observe silence and concentrate on their breathing or massage their ears.

## 4. Worries Aside

- Ask the participants to write all their worries on a piece of paper, fold it, and write their name on top.
- Collect the papers in a box. Assure participants that these will be kept confidential.
- Put the box aside and remind the participants that their task is to give attention and energy to the training.
- Bring the box back at the end to return the papers.

Variations:

- Participants write their worries but keep the paper in their own pocket.
- Participants can mentally place their worries in a box until the training session ends.
- The box with all the worries may also be ceremoniously burned if all the participants agree.

## 5. Recalling Learning

At the end of the session ask the participants to do the following:

- Close their eyes, take three deep breaths.
- Travel back in time to the beginning and recall what struck them, what they learned, new insights, etc.

After two or three minutes ask volunteers to share their new insights.

## Openers or Warm-up

### 1. Visualize

- Display a picture, cartoon, comic, photograph or poster related to the training as a whole or a specific topic to be discussed.
- Ask the participants to reflect on it, either individually or in (buzz)groups.
- Ask volunteers to share their reflections.
- Build on this reflection while introducing the new topic.

### 2. Quote

- Display a quotation, saying, proverb, poem or song related to the training as a whole or a specific topic to be discussed
- Ask the participants to reflect on it, either individually or in (buzz)groups
- Ask volunteers to share their reflections
- Build on this reflection while introducing the new topic.

### 3. Choose your Spot

- Post four posters in four different corners of the room; each with one face representing



the following opinions: strongly disagree, disagree, agree, strongly agree.

- Explain to the participants that the faces represent these opinions and that when each statement is read out (or displayed) they should choose the face which most closely represents their feelings.
- Ask all participants to stand in the center of the room as you read the statement, and then go and stand beside the face that represents how much they agree or disagree with the statement. After they have discussed each statement in their sub-group, they should choose a spokesperson to share key ideas from the sub-group with everyone in the room.
- Read the statements one by one, allowing five to ten minutes for discussion and reporting back on each one.

#### 4. If... Then

- Ask the group to sit in a circle and divide them into two groups
- Write on the whiteboard: if..... then.....
- Explain that one half of the group will write the end to the 'if' sentence while the other group will write the end for the 'then' sentence. They can fill in anything they want. Give an example for both, such as; *if I had time* and *then I would be very angry*
- After everybody has finished one of the two sentences, say your 'if' sentence and ask somebody from the other group to continue with a 'then' sentence. This will produce many laughs.
- Reflect: ask the following questions:
  - *What was so funny?* The cause and effect relationship did not exist.
  - *Does this also happen in our jobs? Why?* Because we make too many assumptions.

### Games Focusing on Team Dynamics

#### 1. Knotty Problem

(group own solving skills)

- Ask the participants to stand in a tight circle, close their eyes and stretch their arms in front of them.
  - Invite them to clasp one hand of somebody else in each of their hands.
  - When everybody is holding two other hands, they can open their eyes.
  - Tell them to disentangle, without letting go of each other's hands at any cost.
- Variation: ask one facilitator to unravel the knot within 3 minutes using verbal expressions only. Instruct him or her to keep their hands behind their back to prevent her/him from touching the group or using body language.

#### 2. Find the Leader

- Ask the participants to stand in a circle shoulder to shoulder.
- Explain that a volunteer will be sent out and that (s)he will have to determine the leader of the group, following these rules: (s)he can fail 2 times and if (s)he finds the leader within three times and/or one minute (s)he will be rewarded.
- Send the volunteer out.
- While the volunteer is out, explain to the group that whatever the leader does the rest will follow. Choose a leader and start with the first movement (clapping hands, stamping feet, shouting something etc.), changing every 15 seconds.
- Ask the volunteer to come back. Invite him/her into the circle while continuing the movements.
- If the volunteer correctly identifies the leader, the group rewards her/him with something.

### 3. Sitting on Knees

- Form a very close circle, with each person circle facing the back of the next person.
- Try to all sit down at the same time on the knees of the person behind you.

### 4. Hold on to the rope (combining forces)

- Provide a strong rope of about 4 meters long.
- Divide the group in two and start a pulling competition.
- Then, knot the ends together and arrange the rope on the ground in a circle.
- Ask everybody to sit down around the circle and take the rope in both hands.
- Ask them while holding on to the rope to stand up all at the same time.
- Reflect on difference between the two exercises.

## Competition

### 1. Fighting over scarce resources

- Explain that the resources are the men and women in this classroom, and put up the following rules of the game:
- Women are worth 25 cents
- Men are worth 50 cents
- Facilitator will call out an amount of money and you will have to form groups which make up that amount
- People who do not manage to form the right amount in their group or alone drop out
- Do a trial round to give people a feel for how it works.
- Start calling out different amounts (depending on the number of people): 50 cents, 2.50, 1.25, etc.
- Stop until only a few people are left.

### 2. Turning heads (training reflexes)

- Ask the participants to sit in a big circle.
- Divide the participants into two groups.
- Ask one volunteer from each group to take their place on one of two chairs in the middle of the circle with their backs to each other.
- On the count of three the volunteers have to turn their heads. Explain that one group will win if the two volunteers turn their heads to the same side, while the other group will win if they do not face the same side
- The volunteer who lost will be replaced by a new member of the same group.
- The group that runs out of volunteers first loses.

### 3. Trees and bushes

- Ask everybody to sit in a circle and have them count off 1,2,1,2...
- Explain that all the number ones belong to the group of trees and all the number twos to the group of bushes.
- Explain that if you call out trees; all the trees have to stand up with their arms up in the air, if you call out bushes the trees sit down and the bushes stand up with their arms spread to the sides.
- Call out at random trees, bushes, bushes, trees, trees, trees, bushes etc.
- The people who remain standing or seated at the wrong moment have to leave the circle.

#### 4. Bottle and pen

- Arrange two soft drink bottles and two pieces of string with a pen knotted at the end.
- Divide the group in two and attach the string to the belt on the back of a volunteer from each group.
- Put the bottles behind the volunteers with the string, ask them to close their eyes while the rest of the team coaches their volunteer to drop the pen inside the bottle.
- The team who succeeds first in dropping the pen into the bottle has won.

#### 5. Chasing the robber

- Arrange two shawls, one long enough to be knotted once around the neck and the other twice.
- Ask the participants to stand in one circle and explain that the person with the short shawl has to knot it once around the neck, being the policeman, and the person receiving the long one has to knot the shawl twice and is the robber.
- The shawls are distributed at opposite sides of the circle, are knotted, unknotted and passed around in the same direction.
- By the time both shawls meet the robber is identified and this person receives a punishment (like sing a song, tell a joke).

#### Brain teasers or crackers

##### 1. Arm Folding:

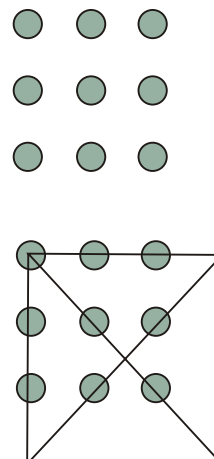
- Ask the participants to fold their arms.
- Ask them to unfold their arms.
- Ask them to fold their arms but starting with the other arm (some people can do this immediately, other cannot do it even after trying several times over).
- Ask what happened? Why was the second time more difficult? What does this say about our behavior? What kind of implications does this have for our jobs/learning?

Variation: shaking yes and nodding no

- how people that to express 'yes' they should shake their head from right to left and to express 'no' they nod their head up and down.
- Explain that if you say yes or no they have to repeat the appropriate movement.
- Ask why this feels so strange. What does this say about our behavior? What kind of implications does this have for our jobs/learning?

##### 2. Join the Dots

- Draw the following dots the board or flip chart:
- Invite the participants to connect the dots with only 4 straight lines.
- If nobody can come up with the solution show how to do it:
- Ask them *What did we can learn from this?*
- What does this challenge to think beyond existing frameworks mean to our learning or jobs?



### 3. Crossed or uncrossed

- Invite everybody to sit in a circle and explain that you will pass a pair of scissors to your neighbor.
  - Say that you will pass the scissors either crossed or uncrossed.
  - Invite participants to continue passing the scissors around the group.
  - While this happens you will tell them whether what they say is right or wrong.
  - The trick is that the cross and uncrossed does not refer to the scissors but the legs.
- Reflect. *What did we learn from this?* Sometimes what we conflict to what we see. By observing we can find the clue. *How does this relate to our job?*

### Energy and fun raisers

#### 1. Triple A

Ask first: *are we alive, alert, awake and enthusiastic? Yeah!*

Then sing with the following movements

**Alive:** left arm in the air

**Alert:** right arm in the air

**Awake:** make big eyes with your hands  
**and enthusiastic?** shake your hips

Repeat 3 times.

#### 2. Battle of Sports

- Divide the participants in groups, each of them will be assigned a sport including a slogan supported with movement:
  - soccer: football kick
  - baseball: baseball shoot
  - bowling: bowling strike
  - swimming: swimming jump
  - cricket: cricket batting
  - etc.
- One group starts by repeating their slogan and movement 3 times, ending by mentioning the team that has to proceed. The trick is that the team has to yell and move as one and clearly call out only one other team to follow-up. If the group fails to do so the team is out.
- Afterwards reflect on what happened. *Why did some teams last longer than others? What does this tell us?*

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