

Climate Change, Forests and You

Grassroots Capacity Building for REDD+ in the Asia-Pacific Region

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RECOFTC - The Center for People and Forests is the only international not-for-profit organization that specializes in capacity building for community forestry and devolved forest management in Asia-Pacific. Beginning as a knowledge hub in 1987, RECOFTC has actively supported the development of community forestry institutions, policies and programs in the region.



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This publication has been developed under the Grassroots Capacity Building Program for REDD+ in the Asia-Pacific region, covering four countries, Lao PDR, Indonesia, Nepal and Vietnam. For further information about the program: please contact REDDgrassroots@recoftc.org.

Photos courtesy of Chandra Shekhar Silori and Simone Frick

Purpose of this publication

This publication serves as a resource for community level facilitators to provide explanations about the basics of climate change and the role of forests. It aims to raise the awareness of grassroots stakeholders for Reducing Emissions from Deforestation and Forest Degradation (REDD+). We have selected the following questions because they are frequently asked by grassroots communities, and local level facilitators should be able to answer them in the simplest way in order to deliver a consistent message throughout the project areas and countries.



Frequently asked questions



1 What is climate change?

2 What causes climate change?

3 What is the role of forests in climate change?

4 What is the impact of climate change on local communities and vice versa?

5 What is REDD+?

6 What is forest carbon trading?



7 What are the issues in REDD+?

8 What could REDD+ mean for local communities?

9 What is the role of RECOFTC in REDD+?

1

What is climate change?

To understand climate change, we must first understand what 'climate' is and how it is different from 'weather'. On the other hand it is important to know that the gaseous layers surrounding the earth are all together called atmosphere.

The difference between weather and climate is time. Weather is a condition of the atmosphere on a day-to-day basis, and climate is the atmosphere's characteristics over relatively long periods of time, such as several decades or centuries.

When we talk about climate change, we talk about changes in long-term averages of daily weather. You might have heard your parents or elders say that summer is a lot hotter or rainier these days. The change in recent summer temperatures could indicate that climate has changed since your parents and elders were young.

So we can simply define climate change as a change in long term weather patterns.



2

What causes climate change?

Our atmosphere is composed of several layers and many gases. One important gas is carbon dioxide, generally known as CO_2 . Human activities like manufacturing, driving and cutting down forests cause carbon dioxide to be released into our atmosphere. The increased concentration of carbon dioxide and other gases, collectively known as greenhouse gases, makes our atmosphere store more heat from the sun, thereby increasing the temperature on earth resulting in global warming. This is also known as the greenhouse gas effect. Carbon dioxide has a bigger impact on global warming than other gases, because of its higher proportion, as compared to other greenhouse gases in the atmosphere. Also the physical structure of gases has an impact on how strongly they contribute to the greenhouse gas effect.

Atmospheric temperature largely determines weather and climate patterns. So a change in carbon dioxide levels in the atmosphere can trigger unexpected changes in our weather systems and ultimately, earth's climatic patterns. The higher the temperature, the more severe the weather conditions become.



3

What is the role of forests in climate change?

The world's forests and the soil underneath currently store more than one trillion tons of carbon, twice the amount found floating free in the atmosphere. This is roughly equivalent to about 2000 times the total weight of all 7 billion people in the world, when taking an average weight of 70kg per person! When forests are increasing in density and/or area, they act as 'carbon sinks', as they take up carbon and store it. On the contrary, you can imagine that if all the forests are gone, tons of carbon dioxide will be released back into the atmosphere. In such a scenario the forests would become a source of carbon dioxide emissions, and thus contribute to an overall warming effect. This in turn leads to severe fluctuations in weather and climatic systems. Keeping the forests intact therefore helps reduce carbon dioxide emissions in the atmosphere and slows down the effects of climate change.

Deforestation in different parts of the world contributes to 12-17% of global carbon dioxide emissions each year. Therefore, if we lose our forests, we not only lose that absorption function of the forests but also carbon which has been stored in soil and plant material is released into the atmosphere again, further adding to climate change.

Forests do much more for tackling climate change than just absorbing greenhouse gases. They maintain cloud cover, reflect sunlight back out of the atmosphere, encourage the transformation from water to vapor and increase the level of vapor in the atmosphere, which cools the air. Additionally, by providing different environmental functions and fulfilling livelihood needs, forests help people to adjust their livelihood strategy to climate change. More than 1.6 billion people worldwide depend on forest resources for their livelihoods, which become particularly important as a source of nutrition and income in times of climate stress and crop failure.

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What is the impact of climate change on local communities and vice versa?

The impacts of climate change on the natural system and human societies are still largely uncertain. However, we know that if forests are lost faster than they can recover, the people living in and around forests will be the first ones to be affected, due to their dependence on forest products for food, shelter, medicine and other daily needs. Access to quality water and food, combined with extreme floods and droughts, are already massive challenges, and climate change will make them bigger still.

This makes local communities a very important partner in forest protection and management, and the way they use or manage their forests has a significant impact on global climate change. If the local communities are not fully involved, the forests could be more vulnerable to various abuses such as encroachment, mining, forest clearing for industrial plantations, and illegal logging. Escalating demand for food and fuel, increasing rural poverty, and weak law enforcement only add to the growing challenge of addressing climate change. However, if communities are involved in the protection and the management of their forests, various causes of forest destruction could be addressed that could help lessen carbon dioxide emissions into the atmosphere.



5

What is REDD+?



Reducing Emissions from Deforestation and Forest Degradation (REDD+) is a global initiative to reduce carbon emissions from forests in the atmosphere. This is done by incentivizing countries to protect or to maintain long-term high quality and at least the same quantity of forests and compensating them for the income they would have gained by converting the forest to agriculture or other land uses. As the name says, REDD+ specifically aims to reduce carbon dioxide emissions from deforestation and forest degradation, though there are other important benefits it seeks to achieve such as poverty reduction and biodiversity conservation. If it succeeds, it could help protect and enhance the world's forests as carbon reservoirs and maximize their potential for slowing down and reducing the impact of climate change.

One crucial element of REDD+ is the finance mechanism – the source and methods of incentivizing countries to protect their forests. One option for financing REDD+ includes a carbon market. In this case developed countries and private companies fund the development and implementation of REDD+. This is further explained in the following question.

6

What is forest carbon trading?

The exchange of money for absorbing carbon and its storage in forest biomass is known as forest carbon trading. Forest carbon markets are economic means in which the producers or sellers of carbon (e.g. forest managers and communities) receive compensation from international buyers (e.g. governments and corporations) for their forest conservation efforts. In return, the buyers obtain written certification of the carbon enhancements known as carbon credits. Forest carbon markets involve compensation for carbon conserved and taken up in forests.

The operation and design of an international forest carbon market are still being debated at international level, although there are a small number of private voluntary REDD+ projects trading forest carbon around the world. It is likely that an international forest carbon market will not exist before 2020, although some countries and states will have their own carbon markets (e.g. Australia and California) and may begin buying international REDD+ credits earlier (e.g. 2015).





7

What are the issues in REDD+?

Since the REDD+ concept is relatively new, it has raised several issues that need to be seriously considered. These issues are being discussed at various levels, from grassroots to national and international levels.

One key question is how governments would manage the money related to REDD+, including funds they would receive to implement the REDD+ mechanism, and revenues from selling carbon credits. It is not enough to have funds; governments need to create institutions from village to national level and build the capacity of the stakeholders on how to manage the funds and share benefits according to the accomplished REDD+ efforts in a given area. This issue is further complicated by unclear land ownership and challenges to address drivers of deforestation and forest degradation, their causes and understanding of inter-linkages under different situations.

Other national and community level issues that are frequently discussed at global level are:

- How to accurately measure the amount of carbon stored in forests and forest soils;
- What is the criteria to qualify for funding support under REDD+;
- How should forest-dependent communities be included in the mechanism;
- Who will ensure that Free, Prior and Informed Consent is given by the local stakeholders for implementing REDD+;
- How is the consent of forest-dependent communities sought;
- Who will have rights over the forests and carbon stored therein and who will decide about related rights and ownership issues;
- What will happen if REDD+ is in conflict with government policies;
- If the ownership of land and carbon rights were determined, how and who will do the carbon measurement;
- How will the technical knowledge in carbon trading be developed; and
- Who will ensure that community beneficiaries will get a fair deal?

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What could REDD+ mean for local communities?



For local communities, REDD+ means an opportunity to get compensated not only from limited timber cutting and selling of non-timber forest products as in the past, but also by keeping the trees standing in future. Additionally, they get to continue to use the forests' environmental services, food, raw materials and medicine while being paid to sustainably manage them. Timber-cutting and harvesting of non-timber forest products will depend on the country's policy on REDD+. In addition to monetary benefits, the REDD+ mechanism may be used to clarify land ownership, benefiting the local people; provide new alternatives to harvesting timber, firewood, and non-timber forest products; establish consent seeking and grievance mechanisms; and improve the forest governance system at local level. Thus the local communities hold the key to the success of REDD+, as they have the most to lose or gain. Their rights must be respected if REDD+ is to work.

The emergence of REDD+ and its development towards an additional incentive to forest managers has caught worldwide attention. Potential monetary benefits of REDD+ may arise through forest carbon trade, as explained earlier. However, costs and benefits have to be determined separately for each area according to local circumstances.

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What is the role of RECOFTC in REDD+?

RECOFTC's role in REDD+, and climate change in general, is to provide as updated and accurate information as possible to the stakeholders at all levels in an easily understandable manner. RECOFTC is neither for nor against the REDD+ mechanism. It serves as a capacity building organization, providing comprehensive information to the stakeholders, so that they can decide on their own if they want to take part in REDD+ or not. Additionally, RECOFTC conveys concerns and issues from the grassroots level to the national and international level, helping to design informed policies. RECOFTC also brings international issues to local level in such a way that grassroots stakeholders are aware of what is discussed at higher level.

RECOFTC's current activities are oriented towards building capacity of forestry sector stakeholders, covering important topics such as the fundamentals of climate change, the role of forests in mitigating and adapting to climate change, improved governance and benefit sharing mechanisms, conflict resolution, and knowledge on free, prior, and informed consent (FPIC) in the context of REDD+. These topics are deemed important for communities to participate meaningfully in the REDD+ mechanism. Furthermore, recognizing the lack of clarity concerning the REDD+ mechanism at global level, RECOFTC's capacity building initiatives are need-based and pursued carefully, making sure that stakeholders' expectations from the proposed REDD+ mechanism are realistic.





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