

MANUAL FOR REDD PROGRAM

PART ONE – CLIMATE CHANGE

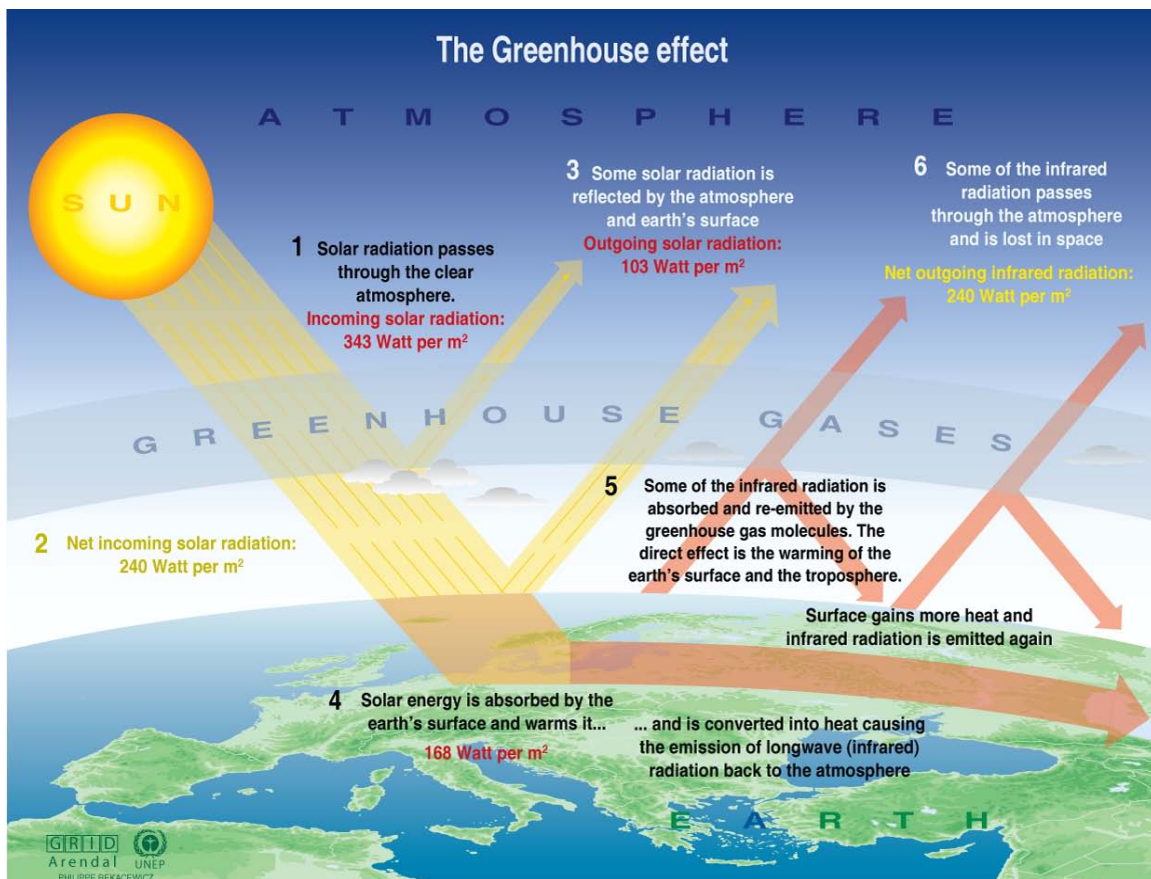
1. What causes climate change?

Climate change is a reality. It is a natural process, but it is now accepted by all the world's governments and by most scientists that it is now being driven by human activities. It is happening very quickly, and is not only a natural process – **we are making it happen.**

2. What is the Greenhouse Effect?

The cause of climate change is the greenhouse effect (shown below), which is produced by greenhouse gases (GHGs). The best way to understand the greenhouse effect is to think of GHGs as an extra blanket covering the world, which is slowly but surely warming up our planet by retaining more heat from the sun.

The most important GHG is carbon dioxide (CO₂). When we burn anything we are producing heat and gases – one of which is CO₂, and we put this CO₂ into the atmosphere by burning fuels (coal, oil, diesel, petrol, paraffin and so on) as well as wood, charcoal, forests, bush and also cooking fires in our homes. The really big sources of GHGs are coal-



Sources: Okanagan university college in Canada, Department of geography, University of Oxford, school of geography; United States Environmental Protection Agency (EPA), Washington; Climate change 1995, The science of climate change, contribution of working group 1 to the second assessment report of the intergovernmental panel on climate change, UNEP and WMO, Cambridge university press, 1996.

burning power stations, factories that use a lot of electricity, aeroplanes, ships, and of course, all the world's motor cars.

3. How long have we been producing CO₂?

Ever since we humans started making fires, we have been creating CO₂. In fact, ever since animals started breathing we have been doing this, because all animals breathe CO₂ out and oxygen in. It became a problem when we started making really big fires, at the beginning of the industrial revolution, about 250 years ago.

4. Who produces the most GHGs?

Every country produces GHGs, but the majority comes from industrialized countries. Figures from The Global Carbon Project say that in 2006 total world production of GHGs was about 27 000 million tons, of which:

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|--|-------------------------|
| ▪ USA – produced about 6000 million tons | 22% of the world total |
| ▪ China - about 5000 million tons | 18% of the world total |
| ▪ European Union - about 4000 million tons | 15% of the world total |
| ▪ South Africa - about 437 000 tons | 1.6% of the world total |

5. What activities produce the most GHGs?

The World Resources Institute provides these figures for the year 2000.

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|---|------------|
| ▪ Electricity production (industrial and domestic) | 32% |
| ▪ Manufacturing, industrial processes, and construction | 16% |
| ▪ Transport (trains, cars, planes, ships) | 17% |
| ▪ Forest destruction and land use change | 24% |
| ▪ Other activities | 11% |

6. The carbon cycle, and why forests are so important

The carbon cycle is a very important issue: - trees and plants absorb carbon dioxide and convert it into carbon using the sun's energy, so that a forest is a natural pump that takes carbon dioxide out of the air and puts it back into the ground as carbon. This is a natural cycle that is part of the earth's ecosystem management process. That is why we need our forests – they reduce the warming effect of GHGs simply by being there. A 40-year study of African, Asian, and South American tropical forests by the University of Leeds shows that tropical forests absorb about 18% of all carbon dioxide produced by the burning of fossil fuels.

Most of the normal things we do every day in every country contribute to climate change. One of the important causes of GHGs is the **destruction of forests**, especially in the southern hemisphere. Forest burning, logging for timber, clearing forest for agriculture all contribute to the production of carbon dioxide. They are often grouped together under the heading of '**land use change**', because that is the common factor in all of these activities - forest is being converted to another use different from its traditional use. Recent studies show that **activities to reduce deforestation are a highly cost-effective way of reducing greenhouse gas emissions.**

- a. A 2006 study commissioned by the U.K. Treasury found that **reducing deforestation offers a major opportunity to reduce emissions at a low cost.** In 8 countries responsible for 70 percent of deforestation emissions, **one hectare of forest land** could be worth as much as **\$25,000** because of its capacity to store carbon. This means that forest land that is allowed to grow without being cut down or converted can be **far more valuable** than farm land for crops or ranch land for animals.
- b. More than **1 billion people depend on forests** for their water, fuel or livelihoods. Forests support 20% of the world's population. Forests also contribute significantly to national economies through recreation and tourism.
- c. Deforestation degrades important natural resources, like supplies of clean fresh water. In addition, the massive burning of forests can lead to severe air pollution both locally and thousands of miles away.
- d. South American, Asian and African forests are home to the greatest plant biodiversity in the world, and are the source of essential pharmaceutical ingredients. **Up to 50 percent of pharmaceuticals on the market today have an origin in natural products,** and 42 percent of the top 25 selling drugs worldwide are derived from natural products.
- e. Every year, more than **15 million hectares, or 150 000 square kilometres** of tropical forest are cut down, releasing millions of tons of carbon emissions into the atmosphere.

Questions arising from Part One

1. How do we contribute to climate change?
2. How do Greenhouse gases make the planet warmer?
3. How do we produce carbon dioxide? Where is most of the carbon dioxide produced?
4. There are two reasons why are forests important for climate change: what are they?
5. Forests are important for other reasons. What are some of these reasons?

Supporting documents for learners

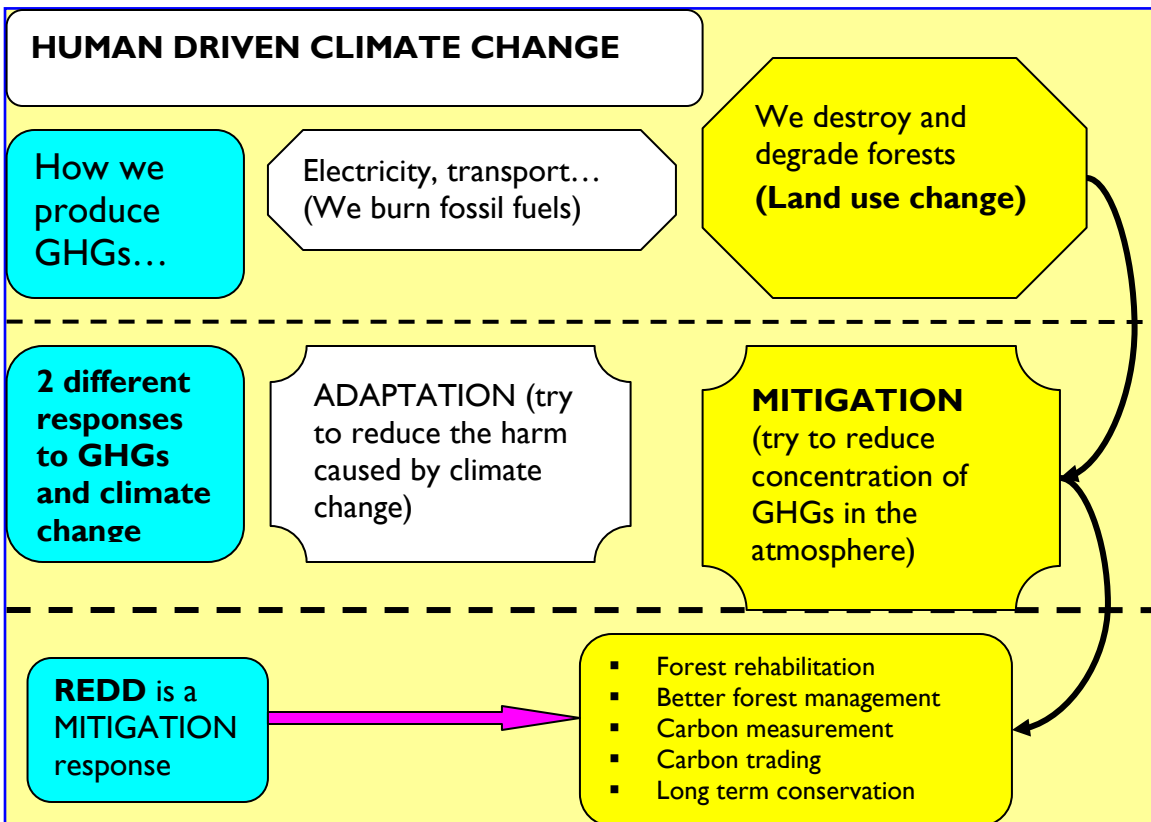
- A. The Greenhouse Effect Diagram
- B. The Greenhouse checklist

PART TWO – THE REDD PROGRAM

1. What is REDD all about?

REDD stands for REDUCING EMISSIONS from DEFORESTATION and FOREST DEGRADATION in DEVELOPING countries. The idea was first introduced at the 11th Conference of the Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) in Montreal in December 2005. At the 13th COP in Bali in 2007 it was agreed that a decision to reduce emissions from deforestation must be taken by the COP 15 in December 2009, in Copenhagen. This will be an important decision for forest people.

The thinking behind REDD is this: There are two different ways of dealing with climate change. The first is to try to reduce the harm that is caused by climate change. That is called ADAPTATION. The second way is to try to reduce the amount of GHGs being emitted into the atmosphere. That is called MITIGATION.



REDD is a **MITIGATION** response, that is to say, designed to **reduce carbon emissions**. By reducing forest destruction and burning, less carbon dioxide is pumped into the atmosphere. But there is a second, equally important part of REDD. By keeping forests intact, we are keeping alive the natural system that takes carbon from the air and stores it in the ground or in the body of trees and plants. By keeping forests healthy and intact, we reduce GHG emissions and also keep pumping CO₂ out of the air and back into the soil. So

a forest is a CO₂ pump, which means there is a double benefit from keeping forests intact.

The idea at the core of REDD is that developing countries will be able to earn revenue by reducing the logging and burning of their forests. This reduces GHGs and helps to pump CO₂ back into the ground. This means that a developing country which looks after its forests is storing carbon, and this can earn revenue for the country. The price of this carbon is determined by a market, known as a **carbon offset market**. The current price (May 2009) of carbon on the offset market is between 13 and 14 US dollars per metric ton. In 2008 4.9 billion tons of carbon was traded. The REDD mechanism seeks to bring **intact** forests from developing countries into the carbon market, because they are able to remove carbon dioxide from the air and to store carbon. The **REDD program will operate at the national level** by means of national planning processes.

2. RPINS, RPLANS and the FCPF

At the Bali COP of the UNFCCC the World Bank launched a program called the **Forest Carbon Partnership Facility (FCPF)** as part of its Carbon Finance Unit. The FCPF is in place to build capacities in developing countries to develop a coherent forest carbon plan. The FCPF has two parts:

- a. The **readiness mechanism**, which will assist selected countries to reach a level of capacity that will enable them to participate in the REDD program.
- b. The **carbon mechanism**, which will allow selected countries to participate in carbon trade.

The program requires selected countries to draw up a Readiness Plan Idea Note (**RPIN**) which provides information on their country situation regarding forest governance, law enforcement, forest monitoring and inventories, drivers of deforestation/degradation, estimates of carbon stocks, coherence with REDD, and **data on indigenous peoples**.

The RPIN is submitted to the FCPF for review and once it has been accepted, the country becomes eligible for a US\$200 000 grant to develop a Readiness Plan (**RPLAN**). The RPLAN outlines the strategy the country intends to put in place to address the issues it raised in the R-PIN. The FCPF process emphasises the need for consultation, particularly with **local and indigenous communities**, and an outreach plan. This is because the REDD mechanism will have a long term impacts on forest dwellers and forest dependent communities. They must therefore be involved in the process at every stage.

Once an RPLAN has been accepted by the FCPF process, the country receives a further US\$3.2 million to implement the plan.

The principle behind the FCPF is **to ensure the participation of local and indigenous communities in both the planning and implementation of the RPLAN**, and in subsequent carbon trading. Implementing the RPLANS will have far-reaching consequences as they will involve putting in place measures to address all the factors that influence deforestation and degradation in a country. Land rights of forest communities urgently need to be re-examined, and restored or confirmed by countries seeking to participate in REDD.

Questions arising from Part Two

1. What is the difference between mitigation and adaptation in terms of climate change?
2. Why are forests important?
3. Why are forests so important for climate change?
4. How does the REDD program plan to assist those countries with large forests?
5. What is an RPIN? What is an RPLAN?
6. Why are local and indigenous communities so important for RPLANS?

Supporting documents for learners

- A. The Human Driven Climate Change Diagram
- B. The REDD checklist

PART THREE – THE ROLE OF LOCAL AND INDIGENOUS COMMUNITIES IN THE REDD PROGRAM

1. Why are local and indigenous communities important in the REDD program?

The REDD Program is based on two linked ideas:

- to reduce CO₂ emissions by reducing deforestation in developing countries, and,
- to create an opportunity for developing countries to generate sustainable revenues by trading on the carbon market.

Many NGOs and activists have criticized REDD. Because REDD works at the national level rather than the community level, there is a concern that **local and indigenous communities** living in and around forests will be excluded from the REDD process. Many such communities are seeing these forests being logged or degraded by commercial logging firms with government contracts. The communities are losing their homes and livelihoods in the process. If deforestation is stopped, and replaced by carbon trading, which is the goal of the REDD program, what guarantee is there that such local communities will see any benefits? Some of the questions that have been asked are:

- When REDD carbon trading starts, will all the carbon money go to the government, and none to local and indigenous communities who actually live in and also manage forests on a daily basis?
- Will it be possible to measure accurately, efficiently and cheaply how much carbon is stored by a particular forest?
- If deforestation stops in one forest, how will it be possible to ensure that it is not continued in another forest? (This is referred to as 'leakage')
- How will forests be properly managed and protected on a long term basis without the participation of local and indigenous communities?
- Will indigenous knowledge be used for effective forest management, or will it be excluded as a key source of management expertise?
- How can forest dwelling communities participate in REDD if they have been alienated or evicted from their forests, or forced to use poor management activities for survival purposes?

To put the problem more simply, can REDD work without the full and free participation of local and indigenous communities?

2. How the FCPF can help

The Forest Carbon Partnership Facility (FCPF) is a response to these concerns. It is designed to make sure that local communities are openly and honestly included in the planning and implementation of a national REDD program, and its projects.

The RPIN and RPLAN mechanism is intended to ensure that local and indigenous communities are part of the planning and the implementation of any forest project in the REDD program. When the RPLAN is developed, there is a specific requirement that local and indigenous communities have been consulted, that they understand the implications of REDD, and that they are able to participate in the implementation of REDD projects, and that they see tangible and significant benefits.

It is necessary that local communities ensure that they are part of the RPLAN process. This means that they must have good representation, they must be in close contact with the National Focal Point for UNFCCC, and that they actively participate in the planning and implementation of the RPLAN.

3. IPACC's learning network for local communities

Through its regional networks, IPACC is running a program with local and indigenous communities to raise awareness of climate change and to develop organizational and leadership skills that will enable communities to participate in RPLANS and subsequent REDD projects. The learning program is structured as follows:

- A training of trainers workshop for 13 IPACC members from 7 African countries, held in Cape Town, South Africa in February 2009. Over 5 days the workshop covered the following topics:
 - Climate change, the Greenhouse Gas Effect, the Carbon Cycle
 - The REDD program, the role of the FCPF, RPINS and RPLANS
 - The important role of local and indigenous communities in REDD
 - A field visit to a forest to learn how to measure forest carbon
 - Generic community mobilization plans for Anglophone and Francophone countries in the IPACC network
 - A workshop reference manual/report in English and French
- National one-day workshops organized by IPACC and the participants of the Cape Town workshop in Kenya, Uganda, Tanzania, Gabon and Cameroun. The focus of these workshops is:
 - The status of the national REDD program
 - A strategy for local and indigenous communities to participate in RPLANS
 - A field visit to a forest to learn how to measure forest carbon
 - Establishment of a REDD team to represent community interests
- District level workshops in the 7 countries organized by national trainers
 - To raise awareness of REDD
 - The implications of REDD for local communities
 - their role in forest governance and management
 - Their role in implementing local REDD projects

4. Some important REDD issues for local and communities

The REDD program seeks to enable developing countries to market their saved carbon, known as 'sequestered' carbon. Healthy, intact and growing forests are necessary to save the carbon. The FCPF is concerned to ensure that local and indigenous communities play

an important role in managing the forests. What are some of the important issues that communities should focus on?

- **Opportunities for management, employment and learning**

The management of REDD projects creates a **link between mitigation and adaptation**. They not only provide an opportunity to mitigate climate change, but to adapt to climate change through the sustainable use of forest resources. Accordingly, such projects can:

- provide local employment in monitoring, enforcement, fire, and inventory management
- build management capacity
- create partnership opportunities
- develop land-use business models based on sustainable use principles

- **Indigenous knowledge and good forest management**

The knowledge gained by generations of forest-based communities is embedded in their culture and is part of daily forest management. This knowledge and practice will be a significant asset in the effective and efficient management of REDD projects and their forests, and will provide opportunities for research and documentation.

REDD projects require the restoration and maintenance of natural ecosystems and the use of sound ecological practices in order to restore and rehabilitate forests. By creating such reserve capacity allows forests and the communities reliant on them to be more resilient to climate change.

- **Additionality**

This term refers to the **additional** carbon that is stored by a forest project as compared to the carbon that is normally stored without a REDD intervention. In brief, a REDD project seeks to store more carbon than normal by controlling logging, fires, and activities that degrade or destroy the forest. This is important because if carbon is to be traded, it is necessary to measure how much additional carbon is being stored by a project.

The REDD project must therefore:

- Measure how much carbon is stored **before** a project starts
- Measure how much carbon is being stored **over the life of the project**
- Ensure that its measurements are accurate and have been verified by an external authority

- **Leakage and permanence**

Because REDD projects are based on the idea that additional carbon is being stored, it is necessary to be able to show that:

- There is no 'leakage'. This is the idea that a REDD forest may be well managed, and is not being degraded, but destructive activities that have stopped happening in the REDD forest are taking place in another forest nearby.
- This means that it is necessary to monitor the area adjoining the REDD forest to make sure that destructive activities are not continuing.

- 'Permanence' refers to the fact that if a forest is part of as REDD project it must remain intact permanently. This requires sustainable institutional arrangements that will enable and facilitate permanence.

Local and indigenous communities will be able to play a vital role in controlling leakage and ensuring permanence. Their experience and knowledge of forests, their communication network, and the added incentive to maintain a healthy forest makes them valuable stakeholders and hands-on management partners. Indeed, to exclude local communities as stakeholders would make leakage difficult to control, and permanence an unlikely prospect.

Questions arising from Part Three

1. Can a REDD project be developed without the participation of local and indigenous communities?
2. Why is the national RPLAN important for local and indigenous communities?
3. How can local and indigenous communities participate in the RPLAN?
4. What opportunities and benefits are there for local and indigenous communities to participate in REDD projects?
5. Why is leakage and permanence important for REDD projects? How can local communities help?
6. How can indigenous knowledge support the REDD program?

Supporting documents for learners

- A. Checklist for local and indigenous communities