Forests, Climate Change & REDD-plus

What is Climate Change? Climate change is caused directly or indirectly by human activity that changes the composition of the global atmosphere and is in addition to natural climate variability observed over comparable time periods.

What causes climate change?

More greenhouse gases are accumulating in the atmosphere due to human activities

Greenhouse gases (GHGs) trap heat in the atmosphere and sends it back to Earth. These gases occur naturally and keep the Earth at a temperature that allows life to thrive. However, human activities, such as the use of fossil fuels, are releasing more GHGs into the atmosphere. Carbon dioxide is the main anthropogenic (manmade) GHG emitted.

As GHGs accumulate in the atmosphere, more heat is trapped and the temperature increases. This contributes to global warming which brings about changes in our climate.

Forests mitigate climate change

The Intergovernmental Panel on Climate Change (IPCC) calculated that the forestry sector contributes to 17.4% of total anthropogenic greenhouse gas emissions in 2004. Most of the 17.4% comes from the removal of forests.



Forests as a carbon sink

Forests mitigate climate change by removing carbon dioxide from the atmosphere.

Trees take in carbon dioxide to make their food and build new plant cells. This intake of carbon dioxide from the atmosphere makes forests a carbon sink. The removal of carbon dioxide from the atmosphere is also termed "carbon sequestration".

We can support the removal of carbon dioxide from the atmosphere by increasing forest areas, planting more trees, and by providing a healthy environment for trees to regenerate.

REDD+ is an effort to reduce carbon dioxide emissions (17.4% in 2004) and increase carbon sequestration in the forestry sector. REDD+ stands for Reducing Emission from Deforestation and forest Degragation, (+) conservation, sustainable management of forests and carbon stock enhancement.

The UNFCCC (United Nations Framework Convention on Climate Change) Conference of the Parties (COP16, Cancun 2010) decision encourages developing Country parties to contribute to reducing GHG emissions in the forest sector by undertaking **REDD+** activities.

Forests as a carbon reservoir

Because plants use carbon dioxide to build their plant cells, forests are like a big container of carbon. Carbon is stored in all parts of a tree, in the plants growing on the forest floor, in organic matter on lying on ground and in the soil.

This carbon storing capacity of forests make it a carbon reservoir or carbon pool.

What is REDD-plus?

REDD+ involves 5 main activity types:

- I. Reducing emissions from deforestation
- 2. Reducing emissions from forest degradation
- 3. Forest conservation
- 4. Sustainable management of forests
- 5. Carbon stock enhancement

The REDD+ mechanism provides financial incentives for developing countries to implement the above activities instead of "business-as-usual" practices that lead to forest removal and/or degradation.

Forests as a carbon source

The removal of forests will release vast amounts of carbon into the atmosphere as carbon dioxide. This makes forests a potentially large carbon source.

We can help reduce the release of carbon dioxide by:

- I. Preventing the conversion of forestland to other land use types (like completely clearing a forest for agriculture)
- 2. By reducing the degradation and destructive utilisation of our forests e.g. practice less destructive logging practices
- 3. Conserving old and high value forests

REDD+ in Fiji

The Fiji REDD+

programme is the action taken by government and stakeholders to guide Fiji through the REDDreadiness phase into implementation.The programme contributes to global efforts to reduce GHG emissions









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