



# FORESTS AND CLIMATE

## Introduction

To avoid catastrophic climate change, we need revolution in the way we produce and use energy as well as a global effort to end forest destruction. Tropical forest destruction is responsible for about one fifth of global greenhouse gas emissions, more than the world's entire transport sector.



Above left: Forests help regulate the climate. © Greenpeace / Birch. Above right: Greenpeace campaigner assessing burnt forest in the Amazon, Brazil © Greenpeace / Carlos.

## Deforestation

Currently, an area of forest the size of a soccer pitch is lost every two seconds. A quarter of the forests lost in the last 10,000 years were destroyed during the last 30 years. In the tropics alone, over five million square kilometres of forest have been degraded by destructive logging and a further 3.5 million square kilometres have been totally deforested during the last few decades.

Illegal logging is a major driver of tropical deforestation. Australia imports approximately \$400 million worth of illegal timber each year. Kevin Rudd promised to restrict these imports but is yet to follow up on this promise with legislation.

Forest destruction is of particular concern given the threat of catastrophic climate change. Deforestation results in much more climate-changing carbon dioxide (CO<sub>2</sub>) being released into the atmosphere. It also reduces the amount of CO<sub>2</sub> that can be absorbed from the atmosphere.

Fallen forests that are either burnt or left to rot emit massive amounts of CO<sub>2</sub> into the atmosphere. Even timber products, like furniture, decay and release CO<sub>2</sub> over time. A significant store of carbon, deposited in soil by forests over many years, is also released as CO<sub>2</sub> when forests are destroyed. Since 1950, deforestation has released about 120 billion tonnes of carbon dioxide into the atmosphere.

As climate change takes its toll we will see an increase in the frequency and intensity of forest fires, droughts, forest pests and disease. These climate impacts will further exacerbate global forest loss and release even more CO<sub>2</sub>.

## Home to millions

As forests are destroyed and affected by climate change, millions of people who live in forests will be impacted too. Almost all of the world's tropical forests are inhabited. Many of the people who live in forests have customary rights to their land and have developed ways of life that are attuned to their forest environments. Indigenous people are often among the poorest population



Land demarcation secures forests for ecologically responsible harvesting by forest communities. Forest communities are important forest guardians.  
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## What we are doing

Greenpeace is campaigning for zero deforestation by 2015. We are:

- > helping forest communities reclaim their land and manage their forests in an ecologically responsible way;
- > bearing witness to forest destruction and exposing the forest destroyers to the world;
- > calling on governments and industry to stop illegal and destructive logging and to stop imports of illegal timber;
- > advocating for Forests for Climate, a mechanism under the Kyoto Protocol that would finance emission reductions from deforestation and degradation in tropical forests;
- > informing consumers on how they can buy forest-friendly wood and paper;
- > driving a revolution in the way we use and produce energy so that we can reduce global greenhouse gas emissions and avoid catastrophic climate change.



groups and least able to access education, health care, employment and justice. They are often subjected to ethnic discrimination, social exclusion and arbitrary violence. Climate change and forest destruction is adding to the burden on these people and in some cases will end their way of life.

The people who live in and off the forests need to have their futures secured so that they can remain guardians of the forests. Greenpeace helps forest communities reclaim their land and forge ecologically sustainable solutions like ecoforestry. Ecoforestry allows forest communities to benefit economically from forest use without damaging their forests. It involves using ecologically responsible harvesting methods and helps keep forests in the hands of traditional landowners. Forest communities gain an income, communal skills, and a return to traditional work practices.

## Biodiversity

Forests contain up to about 70 per cent of all land species and their destruction is leading to the extinction of plants and animals. The current extinction rate is around 1,000 times faster than it was in pre-human times and may increase to 10,000 times faster by 2050.

Climate change will add to this terrible toll. It is already shifting the climatic range of many species towards the poles or upward in elevation from their current locations. Warmer regional temperatures are altering the timing of animal migration and the reproduction of animals and plants. Because many of the world's forests are already degraded and fragmented, it is difficult for forest species to move. Unable to escape the impacts of climate change, many forest species will be pushed to their limit and vulnerable species will become extinct.

## Climate regulation

The earth's forests play a vital role in the regulation of carbon dioxide (CO<sub>2</sub>) in the atmosphere. Forests store almost 90 per cent of the planet's aboveground carbon and 70 per cent

of the planet's soil carbon. This is the equivalent of almost 4,500 billion tonnes of CO<sub>2</sub>, more than that contained in all remaining oil stocks, and 50 per cent more than the total amount of CO<sub>2</sub> currently accumulated in the atmosphere.

Forests regulate the concentration of gases in the atmosphere by absorbing CO<sub>2</sub> through photosynthesis and releasing it naturally through wildfires and forest decay. This natural cycle of carbon through forests and into the atmosphere essentially absorbs about half of all annual human CO<sub>2</sub> emissions. The greenhouse gasses that remain in the atmosphere after forest absorption, and to a lesser extent ocean absorption, cause climate change.

The world's forests and the vital ecological services they provide are already under threat. Unless deep cuts are made to fossil fuel emissions and forest destruction is halted, much of the carbon stored in forests may be released into the atmosphere in coming decades.

## Solutions

Governments can save forests by setting up a global network of protected forest areas, stopping illegal and destructive logging and promoting socially and ecologically responsible forest management.

It is estimated that halving emissions from deforestation will cost US \$10-15 billion per year. Greenpeace is promoting Forests for Climate, a proposal for a new fund to finance reductions in tropical forest destruction. This funding mechanism could become part of the Kyoto Protocol, the global treaty on greenhouse gas emissions reductions. We are proposing that rich developed countries, like Australia, contribute to this fund to reduce emissions from deforestation and forest degradation in developing countries. If countries commit to Forests for Climate, funding to protect tropical forests could become available as soon as 2009.

## What you can do

- > Ask your Federal MP to support Forests for Climate (also known as the Tropical Deforestation Emission Reduction Mechanism or TDERM).
- > Sign the Energy [R]evolution petition and call on Prime Minister Rudd to stick to his election promise to tackle climate change. Tell him it's time to kick-start Australia's renewable energy future: [www.greenpeace.org.au/energyrevolution](http://www.greenpeace.org.au/energyrevolution)
- > Recycle your paper and only buy post-consumer recycled paper and paper products.
- > Switch to green power to get your electricity from renewable sources.
- > When buying tropical timber, make sure it is Forest Stewardship Council (FSC) certified. If it isn't, it's probably from illegal or unsustainable timber operations.
- > Be energy smart – use efficient appliances and save energy.
- > Join your local climate action group. Find your local group here: [www.climatemovement.org.au](http://www.climatemovement.org.au)
- > Write to Prime Minister Rudd and ask him to restrict illegal timber imports.

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