

# Forests: a Natural Solution to Climate Change

Forests filter our drinking water, provide homes for wildlife and improve our health. Forests also fight climate change in many ways.

## Wildlands

Forest reserves, managed by nature and without harvesting, remove large amounts of carbon pollution from the air and store it in tree trunks, leaves, roots and soils. Protecting forests and allowing them to grow for centuries means they can store more carbon each year.

## Woodlands

With careful planning and management, most forests can produce wood products while also increasing the carbon stored in the forest over time. Locally harvested wood can replace building materials that have a larger carbon footprint, like steel and concrete, reducing carbon emissions.

Sometimes, forests have been so damaged by poor forest management, invasive species, or disease that they aren't storing as much carbon as they could. Restarting these forests by harvesting damaged and diseased trees may store more carbon over the long term.

Carbon exists in several places and forms:



**In the air:** At high concentrations in the air, carbon dioxide is a pollutant and a greenhouse gas that warms the planet.



**In plants:** Plants turn carbon dioxide into sugar (glucose). In this form, carbon is food for plants and other organisms in the forest.



**In wood:** Trees and shrubs turn carbon into cellulose. In this form, carbon can be stored long-term in tree trunks or in lumber.



## Trees in Cities

Trees planted in cities store carbon as they grow and reduce energy use from buildings shaded and sheltered by the trees. Just as importantly, trees also reduce asthma rates, heart disease and stress.

To tackle the climate challenge, we need to grow and protect forests, but that alone is not enough. We must also reduce fossil fuel use and adapt to the changes we're already seeing. [Learn more at: nature.org/climate](https://www.nature.org/climate)