



Biodiversity is life



Biodiversity is our life

## Climate Change

Levels of greenhouse gases in the atmosphere are rapidly increasing, warming the Earth's surface and lower atmosphere. Higher temperatures lead to climate change that includes effects such as rising sea levels, changes in precipitation patterns that can produce floods and droughts, and the spread of vector-borne diseases such as malaria. Some areas may benefit from changes in the climate. Others, including those in least developed countries and small island developing states, may suffer greatly.

There is ample scientific evidence that climate change affects biodiversity. Climate change, according to the Millennium Ecosystem Assessment, is likely to become the dominant direct driver of biodiversity loss by the end of the century. It is already forcing biodiversity to adapt either through changing habitat, life cycles, or development of new physical traits. This, in turn, will affect vital ecosystem services for all humans, such as air and water purification, pollination and production of food, decomposition and nutrient cycling, carbon sequestration, etc.

Biodiversity can also help reduce the effects of climate change. The conservation of habitats, for example, can reduce the amount of carbon dioxide released into the atmosphere. Moreover, conserving mangroves can reduce the disastrous impacts of climate change such as flooding and storm surges.

If we act now to mitigate greenhouse gas emissions and identify systems-based adaptation priorities, we can reduce the risk of species extinctions and limit damage to ecosystems. We can preserve intact habitats, especially those sensitive to climate change; improve our understanding of the climate change-biodiversity relationship; and view biodiversity as a solution to climate change.



Convention on  
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[www.cbd.int/climate](http://www.cbd.int/climate)



## Fast Facts

- ▶ Greenhouse gases act like the glass roof of a greenhouse by trapping heat and warming the planet. The main greenhouse gasses are: water vapour, carbon dioxide, tropospheric ozone and methane
- ▶ Human activities, such as burning of fossil fuels, farming, add to the natural emissions of greenhouse gasses in the atmosphere
- ▶ Deforestation is responsible for about 20% of human-induced carbon dioxide emissions
- ▶ Average global temperature from 1850 to 2005 increased by about 0.76°C. A further increase of 1.4°C to 5.8°C is projected by 2100
- ▶ Arctic ice thickness in late summer/early autumn decreased by about 40%
- ▶ Global mean sea level rose by 12 to 22 cm during the last century
- ▶ Current rates of species extinction far exceed normal rates. Climate change will likely become the most significant cause of biodiversity loss by the end of the century
- ▶ Conservation of habitats reduces the amount of carbon dioxide released into the atmosphere
- ▶ The poorest communities find it most difficult to adapt to climate change and thus are most vulnerable.

## Learn More

Intergovernmental Panel on Climate Change (IPCC) ▶ [www.ipcc.ch](http://www.ipcc.ch)

United Nations Framework Convention on Climate Change (UNFCCC) ▶ <http://unfccc.int>

United Nations Convention to Combat Desertification (UNCCD) ▶ [www.unccd.int](http://www.unccd.int)

Ramsar Convention on Wetlands ▶ [www.ramsar.org](http://www.ramsar.org)

The World Bank ▶ [www.worldbank.org](http://www.worldbank.org)

International Union for Conservation of Nature (IUCN) ▶ [www.iucn.org](http://www.iucn.org)

The Millennium Ecosystem Assessment (MA) ▶ [www.millenniumassessment.org](http://www.millenniumassessment.org)

The Report of the Second Ad Hoc Technical Expert Group (AHTEG) on Biodiversity and Climate Change ▶ [www.cbd.int/doc/publications/cbd-ts-41-en.pdf](http://www.cbd.int/doc/publications/cbd-ts-41-en.pdf)

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