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## FORESTS AND CLIMATE CHANGE

- **Forests help stabilise the climate.** They regulate ecosystems, protect biodiversity, play an integral part in the carbon cycle, support livelihoods, and can help drive sustainable growth.
- To maximise the climate benefits of forests, we must **keep more** forest landscapes intact, **manage them more sustainably**, and **restore more** of those landscapes which we have lost.
- Halting the loss and degradation of natural systems and promoting their restoration have the **potential to contribute over one-third of the total climate change mitigation** scientists say is required by 2030.
- **Restoring 350 million hectares** of degraded land in line with the Bonn Challenge could sequester up to **1.7 gigatonnes of carbon dioxide equivalent annually**.

### What is the issue?

Forests are a stabilising force for the climate. They regulate ecosystems, protect biodiversity, play an integral part in the carbon cycle, support livelihoods, and supply goods and services that can drive sustainable growth.

Forests' role in climate change is two-fold. They act as both a cause and a solution for greenhouse gas emissions. Around 25% of global emissions come from the land sector, the second largest source of greenhouse gas emissions after the energy sector. About half of these (5-10 GtCO<sub>2</sub>e annually) comes from deforestation and forest degradation.

Forests are also one of the most important solutions to addressing the effects of climate change. Approximately 2.6 billion tonnes of carbon dioxide, one-third of the CO<sub>2</sub> released from burning fossil fuels, is absorbed by forests every year. Estimates show that nearly two billion hectares of degraded land across the world – an area the size of South America – offer opportunities for restoration. Increasing and maintaining forests is therefore an essential solution to climate change.

### Why is this important?

Halting the loss and degradation of forest ecosystems and promoting their restoration have the potential to contribute over one-third of the total climate change mitigation that scientists say is required by 2030 to meet the objectives of the Paris Agreement.

Other benefits in support of both people and nature are considerable:

- Globally, **1.6 billion people** (nearly 25% of the world's population) rely on forests for

their livelihoods, many of whom are the world's poorest.

- Forests provide **US\$ 75–100 billion per year in goods and services** such as clean water and healthy soils
- Forests are home to **80% of the world's terrestrial biodiversity**.



Mount Elgon, Uganda © Edmund Barrow / IUCN

### What can be done?

IUCN's forest work tackles the role of trees and forests in building resilience to climate change in several ways:

- **Combatting deforestation and forest degradation** in areas of high biodiversity and cultural significance, such as primary forests and World Heritage sites. This helps conserve the benefits that people and societies get from forests, including forest carbon stocks and livelihoods.
- **Restoring forest landscapes** helps enhance climate change mitigation and adaptation. As the co-founder and Secretariat of the Bonn Challenge – a global

effort to bring 350 million hectares of deforested and degraded land under restoration by 2030 – IUCN supports national and sub-national decision makers in reaching this important goal. Reaching the 350 million hectare target could sequester up to 1.7 gigatonnes of carbon dioxide equivalent annually.

- **Enabling rights-based land use** ensures community involvement in land-use outcomes. IUCN produces results on the ground through partners and projects worldwide to help strengthen community control over forests, alleviate poverty, empower women and men, enhance biodiversity, and sustainably manage forests.
- **Unlocking forest benefits** is critical to a sustainable and equitable supply of forest goods and services. IUCN builds capacity for implementing restoration, engaging the private sector and striving to make sure benefits – such as those from Reducing Emissions from Deforestation and Forest Degradation (REDD+) – are equitably shared with local landowners and forest communities.

Today, more and more consumers are demanding forest products from sustainable sources, and an increasing number of major palm oil, timber, paper and other forest product corporations are beginning the conversion to deforestation-free supply chains.

In addition to creating and maintaining protected areas and launching initiatives towards more sustainable management, many countries, subnational governments and private landowners are restoring degraded and deforested land. This helps to take pressure off healthy, intact forests and reduce emissions from deforestation and forest degradation.

As the world debates how to operationalise the Paris Agreement, it is imperative that national leaders accelerate these actions. This can be done by subscribing to and implementing the New York Declaration on Forests, sustain forest climate financing, and include forest and land use in countries' Nationally Determined Contributions (NDCs) under the Paris Agreement.

Nature – and in particular, trees and forests – can and must be part of the solution to keeping the climate within the globally accepted two-degree temperature increase limit.

## IUCN's support for climate change action at UNFCCC COP and beyond:

*Driving the restoration of 350 million hectares of degraded landscapes and forest lands by 2030 through the Bonn Challenge and related regional initiatives*

*Expanding protected areas, including indigenous, privately owned and community conservation areas, in ways that enhance the landscape's resilience and stabilise and store carbon*

IUCN supports and assists climate change mitigation and adaptation through its global network of thousands of members and partners in Latin America, Africa, the Middle East, Asia and Oceania. As a Union of State and Non-State members, IUCN is able to support climate change action from setting goals and generating new knowledge, through to implementation on the ground.

### Where can I get more information?

IUCN's Forest Programme  
[iucn.org/forest](https://www.iucn.org/forest)  
[forests@iucn.org](mailto:forests@iucn.org)

Rizvi, A.R., Baig, S., Barrow, E., Kumar, C. (2015). [Synergies between Climate Mitigation and Adaptation in Forest Landscape Restoration](#). Gland, Switzerland: IUCN.

Osipova, E., Emslie-Smith, M., Osti, M., Murai, M., Åberg, U., Shadie, P. (2020). [IUCN World Heritage Outlook 3](#). Gland, Switzerland: IUCN

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[https://www.iucn.org/sites/dev/files/content/documents/iucn\\_bonn\\_challenge\\_rio\\_conventions.pdf](https://www.iucn.org/sites/dev/files/content/documents/iucn_bonn_challenge_rio_conventions.pdf)