

Deforestation and biodiversity loss

Human survival is intrinsically linked to forests, yet deforestation and forest degradation continue at alarming rates. The consequences will be tragic – especially in biodiverse tropical areas – with looming mass extinctions of plants and animals, and increased likelihood of infectious diseases.

TOTAL REMAINING FOREST COVER

4.06 BILLION HECTARES.¹



About **1.11 billion hectares** remains as **undisturbed, primary forest**, 60% of which is found in just three countries: the **Russian Federation, Brazil, and Canada.¹**

BIODIVERSITY HOTSPOTS

RAINFORESTS COVER JUST 6% OF GLOBAL LAND AREA

but are home to over

50% OF PLANT AND ANIMAL SPECIES.²



BIODIVERSITY LOSS

On average, **137 SPECIES ARE DRIVEN TO EXTINCTION IN TROPICAL RAINFORESTS EVERY DAY.³**

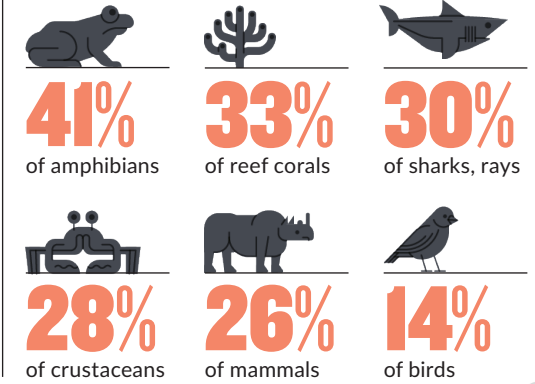
Animal species assessed as threatened in 2020:

14,735⁴

Plant and fungi species assessed as threatened in 2020:

17,706⁴

27% OF ASSESSED SPECIES ARE THREATENED WITH EXTINCTION.⁴



DEFORESTATION

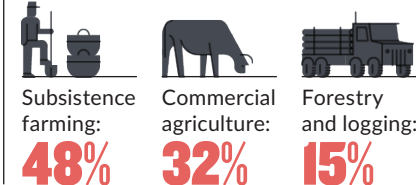
SINCE THE 1960s OVER 50% OF THE WORLD'S TROPICAL FORESTS HAVE BEEN DESTROYED.⁵



3.8 MILLION HECTARES OF TROPICAL PRIMARY FOREST WAS LOST IN 2019.⁶



THE OVERWHELMING DIRECT CAUSE OF DEFORESTATION IS AGRICULTURE, with the main drivers being:⁷



HEALTH IMPACTS

Deforestation can lead to a rise in **Emerging Infectious Diseases** like:

EBOLA NIPAH LASSA CORONA VIRUSES

and **parasites** that cause:

LYME DISEASE MALARIA⁸



Sources: 1. The state of the world's forests 2020, Food and Agriculture Organization of the United Nations (FAO) 2. Rainforests, National Geographic 3. Rainforest Action Network (RAN) 4. International Union for Conservation of Nature (IUCN) Redlist 5. Deforestation and forest degradation, IUCN 6. We Lost a Football Pitch of Primary Rainforest Every 6 Seconds in 2019, World Resources Institute 7. Forest Facts, UN-REDD Programme 8. Global emergence of infectious diseases, FAO Design + illustration: Mike Rossi / micrografik.com Published: 2020

A climate in crisis

Despite clear scientific consensus, the landmark Paris Agreement, and a youth-led global movement, the effects of global heating on ecosystems and human health continue to rise. Since land is both a source and a sink of greenhouse gases, nature-based solutions such as forest conservation, agroforestry, sustainable land management, and landscape restoration offer a clear path forward – yet they receive only 3% of climate funding.

CLIMATE TARGETS

The 2016 Paris Agreement aims to limit the global temperature increase to:

Based on current levels, the world is tracking towards a global temperature rise of:

1.5°C
BY 2100

3.2°C
BY 2100¹

CLIMATE VULNERABILITY AND ADAPTATION

800 MILLION PEOPLE ARE CURRENTLY VULNERABLE TO CLIMATE CHANGE IMPACTS

such as droughts, floods, sea-level rise, and extreme weather events.⁵

75% OF THE WORLD'S FOOD IS GENERATED FROM ONLY 12 PLANT AND 5 ANIMAL SPECIES.⁶

This makes the global food system highly vulnerable to climate change.

CARBON SINKS

PEATLANDS ARE THE LARGEST NATURAL CARBON STORE, HOLDING OVER 550 BILLION TONNES OF CARBON.⁴

Agroforestry currently holds about 36 billion tonnes of carbon, representing perhaps the highest potential for carbon neutrality within the agricultural sector.⁷

This exceeds the amount of carbon stored in all other vegetation types, including the world's forests.

CLIMATE FINANCE

By some estimates, reducing emissions from deforestation and forest degradation in developing countries requires funding of around:

US\$15 BILLION PER YEAR.⁸

Current level of funding available:
US\$1-2 BILLION PER YEAR.

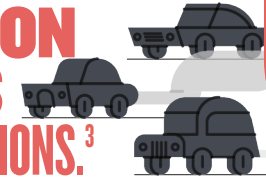
CARBON EMISSIONS

23%
OF HUMAN-CAUSED GREENHOUSE GAS EMISSIONS ARE FROM FORESTRY, AGRICULTURE AND OTHER LAND USES.²

Land use change, such as clearing forest to make way for farms, drives these emissions.

In 2019,

PRIMARY FOREST LOSS WAS LINKED TO 1.8 BILLION TONNES OF CO₂ EMISSIONS.³



EQUIVALENT TO THE ANNUAL EMISSIONS FROM
400 MILLION CARS.

DRAINED AND DAMAGED PEATLANDS EMIT 1.3 BILLION TONNES OF CO₂ ANNUALLY.²

This is equivalent to 5.6% of global human-caused CO₂ emissions.

Fires in Indonesian peat swamp forests in 2015, emitted nearly 16 million tonnes of CO₂ a day – more than the daily emissions from the entire US economy.⁴

List of sources

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1. *The state of the world's forests 2020*, Food and Agriculture Organization of the United Nations (FAO); <http://www.fao.org/state-of-forests/en/>
2. *Rainforests*, National Geographic; <https://www.nationalgeographic.org/encyclopedia/rain-forest/>
3. *Fact Sheet: Rainforest Animals*, Rainforest Action Network (RAN); https://www.ran.org/fact_sheet_rainforest_animals/
4. International Union for Conservation of Nature (IUCN) Redlist; https://nc.iucnredlist.org/redlist/content/attachment_files/2020-2_RL_Stats_Table1b.pdf
5. *Deforestation and forest degradation*, IUCN; <https://www.iucn.org/resources/issues-briefs/deforestation-and-forest-degradation>
6. *We Lost a Football Pitch of Primary Rainforest Every 6 Seconds in 2019*, World Resources Institute; <https://www.wri.org/blog/2020/06/global-tree-cover-loss-data-2019>
7. *Forest Facts*, UN-REDD Programme; <https://www.un-redd.org/forest-facts>
8. *Global emergence of infectious diseases: links with wild meat consumption, ecosystem disruption, habitat degradation and biodiversity loss*, FAO; <http://www.fao.org/3/ca9456en/CA9456EN.pdf>

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