

ENVIRONMENTAL CRISIS

The Amazon Rainforest

Aisha Al-Kaabi

The Importance of the Amazon

The Amazon spans 5.5 million km² across 9 nations — the world's largest tropical rainforest, regulating climate, water, and sustaining unparalleled biodiversity.

10%

of all species on Earth live here

20%

of Earth's freshwater flows through the Amazon

150–

200B
tonnes of carbon stored in Amazon vegetation

Deforestation in the Amazon

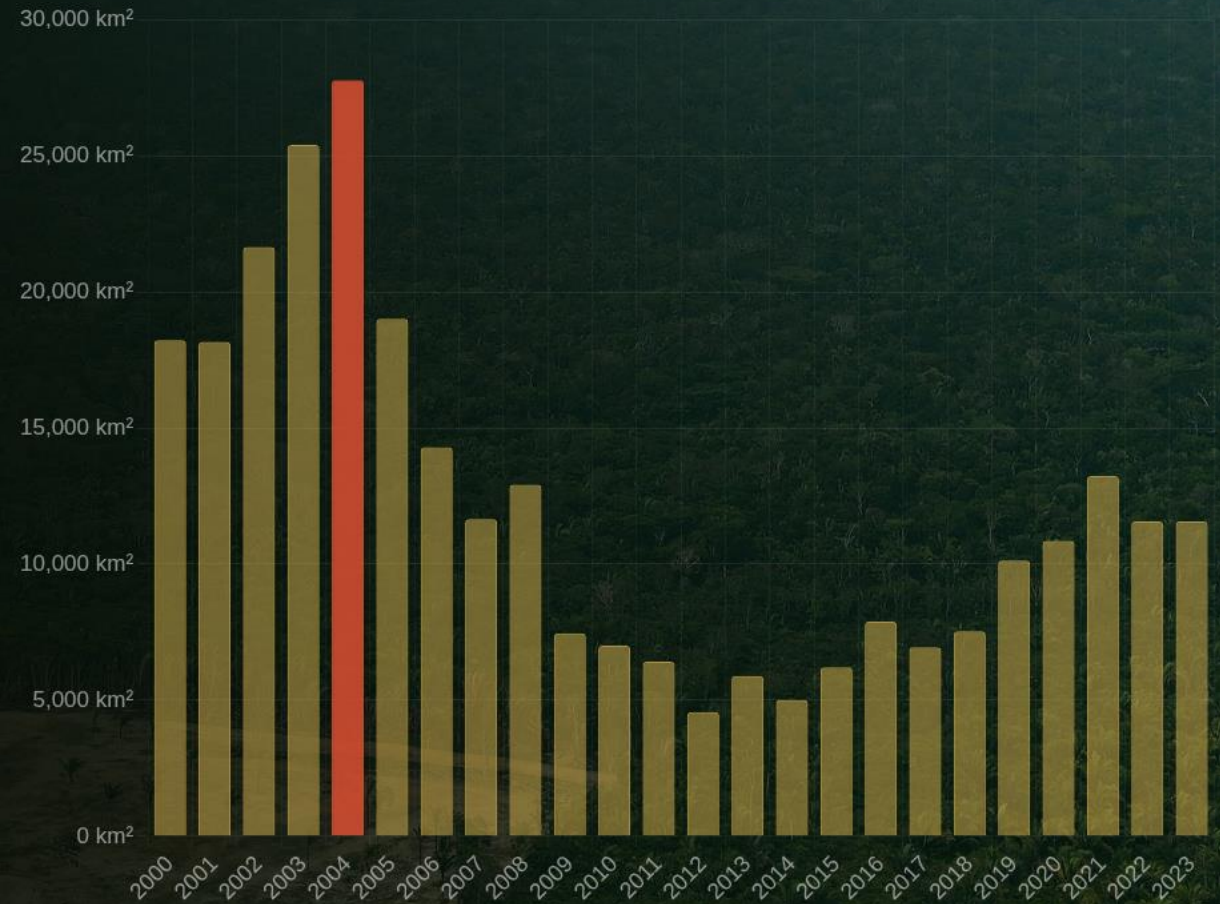
17% of the Amazon cleared in 50 years — an area larger than France

13,235 km² lost in 2021 — the highest rate since 2006

-30.6% deforestation drop in 2024 after stronger enforcement

20–40% threshold scientists warn could trigger irreversible savanna conversion

ANNUAL DEFORESTATION IN THE BRAZILIAN AMAZON (KM²)



Cattle Ranching & Forest Loss

60–80%

of deforested Amazon land
becomes cattle pasture

- Brazil is the world's largest beef exporter — global demand accelerates clearing
- Cleared land rapidly degrades — pastures become unproductive within 10–15 years
- Ranching drives methane emissions alongside direct forest carbon loss

Fire & Environmental Damage

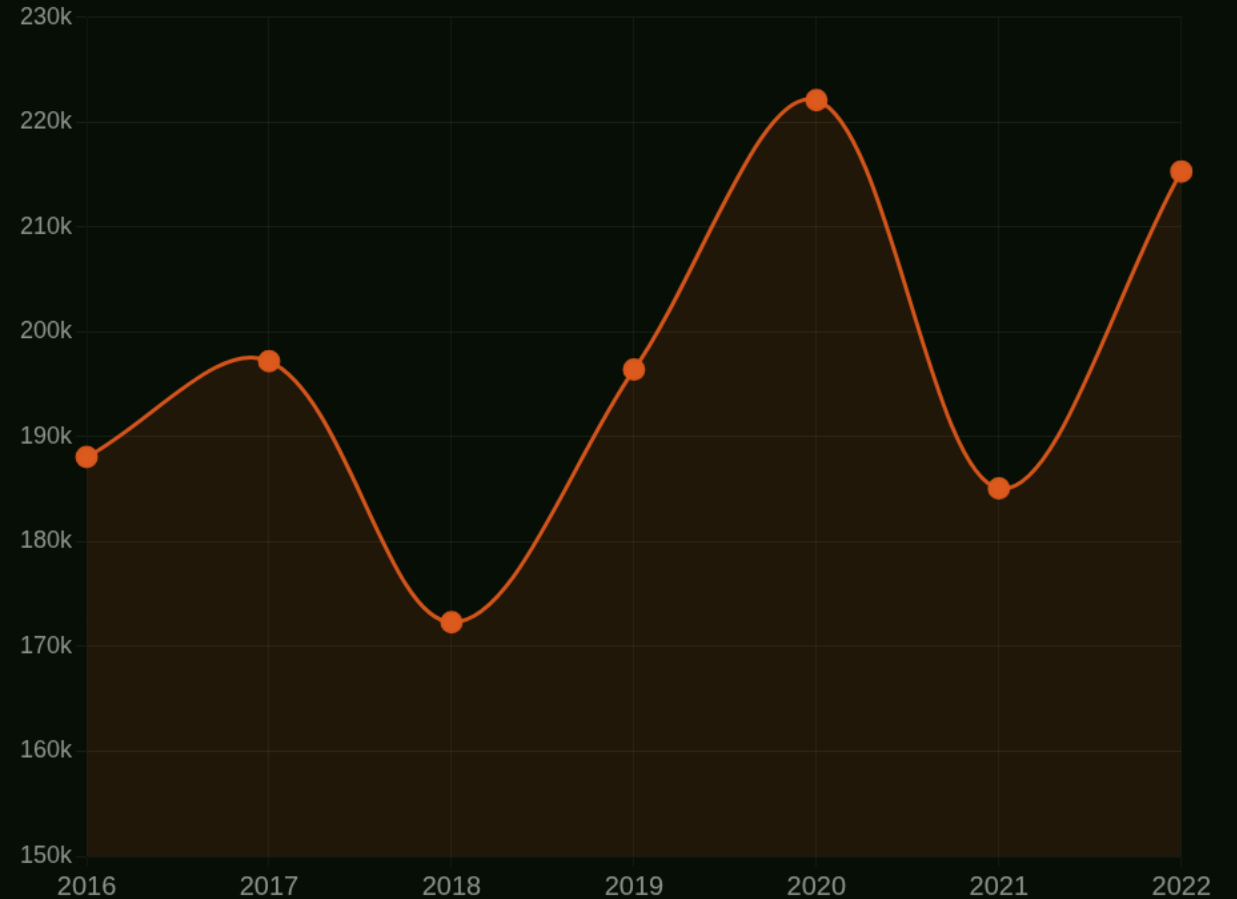
+16.7% rise in fire incidents in 2022 compared to the year before

95% of Amazonian species threatened by fire-driven habitat loss

Intentional Most fires are deliberately set to clear land for cattle and agriculture

Feedback Burned areas dry out, making surrounding forest more vulnerable to future fires

AMAZON FIRE INCIDENTS IN BRAZIL BY YEAR



Carbon & Climate Effects

CARBON RELEASE

Billions of tonnes of CO₂ freed from trees & soil

FLYING RIVERS

Amazon moisture drives rainfall across South America

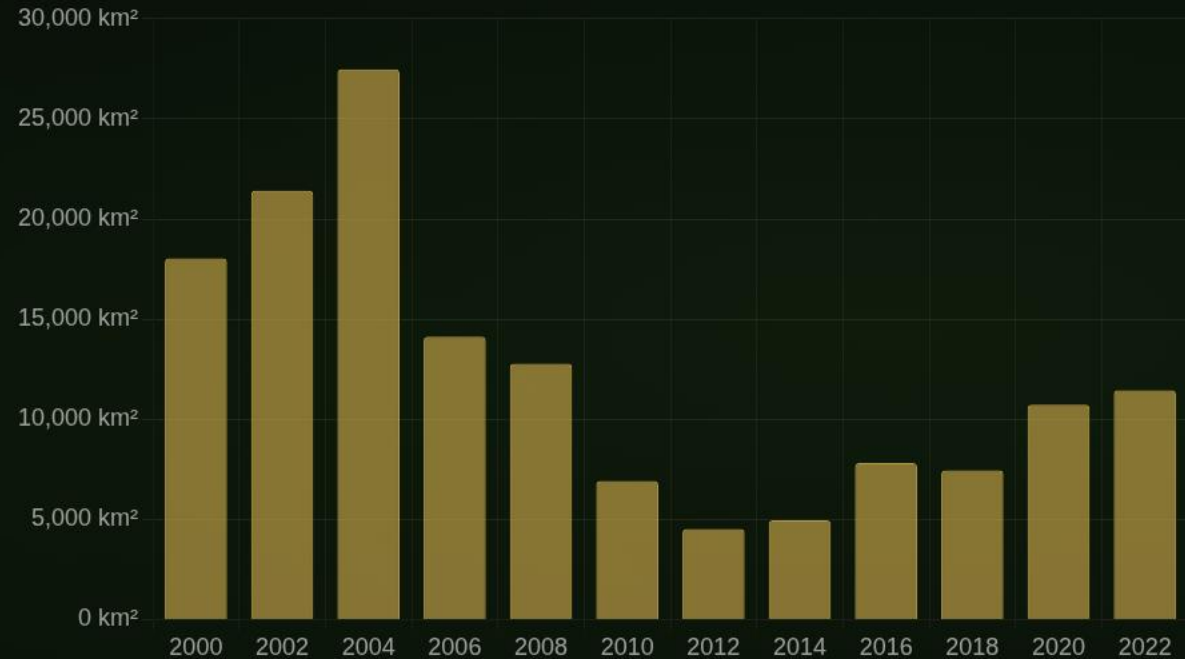
TEMPERATURE RISE

Local temps up 1–3°C — more drying, more fire

GLOBAL TIPPING POINT

Amazon loss pushes worldwide climate past safe limits

AMAZON ANNUAL DEFORESTATION — BRAZIL (KM²)



Source: INPE (Brazil's National Institute for Space Research)

Biodiversity Loss

The Amazon is home to more species per square kilometer than any other ecosystem on Earth. Deforestation tears this web apart irreversibly.

40,000+ plant species — many yet undiscovered

1,300+ bird species — 1 in 5 of all birds on Earth

3 million estimated total species — most facing habitat loss

Irreversible Species lost to extinction cannot be recovered — fragment habitats cause species collapse

Logging & Forest Degradation

Canopy Reduction

Selective logging removes large emergent trees, permanently reducing canopy density and light filtration

Biomass Loss

Logging reduces above-ground biomass, weakening the forest's ability to store carbon long-term

Carbon Storage

Every tree removed diminishes the forest's capacity to absorb atmospheric CO₂ — a permanent cost

Edge Effects

Logging roads fragment forest, creating edges where moisture loss, heat penetration, and invasive species spread

Logging doesn't just remove trees — it dismantles the entire forest structure, leaving it fragile and prone to collapse.

Illegal Logging

Illegal logging is a multi-billion dollar criminal industry operating across the Amazon. It undermines conservation laws, corrupts local governance, and accelerates deforestation far beyond official records.

44%

of tropical timber harvested in Pará state was illegal (2015–2016 data)

SCALE

Nearly half of all timber from Pará — Brazil's top timber-producing state — was harvested outside legal frameworks

CONSEQUENCE

Illegal logging removes high-value species, destroys understory, and often precedes land clearing for agriculture

OVERSIGHT

Weak enforcement, forged permits, and supply chain opacity allow illegal timber to reach global markets

Mining & Illegal Gold Mining

11,670 km²

Amazon forest
destroyed by
mining
2005–2015

70 km

Mining impacts
extend beyond
active mining sites
— degradation
radiates outward

- Mercury contamination from gold mining poisons rivers, fish, and Indigenous communities downstream
- Illegal mining (garimpo) surged under weakened regulation — reaching record levels 2019–2022
- Mines destroy riverbanks, eliminate aquatic habitats, and create long-term soil erosion

Indigenous Communities

Over 400 Indigenous groups — representing 1 million people — call the Amazon home. They are the forest's most effective stewards, and its most vulnerable population.

400+ distinct Indigenous groups across the Amazon basin, many with uncontacted populations still at risk

Mercury Illegal mining contaminates food and water sources — Yanomami communities face severe mercury poisoning

Guardians Indigenous territories show dramatically lower deforestation rates — their land rights are a proven conservation tool

Why Protection Is Difficult

01 Economic Pressure
Deforestation is economically rational for individual farmers and corporations. Beef, soy, and timber generate immediate profit — while forest value is diffuse and global.

02 Political Will
Enforcement agencies are underfunded. Political administrations have oscillated on Amazon policy, weakening IBAMA and FUNAI — the key protection bodies.

03 Scale & Remoteness
The Amazon spans 5.5 million km² across 9 nations. Monitoring, enforcement, and prosecution across such vast, remote terrain is logistically near-impossible.

04 Global Supply Chains
Cattle, soy, timber, and gold produced on deforested land enter opaque global supply chains — making consumer-level accountability nearly impossible to enforce.

13 — FINAL TAKEAWAY

Conclusion

**POLICY
REFORM**

**INDIGENOUS
RIGHTS**

**SUPPLY CHAIN
TRANSPARENCY**

**INTERNATIONAL
COOPERATION**

The Problem & How It's Being Addressed

THE PROBLEM

- Deforestation & Fires
- Illegal Logging & Mining
- Cattle Ranching & Soy
- Climate Feedback Loop
- Loss of Indigenous Land
- Biodiversity Collapse

HOW IT'S BEING ADDRESSED

POLICY & ENFORCEMENT

Brazil's Forest Code requires 80% forest cover on Amazonian land — satellite-monitored by IBAMA

AMAZON FUND

Norway & Germany have committed over \$1.3 billion to Amazon conservation efforts

INDIGENOUS LAND RIGHTS

Legally recognized Indigenous territories have significantly lower deforestation than surrounding areas

EU DEFORESTATION LAW (2023)

Bans imports of beef, soy & timber linked to deforestation — major leverage on Brazilian exports

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