

Amazon Rainforest and Deforestation





Amazon Rainforest



Deforested area of the Amazon



Amazon Rainforest

- One-in-ten species on the planet reside there.
- The forest produces 6% - 9% of the planet's oxygen
 - ↳ NOTE: Russia has the most forests in the world (49.4% is forests – more than 20% of the world's forests! – which absorb 15% of carbon monoxide)

How much of the 1970 Amazon Rainforest remains?

- 80.9% in 2022

Roughly 15 billion trees are cut down each year. Since human civilization, global tree numbers are projected to have dropped by about 46%

Effects of deforestation

The loss of trees and other vegetation can cause...

- climate change
- desertification
- soil erosion (also harms streams and fish)
- fewer crops
- flooding
- increased greenhouse gases in the atmosphere
- problems for indigenous people.

The International Tropical Timber Agreement was set up in 2006 to "promote the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests and to promote the sustainable management of tropical timber producing forests".

↳ The countries who have signed the pledge to cease deforestation by 2030 - including Canada, Brazil, Russia, China, Indonesia, the Democratic Republic of the Congo, the US and the UK - cover around 85% of the world's forests
Norway has banned all deforestation.

Companies who have policies in place to help save forests

- Coca-Cola
- Kellogg
- Mars
- Nestle...*they have already eliminated deforestation from supply chain!*

Companies whose actions and policies contribute to deforestation

- Cargill
- Walmart
- Ikea
- Starbucks
- McDonalds
- Burger King
- Proctor and Gamble

Some have good policies in place, but they are unenforceable and can't be monitored for adherence

What can YOU do?

- Petition your elected officials.
- Stop buying (or buy fewer type of) harmful products, and look for ones certified as fair trade or coming from responsibly managed forests.
- Boycott companies which enable deforestation
- Encourage creation of ecotourism (create a demand for people to see preserved nature)
- Encourage sustainable forestry practices, changing farming practices, good forest stewardship and economic incentives

Video of Forests

Destruction of Amazon rain forest (11 min)
<https://www.youtube.com/watch?v=SAZAKPUQMw0>
history, recent history GOOD

ABC news report, logging/gold mining good footage (8 min)
https://www.youtube.com/watch?v=pA5VGb_lzus

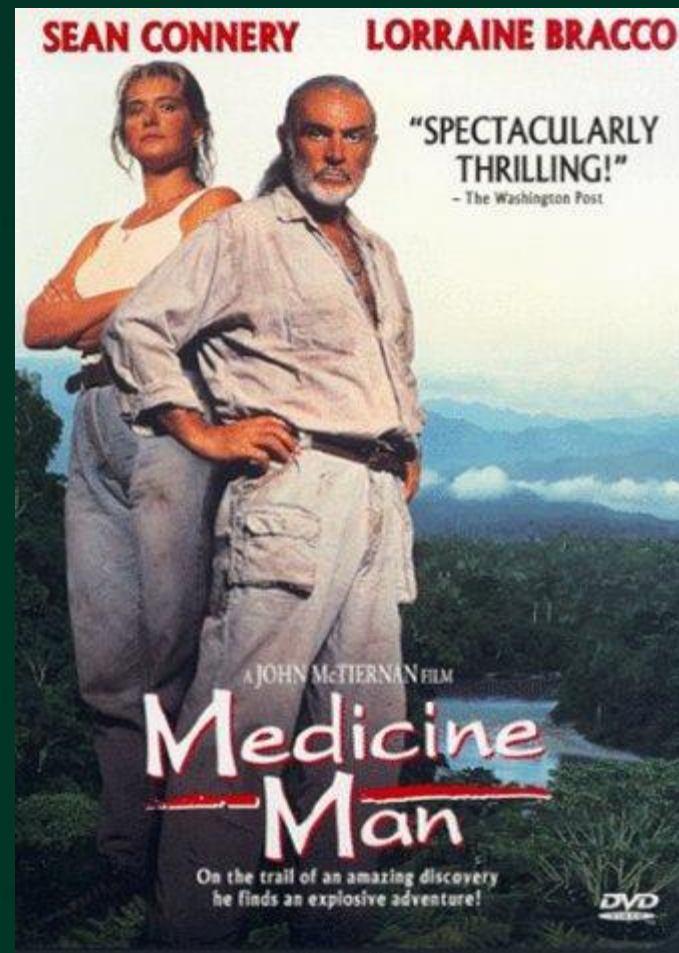
GoogleEarth, 3 min
<https://www.youtube.com/watch?v=b4eLTYUcj7k>

Medicine Man

Preview for Medicine Man
<https://www.youtube.com/watch?v=1kbjNmOxwIU>

saying he "lost" the cure for cancer (1 min)
<https://www.youtube.com/watch?v=ek8NmpVBssA>

comparing results, plant extract, id the sugar
https://www.youtube.com/watch?v=dp_BanU3Pss

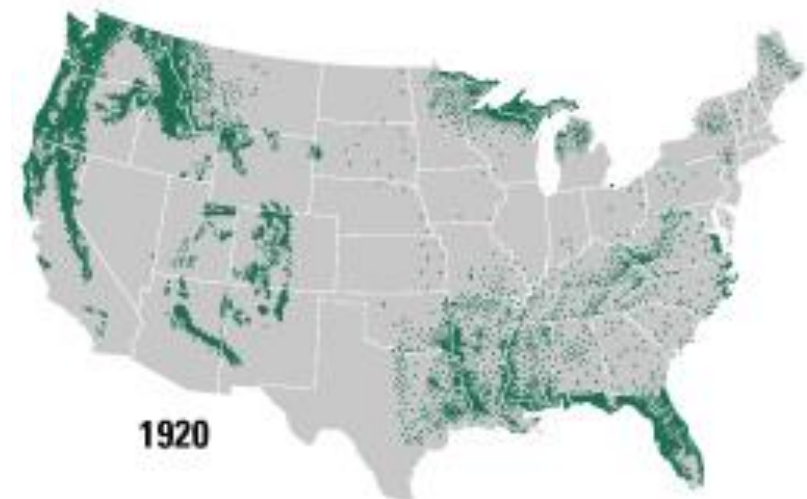


What medicines have been discovered in the rainforests?

- ✓ Quinine (treatment for malaria, leg cramps and restless leg syndrome)
- ✓ Neostigmine (treatment for a muscle disease)
- ✓ Novacaine (used in dentistry)
- ✓ Tubocurarine (kind of like anesthesia)
- ✓ Cocaine
- ✓ Cortisone (active ingredient in birth control pills)
- ✓ Vincristine (treatment for leukemia)

US Law is designed to protect our forests and stop illegal wood products from entering the US marketplace

- **Endangered Species Act (1973)**
 - ↪ Prohibits importing, exporting, taking, possessing, selling, and transporting endangered and threatened species. ESA also provides for the designation of critical habitat and prohibits the destruction of that habitat.
- **Wilderness Act (1964)**
 - ↪ Restricts development of the land, including logging, drilling, and road construction, with most motorized vehicle use also prohibited.
- **Lacey Act (1900, amended regularly since)**
 - ↪ In 2008, Congress amended the Lacey Act to establish **the world's first ban on illegal logging** by creating stricter limitations and penalties on plants and wood products that are traded or sold from illegal sources
- **Roadless Act (2001)**
 - ↪ Establishes **prohibitions on road construction, road reconstruction, and timber harvesting** on 58.5 million acres of inventoried roadless areas on National Forest System lands



“Greenest” Presidents

Theodore Roosevelt Republican

- Created 50 wildlife refuges, 5 national parks, the US Forest Service and set aside 150 million acres for conservation
- Constantly pushing Congress for environmental protection

Carter Democrat

- First to acknowledge seriousness of climate change
- Installed solar panels on White House
- Designed 39 new Wild and Scenic Rivers, more than tripling the size of the existing system.
- Created 11 National Parks (doubling the size of the national park system)
- Created the Endangered American Wilderness Act (extended protections to 1.3 million acres)
- As governor, established the state of Georgia Conservancy and pushed for land protection by the state
- Cancelled a dam project (which would have flooded and threatened native species.)

Obama Democrat

- Put forth the Climate Action Plan, which proposed reducing carbon dioxide emissions, preserving forests encouraging alternative fuels and increasing study of climate change.

Nixon Republican

- Nixon ushered in the fundamental environmental laws of the nation.
- Signed the National Environmental Policy Act (mandated federal agencies file environmental impact statements)
- Clean Air Act, Clean Water Act

Clinton Democrat

- Blocked attempts by Congress to roll back environmental protections (one piece of 1995 legislation, for instance, included opening up the Arctic National Wildlife Refuge, creating a radioactive waste dump in California and undermining the Endangered Species Act! He vetoed it.)

Least “Green” Presidents

Trump Republican

- Removed 125 rules and policies aimed to protect the nation’s air, water and land.
- Changed climate change’s classification as a national security threat so that less money could be used to remedy it.
- pulled out of the Paris Climate Agreement, which makes the United States one of only six countries in the world that are not a part of the pact
- President Trump has opened up more than half of Alaska’s Tongass National Forest, or over 9.3 million acres, for logging. The Tongass National Forest is the world’s largest intact temperate rainforest with some trees living in it being up to 1,000 years old, allowing the forest to absorb more carbon than any other forest in the United States.

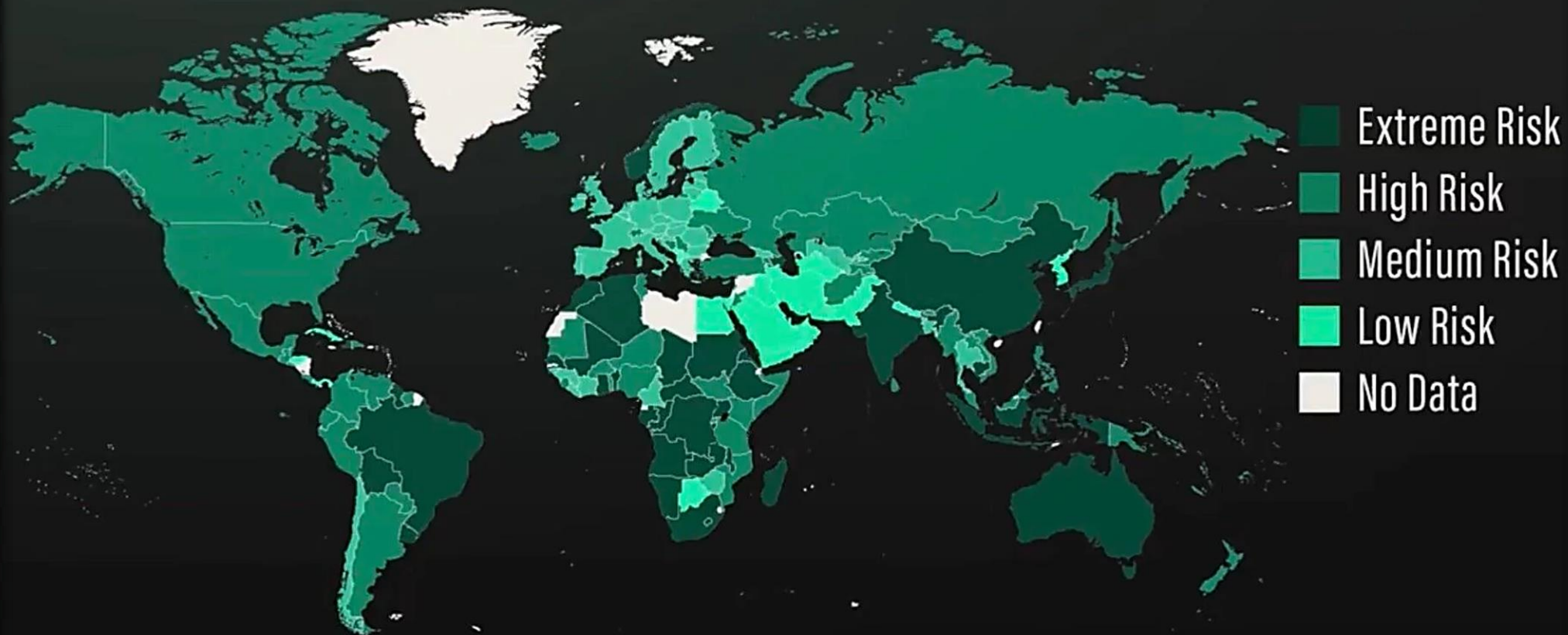
Eisenhower Republican

- As the national expanded into the suburbs and the interstate system was established, there was no consideration of environmental impact.

Reagan Republican

- Gave leases to oil, coal, and gas development on national lands
- Appointed anti-environmental leaders to head the EPA and Department of the Interior, which caused certain environmental laws to be rolled back.
- 1981, said “Trees cause more pollution than automobiles do.”

DEFORESTATION INDEX 2018



SOURCE MAPLECROFT

Deforestation in Oregon

Who owns Oregon's forests?

↳ 2% tribes, 34% private landowners, the rest is the general public (which is held in trust by the state or federal government)

Big business has bought up private timberland, and clearcutting have yielded tax breaks. Oregon lost 522,000 acres to deforestation since 2000. (an area six times the size of Portland)

Forest lost has exceeded forest gain by 45%

The rate for clearcutting on state and private lands has far exceeded forest gain from replanting.

Six factors driving deforestation in Oregon

1. Rapid clearcutting
2. Weak logging rules
3. Conversion of natural forests into industrial tree plantations that are clearcutting in short rotations.
 - ↳ At least 4 million acres of land falls under this
4. Logging roads.
 - ↳ 1000,000-150,000 acres of forest have been lost to logging roads
5. Depletion of soil and landslides on clearcut lands.
6. Depletion of soil nutrients from repeated clearcutting over too short a time

State law requires timber companies to replant after clear cutting. But seedlings aren't growing as fast as mature trees are being cut

