

The Issue of Deforestation and Forest Degradation

- About half of the world's tropical forests have been cleared (FAO)
- Forests currently cover about 30 percent of the world's land mass (National Geographic)
- Forest loss contributes between 6 percent and 12 percent of annual global carbon dioxide emissions (Nature Geoscience)
- About 36 football fields worth of trees lost every minute (World Wildlife Fund (WWF))

Deforestation - cutting, clearing, and removal of the Earth's forests on a large scale and

Forest degradation - reduction in the capacity of a forest to produce ecosystem services such as carbon storage.

Carbon storage – taking CO₂ out of the atmosphere by photosynthesis and storing the C in the trees

CO₂ – carbon dioxide, greenhouse gas

Greenhouse effect – carbon dioxide (and other gases) in the atmosphere keeping heat in like a greenhouse does resulting in warming of atmosphere (Global Warming).

REDD+ - an agreement which relies on each country's contribution to cutting carbon dioxide emissions, a program which requests the conservation of forests by promoting the proper management of forests

Carbon dioxide emissions – carbon dioxide given out by burning fuels, cars, industry, power stations, etc

Water cycle – removal of trees affects the water cycle and can cause soil erosion, flooding etc

Lack of diversity - Species are being declared extinct at a faster rate than they are being discovered - with some estimates going as high as 137 species extinct a day. 50% of medicines are derived from natural products.

Not preventing deforestation and the consequent destruction of ecosystems would significantly reduce biodiversity, and thus we may potentially be losing discovery opportunities with regards to new medicines, which could potentially save countless lives in the future.

Eating less meat – would reduce emissions of methane from cattle farts! Also a major greenhouse gas.

NGO – non governmental organisations eg Greenpeace

For instance, Brazil has, under pressure from Greenpeace, forced soy farmers to commit to the protection of the rainforest, with some success. It has nevertheless been almost impossible to properly monitor, and does nothing to deal with the vast quantities of other crops produced such as rice and corn.

Illegal logging – illegally cutting down trees: difficult to stop / monitor

Food - Poorer countries especially need to cut down trees for farming to grow food for their families

Money - Also, cutting forests is quite profitable as the wood can be used for different purposes.

Could your country realistically afford not to industrialise and develop?

Brazil

Amazon rates of deforestation increased by 29% between 2012 and 2013

10 Countries With the Highest Deforestation Rates in the World

All percentages refer to the years 1990-2005.

1) Honduras: -37%

Historically Honduras was pretty much entirely covered by trees, with half a percent of the land not forested. Today about half of that remains (52%), with just about 16% existing in a frontier forest state. Between 1990-2005, Honduras saw a decline of 37% in its forest cover.

2) **Nigeria: -36%** About half the land in Nigeria used to be covered in trees. Today all but about 10% of those have been chopped down, and less than one percent exist as frontier forest. Nigeria has removed 36% of its trees in the past two decades.

3) The Philippines: -32%

The islands that make up the Philippines used to be all forested. Today only 35% of those forests remain; the only (slightly) good news in that is about 28% remain as frontier forest. But with a deforestation rate over the past twenty or so years of 26%, the future isn't so bright.

4) Benin: -31%

Benin didn't start out with great amounts of forest cover -- only about 16% of the land used to be forested -- and a high deforestation rate of 31% doesn't help preserve what remains. Less than 4% of those original forests remain, and none in a frontier forest state.

5) Ghana: -28%

At one point about two-thirds of Ghana was covered with forest; now, less than 10% of that forest cover remains and none as frontier forest. At a rate of decline since 1990 of 28%, that remaining forest doesn't stand a chance without better forestry practices.

6) Indonesia: -26%

Indonesia is a strange case. Like much of Southeast Asia it was historically entirely covered in forest, and over the whole nation some 65% of that forest cover remains, with about 29% in a frontier forest condition. But it's seen a serious decline in that forest cover over the past two decades which doesn't show signs of letting up.

It's also an amazingly large country, and there are local conditions that get minimized in the stats. For example, on Borneo (the world's third largest island) between 1985-2000 more logs were felled than in all of South America and Africa combined. Half of the lowland forest is currently gone and that could increase to two-thirds in just ten years.

7) Nepal & North Korea: -25%

Nepal has about 22% of its original forest cover remaining, non of which is considered frontier forest -- the past two decades saw a 25% decline in forest cover.

At one point nearly all of North Korea was forested, but today about 61% of that has been cleared -- the change in forest cover since 1990 has been a decline of about 25%.

9) Ecuador & Haiti: -22%

Rounding out the bottom of the top, as it were, are Ecuador, Liberia, and Haiti, all of which have witnessed 22% declines in forest cover since 1990.

Ecuador was originally largely forested, but today has about two-thirds of that forest cover remaining. The comparatively good news is that about 37% of that is frontier forest.

The bad news about Haiti is that it has had a 22% decline in forest cover in the past twenty years. The even worse news is that Haiti has already cleared all but a fraction of a percent of it's original forest, 99.2% to be exact.

Other reasons to stop deforestation and re-forest (replant trees)

- Restoring the ecosystem services provided by forests including carbon storage, water cycling and wildlife habitat
- Reducing the buildup of carbon dioxide in the atmosphere
- Rebuilding wildlife habitats

Which countries would want to support stopping deforestation?
Which countries would find it hard to do so due to money?
Choose your country – what would your arguments be?

