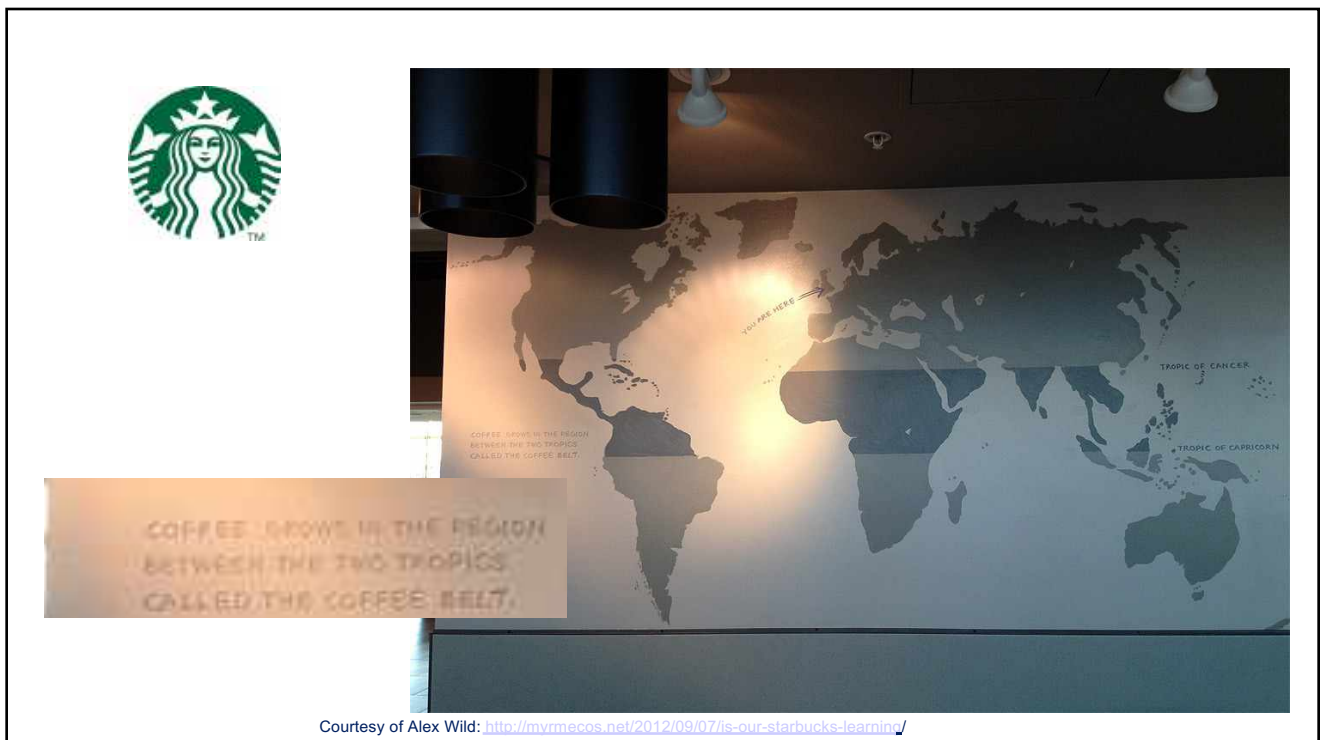


# The Future of Tropical Rain Forests IDS 2935

## 4-1: Where are Rain Forests & Patterns of Tropical Biodiversity

1



Courtesy of Alex Wild: <http://myrmecos.net/2012/09/07/is-our-starbucks-learning/>

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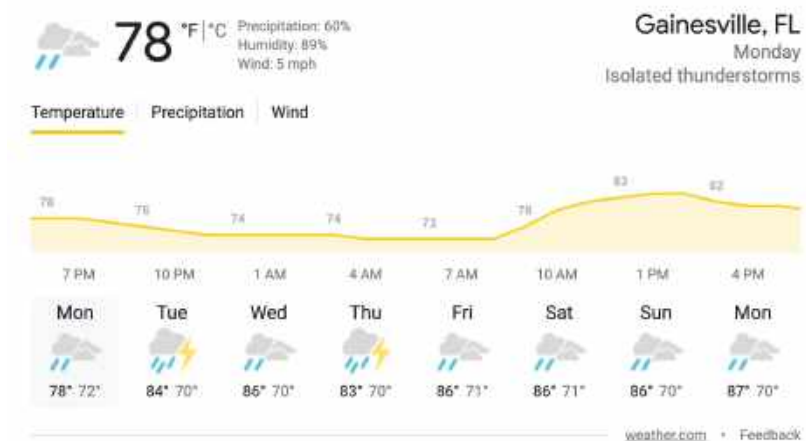
# WHERE



7

## Weather vs. Climate

**Weather:** present conditions at a site (and short-term variation in these conditions)

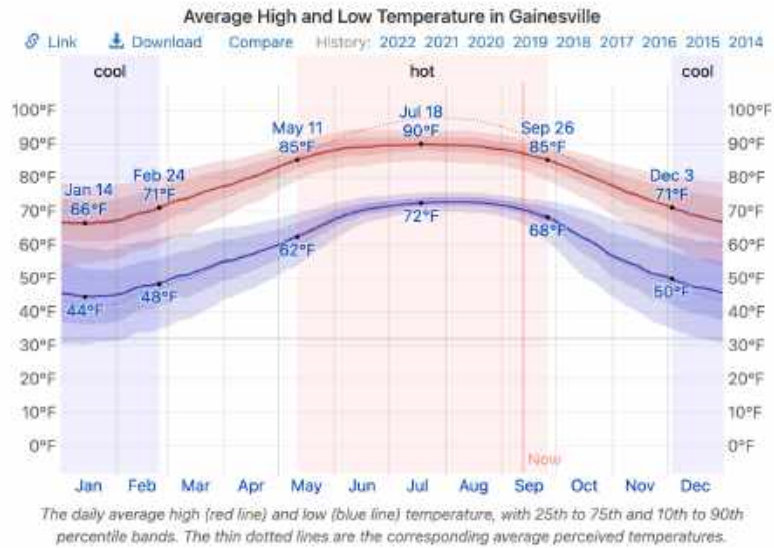


8



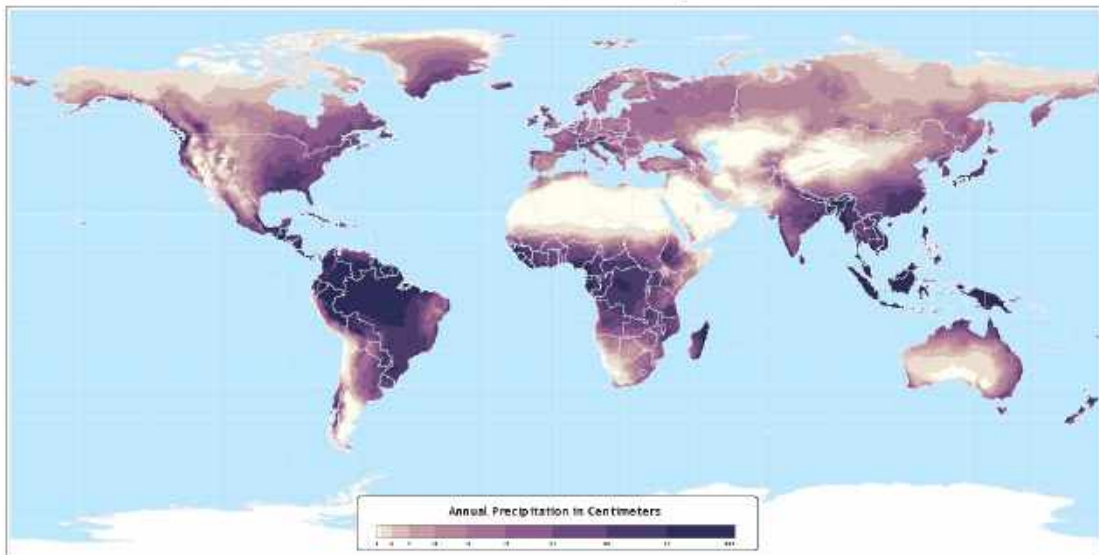
# Weather vs. Climate

**Climate:** avg. conditions in a location over longer time scales (e.g., 30 yr. avg.)



9

## Annual Total Precipitation

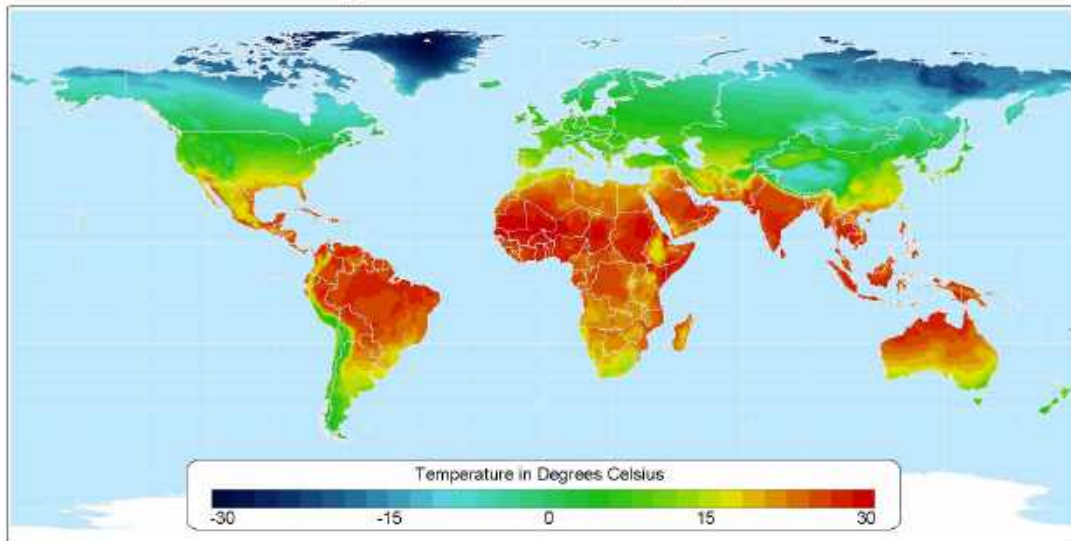


Data taken from: CRU 0.5 Degree Dataset (New et al)

**Atlas of the Biosphere**  
Center for Sustainability and the Global Environment  
University of Wisconsin - Madison

10

## Average Annual Temperature

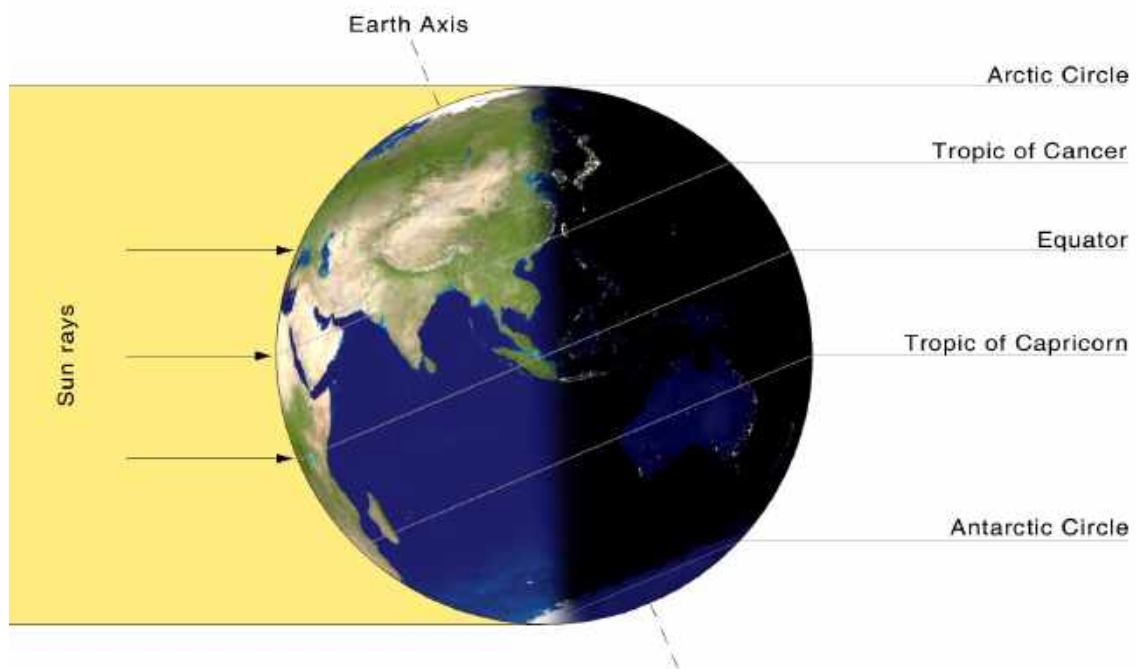


Data taken from: GPCP 0.5 Degree Dataset (New, et al.)

## Atlas of the Biosphere

Center for Sustainability and the Global Environment  
University of Wisconsin - Madison

11



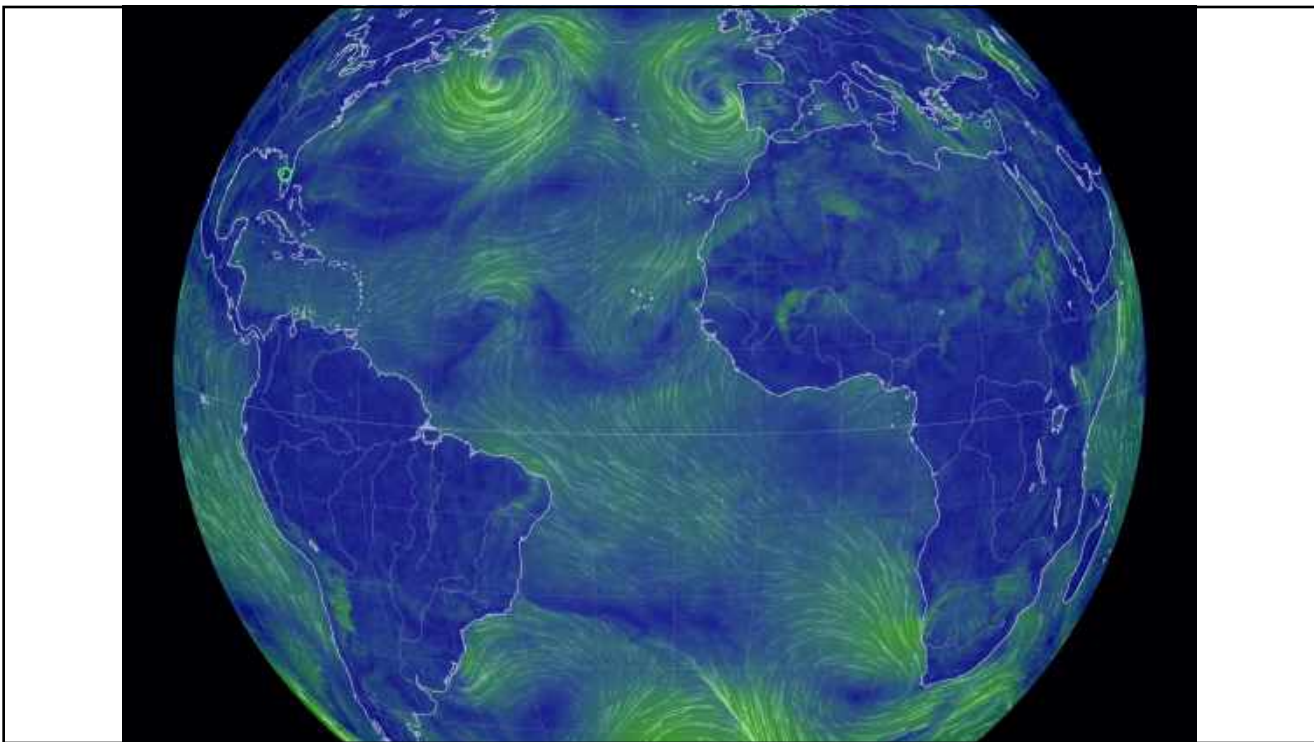
12

If lots of other places are hot or rainy, why are the world's rain forests found here?

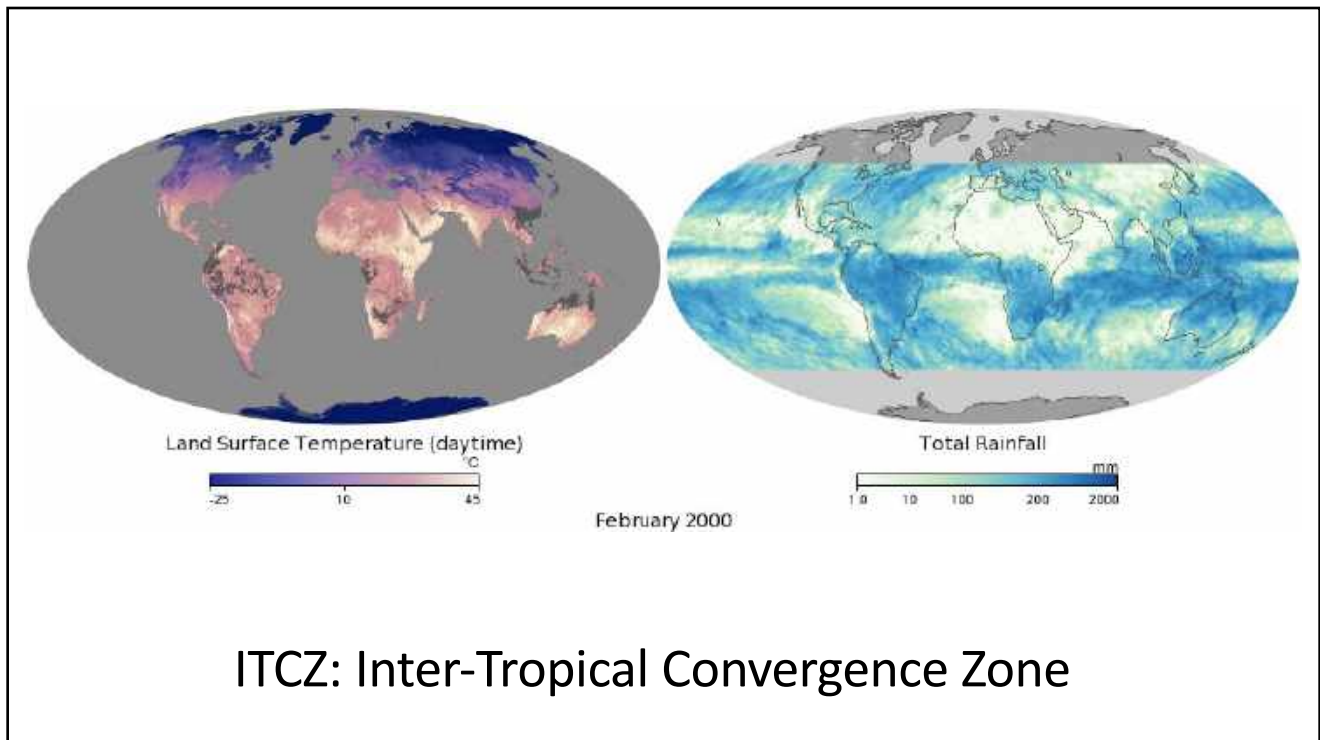


Put another way, what limits their distribution?

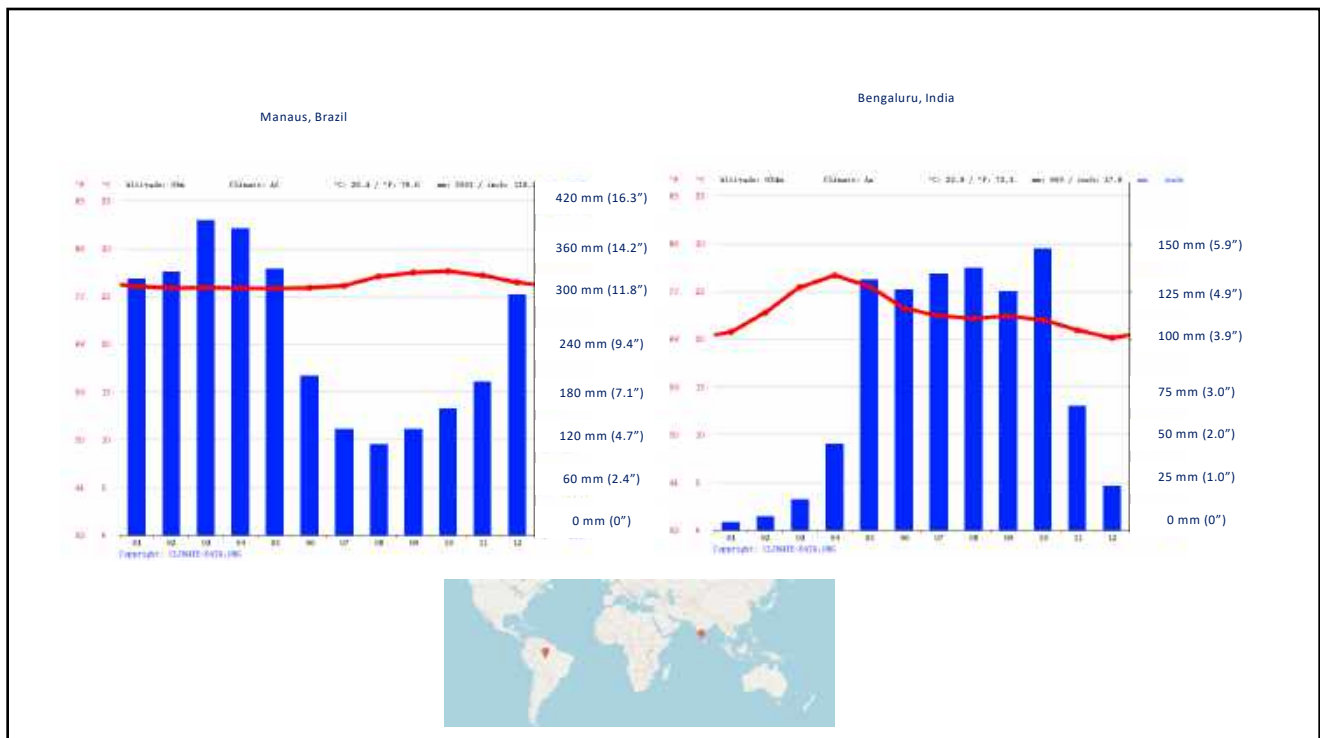
13



14

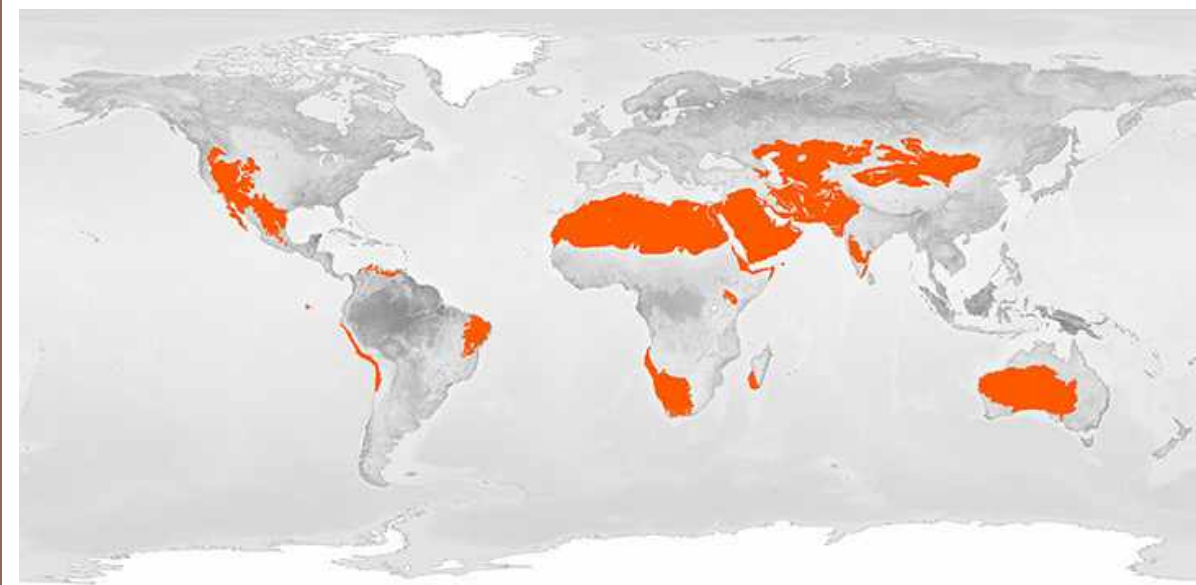


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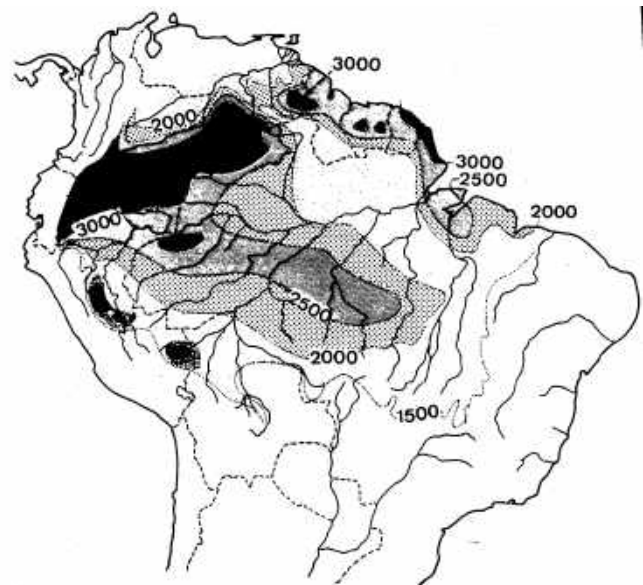


16

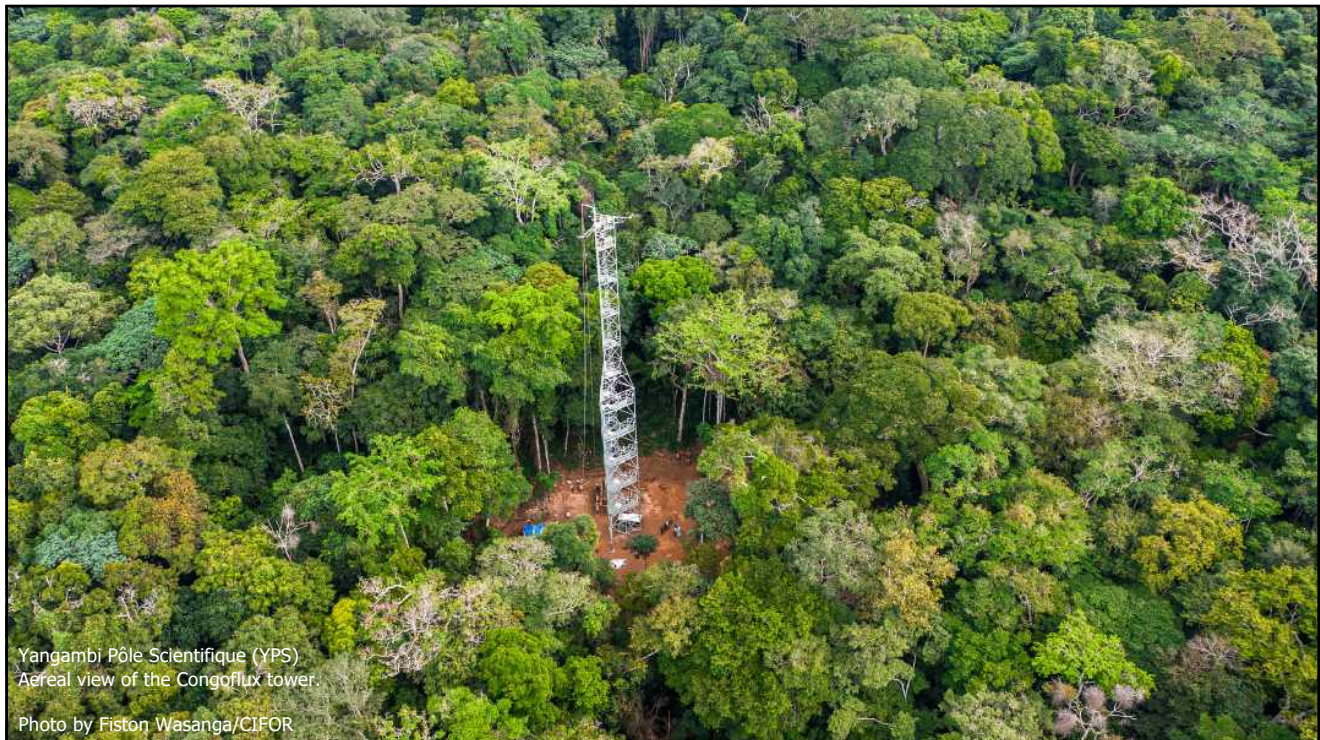




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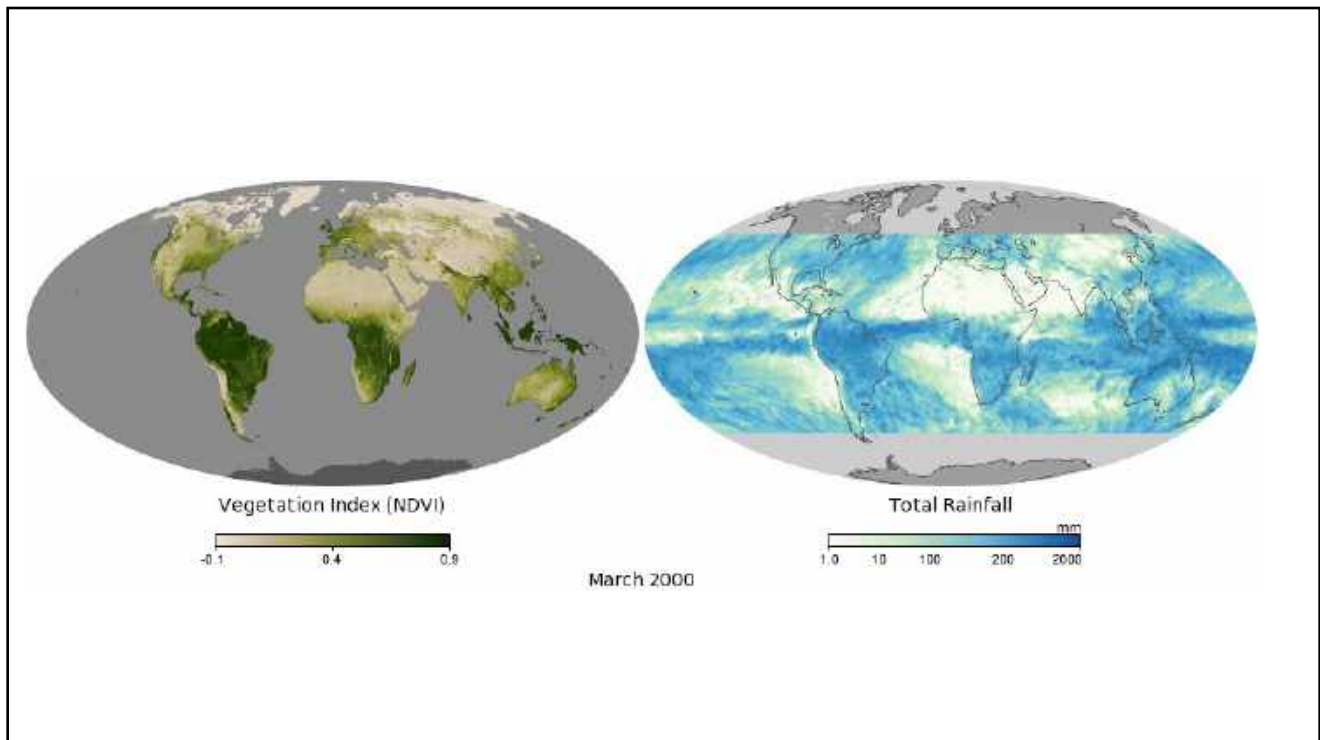


19

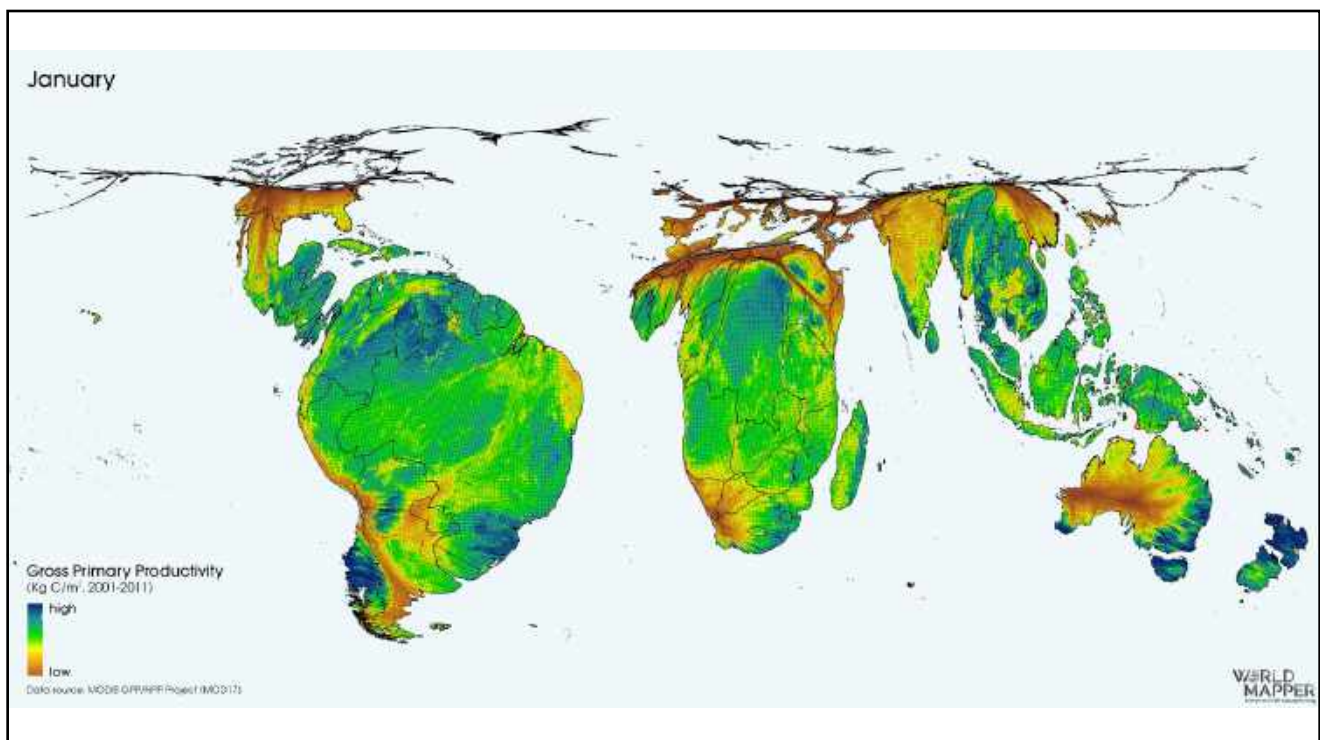


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22



# How much rain forest is there in the world?

1.84 billion hectares

18.4 million km<sup>2</sup>

132.48 Floridas

2.27x the Continental USA



23

**12%** of Earth's land surface

**50%** of Terrestrial Biodiversity

24



25