

TRILLIONS OF TREES

SURVEY OF SURVEYS FINDS 422 TREES FOR EVERY PERSON ON EARTH

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Three trillion: the latest estimate of the planet's tree population, published in this issue of *Nature* (see page 201), exceeds the number of stars in the Milky Way. At more than 7 times the previous estimate of 400 billion, the figure is impressive, but it should not necessarily be taken as good news. The forest-density study — which combined satellite imagery with data from tree counts on the ground that covered more than 4,000 square kilometres — also estimated that 15 billion trees are cut down each year. And in the 12,000 years since farming began spreading across the globe, the number of trees on our planet has fallen by almost half.

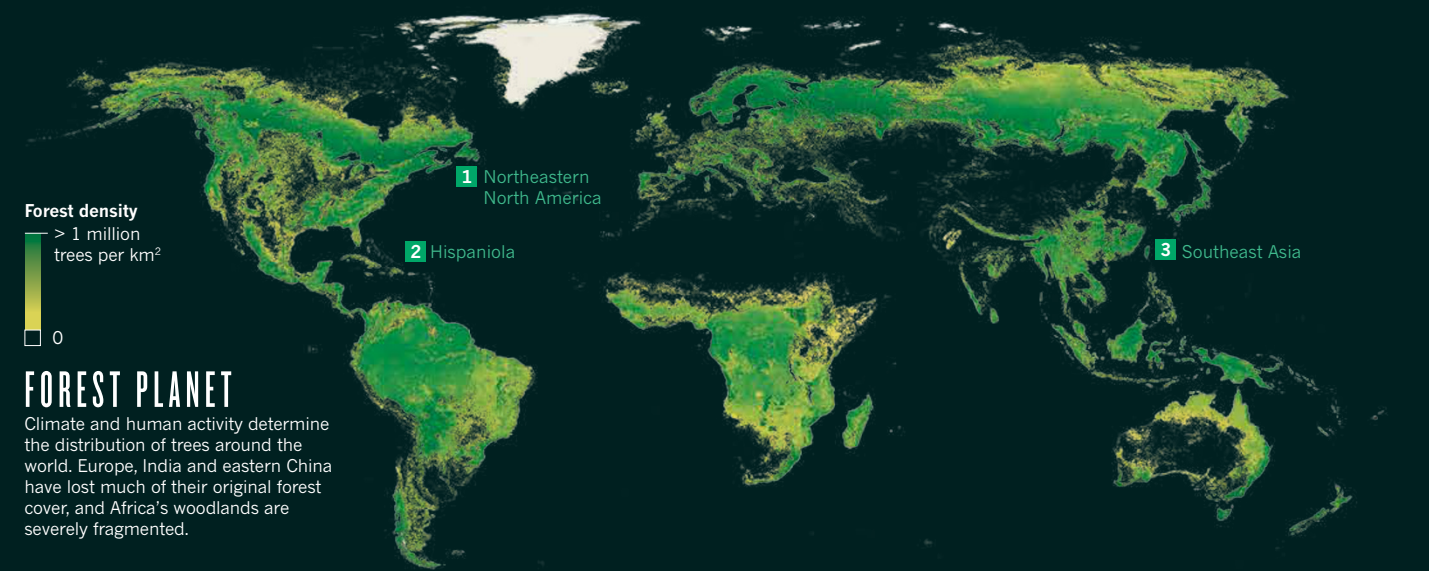
OLD ESTIMATE 400 BILLION



NEW ESTIMATE 3.04 TRILLION



▲ = 10 billion trees



FOREST PLANET

Climate and human activity determine the distribution of trees around the world. Europe, India and eastern China have lost much of their original forest cover, and Africa's woodlands are severely fragmented.

1. NORTHEASTERN NORTH AMERICA

Farms, orchards and sheep took over the landscape of northeastern North America in the 1800s, when much of the region's forest was harvested for timber. Today, the six US states of New England are more than 80% forested — but suburban sprawl and other factors present new threats.



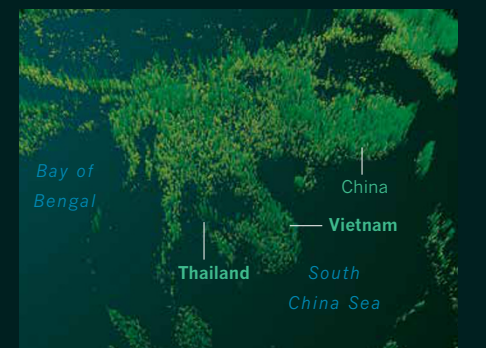
2. HISPANIOLA

The effects of deforestation are stark on the Caribbean island of Hispaniola. The Dominican Republic, on the eastern side of the island, has tree cover that is four times denser than that in neighbouring Haiti, which has been forced to cut down trees for fuel.



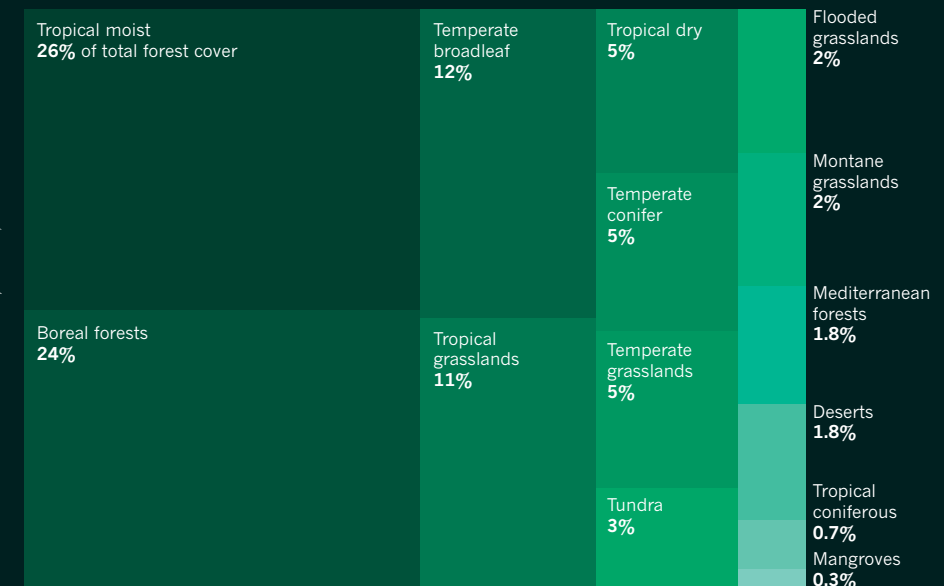
3. SOUTHEAST ASIA

Forests in southeast Asia have changed drastically since the 1970s. From 1973 to 2009, Thailand and Vietnam lost 43% of their forest cover; Cambodia and Laos lost 22% and 24%, respectively. If current trends continue, more than 30% of the region's remaining forest will be cleared by 2030.



LAY OF THE LAND

Despite deforestation caused by farming, ranching, mining and logging, tropical areas still contain an astounding 43% of the planet's trees. Tree densities are greatest in the northern boreal and tundra forests, which can contain more than 1,000 trees per hectare. (Percentages are rounded.)



LEAF OF NATIONS

The tropics host many densely forested countries, but nations with boreal forest, such as Finland, have the highest tree densities. At the other extreme are desert and island nations, and some impoverished countries.



NATURE.COM
For an animated data visualization, visit:
go.nature.com/h8ucmu

Line height represents forest density in 1 km²

SOURCE: T. W. CROWTHER ET AL. NATURE 525, 201-205, 2015