Tropical seasonal/ dry forest

MUDUMALAI
INDIA
CREDIT: CTFS - FORESTGEO

Vegetation

Tropical seasonal/ dry forests are most commonly dominated by broadleaf trees, which are often lose their leaves during a pronounced dry season.

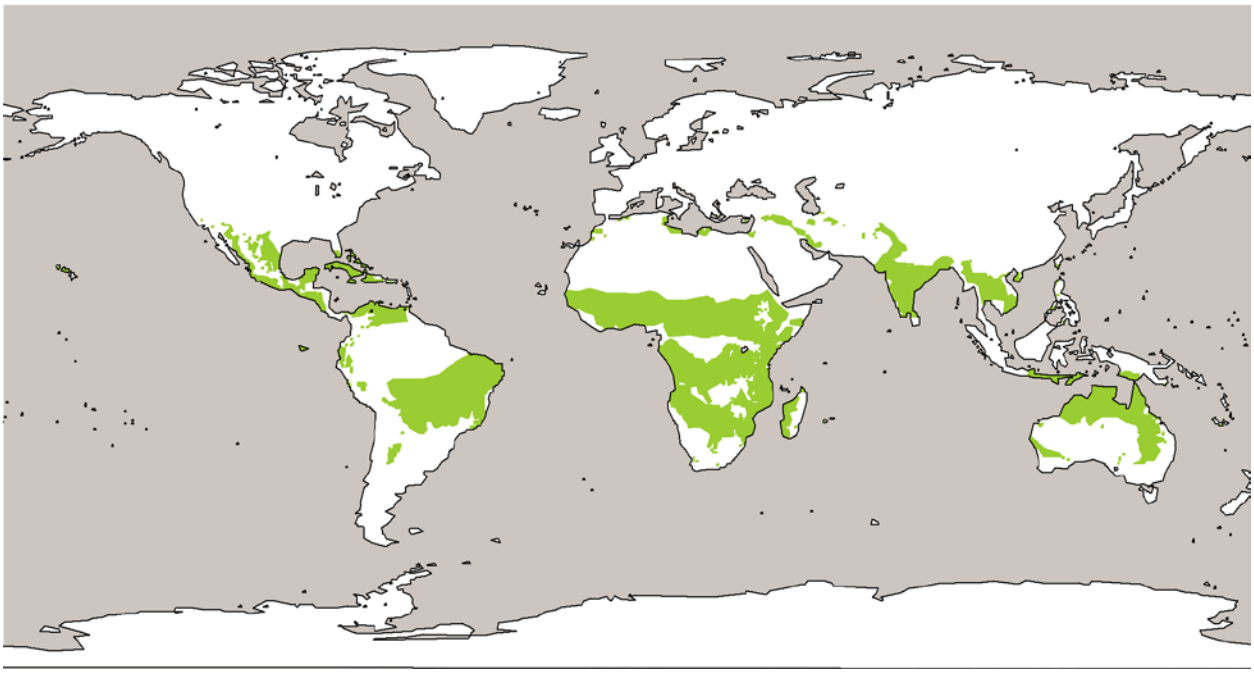
Climate

Tropical seasonal/ dry forests are found in 2 climate zones defined by the Köppen-Geiger climate system: Aw an BSh. Topical Savanna climate (Aw) have a pronounced dry season, with the driest month having precipitation less than 60 mm and less than 1/25 of the total annual precipitation. ln Hot Arid

Steppe climate (BSh), annual precipitation ranges from 50 to 100% of the potential evapotranspiration and the coldest month's average temperature is greater than 0 °C.

Potential Distribution

This distribution map illustrates the climate zones in which this ecosystem type occurs, with stippled areas indicating climate zones where it is rare. It is not present in all parts of its climatic range.



Examples

CTFS-ForestGEO Forest Monitoring Sites

The Center for Tropical Forest Science- Forest Global Earth Observatory (CTFS-ForestGEO) is a Smithsonian-led global forest monitoring network, including over 6 million trees and over 10,000 tree species in over 60 forested sites worldwide. Scientific research at these sites includes measurements that help to quantify the climate regulation services of these and similar sites. Examples of Tropical seasonal/ dry forest in this network include the following sites:

- **Rabi, Gabon**
- **Mudumalai, India**
- **Nanjenshan, Taiwan**
- **Doi Inthanon, Thailand**
- **Huai Kha Khaeng, Thailand**
- **Mo Singto, Thailand**

National Parks, Conservation Areas, or UNESCO Natural World Heritage Sites

NOEL KEMPFF MERCADO NATIONAL PARK,
BOLIVIA

Climate regulation value

The average greenhouse gas value for ecosystems of this type is 745 metric tons CO_2-equivalents per hectare over a 50 year time frame (t CO_2-eq ha^{-1} 50 yrs^{-1}). This includes 673 t CO_2-eq ha^{-1} 50 yrs^{-1} from storage of organic matter that would result in greenhouse gas release if cleared and 72 t CO_2-eq ha^{-1} 50 yrs^{-1} from ongoing greenhouse gas exchange between the ecosystem and the environment.

When biophysical effects are taken into account, the average climate regulation value for ecosystems of this type is 800 metric tons CO_2-equivalents per hectare (t CO_2-eq ha^{-1} 50 yrs^{-1}). This is a 7.5% increase relative to the value based on greenhouse gas regulation alone.

Considering an average car, emitting 1.1 lb CO_2 per mile driven, clearing 100 square feet (9.3 m^2) of this ecosystem type would, on average, be equivalent to driving 1,386 miles/2,230 km (counting greenhouse gasses only). Counting biophysical effects, clearing the vegetation would be equivalent to driving 1,489 miles/2,396 km.