

Geographical distribution of Forests

The world's total forest area is 4.06 billion hectares (ha), 31 per cent of the total land area. This area is equivalent to 0.52 ha per person, although forests are not distributed equally among the world's peoples or geographically, 30% from the forests is managed and 70% UN-managed.

The tropical domain has the largest proportion of the world's forests (45 %), followed by the boreal, temperate and subtropical domains. More than half (54 %) of the world's forests are in only five countries – The Russian Federation, Brazil, Canada, the United States of America and China.

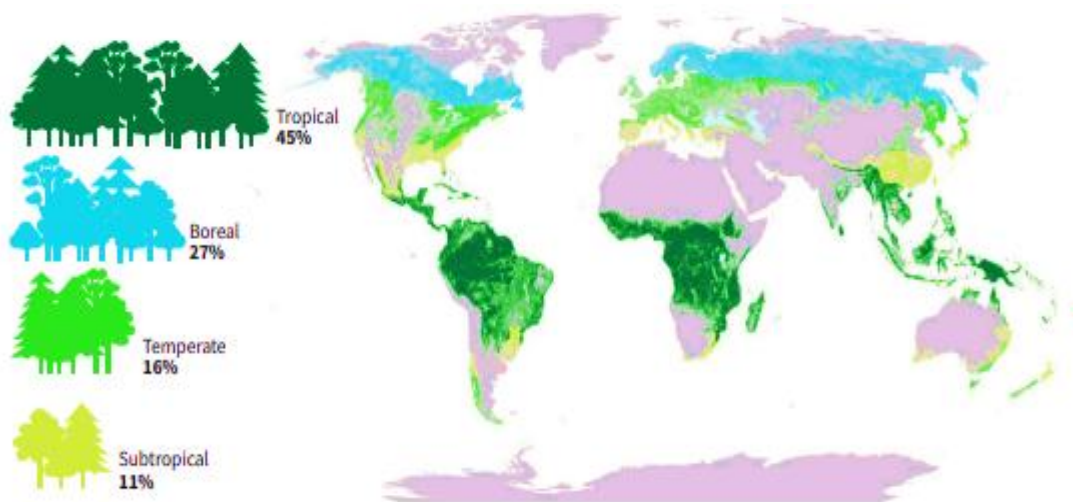


Figure (1) Proportion and distribution of global forest area by climatic domain,

The standard classification for the world's forests is typically based on climate, and the main divisions are **tropical, temperate, and boreal**.

Main forest classifications:

A- Tropical forests

Located near the equator, these are known for their hot, humid climate and high annual rainfall. They contain the highest biodiversity of any forest type. They are found in regions of Africa, South America, and Southeast Asia.

B- Temperate forests

Found in mid-latitude regions, these forests experience four distinct seasons.

C- Boreal forests

known as taiga, is the world's largest land biome

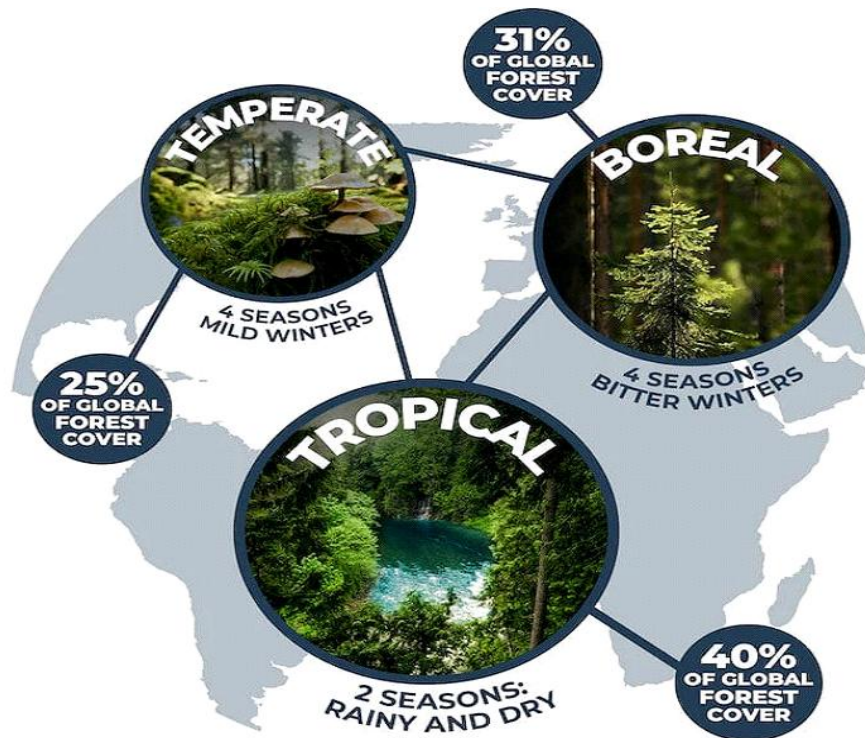


Figure (2) The standard classification for the world's forests

They are further divided based on their dominant tree types:

- **Deciduous forests:** Dominated by broadleaf trees that shed their leaves in the autumn.
- **Coniferous forests:** Dominated by evergreen, cone-producing trees.
- **Boreal forests:** Situated in the high northern latitudes, these forests are also known as taiga. They are characterized by long, cold winters and are primarily composed of coniferous, evergreen trees.

Role of Forests on Earth

They absorb roughly 15.6 billion tonnes of carbon dioxide (CO₂) every year. More than half of this green cover is spread across the boreal forests of Russia and Canada, the Amazon in South America, and China's coniferous and broad-leaved forests. These carbon-sequestering forests purify the air, filter water, prevent soil erosion, and act as an important buffer against climate change.

Table (1) The ratio of forests in the world

Rank	Country	Forest Cover (in millions of hectares)
1	Russia	815
2	Brazil	497
3	Canada	347
4	United States	310
5	China	220
6	Australia	134
7	Democratic Republic of the Congo	126
8	Indonesia	92
9	Peru	72
10	India	72

The World's Lost Forests

Since 2000, the world has lost over 104 million hectares of pristine and intact forest landscapes. In 2020 alone, over 10 thousand square kilometres of the Amazon were destroyed for the development of roads. Deforestation and fragmentation are caused by a range of human development activities.

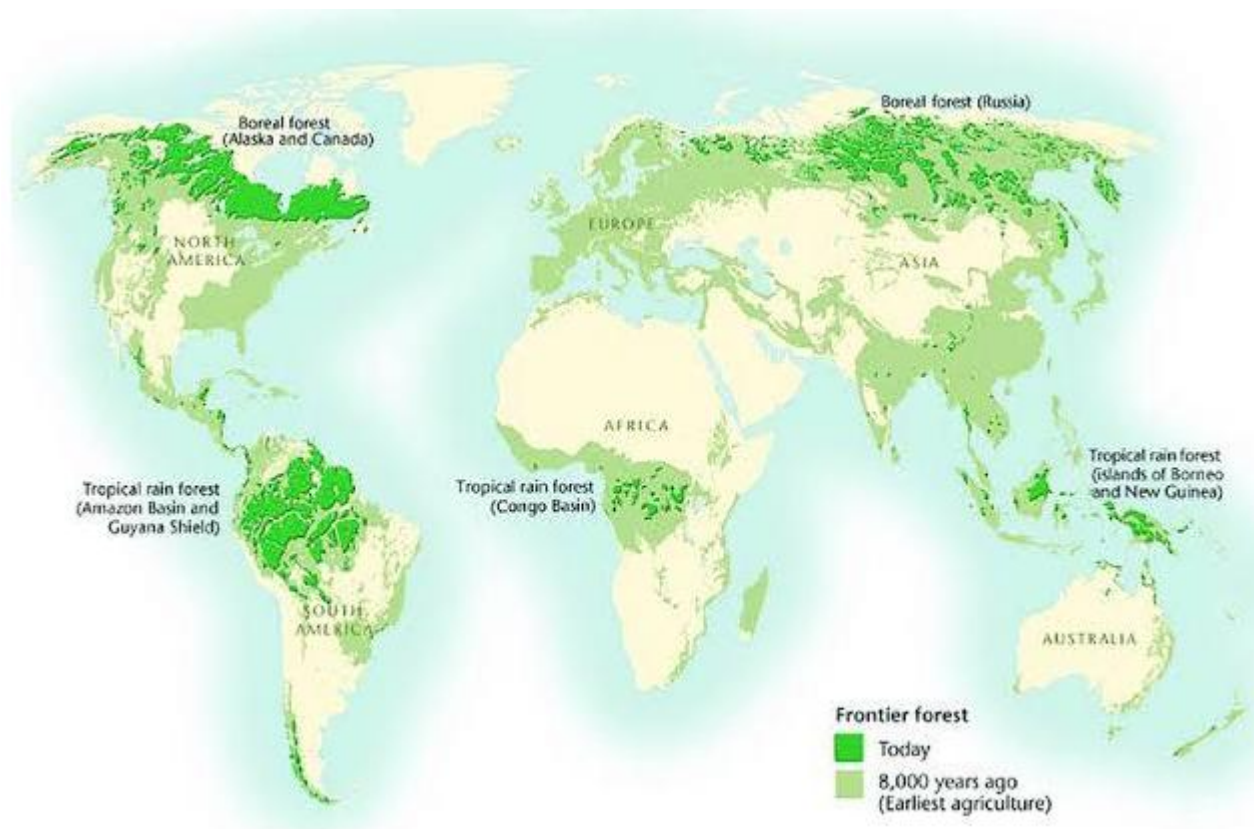


Figure (3) The World's Lost Forests

Forests in Iraq

The history indicia showed that the forested area or ground in Iraq was covered by plants from trees and shrubs which had good characteristics and had high economic value, like *Quercus* spp (Oak), *Rhus* spp, *Pinus* spp

lost its characteristic due to injury to the following factors: -

1-UN-controlled cutting.

2-Burnt, (Fire).

3-The war.

4-Draft the forest ground to agricultural ground by cutting the Trees and draft it to the Range.

The forest area in Iraq is about 4% of the whole area of Iraq. The Iraqi person needs about 14 kg of fuel wood, 8 kg as blocks, 16 kg as manufacturing wood and 1 kg as paper pulp/per year.

The Regions of Natural Forests in Iraq

Spread or distribute in the north mountain regions and east-north between the boundary of Iraqi - Turkish and Iraqi -Iranian on the Altitude of (500-2000 m), in the following governorates: -

1-Erbil 23.1200 donum

2-Dhook 2.057.600 donum

3-Suleimania 2.195.400 donum

4-Nenawa 514.400 donum

5-Sallah - Al-Dain 11.600 donum

6-Diala 1960 donum

Natural forests in Iraq are divided according to density into: -

1- Open Forests

scattered, didn't have main intensity, contained as groups or single trees.

2- Middle intensity forests

meaning that there are some spaces in the crown layer.

3-Intensive Forests

Have good intensity and good trees. It can be utilised to get wood.

Importance of Forest

