



read

THE LIVING WORLD

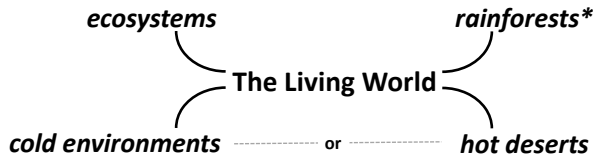
Rainforests



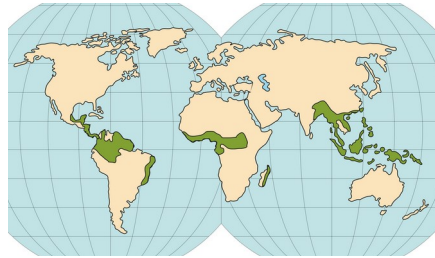
quiz



The Big Picture



Location



10°N and 10°S
of the Equator

South America
(Amazon), the
DRC (Africa),
Indonesia &
Malaysia (Asia)



Key Terms



Biome – Areas of the planet with a similar climate and landscape, where similar animals and plants live.



Biodiversity – The variety of life in the world or a particular habitat.



Commercial farming – Farming to sell produce for a profit.



Debt reduction – National debt relief in return for protecting rainforests.



Deforestation – The chopping down and removal of trees.



Ecotourism – Responsible travel to natural areas that conserves the environment and benefits locals.



Logging – Cutting down trees and selling the timber.



Soil erosion – Removal of topsoil faster than it can be replaced.



Sustainability – Progress meeting today's needs with affecting future generations.



Characteristics



Climate - High temperatures (27°C) and high rainfall (2000mm +)



Water – Distinct wet season lasting several months. Leaching during this time.



Soil – Not very fertile. Nutrients concentrated in the topsoil & quickly absorbed.



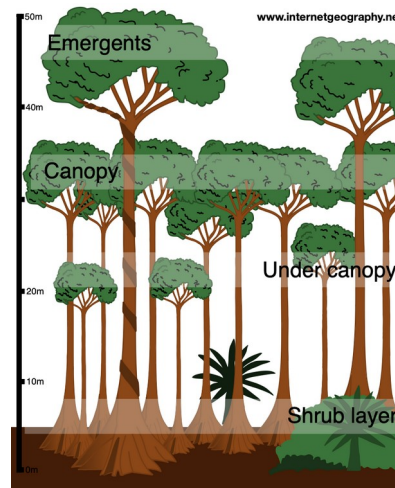
Biotic – Highest biodiversity in the world. Thousands of species of plants and animals.



People – Traditional tribes live sustainably. Exploitation for \$\$ gain by non-indigenous.



Adaptations



Emergents and lianas grow to reach the sunlight.

Buttress roots anchor the trees in the shallow soil.

Smooth bark to deter epiphytes.

Plants have thick, waxy leaves & drip tips to channel water.

Poison Dart Frog - bright colours deter predators.

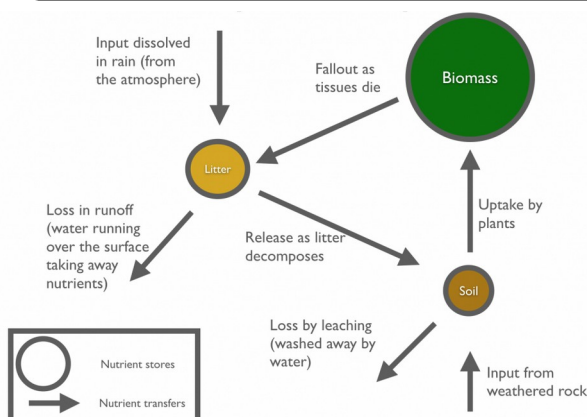
Sloths - long, sharp claws that help them cling onto branches.

Spider Monkey - prehensile tail to be able to grasp the branches of trees.

Jaguars - large claws, which enable them to climb small trees and catch their prey.



The Nutrient Cycle



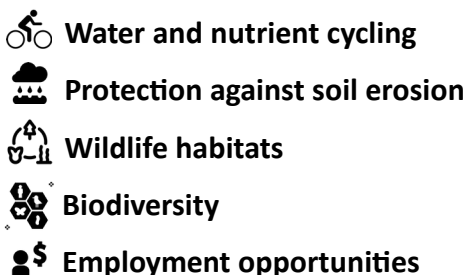


quiz

Causes of Deforestation



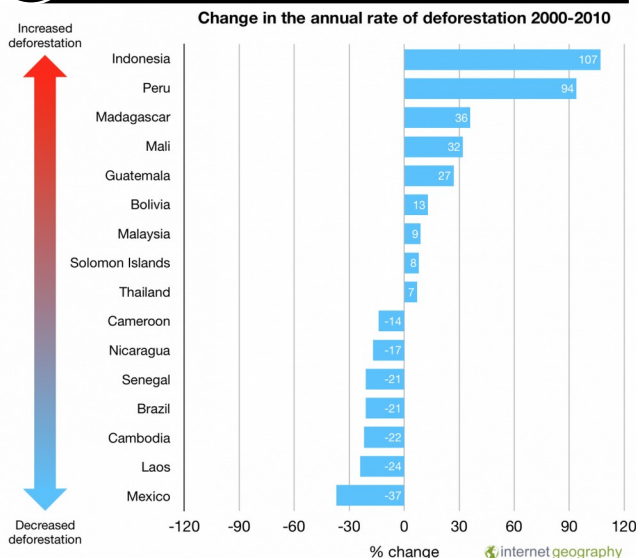
Carbon sink



 Native food crops (fruit and nuts)



Deforestation Rates



 **Logging** – Hard wood (mahogany & teak) valued for furniture. Small trees pulped/charcoal.



A Road building – Increased accessibility encourages development e.g. Trans-Amazonian.



 **Mineral extraction** – Minerals (gold, bauxite, and copper) mined extensively.



 **Energy development** – High rainfall creates ideal conditions for HEP.



Settlement and population growth –
Settlements developed to service developments.

Impacts of Deforestation



Economic Development

- Commercial farming and mining generate employment and tax income
- Education, health care and social conditions are improved from tax revenue.
- Raw materials used by processing industries increasing the value of exported products.
- Cheap, renewable energy = development.
- Long-term economic losses due to forests being destroyed and rivers polluted.
- Loss of biodiversity affects tourism.



Soil Erosion

- Exposed land increases soil vulnerability to soil erosion reducing fertility.



Climate Change

- Local environment becomes hotter and drier.
- Reduction in carbon sink due to deforestation.
- Burning trees releases carbon dioxide.

Sustainable Management

