

Rainforests: the guardians of water

A large part of the world's drinking water comes from forests. These important ecosystems sustain life on the planet. One of the reasons is because they play an essential role in the water cycle. We tell you how they intervene in this vital process.

What is the water cycle?



It refers to the continuous transport of water between the atmosphere and the biosphere, in its different states (liquid, such as rain or drizzle; solid, such as snow or hail; gaseous, in the form of water vapor).

What is evapotranspiration?

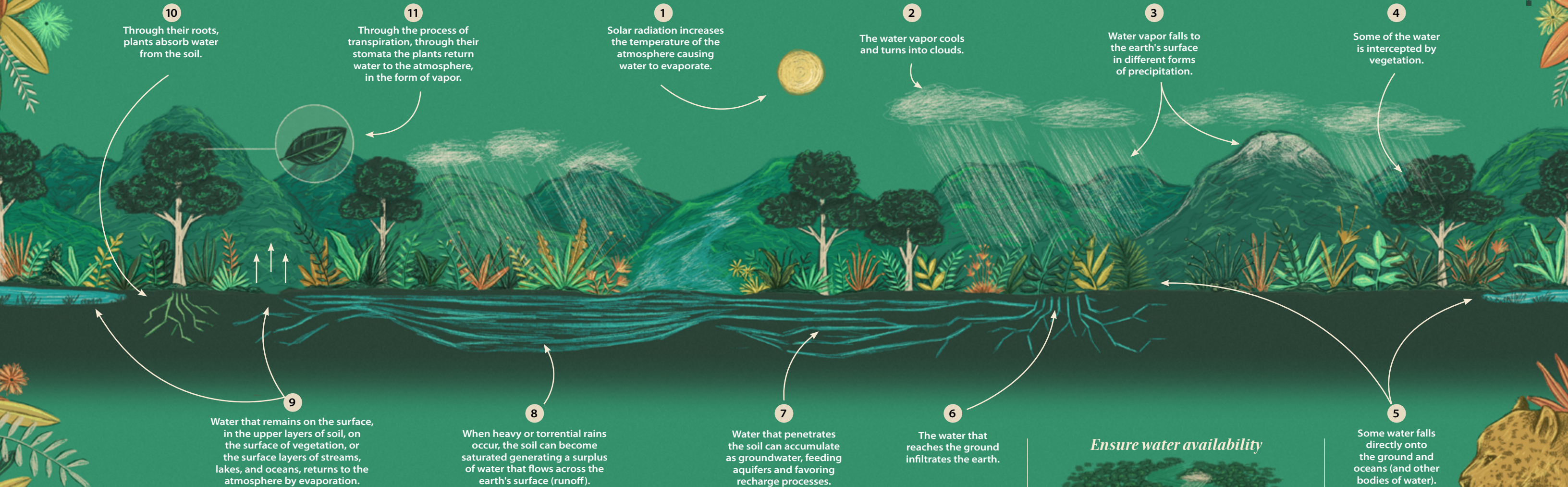


It is the process in which water passes into the atmosphere due to the evaporation of water from soils and transpiration from plants.

A large water pump



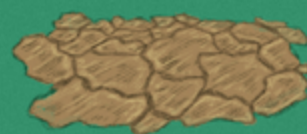
Their deep roots allow them to draw water from the soil to transport their leaves. This increases the production of biomass – plant or animal organic matter – and evapotranspiration.



Help store and purify water

Thanks to the understory and its extensive root systems, forests have a great capacity to infiltrate water into the soil, which allows it to increase water retention and groundwater recharge, as well as filter water before it reaches aquifers.

Prevent soil erosion



Like a giant umbrella, the forests intercept the rain with their canopies, branches and leaves. In this way, they cushion the erosive force of rainfall and facilitate the process of water infiltration into the soil.

Prevent natural disasters



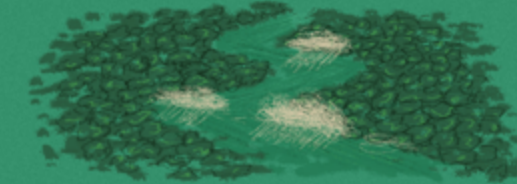
As a result of the infiltration process, they regulate the flow of surface and groundwater, contributing to the reduction of floods, droughts and landslides.

They regulate rainfall patterns



Thanks to their ability to evapotranspire, they help regulate rainfall patterns. The Amazon rainforest, for example, is responsible for generating half of its own rainfall.

Ensure water availability



Locally, forests prevent erosion, preventing rain from washing away topsoil and reducing its ability to retain water. This ensures the moisture of the land and the regulation of the water supply.

At the regional level, thanks to the evapotranspiration of forests and the recycling process, aerial flows of water are created that ensure precipitation within the continents. For example, the water consumed in much of South America depends on the "flying rivers" of the Amazon.

Evapotranspiration from forests

Evapotranspiration from forests returns water to the atmosphere. Some of this water vapour will be carried by the wind to other areas and some condenses and falls back to the ground in the form of precipitation. This process is called rainfall recycling.