

Technical Bulletin #64:

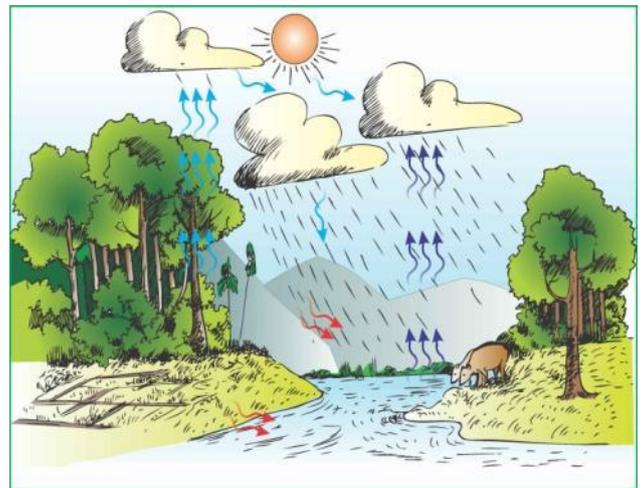
Ecological Effects of Deforestation

Ecology is the relationship between living organisms and the natural environment.

These relationships are kept in balance by different regulating cycles. These are complete, closed systems where elements within each system are recycled.

Water cycle:

- Evaporation (from bodies of water)
- Transpiration (from trees and plants)
- Precipitation (rain, fog, and mist)
- Collection (in lakes, streams, oceans, trees, plants, and underground in aquifers)
- The cycle begins again



Nature/Nutrient Cycle:

Death

Everything in life dies, beginning and ending the cycle.

Decomposition

When a plant or animal dies, natural processes, insects, and other animals help break it down, relasing nutrients into the soil.

Nutrients

The decomposition process relases nutrients into the soil, changing them into a form plants can use for growth. These nutrients are absorbed through the soil.

Sun/Air/Water

Some nutrients need the sun, water, and air before they can be used by plants. This energy allows plants to grow.

Plant Growth

The more nutrients a plant has, the healthier and stronger it is, making it less likely to become diseased or attacked by insects.

Plant Use

All living things use plants and trees for food, shelter, fuel, building, and more.

Life

Plants continously help others live: plants, animals, and humans.

Death (Cycle)





Trees and plants are vital to ecological processes. Deforestation has devastating impacts on both the water and nutrient cycle.



Impact of Deforestation on the Water Cycle:

- Less trees cause less transpiration, resulting in less local rainfall and increases in droughts.
- This eventually leads to less available water, reducing the flow of rivers.
- Less vegetation creates more runoff, reducing water tables and water stored in the soil.
- Increases in naturally occurring fires.
- Changes to the entire watershed, affecting forests and communities for many miles.

Impact of Deforestation on Nutrient/Nature Cycle

- Increased soil erosion and nutrient loss.
- Increase in air and soil temperature, changing what crops can be grown.
- Loss of habitat for plants and animals, resulting in fewer available nutrients.
- Reduced tree/plant root strength.
- Increased sediment in water sources.
- Loss of biodiversity.

Cambodia HARVEST

No. 46 Street 310 | Sangkat, Beong Keng Kang 1
Khan Chamkamorn | Phnom Penh, Cambodia
Tel: 855 (0) 23 996419

This bulletin is made possible by the support of the American People through the United States Agency for International Development (USAID). The content is the sole responsibility of Fintrac Inc. and does not necessarily reflect the views of USAID or the United States Government.