

The Essential Element

By Lillie Dorchak '96



But for the trees, Earth would become unrecognizable to us: a dry, hot and barren planet with little life diversity.

Go plant a tree for those who follow us!

Without trees, the Earth would be inhospitable to life. Eighty percent of Earth's land animals and plants live in forests. In the absence of trees, many cannot survive when their homes are destroyed by deforestation.

Trees produce oxygen that humans and wildlife breathe. They take up carbon dioxide from the atmosphere and give off oxygen in the process of

photosynthesis. Water, another of life's basic needs, is continually recycled by trees. Roots take up ground water then release it into the atmosphere through leaf transpiration, recharging the air vapor. Clouds produce the rain that goes on to remoisten the soil in a continuous cycle.

Trees act as immense air filters, removing pollutants from the air. They break the force of wind and rain, and their roots take up storm water, bind the soil, and lessen topsoil erosion. Fallen leaves decay and move energy and nutrients back to the soil.

Forests cover approximately 30% of the planet, but tree cutting and clearing on a massive scale have resulted in damage to the quality of land. The largest drivers of deforestation are agriculture. Deforestation leads to serious environmental effects:

- **Disruption of the water cycle** leads to soils that quickly dry out and become barren deserts.
- **Extreme temperature swings** caused by loss of forest canopy. The canopy blocks the sun's rays during the day and holds in heat at night.
- **Diminished atmospheric cleansing of pollutants**
- **Reduction of trees' ability** to lock up greenhouse gases entering the atmosphere resulting in increased speed and severity of global warming
- **Massive loss of biodiversity** of species.

Clear cutting of trees must be balanced with the planting of young trees. The incidence of tree plantations is growing each year, but they still equal only a tiny fraction of the number of trees cut annually. If we don't slow down the rate of tree cutting, the world's rain forests could vanish in a hundred years.

References

The Arbor Day Foundation, American Forests, International Association of Arborists and "The Tree," by Colin Tudge, Three River Press, NY 2005