



## Are We Running Out of Trees?

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No. And “**sustainability**” is the reason. The idea of sustainability means trying to do what nature does on her own: keep things in balance.

Humans have been part of this balance for thousands of years. It wasn't until this century, however, that humans had the machines and the population numbers to begin to throw things out of balance. In other words, we started taking away more than nature could grow back. Now we are trying to keep things in balance again by sustainable use; that is, giving back to nature in order to replace what we remove. We must manage land and resources like trees wisely so they won't be “used up” or depleted.

There's more to this balance than just trees and forests; we must consider the economic issues as well.

If it makes sense for landowners to grow and use forests, that's what they will do. They will keep growing, harvesting, and replanting the forests. However, if it costs too much for them to grow and maintain the forests, then they might sell the forests for things like houses and shopping centers. When this happens, animals and plants lose valuable **habitat**, and we all lose valuable green land

If the habitat could be preserved as a **wilderness area**, the forest would be saved. But creating wilderness areas costs money, too. Government agencies (and that means taxpayers) have to buy and maintain the land. **So the idea of private companies and individuals using the land for managed forests is a good one. The land makes money for the owners and at the same time keeps green forests growing.**

### How Is It Possible to Preserve Forests and Cut Them Down at the Same Time?

**It's simple: trees can be raised on managed timberlands, sometimes called “tree farms.”**

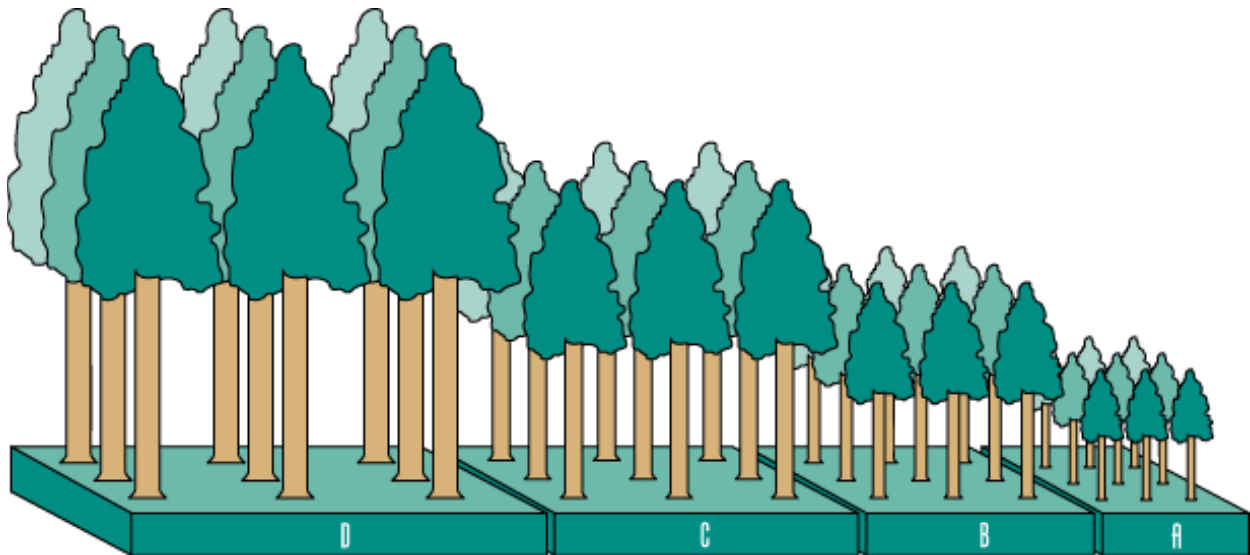
For example, there is a piece of land made up of four different areas. The trees in each area are five years older than the trees in the area next to it (see following). The trees in plot D are 15 years old, the trees in plot C are 10 years old, the trees in plot B are 5 years old, and the trees in plot A have just been planted.





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After the trees have matured, they are cut down. Then new trees are planted in their place. Using this example, it's easy to see that every five years, an area will be ready to harvest and replant. This is called a **sustainable** rate of harvest, and the cycle can go on forever! We can continue this process of harvesting and replanting over and over without ever running out of trees.



### Examples of Unsustainable and Sustainable Forestry Practices

#### Unsustainable Forestry Practice: Human Encroachment into the Rainforest

Humans sometimes do not use forests wisely, and destroy precious **ecosystems** (communities of plants and animals and their environment space).

Different types of ecosystems should be treated differently. For example, tropical rainforests in places such as South America are very fragile and are disappearing at an alarming rate.

You may be surprised to learn that these forests are not being used for paper production. **The loss of the rain forest is due to human encroachment. That is, the land is being cleared to build housing and to provide food for a growing population. This is an unfortunate example of an unsustainable forest practice.**





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### Sustainability in Action: The Menominee Indians



Here's an example of sustainable forestry as practiced by the Menominee Indians in Wisconsin.

When the Menominee Indian reservation was first established in Wisconsin, it contained an estimated 1.3 billion **board feet** of **timber**. (Board feet is a unit measuring the amount of wood which comes from a tree.)



From 1865 to 1989, the tribe harvested about 2.4 billion board feet of wood to sell. They used the money to sustain the tribe, and to replant and take care of areas of the forest.

Today there are approximately 1.7 billion board feet of timber contained within the reservation. **Even after 135 years of harvesting, there are more trees there now than there were in 1865.**

### Forests: A Closer Look

- About 33% of the U.S. land area, or 737 million acres, is forest land.
- Net annual growth exceeds harvests and losses to insects and disease by an average of 33% each year in commercial forests.
- America's forest products companies have donated over 1 million acres of land (valued at over \$400 million) for conservation, recreation, or social causes.
- About 47 million acres (6% of all U.S. forest land) is reserved for parks and other wilderness areas - no commercial timber harvests are permitted.
- Since 1952, 4% or about 19 million acres of timberland has been reclassified as wilderness or parks and no more commercial harvests are allowed.
- The amount of new timber grown is more than the amount of timber harvested by at least 1/3 (54% in 1976, 38% in 1986, and 34% in 1992).



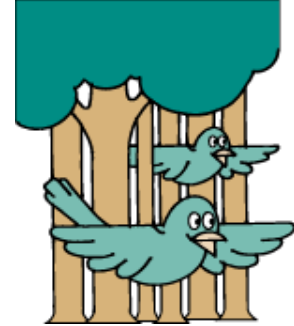


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### Sustainability: Looking to the Future

Many of our natural resources, such as minerals, oil, and coal, are not renewable. Once they are taken from the ground, they cannot be replaced; they are gone forever.

Fortunately, trees are a **renewable resource**. With careful planning and good management, we all can enjoy their value and beauty for generations to come.



## GREENQUIZ

### Test your “Sustainability Ability”

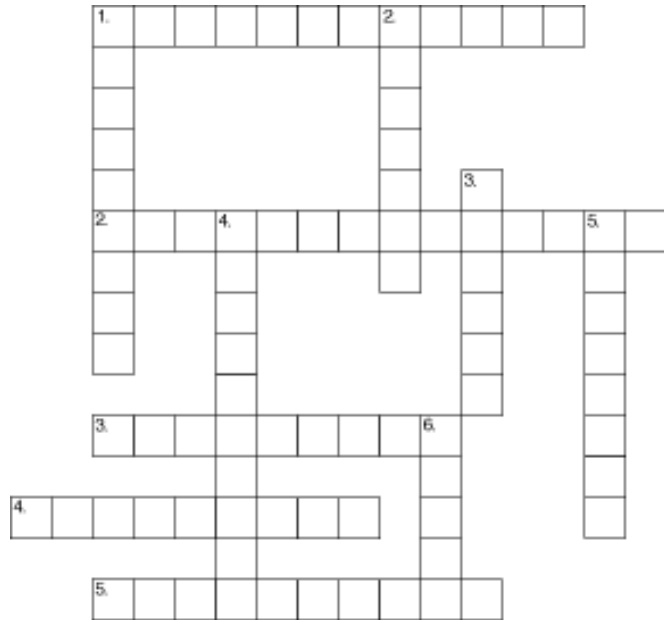
Use the information you’ve just learned to complete this crossword puzzle.

#### ACROSS

- When people move into natural forests because of expanding population, it is called \_\_\_\_\_.
- the ability to keep things in balance by replanting the same number of trees (or even more) than we harvest
- a unit used to measure lumber
- a resource that can be replanted or replaced
- A \_\_\_\_\_ area is government land set aside for natural forests and recreational use.

#### DOWN

- the community of the plants and animals and their environment space
- a place for animals and plants to live
- wood for commercial use
- forests (natural or planted) where trees can be cut for commercial use
- an area of timberland where the trees are planted and harvested by people
- the kind of plants that one would expect to see growing on timberlands



See the next page for the answers, but only if you really need them



## Are We Running Out of Trees?



### SCORE

10-11 ... Flying High

7 - 9 ... Almost have your wings

4 - 6 ... Still in the nest

0 - 3 ... Not completely hatched yet

Sources:

Consumer Reports (Nov. '92) US Forest Service Report (1992) AF&PA, (1999)

These facts are presented by individual scientists, engineers, and researchers who work at universities, research laboratories, and companies across the country. They work at the science of papermaking every day -- researching and testing the facts. It is their full-time job to understand and report the facts concerning the nature of forest practices, the processes involved in papermaking, and how these affect the environment -- good and bad.

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