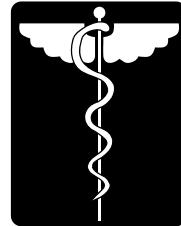




Ethnobotany and Conservation

Two thirds of all people in the world depend on plants as their primary source of medicine!

Approximately twenty-five percent of modern prescriptions medicines are plant-derived, including some that are helping to fight cancer. Vincristine, obtained from the Madagascar periwinkle (*Catharanthus roseus*), is used in treating childhood leukemia. Taxol, another cancer-fighting drug, is obtained from the bark of the Pacific yew tree (*Taxus brevifolia*). Taxol is useful in treating ovarian cancer, breast cancer, non-small-cell lung cancer and Kaposi's sarcoma.



The potential to find new medicines from the plant kingdom remains. However, as forests are being destroyed at a rate of 24 to 60 football fields per minute¹, we may be losing these medicines forever.

How Can Ethnobotany Save the Forests?

- Many people are cutting down tropical forest by practicing **slash and burn agriculture** (also called **swidden agriculture**), logging, or cattle ranching.



Area of tropical forest cleared to be burned for agriculture

- Most people cutting down forests are not doing this because they do not care about the forest, but because they are poor and have to feed their families. Conservation starts by providing these people with economic alternatives to forest destruction.
- This is one area where the study of ethnobotany can make a difference. Forests are full of useful plants, including plants that are used for foods, medicines, fibers, latex, oils, paints, dyes, natural insecticides, soaps, perfumes, and ornamentals. These plant products are now commonly referred to as **Non-Timber Forest Products (NTFPs)**. Together, all of

these plant uses are worth more than the value of their timber! Peters et al. indicated this in a study conducted in 1989.

- Ethnobotanists are helping to develop Non-Timber Forest Products that can be marketed by local forest inhabitants, and in doing this these people can make a living selling these products instead of cutting down the forest!
- **Agroforestry** is another alternative to forest destruction. Agroforestry integrates forest conservation with agriculture. Instead of burning down trees to grow crops, a person can grow crops together with trees that have uses. They can then cultivate timber trees from their agroforestry plot instead of harvesting timber from natural forest.



An Agroforestry plot – looks just like forest!

- Agroforestry plots mimic the natural forest ecosystem. Birds and wildlife can still nest and forage there. At the same time, the people can sell their crops, non-timber forest products and timber trees that they produce in these agroforestry plots.
- Ethnobotanists are helping to create and manage agroforestry systems throughout the tropics.

What can you do to make a difference?

1. Buy “shade grown” coffee instead of regular coffee– what is meant by “shade grown”? This is coffee that is grown with trees in an Agroforestry system! Shade coffee plantations are said to be good for bird populations.
2. When buying furniture and other products made from hardwoods, check to see if it is certified by Smartwood or the Forest Stewardship Council (FSC). These are organizations that ensure timber harvest is ecologically sound, and help producers responsibly manage timber resources. They only put their seal of approval on sustainably harvested wood.
3. Reduce, reuse and recycle as much as possible.

¹ Statistics from the World Resources Institute (WRI) 1990-1995