Environmental Impact:

Green House Effect & Global Warming

According to Michael D. Mastrandrea, and Stephen H. Schneider ("Global warming." *World Book Online Reference Center*. 2006. World Book, Inc. 8 Mar. 2006 <http://www.aolsvc.worldbook.aol.com/wb/Article?id=ar226310>):

"Climatologists (scientists who study climate) have analyzed the global warming that has occurred since the late 1800's. A majority of climatologists have concluded that human activities are responsible for most of the warming. Human activities contribute to global warming by enhancing Earth's natural *greenhouse effect.* The greenhouse effect warms Earth's surface through a complex process involving sunlight, gases, and particles in the atmosphere. Gases that trap heat in the atmosphere are known as *greenhouse gases.*

The main human activities that contribute to global warming are the burning of *fossil fuels* (coal, oil, and natural gas) and the clearing of land. Most of the burning occurs in automobiles, in factories, and in electric power plants that provide energy for houses and office buildings. The burning of fossil fuels creates carbon dioxide, whose chemical formula is CO_2. CO_2 is a greenhouse gas that slows the escape of heat into space. Trees and other plants remove CO_2 from the air during *photosynthesis,* the process they use to produce food. The clearing of land contributes to the buildup of CO_2 by reducing the rate at which the gas is removed from the atmosphere or by the decomposition of dead vegetation.

Continued global warming could have many damaging effects. It might harm plants and animals that live in the sea. It could also force animals and plants on land to move to new habitats. Weather patterns could change, causing flooding, drought, and an increase in damaging storms. Global warming could melt enough polar ice to raise the sea level. In certain parts of the world, human disease could spread, and crop yields could decline."