## Temperate deciduous biome paper

**Environment, Climate Change** 



Some of the major effects of deforestation include biodiversity loss, local climate change and global warming. Farmers often have trouble raising crops, which typically results in more problems, such as an increase in food prices. Soil erosion and cultural displacement also can occur. Those who want to address the problem have a variety of options, however. Biodiversity Loss A loss of biodiversity often follows a reduction in the amount of forested land. Trees, shrubs and other plants provide shelter, food and shade for an enormous range of bacteria, fungi, insects, animals and birds. When deforestation occurs, it generally is much harder for the environment to sustain this variety, simply because not all organisms can survive in the same habitat or conditions. According to National Geographic, as much as 70% of the world's plants and animals live in forests. Experts from the International Union for the Conservation of Nature and Natural Resources (IUCN), World Wildlife Fund and other environmentalist groups believe that, because of this problem, the planet already has lost thousands of species and might lose thousands more. Local Climate Change Plants release moisture into the air as a result of cellular respiration, the complex metabolic process by which living things get energy. Leaves and branches also filter sunlight and prevent it from directly reaching the ground, so in most cases, the soil and air under the forest canopy stays moist and relatively cool. When trees are removed, soil usually starts to dry out and cannot support as many living things, and local temperatures increase due to lack of shade. Rain typically occurs less frequently due to the lack of water vapor in the air. Some scientists argue that one of the biggest effects of deforestation is a massive increase in desert terrain, as soil deprived of constant moisture

eventually can turn into largely barren sand. Agricultural and Financial Losses Local climate change that occurs with deforestation can have devastating effects on farmers. With less rain, crops typically cannot get enough water to thrive and produce a good yield, and food shortages sometimes happen. The decrease in supply usually causes prices on crops to go up, which can have long-reaching economic effects worldwide. The rise in cost doesn't always guarantee that those involved in agriculture can cover their operational expenses, and many farmers end up barely breaking even, taking out loans or even filing for bankruptcy. Even when irrigation systems are available, the lack of precipitation often lowers the water table, making using those systems more of a challenge. Soil Erosion The roots and stems of plants create an intricate network that makes it harder for dirt to get swept away by forces such as wind and water. With fewer plants, this natural framework becomes less effective at holding soil in place, and erosion becomes more likely, especially if the deforestation already has caused the ground to become extremely dry. When rainfall does happen, mudslides can take place more easily. Global Warming Trees and other plants convert carbon dioxide into breathable oxygen. Deforestation means there aren't as many plants to carry out this process. To complicate the issue, whenever plants burn – which might happen intentionally to clear land or naturally such as with a lightening strike - they release carbon dioxide into the air. This natural gas makes it harder for heat to escape from Earth back out into space, potentially contributing to the greenhouse effect and increasing global warming. The rise of worldwide temperatures over time is a hotly debated topic, with some individuals going so far as to say that the entire

concept of global warming is nothing more than a hoax supported by radical environmentalists. The majority of the scientific community, however, recognizes it as a reality, although there is some debate about the underlying causes. Scientists often warn about the significant long-term effects of climate change, like the lack of habitat for species such as polar bears because of the melting of arctic ice. Cultural Displacement In many cases, the people who live in a forested area do not have legal rights to the property. They are there simply because their ancestors were there, and because the land remained suitable enough to sustain continued generations over time. Companies that want to develop these regions sometimes make efforts to help native people transition into a more industrial lifestyle, but often, groups are simply pushed out of the way onto different land. These individuals generally have to adapt quickly to survive, and even when they do, the changes they accept often put them at risk of losing their traditional ways of life. Addressing the Problem Planting more trees is a simple way to fight the negative effects of deforestation, but depending on the species used, people usually have to wait many years before the forest matures. It takes even more time for other organisms to get used to the area and make it their own in a distinct ecosystem. The high rate of destruction, therefore, requires that people also take more immediate steps to fix the problem. Some individuals and businesses are taking a stand for the environment by going paperless, using technology to communicate, perform tasks and keep records. Recycling also helps reduce the amount of trees that are cut down unnecessarily. Supporting groups such as the Forest Stewardship Council is an additional option, as is lobbying for increased regulations related to

environmental protection and the power of logging, construction, road, mining and hydroelectric dam companies.