



## Green: It's Not That Black and White

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With increasing awareness of environmental issues, many people are searching for ways to “green” their lifestyle. Numerous celebrities and publications offer helpful and simple tips for becoming more environmentally friendly. But the truth is that the meaning of “green” is not well defined.

“The environment,” often used as a blanket term, is really a combination of distinct but interconnected systems including water, air, climate, soil, wildlife, vegetation, microbes, and much more. Often, “environmentally friendly” technologies, while having a smaller impact on one aspect of the environment, are decidedly unfriendly to another. In other cases, the benefits are mixed, depending on how, when, and where the technology is used. Hybrid cars are just one example.

Some analyses of the full life cycle of hybrid cars, from production to the consumer to final disposal of the vehicle, have found that the increased complexity of producing these vehicles means more greenhouse gases are generated than in the manufacture of conventional vehicles. The overall decrease in greenhouse gas emissions depends on the cars being driven for many miles under conditions that engage primarily the electric engine. For consumers who don't do a lot of driving, or whose driving habits are not well matched to the particular hybrid's engines, a better choice could very well be buying a conventional vehicle. For those, renewable fuels like ethanol are being touted as the greenest option.

Ethanol is theoretically carbon-neutral in the sense that the carbon emitted during burning of the fuel originated in the atmosphere, having been “breathed in” by the vegetation used to make ethanol (ignoring the carbon dioxide generated during the process of converting the vegetative biomass to ethanol). Returning this carbon to the atmosphere does not add to the greenhouse gas loading. In this sense, ethanol fuels may be “friendly” to the climate. However, ethanol may not be so friendly to a number of other aspects of the environment.

For example, in areas already water stressed, the water demand by ethanol plants is a serious concern. Also, many environmental conservation groups are concerned that the biofuels boom will come with the cost of increased soil erosion as fields currently not farmed are converted to fuel stock. Many researchers believe that improved conversion efficiency and other benefits are possible from an ethanol feedstock like switchgrass, rather than corn. Though there is truth to this argument, there are also negative environmental effects.

Switchgrass grows very densely compared to crops like corn and soybeans. This dense vegetation cover, particularly in monoculture rather than mixed with other vegetation, creates an environment that is inhospitable to wildlife. For this reason, groups like Pheasants Forever have expressed deep concern over monocultures of switchgrass where less dense vegetation cover currently exists, and advocates “careful consideration of these important areas of the biofuels debate.”

Even compact fluorescent light bulbs, the darling of the everyday environmentalism movement, are not without harmful aspects. Compact fluorescent bulbs (or CFLs) contain small amounts of mercury. For this reason, these bulbs, unlike conventional bulbs, pose health and environmental hazards if broken or not disposed of properly. Despite the widespread push for use of compact fluorescents, many consumers remain unaware of these potential risks. Residential recycling programs for CFLs are just now starting to appear.

There are a number of legitimate ways to decrease your environmental impact. But finding the right approaches for you requires some research, analysis of your lifestyle, and often some prioritization about which aspects of the environment are more important to you.