Calculate Your Carbon Footprint and Then Take Steps to Reduce it
Harvey Bryan
Arizona Republic: Green Talk, Jun 30, 2007, B3

This article is one in a series of articles contributed by Arizona State University's Global Institute of Sustainability. The Institute was established to catalyze and advance interdisciplinary research and education on environmental, economic and social sustainability.

The subject of global warming is the focus of considerable national and international attention of late. Taking action, however, does not have to be so distant or dependent on governments. There is a lot an individual or household can do, such as measure its “carbon footprint.” This concept was created to measure the amount of carbon dioxide (CO2) that an activity releases into the atmosphere, thereby contributing to global warming. Once your footprint is calculated, you can make changes to your behavior or lifestyle to reduce that footprint. Carbon footprinting can be undertaken at various scales: the units of measure are usually in pounds or kilograms of CO2 per year for the smaller scale or metric tons of CO2 for the larger scale. Value through the use of offsets has also been placed on CO2. Carbon offsets can be purchased from $6 to $30 per metric ton of CO2 per year from a seller who promises to use that money to neutralize or offset your CO2 emissions.

For an individual or household, measuring a carbon footprint is relatively easy. Reducing your footprint is much more of a challenge. Lifestyle factors such as a vegetarian vs. meat eating diet or enjoying water skiing vs. hiking, all contribute to an individual's carbon footprint, but factors such as home energy use and transportation usually dominate the calculation. A number of Web sites offer user-friendly worksheets that simplify the process. Behind these calculations are agreed-upon emission factors, most of which have been generated by the U.S. Department of Energy.

Several Web sites also contain much educational material (for example, comparative information on the carbon impacts of new products such as appliances and cars). However, caution should be exercised if the site suggests that the purchase of carbon offsets is the easiest way to reduce one's footprint. Although this option may make someone with a large footprint feel better, most experts in this field believe that behavioral or lifestyle changes are the most effective way of reducing your footprint.

The purchase of carbon offsets is an option of the last resort and usually needs to be researched, because not all carbon offsets are the same. For example, planting trees in the tropics may not be valued as highly as installing solar panels on a local school. Like many new markets, the carbon market is still maturing and has had its share of abuses. International protocols and auditing practices have been established and quality carbon-offset programs should adhere to these conventions.

Performing a carbon-footprint calculation can be a revealing exercise for individuals or families. Armed with this information fosters accountability and encourages us to be better stewards of our planet.

Take the Challenge
Estimate your carbon emissions and see the difference you can make by making a few simple changes. Go to http://green.azcentral.com to use the interactive calculator.