



Environmental Fact Sheet



Alternatives to Driving Alone



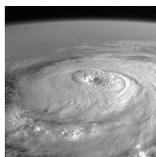
- If just one out of every 10 commuters who now drive to work switched to walking, we'd save 2 billion gallons of gas a year and reduce carbon dioxide emissions by 25.4 million tons. *(Green Commutes, Makower)*
- Every car commuter who switches to biking and transit can save 400 gallons of gas a year. *(Divorce your Car, Katie Alvord, 2000)*
- Eight bicycles can be parked in the space required for just one car. *(Divorce your Car)*
- Going by bus instead of car cuts nitrogen oxide pollution by 25 %, carbon monoxide by 80% and hydrocarbons by 90% per passenger mile. *(Divorce your Car)*

Automobile Use



- The United States moves into the 21st century with less than 30% of its original oil supply. *(Global 200 Revisited Gerald O. Barney)*
- The number of vehicles per person has doubled in California since 1940. *(Metropolitan Transportation Commission)*
- Americans drive more than 2 trillion vehicle miles per year. *(Going Place, Making Choices, 4H)*
- Short motor trips contribute significant amounts of air pollution because they typically occur while an engine's pollution control system is cold and ineffective. Shifting 1% of automobile trips to walking or biking decreases emissions by 2-4%. *(Way to Go, British Columbia)*
- There is more pollution inside a stationary car on a congested road than outside on the pavement. *(Sustrans Routes to Action Winter 2004)*

Global Warming



- Global warming is approaching the point of no return after which widespread drought, crop failure and rising sea levels will be irreversible - *Institute for Public Policy Research in Britain, the Center for American Progress in the U.S. and the Australia Institute.*
- Seven of the globe's 10 warmest years have been recorded since 1990. *(Science News)*
- The incidence of extreme weather events has gone up 28% since 1975 and it is now confirmed that the Arctic ice caps are melting, threatening coastal regions with flooding and actually drowning some small islets. *(U.S. E.P.A.)*
- Driving is the biggest contributor to increased greenhouse gases. *(New State of the Earth Atlas, 1995.)*

Pollution



- Motor vehicle use is now generally recognized as the source of more air pollution than any other single human activity.
(*New State of the Earth Atlas, 1995.*)
- In a year, a typical North American car will add close to five tons of CO₂ into the atmosphere. Cars account for an estimated 15-25 percent of U.S. CO₂ emissions.
(*Internal Council for Local Environment, 1995*)
- Long term exposure to the air pollution in some of America's biggest metropolitan areas significantly raises the risk of dying from lung cancer and is about as dangerous as living with a smoker.
(*Journal of American Medical Association*)
- Marin County measured the second highest rate of asthma in children 0-17 of all the other Bay Area counties.
(*2001 California Health interview survey*)
- Disposal of used motor oil sends more oil into the water each year than even the largest tanker spill.
(*U.S. EPA*)

Activities



- Did you know that in Mexico City people must take turns leaving their car at home one day a week in order to reduce smog? What if your city or town implemented a similar plan?

Step 1. Describe the scene/situation to students.

Step 2. Discuss and prepare answers to the following questions:

- a. How would this impact you and your family?
 - b. How would it impact everyone else?
 - c. Outline the pros and cons of such a plan.
 - d. If you had the chance to propose an action to reduce vehicle use in order to avoid such a law, what would you suggest?
 - e. How do you think others would respond to your idea?
- Carbon Calculators

Using fossil fuels leads to the emission of carbon dioxide, a key contributor to global climate changes. Using a Carbon Calculator gives a good indication of how much carbon emissions are created as part of your day-to-day routine. You can figure out your own personal usage with a Carbon Calculator available on-line at a number of web sites. World Resources Institute (www.safeclimate.net/calculator/) offers them and will assist you in calculating your carbon emission from your travel and home use.

A simple calculator from England, found at www.bestfootforward.com/carbnlife.htm, takes minutes to complete and does not require PG&E bills. A brief analysis of the impact of the carbon emissions is provided, as well as links for research. Green Score www.greenscore.org.uk shows how the little things you do make a big difference in four easy-to-follow sections on energy, water, shopping and transportation. (Information provided from *Routes 2 to Action* published by Sustrans, England.)

Compiled by Safe Routes to Schools, a program funded by the Transportation Authority of Marin, and implemented by the Marin County Bicycle Coalition.

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