

## **Will We Break Our Dirty Habits?**

By Paul R. Epstein

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A TAX CUT. It has a good ring to it. But why not do something really smart and deal with the energy crisis too? Tax incentives for energy conservation and clean energy technologies could help wean us from our unhealthy addiction to fossil fuels.

Tax incentives, subsidies, and funds to redirect markets and boost economic growth would not be new. At the end of World War II the GI Bill sparked new housing, colleges, and jobs. Throughout the 20th century, public funds for highways and airports subsidized the automobile and airline industries. The Marshall Plan breathed new life into devastated European economies.

Today we face a new challenge: how to develop cleanly.

The shock waves from the energy crisis in California have cracked open a Pandora's box, exposing the multiple destructive compartments left by the life cycle impacts of coal, oil, and gas.

The recent oil spill in the Galapagos Islands presents a vivid reminder of the numerous accidents and leaks that harm wildlife, fisheries, shorelines, and tourism. In other pockets we uncover coal mining and black lung disease, oil refining and toxic benzene, and lethal gas line explosions. In the deepest recesses, we discover pollution in the Niger River delta and the Ecuadorian headwaters of the Amazon from exploration and extraction.

As for combustion, we know that acid precipitation damages forests and lakes and that the particles and chemicals are bad for our hearts and lungs. Now science and the evolving reality make it ever more certain that the aggregate wastes from burning fossil fuels is disrupting the climate system, altering weather patterns across the globe.

What will it take to break us of this dirty habit? In just the past few years, weather-related disasters have had long-lasting impacts on the development of many nations. The list includes: Honduras, Venezuela, Bolivia, Mozambique, Kenya, India, China, North Korea, Mongolia, and Afghanistan. For frigid regions of Russia, northern China, Mongolia, and North Korea this year's energy crisis has proved deadly.

Now cooling in the North Atlantic Ocean - perhaps from melting of North Polar and Greenland ice - is driving storms in England, France, Sweden, and the United States. Populations throughout the world are feeling the wrath of extreme rains, extreme droughts, extreme winds, or extreme cold.

The costs from extreme weather events are also mounting. During the 1980s the reinsurance industry disbursed \$5.5 billion annually for weather-related disasters. The damages climbed to \$90 billion in 1998. During the 1990s US Federal Emergency Management Administration payments quadrupled, with foreign relief bills in tow. Now the Munich Reinsurance Company projects that damages to infrastructure, crops, and the energy, banking, and finance sectors from extreme weather could reach \$300 billion a year by 2050. Can we insure our future?

The US energy crisis is the tip of a melting iceberg - as we hurl headlong into a world with warmer oceans, melting ice, and rising water vapor in the atmosphere. We are returning long-buried carbon dioxide back into the air in amounts - and at rates - not seen in the 420,000 years of ice core records. One proposed solution - planting trees and halting deforestation is insufficient: Trees can only absorb 15 to 20 percent of the accumulating atmospheric carbon.

Oil companies are aware of the energy and environmental problems. Some are poised to diversify and become energy industries. But incentives will be needed to stimulate significant production of alternative fuel technologies and tax breaks can give consumers the necessary capital to install them.

During the 20th century, cars, planes, and computers helped drive development. This century technologies for energy conservation and clean energy generation can become the engine of growth. New products for green buildings, solar, wind, hybrid cars, and fuel cells are all waiting to be launched en masse. The proper financial "carrots" could jump-start a self-

sustaining conversion as the global demand and production of such technologies grow.

We have inherited a budget surplus from the speculative boom of the '90s, and we face an energy problem of national and global proportions. We can repeat the mistakes of the past, hoping the outcomes will be different. Or we can use the surfeit to launch smart growth and clean development.

We are berthed on an arcane icebreaker, spewing wastes as we lunge ahead at full throttle, set on a foreseeable, destructive course. Will we take the bold steps necessary to redirect our path?

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