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## Green Nation?

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WE MAY LOOK BACK ON 2007 as the year that green went mainstream. Stories about climate change, energy independence, and sustainability filled the airwaves. All the major newsmagazines from *Newsweek* to *National Geographic* had green cover stories. Both

NPR and NBC devoted extensive programming to spreading the message that “we gotta go green.” Al Gore was awarded an Academy Award and a Nobel Prize for his climate change advocacy. Even President Bush finally acknowledged that global warming was real and needed to be addressed.

economy standards (CAFE) to 35 miles per gallon by 2020. They also voted to create a National Center for High Performance Buildings and to phase out incandescent light bulbs and replace them with compact fluorescent bulbs by 2011 (see “Energy Bill Shines Light on Things to Come, page 61). More than 20 states adopted climate change action plans, and California even overturned a county master plan for failing to consider its impact on carbon emissions.

Of course, greening America is going to require a lot more than changing the lightbulbs or driving a hybrid. We won’t be able to call ourselves a full-fledged “green nation” until we make some fundamental changes to our transportation system and our development patterns.

In terms of transportation, the nation’s roadways and airways are more congested than ever. Even Mary Peters, the U.S. Secretary of Transportation acknowledges that we can not build our way out of congestion, and yet new carbon-spewing, sprawl-inducing highway construction projects are as common as ever. One example is the Georgia Department of Transportation’s plan to widen Interstate 75 through Atlanta to 24 lanes. Another example is the U.S. Department of Transportation’s proposal to kill an extension of the Washington Metro system to Tyson’s Corner (one of the nation’s most congested suburbs) and to Dulles International Airport (one of the nation’s busiest airports).

Clearly, we need to rethink our transportation priorities. The time is fast approaching when a gallon of gasoline could cost \$4,

Despite the downturn in the real estate market, more and more developers realized that they could make a profit from environmentally sensitive development. The number of LEED-certified buildings grew by leaps and bounds. The American Society of Landscape Architects announced a “Sustainable Sites Initiative” (see “Setting Our Sights Higher and Wider,” page 76). The U.S. Green Building Council (USGBC) rolled out a pilot program to certify green neighborhoods, and NAHB introduced a National Green Building Program aimed at mainstream builders. Green products and green marketing became the “order of the day.”

A shift in consumer preferences even helped Toyota, manufacturer of small fuel-efficient cars like the Prius Hybrid, supplant General Motors as America’s leading auto manufacturer.

On the policy level, more than 800 cities, led by Seattle, adopted the Kyoto Accords. Oil reached \$100 a barrel and Congress voted to increase corporate average fuel



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\$5, even \$6 a gallon (it is already \$8 a gallon in Europe). Such increases could seriously impair a car-dependent nation. Most Americans simply have no transportation options other than driving.

Consider intercity travel. Air congestion, airport delays, and airport hassles have reached all-time highs, but what choices do we have? We can drive or we can fly. Outside the Northeast Corridor (Boston to Washington), the United States has a third-world passenger railroad system. Compared with Europe and Japan, passenger rail service among U.S. cities is slow, infrequent, or nonexistent. Britain, France, Italy, Taiwan, Germany, China, and even Spain are all working to expand their already extensive high-speed rail networks. Spain, for example, will reduce travel time between Madrid and Barcelona from four to three hours by spring and ultimately to 2.5 hours. In December, travel times were shortened between Madrid and Segovia (from two hours to 30 minutes) and between Madrid and Malaga (from four to 2.5 hours). It is the goal of the Spanish government to upgrade 4,350 miles of track to high-speed quality by 2010, making all major cities reachable from Madrid within four hours.

Meanwhile, back in the United States, it takes Amtrak four hours longer to get from Chicago to New York today than it did in the 1950s. Also, many major American cities have such infrequent service that Amtrak is simply not an option for business travelers. Before America can call itself a green nation, it will have to build a world-class public transportation system.

Although China may soon outdo it in total emissions, the United States is still the largest emitter of greenhouse gases. It also consumes 25 percent of the world's oil despite having only 5 percent of the world's population. The United States pays about \$517 billion a year—more than any other nation—for the amount of oil it consumes.

To break our addiction to foreign oil, many people have argued that “technology will save us.” One common assumption is that green buildings and technological improvements in vehicles will solve the problem, but as H.L. Mencken once said, “For every complex problem there is a simple, elegant solution and it is usually wrong.”

Most scientists say we need to cut carbon emissions, relative to 1990 levels, by at least 60 percent by 2050 in order to avert a future global warming disaster. To the extent that America has gotten serious about the climate change problem, its two biggest policy initiatives have been to encourage the use of biofuels (to reduce the carbon content of gasoline) and

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to increase the fuel efficiency of cars. However, an even more effective strategy has received far less attention—to reduce the amount of driving. If the nation's sprawling development patterns fail to change, the continuing increase in driving will cancel any benefits from technological improvements.

This was one conclusion of the Urban Land Institute's recently released report *Growing Cooler: The Evidence on Urban Development and Climate Change*. [The book, with the same title, will be published this month.] One of the coauthors of this study, Steve Winkelman of the Center for Clean Air Policy, found that CO<sub>2</sub> emissions will continue to rise, despite technological advances, as the growth in driving overwhelms planned improvements in vehicle efficiency and the carbon content of fuel.

This should not be a surprise considering that vehicle miles trav-

eled (VMT) have increased three times faster than the population has since the 1980s and two times faster than vehicle registrations. Many Americans spend more time driving than vacationing. Why do we drive so much? Because for most Americans, there is no alternative. This current trend, however, does not have to be our future.

*Growing Cooler* makes it clear that one of the best ways to slow global warming is to change our development patterns to promote compact, mixed-use development. People who live and work in mixed-use neighborhoods, such as Alexandria, Virginia, or Georgetown, in Washington, D.C., are also only a short walk from stores providing many of the necessities of daily living. This amounts to almost a zero-carbon commute.

*Growing Cooler* analyzes dozens of studies on the relationship between urban form and driving. Researchers found significant evidence for compact development's potential to reduce the miles that residents drive. For example, a University of Maryland study ranked 83 of America's largest metropolitan areas by their degree of sprawl. In highly sprawling Atlanta, residents drive, on average, ten miles more each day than residents in Portland, Oregon, which is more compact. Another study found that people living at an infill location generate 35 percent less driving than people living at sites on the urban edge. A third study found that residents of walkable communities not only drive fewer miles but also make more trips on foot and by bicycle. Not only does walking reduce carbon emissions, but it also results in improved public health.

There is little question that a great deal of new building will occur over the next 30 to 40 years as the United States grows in population toward 400 million. By designing walkable, mixed-use communities for this new growth, we will reduce driving, greenhouse gases, and dependence on foreign oil. And, unlike many technological solutions, com-

compact development provides a low-cost climate change strategy, as it involves shifting investments that have to be made anyway. The same is true of transportation investments. We are going to spend at least \$40 to \$50 billion a year on transportation improvements over the next decade. We can do this by building more sprawl and carbon-inducing highways, or we can build a world-class, multimodal transportation system that balances highways with a high-speed intercity rail system and better regional public transportation.

How will the market respond to greater investments in walkable, mixed-use communities, better public transportation, high-speed rail, and the like?

In his new book, *The Option of Urbanism—Investing in a New American Dream*, real estate analyst Christopher Leinberger argues that the market is drastically shifting from “drivable suburbanism” to “walkable urbanism.” Most downtowns have begun serious revitalizations with a mix of uses, all of which is drawing the middle class back to downtowns as residents.

Suburbia won't disappear anytime soon, but Leinberger argues that walkable urbanism has demographics on its side. Today, only 25 percent of U.S. households have school-age children; household growth in the decades ahead will be among retirees, empty nesters, unrelated singles, immigrants, single parents, and other nontraditional families. All are population groups looking for more community and less commuting.

Most Americans drive everywhere because they have to, not necessarily because they want to. Becoming a green nation will involve offering people more and better choices—not just in light bulbs and building technology, but also in land use and transportation. **ULG**

*Growing Cooler* is available for purchase from ULI. Visit [www.uli.org/bookstore](http://www.uli.org/bookstore).