

# Q&A with Thomas L. Friedman



**“In today’s green revolution, we’re happy and everyone’s a winner! Exxon’s green, GE’s green, Peabody [Coal] is green—I saw it all in their ads! Well, that’s not a revolution. We’re having a green party. You’ll know it’s a revolution when companies either have to change and innovate, or die—not when they can just get a new green brand.”**

*Thomas L. Friedman, New York Times columnist, is the author of best-selling books like *The World Is Flat: A Brief History of the 21st Century*. His newest book, *Hot, Flat, and Crowded: Why We Need a Green Revolution—and How It Can Renew America*, explains how a green revolution can reinvent America in our age of climate change, global economic competition, and soaring worldwide population. A three-time Pulitzer Prize winner, Friedman is outspoken and occasionally controversial, but he offers keen insights into today’s world and gives specific recommendations on how to create a more prosperous and satisfying future.*

In our June 2006 Green Quotient interview, you said your goal was to redefine green as geostrategic, geoeconomic, capitalist, and the most patriotic thing you can do. Have you succeeded in that goal?

I hope so. Only readers can judge that.

Is your new book, which came out earlier this month, an important next step?

Well, you know the new book has a new title. At first, I called it *Green Is the New Red, White, and Blue*. Now, it’s called *Hot,*

*Flat, and Crowded*. What I tried to do in this book is connect five different trends that I think are going to be the defining trends of the 21st century—and I put them into a single framework of a problem, and then I put them into a single framework of a solution.

We’re in the middle of a perfect storm of hot, flat, and crowded. A perfect storm of, first, global warming; second, global flattening—that is, for me, shorthand for the rise of the whole developing world, India and China, and all the production and consumption they’re now doing; and, third, global crowding, global population growth—the fact that in my lifetime, from 1953 to 2053 if I live to be 100, we’ll go from a world of around 2.6 billion people to a world of over 9 billion people.

My argument is that the convergence of hot, flat, and crowded—those three megatrends—is driving five interwoven problems: energy and resource supply and demand, as evidenced by very expensive oil and gasoline; climate change; petro-dictatorship, or the rise of Russia, Iran, Venezuela, all these powers, purely because of the price of oil; biodiversity loss—we’re in the middle of a massive extinction rate of species; and lastly, a phenomenon I call “energy poverty,” which is about the 1.6 billion people who have no grid connection.

My argument in this new book is that the convergence of hot, flat, and crowded has driven all five of these problems past the tipping point. We’re at a whole new level. We see the energy supply and demand problem, evidenced by soaring oil and gas prices. We see climate change enter a whole new level. We see biodiversity loss at a whole new level. We see petro-dictatorship at a whole new level. We see the implications of energy poverty at a whole new level. How we manage these five problems is going to determine the stability or instability of the first part of the 21st century.

In a chapter that I do call “Green Is the New Red, White, and Blue,” I make the argument that—in a world that’s hot, flat, and

crowded—developing green power, green technology is going to be *the* source of competitive advantage in the world today. It is going to be the next great global industry. It simply *has* to be in a world that’s this hot, flat, and crowded. I know that for sure. What I don’t know is whether America is going to lead that new industry or not.

**What do you say to people who think climate change isn’t real or that green is merely a fad?**

Let’s say you’re a total climate-change skeptic. What is indisputable is that the world is getting flat and crowded. When flat meets crowded, get out of the way! So even if you take climate change off the table—just a world that’s flat and crowded—[the technologies for] clean power, resource productivity, water productivity are going to be the next great global industry.

Preparing for that world is like preparing for the Olympic triathlon: if you make it to the Olympics, you may win the race, but even if you don’t, you’re going to be healthier, fitter, stronger, more entrepreneurial, more competitive.

And that’s my point: if the climate skeptics are wrong and we prepare for climate change anyway, we’ll be in a much better position to adapt and mitigate it. If the climate skeptics are right, and we prepare for climate change, we’ll still be healthier, more competitive, more respected, more secure, and more entrepreneurial. So either way, this is a win-win.

Now, I’m not against Kyoto and these international treaties. If you can get 190 countries to all agree on verifiable climate reductions, God bless you and good luck. But that’s not my strategy. My strategy is to make America *the* example of a country that grows rich, respected, secure, entrepreneurial, and competitive by leading the green revolution. And my argument is that more people will emulate us once we set that example than will ever follow the compulsion of a Kyoto treaty.

## The Green Quotient

### More carrot than stick?

Exactly. And my argument speaks to both conservatives and liberals. It says to conservatives: I have a strategy for making America stronger, healthier, more secure, more entrepreneurial, and more competitive in a world that's hot, flat, and crowded. And by the way, that stuff Al Gore talks about? My strategy will take care of that as a byproduct.

To environmentalists I say: I have a strategy for mitigating climate change, preserving biodiversity, making cleaner air and cleaner water. And by the way, as a byproduct, it's going to make us stronger, more respected, more competitive, and more entrepreneurial.

So this is a strategy that *avowedly* speaks out of both sides of its mouth. Because unless you have liberals and conservatives coming together on these problems, you're never going to generate the leverage you need in order to get where we need to go.

### Doesn't green already have enough momentum to address the key issues? You can hardly pick up a newspaper or look at the Internet without being buried in green messages.

The first chapter in the second half of my book is called "205 Easy Ways to Save the Earth." It's about the phony revolution we're having now. People always come to me and say: "We're having a green revolution!" I say, "Really? A green revolution? Have you ever been to a revolution where no one got hurt?" That's the green revolution.

In today's green revolution, we're happy and everyone's a winner, yeah! Exxon's green, GE's green, Peabody [Coal] is green—I saw it all in their ads! Well, that's not a revolution. We're having a green party and it's a lot of fun. But it has no connection whatsoever with the revolution. You'll know it's a revolution when someone gets hurt. I don't mean physically hurt. You'll know it's a revolution when companies either have to change and innovate, or die—not when they can just get a new green brand. In 2007, the word *green* was the most trademarked word

by the U.S. Patent and Trademark Office. What does that tell you?

The real revolution is what I call the energy Internet, because that's what we're going to need. We're going to need a smart grid into a smart home into a smart car. The energy Internet revolution is when IT meets E.T. It's going to be like two huge rivers coming together.

### How do we make a genuine energy Internet revolution—and not just have another round of feel-good trademarks and press releases?

We look at the price signals we need to get the investments in that revolution; we make the regulatory changes we need to get the investments in that revolution; we need a strategy for clean power generation; and we need a strategy for biodiversity preservation. And we have to outgreen al Qaeda. The "greenhawks" in Iraq asked for solar power. Why? Because they had to supply bases on the border with Syria with gasoline that was costing them as much as \$100 a gallon to truck from Kuwait all the way to the Syrian border and back at an enormous risk. If the greenhawks had solar power, they could take all those trucks off the road.

Outgreening your competition, finding a sustainable source for low-cost clean power, is going to be the single most competitive advantage in a world that is hot, flat, and crowded.

I had a conversation with Jeff Immelt, the head of GE, in which Jeff at one point said, "Look, Tom, we need a president who's going to set the right carbon price, set the right regulations. Everyone will scream and moan for a month, and then the whole ecosystem will adjust. And America will just take off, and everyone will make money, and America will take the lead."

### You offer some important solutions, but what about the elephant in the living room: what about China?

Remember the movie *Speed*, where this terrorist puts a bomb on a bus? If the bus goes under 50 miles an hour it blows up.

China is that bus. If it grows economically under 10 percent it blows up. China's challenge is to change the engine in its bus from a dirty diesel to a clean hybrid while the bus is going 50 miles an hour. It's the greatest show on earth.

### These trends are some of the biggest challenges we've faced since World War II. Does America have the leadership to succeed? Do we have the backbone and the unity to make the necessary sacrifices and changes?

I believe that we've lost our groove as a country. We're not a serious place anymore, post-9/11. I believe that America gets its groove back by taking on this challenge. The world has a problem: it's getting hot, flat, and crowded. America has a problem: it's lost its way since 9/11. We solve America's problem by taking a lead in solving the world's problem—in being a role model, getting focused, and by rebuilding industry, education, and our country around this idea.

I end my new book by saying we need to redefine green and rediscover America, and in so doing, rediscover ourselves and what it means to be Americans. We are all pilgrims again: we are all sailing on the *Mayflower* anew; we have not been to this shore before. If we fail to recognize that, we will indeed become just one more endangered species. But if we rise to this challenge and truly become the "re" generation—redefining green and rediscovering and regenerating America—we and the world will not only survive, but thrive in an age that is hot, flat, and crowded.

### America has many declining cities, older suburbs, and overlooked towns in the industrial Midwest or Appalachia—places where people work hard and play by the rules, but the rules have changed and they've been left behind. What can green do for these places and their people?

Well, First Solar, America's premier solar company, was founded in Toledo, Ohio, and has its only North American manufacturing plant in the area. There's no reason that any of these communities can't be a source of green innovation. If I were the mayor or

the governor of one of these distressed areas, I'd be setting up a green innovation zone with long-term tax breaks and other incentives to get companies either started there or located there.

At the same time, there's obviously going to be a huge domestic industry in retrofitting, with green-collar jobs, because as your energy bills double or maybe triple, people are going to be looking to reinsulate their homes, install solar panels on their roofs—to find any way to outgreen the competition and find low-cost green power or clean power. That's going to be a huge domestic industry here that you can't outsource: someone in China can't retrofit your house.

There's a huge opportunity for new industries here, whether it's around solar/thermal if you're out west, whether it's wind if you're in the Plains states, whether it's photovoltaic if you're in any innovation zone. Some of our best solar companies are in places like Vermont and Ohio, where the innovators came together. That's the only way they're going to rescue these places.

**These new industries will also provide all kinds of jobs, from typical construction to research and development.** You go from green collar to lab suits with this industry. In a world that's hot, flat, and crowded, there's going to be lots of jobs at every end of that value chain.

But if we don't *make* it an opportunity for people at every end of the political spectrum to benefit from it—both in the employment sense and in the retrofitting sense, like making their mortgages more manageable by bringing down their energy costs—it's not going to scale. This has got to be for everybody. Otherwise, it will never generate the leverage you need to make the changes you need.

**Isn't water becoming the new oil? Eight of the ten fastest-growing metropolitan areas in the country are running out of water—places like Phoenix, Las Vegas, and Atlanta. Meanwhile, we're investing hundreds of billions of dollars in infrastructure and private real-estate**

**development in these regions. Are we throwing good money after bad in what could be the wrong locations?**

That's a very important question. You can't just mitigate climate change in Las Vegas or Phoenix or Atlanta. Either you do it collectively, as a global community, or it doesn't happen, because if we do it in this country seriously and China doesn't do it and India doesn't do it, it doesn't happen. The atmosphere doesn't distinguish between Bangalore and Boston, Phoenix and Shanghai. That's why we have to have a global strategy for addressing climate change. And we're very close.

But here and now, we have to take these off-the-chart weather changes very, very seriously—whether higher temperatures and less water, or extreme weather events like hurricanes and flooding. They will affect real estate values. They'll affect everything.

**Should the government be using tax dollars to put infrastructure where it doesn't belong?**

That's a debate we should be having. Or should we be investing in better dikes? Should we be investing in adaptation? How much should we be investing in adaptation? Mitigation may be too late as a strategy.

**With gasoline prices rising, is suburbia even a viable model anymore?**

"We built a very inefficient model with the greatest efficiency mankind has ever seen." That's a quote from Andy Karsner of the Department of Energy [assistant secretary for energy efficiency and renewable energy before he left at the end of August].

Things are going to have to change. We're going to have to have more mass transit. In Washington, D.C., the number of people riding the [Metro] subway every day has gone from 700,000 to 800,000. That's a huge leap. That's part of a big shift, provided the price of gasoline doesn't go down. People's demand is very, very sensitive to price. People go out and buy a Prius when gasoline is \$5 a gallon, but they don't when it's \$3 a gallon. That much is clear.

So, you've got to have a price signal, and it's got to be fixed because if it goes away, so will the demand. We're not going to get a dollar tax now, but that's what we need. We should have gas at about somewhere between \$6, \$7, \$8 a gallon. Then you will get huge structural change. But at least put a floor in and tax rebates for people with lower incomes. Take it off people's payroll taxes, so we incentivize people to work, and disincentivize them to use gas-guzzling vehicles.

We need to have a renaissance in mass transit and our railroads. I don't know what will be the precise mode, but when 100,000 more people a day use the Washington, D.C., subway, you know something's happening. And there's going to be huge opportunities there, just as there will be around wind, solar, and other technologies.

**What are we going to do with this inefficient suburbia?**

We're not going to dig up Levittown or Fairfax, but what we can do is redesign work so that people don't commute as much as they did—or if they do commute, they do it in much more efficient ways.

**What happens if we really do start a green revolution? Who will be the winners and losers?**

I think the winners will be the oil companies that move from crude oil, redefine themselves as energy companies, make multiple energy bets, and provide clean energy. I think that utility companies that make the move from selling kilowatts to helping people save a watt will be winners. I think those companies that change with the times will thrive.

I think those companies that don't change will wither, will be marginalized, will die. And times they are a-changin'. I think we're in the middle of a huge shift, *provided* the price of gasoline doesn't roll back, because if the price rolls back, the green revolution will, too. **UL**

**CHARLES LOCKWOOD** is a green real estate authority and consultant in southern California and New York City.