

GLOBAL SOLUTIONS

**DEMANDING TOTAL ACCOUNTABILITY
FOR CLIMATE CHANGE**

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DEDICATION

I dedicate this book to my mother and father. My father, like so many in his time, stepped up to the great challenges of his generation. He left Purdue University and volunteered to spend most of the years of World War II in the mud and blood of the forward positions in Germany. He collected intelligence to prepare for the major battles which would decide the fate of the world. My efforts in this “quick read” are nothing more than my collection of “intel” and tolling of the bell for an impending battle that we must win. And to my mother who never allowed me to drop my head, never allowed me to quit, no matter what the odds. Thank you for insisting on persistence.

Finally, I would like to thank my team for making the publication of this book possible.

PREFACE

I remember well having dinner at the home of my boss during the 1988 Presidential primary contest and watching home movies of one of his early trips to Antarctica. At the time I was in my late twenties and considered myself—then as I do now—a student of government. What struck me most was this man’s genuine interest in the environment and its impact on our legacy and viability as a country, and as a global population. The enthusiasm he demonstrated while regaling the small group who gathered in his den after dinner with details of the various flora and fauna of Antarctica and the reasons why this desolate location was important to us in the United States, left a lasting impression. His remarks burned in me an interest in the environment, and for seeking solutions to some of the larger and more complex environmental concerns of our day. At that time, Al Gore was a young United States Senator, and an aspirant seeking the Democratic nomination for the office of the President of the United States of America, and I was his South Carolina Campaign Manager.

I suppose like any professional I would prefer to tell you that my career is marked by my own strategic planning and individual accomplishment. The truth however is that the very best successes in my career have been due to the good fortune I have had to learn from some of the most dedicated and industrious men who have led our government and industry during the last 25 years. From Al Gore to John McCain, to Dan DiMicco, as a giant of domestic manufacturing, I have had the honor to learn from some of the best.

That said, my story is no different than many other Americans. I was born to a working class family in eastern North Carolina. We were instilled with a strong work ethic borne largely out of necessity. My ethic was further refined by the misfortune of being born with severely deformed feet, which earned me assurances that I would never walk. I add this only to give some meaning to the attitude within this brief work that no issue is too great to overcome. This is an attitude that I brought to overcoming my disability, and it is one that I bring to any complex environmental concern.

I am not a natural scientist, and I do not intend to introduce new theories to prove or disprove this phenomenon—global climate change. I do however intend to offer proof as to why we as concerned Americans

should engage with this issue. I also hope to challenge you to look beyond the election year sloganeering and dig a little deeper into what may become the single biggest issue of our generation.

Global climate change threatens to have a severe impact on the fabric of the average American working family due to the potential negative environmental consequences of the issue, coupled with broader economic concerns. The only thing greater than the potential impact of global climate change has been the dearth of meaningful national leadership on this issue. While our nation and communities across our country suffer from the confluence of global economic and environment conditions, our federal officials seem more concerned with superficial election year sound bites.

Proposed solutions to date—such as the Kyoto Protocol—have exempted so-called developing countries such as China, India, and Brazil. Some scientists believe that these and other developing nations now produce more greenhouse gas emissions than the developed nations. While the United States remains the largest single contributor, it is predicted that Chinese will take this position from us in the next two years. Although we in the United States have a great deal we can do to make a real contribution, it is clear we can not solve this problem alone.

The treaties and debate thus far have done little but generate interest in moving U.S. manufacturing operations to countries that have scant environmental regulation and little to no environmental enforcement. This has contributed to the burgeoning economy of these “developing” economies (China’s economy, for example, has grown four times faster than the economy of the United States in the past decade). Meanwhile, the United States has lost more than 3.5 million manufacturing jobs in the past eight years. This makes for a perfect storm—in which the U.S. working families have lost good jobs while we experience greater negative pressures on our environment as multi-national corporations move manufacturing to countries that refuse to enforce safe environmental standards.

In addition to this jaundiced and ineffective global debate, our own domestic consideration lacks courage and meaning. Much of the debate on emission reduction has centered on reduction of point source emissions for industry and power generators. These emissions have been vigorously regulated since passage of the Clean Air Act in 1967. While further regulation of these emissions might result in some level of re-

duction, together, they barely make up half of the overall domestic greenhouse gas emissions. Much of America's emission of greenhouse gases comes from sources which will require greater public involvement, such as residential use of electricity. These are the types of emissions where the great American people can make the most profound impact by expanded use of recycling, solar energy and other types of alternative energy.

I believe in America and our ability to meet even the greatest challenges. We have a track record of success, and we can meet this challenge as well. We can not meet it however, if our elected leaders choose political expediency over substantive debate. What we need is responsible education, total accountability, and a real, global solution for a global issue.

This book may not be well received by those who would prefer to bet on the stock market than on American ingenuity. It will not be for those who prefer unfettered greed over unlimited optimism for a better environment through fair trade.

GLOBAL SOLUTIONS
DEMANDING TOTAL ACCOUNTABILITY
FOR CLIMATE CHANGE

Tom Mullikin

Chapter 1

In December 2005, my team traveled to Antarctica. The fifth largest of the seven continents, Antarctica is a beautiful but stark no-man's land that has attracted explorers and researchers since the early 1800's, when John Davis, an American sealer, became the first person to set foot upon the rocky shore. It is hard to describe exactly what it is like to sail through the choppy water, the boat straining under violent gusts of wind, navigating around chunks of ice as big as buildings, towards a shoreline shadowed by looming glaciers.

Antarctica is the coldest, driest and windiest continent. Despite the charm of the penguins and the serene majesty of the glaciers, the land and sea are treacherous and unpredictable. The water is freezing, the wind carries stinging ice crystals, and the land rises high, frequently causing altitude sickness in visitors. It is common that human eyes are blinded by the sun's reflection on the snow and ice. When cyclonic storms form over the ocean and move clockwise along the coast, their winds toss sea vessels like a child's toy.

As a bitter wind swept down the polar plateau and our ship swayed in the icy water, I questioned my decision to make the journey. Standing against the rail, I could hear the groan of the boat's hull and feel the sting of the spray from the frozen sea. We had come to an inherently dangerous place.

In 1773, the explorer James Cook crossed the Antarctic circle and circumnavigated Antarctica. While he didn't sight land, he did sight rock particles in the icebergs. He is often quoted as saying, "I make bold to declare that the world will derive no benefit from it." James Cook may have accurately sensed the desolation and danger of Antarctica, but he underestimated the significance of the icy continent. Antarctica is much more than a destination for thrill-seekers; it has become home to some of the most sophisticated and important research into the issue of global climate change.

The American public now firmly believes in the dangers of global climate change. Recent polling indicates that 70 percent of Americans believe climate change is occurring and is affecting catastrophic weather patterns, such as hurricanes. In response to this growing concern, governments are taking action: a group of states in the Northeast have formed the Regional Greenhouse Gas Initiative (RGGI); California

adopted carbon caps, and has formed a regional pact with Washington, Oregon, New Mexico, and Arizona; every day another state announces a new legislative initiative to reign in greenhouse gas emissions. As the new Congress plans its agenda in Washington, and as politicians react to the chorus of voters' voices, we can expect to see even bolder plans proposed—both in scope and size. But the real dangers of climate change will not be solved by flashy programs rashly adopted as part of election year politics. Without effective and responsible global solutions to climate change, these efforts will go for naught—and, in fact, may backfire.

As it has become increasingly clear, we are living in a global environment—greenhouse gasses do not respect state or national boundaries. The actions of a single state, or even a group of states, is not sufficient to stop greenhouse emissions. For example, California's recently adopted plan aims for a reduction of 25 percent of California's greenhouse gas emissions. This reduction will amount to just a 0.13 percent reduction in global greenhouse gas emissions by 2020, assuming all things remain equal. But things will not remain equal—the costs imposed by such unilateral carbon cap programs will lead to a further exodus of industry from the United States. In fact, the U.S. Congressional Budget Office warned in September 2006 that “[i]f a domestic carbon pricing program significantly increased the prices of U.S. produced goods—and was not matched by efforts to reduce emissions in other countries—it could cause carbon intensive industries to relocate to countries without similar restrictions, diminishing the environmental benefits to a domestic program.” These companies will set up shop in less regulated—and therefore less costly—nations. This migration results in a net loss for the environment. Our challenge, then, is to craft solutions that recognize the necessity of global reductions in greenhouse gas emissions, not just reductions in a few states, or even just one nation.

It is the rapid globalization and the confluence of trade and the environment which makes this issue even more complex. Environmental concerns have always been challenging, but in the past they have been more linear. Our country has taken a leadership position by enacting sweeping and enforceable environmental laws such as the Clean Air Act of 1967 (CAA), the Resource Conservation and Recovery Act of 1976 (RCRA), the Clean Water Act of 1977 (CWA), the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, or Superfund), and the Pollution Prevention Act of 1990

(PPA), just to name a few. These laws set high standards for the United States, but provided the basis for American leadership in the creation and adoption of international environmental conventions. But these laws also were limited to dealing with pollutants that primarily originated in and affected this country. We are now dealing with a frustrating set of challenges that require new thinking and problem solving matrices. The issues: greenhouse gases do not respect boundaries drawn by governments, and exploding economies in developing nations, which enforce scant or no environmental protection, offer safe havens for companies to pollute at will. As this scenario plays out, our environment is being besmirched at an alarming rate, while our economy and manufacturing base are being gutted, because multinational corporations are quickly moving their operations to these less restrictive foreign states. As James Gustave Speth, the Dean of the School of Forestry and Environmental Studies at Yale University and former advisor to Presidents Carter and Clinton explained in his book, *Red Sky at Morning: American and the Crisis of the Global Environment*:

[O]ur national legislation was successful in curbing many environmental abuses domestically . . . [but] more of the same will not get us where we want to be in time to head off an era of unprecedented environmental decline. . . . The current system of international efforts to help the environment simply isn't working. The design makes sure it won't work, and the statistics keep getting worse. We need a new design, and to make that happen, civil society must take the helm.¹

This is the new challenge; the new paradigm for real global solutions.

The failures of our existing “non-global” solutions are already becoming apparent in Europe. Some European countries have seen a 50 percent increase in electricity costs, caused by the Kyoto-imposed carbon trading system. These early adopters have already experienced the dangers of a failed, non-global solution. Kyoto has been labeled an “environmental and economic failure” by experts as signatories fail to meet their emissions requirements, and “developing” countries—exempted from Kyoto’s caps—reap the benefits of fleeing industry. The environmental “backfire” of carbon cap and trade programs could prove to be

devastating. For example, industry in “developing” countries—such as China—emits on average five times more greenhouse gasses than industry in the United States. As industry “leaks” from efficient and responsible developed nations under the strain of increased regulatory costs, this backfire will unfortunately result in increased worldwide greenhouse gas emissions.

Unilateral caps by governments in the United States threaten to force our businesses to seek nations where production costs are lower, or simply go out of business. And yet consumers’ demand for goods will not subside simply because our manufacturers are gone. Instead, manufacturers in other nations—nations such as China—will pick up the slack. And these nations are definitely not environmentally responsible.

The International Energy Agency recently reported that China will become the world’s worst emitter of carbon dioxide by 2009, at the latest. Meanwhile, China’s economic growth has been explosive. China’s economy has grown 142 percent in the past decade—four times faster than the U.S. To fuel this industrial expansion, China’s energy consumption has increased dramatically. China’s oil consumption has doubled in the past 20 years, and China is now the world’s second largest consumer of oil. China’s consumption of coal increases approximately 10 percent per year, and it is now the world’s largest producer and one of the top importers of coal. Automakers anticipate that China will account for 18 percent of global car sales between 2002 and 2012, even further increasing their emissions from fossil fuels (in comparison, Americans will account for only 11 percent of global car sales in the same period).

This economic expansion has come at a high cost to China’s environment. The World Health Organization found that China had seven of the world’s 10 most polluted cities. Acid rain falls in about one-third of the nation. By 2025, scientists estimate that China will emit more carbon and sulfur dioxide than the U.S., Japan, and Canada, combined. More than 53 percent of the world’s mercury emissions come from Asia. The Environmental Protection Agency has traced high levels of mercury in the United States back to Chinese sources, such as unfiltered coal-fired electric plants. China has roughly 2,000 coal-fired power plants, which account for 76 percent of China’s energy supply. The Chinese government plans to double generating capacity in the next 15 years. Most of these new plants also will rely on coal combustion.

If the United States acts only to further reduce its own emissions it will simply exacerbate the pollution problem by fueling further economic expansion—and environmental abuse—in nations like China. The U.S. has an opportunity to lead the world in seeking a global solution to a global problem; a solution that holds all parties to the same standard; that holds all parties accountable for our global environment. Pollution does not respect national borders, and solutions that adhere to the fiction that pollution can be solved by one city, one state, or one nation, are doomed to failure. In fact, such “solutions” will only make the problem worse.

The United States must demand total accountability in regards to global greenhouse gas emission reductions. Anything short will be more election year politics, a failed environmental solution, and an economic threat. The United States has already lost almost 4 million manufacturing jobs in the past eight years to countries such as China due to unfair trade practices, such as dumping and currency manipulation. Aggressively enforcing free trade laws—such as by demanding China fairly value their currency—would produce positive environmental benefits by providing a level playing field for American industry, the most environmentally efficient industry in the world, to compete and grow.

A couple of key statistics provide insight into a real solution for global greenhouse gas emissions. First, as noted, China, where there are no recognizable environmental standards, will overtake the United States as the world’s largest emitter of greenhouse gases by the time the next United States President is sworn into office (and emissions from so-called “developing nations” will exceed emissions from all developed nations). In fact, recent reports suggest that China, which has a long history of underreporting their emissions, may already be the world’s largest greenhouse gas emitter. Second, American industrial point sources of pollution constitute only 4.5 percent of the global total of greenhouse gas emissions. Within these factual parameters, we can craft a global solution: creating meaningful and enforceable international standards on all countries, and seeking meaningful reductions in all sectors of emissions.

A true global solution must account for the potential “migration” of emissions from regulated to unregulated nations. Regulations that increase costs on industry without taking account of the movement of industry to unregulated nations threaten to exacerbate the overall prob-

lem. Unfortunately, many of the cap and trade programs that have been proposed in the United States fall short in this respect. An alternative solution the United States should consider is the implementation a carbon based greenhouse gas (GHG) excise tax.

Excise taxes are taxes levied upon specific goods, unlike sales taxes or value added taxes, which are applied across a range of items. Taxes on cigarettes, alcohol and gasoline are examples of excise taxes. These types of taxes are often used to discourage a certain type of behavior. Excise taxes have successfully been used to discourage environmental pollution. In 1988, in response to mounting international concern over the depletion of the ozone layer, the United States ratified and implemented the “Montreal Protocol on Substances that Deplete the Ozone Layer.” As part of its effort to ensure that the United States met its obligation under the Montreal Protocol, Congress enacted an excise tax on ozone-depleting chemicals (ODCs). The tax required manufacturers, producers and importers to pay an excise tax for the sale or use of ODCs in the production process, thus increasing the price of ODCs worldwide and providing incentives for the development of alternative chemicals. This led to a significant reduction in the production of ozone-depleting chemicals and had a measurable effect on environmental quality.

A carbon-based GHG tax on domestic and imported products would be levied on products based on the amount of carbon emitted during the manufacturing process, and would create the proper incentives for change both in the United States and abroad. Such a tax would eliminate the threat of emissions “migration” and would use market incentives to encourage other nations, such as China, to reduce the carbon intensity of their products in order to compete with more responsible nations. It would also avoid one of the major pitfalls of a treaty; as Sophocles once opined: “No treaty is ever an impediment to a cheat.”

The United States can also lead by encouraging and promoting more recycling to recapture invested energy, more green technology, and more clean energy. Recently, New Mexico Governor Bill Richardson’s committee on climate change issued a study that presented a broad range of opportunities to reduce energy consumption while simultaneously increasing production of clean energy, all while creating jobs and economic opportunities within the state. Similarly, California recently passed the Million Solar Roofs bill, which provides incentives for homeowners to install solar electricity. Among other things, the Million

Solar Roofs Bill provides ten years of incentives to help residents install one million solar energy systems on homes and businesses throughout the state by 2018. The result will be 3,000 Megawatts of new solar energy which is roughly equivalent to 40 peaking power plants.

By creating incentives for green industry and clean energy to grow and thrive, we can positively affect the environment through economic stimulus, without risking an exodus of American industry to environmentally irresponsible nations such as China.

It is in this way we can both save ecosystems such as the one we explored in Antarctica, and the fragile environments of African nations, such as Namibia. At the same time, we can save our communities back home.

Global Solutions



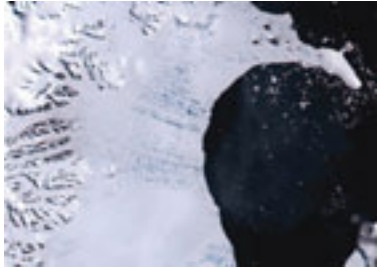
**Demanding Total Accountability
for Climate Change**



Antarctica has experienced significant retreat and collapse of ice shelves, which has been the result of regional warming.



The Larsen B ice shelf, the size of Rhode Island, had been stable for 10,000 years. In 2002, it broke apart in a matter of months.



January 31, 2002



February 17, 2002



February 23, 2002



March 5, 2002



March 7, 2002

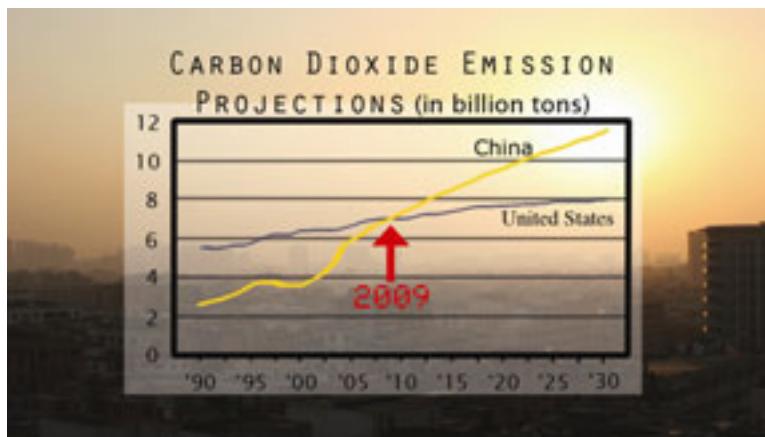
Courtesy of NASA and Visible Earth
(<http://visibleearth.nasa.gov/>)

The Kyoto Treaty was the first attempt at an international solution to climate change.



Unfortunately, Kyoto exempts "developing countries" from emission reduction requirements.

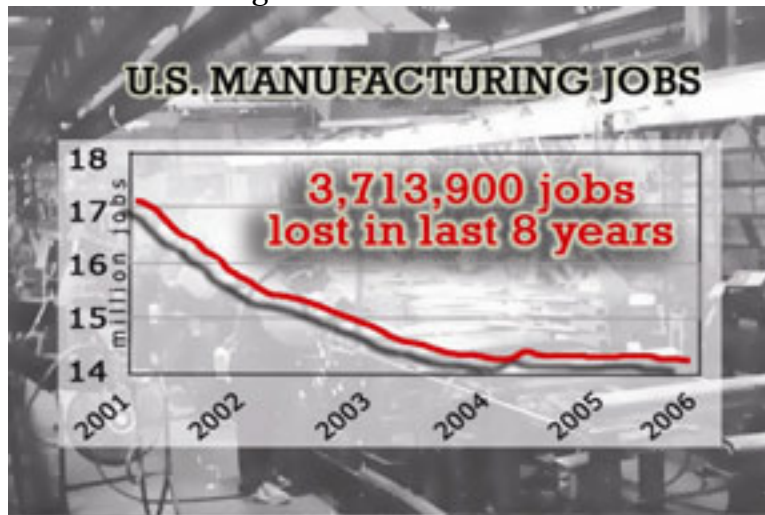
“Developing countries,” like China, represent an ever-increasing percentage of greenhouse gas emissions.



China's emissions have grown more in a year than U.S. emissions have in a decade.



American manufacturing job loss resulting from unfair trade practices, like currency manipulation, has exacerbated the environmental problem by driving manufacturing to nations without any discernible environmental regulations.

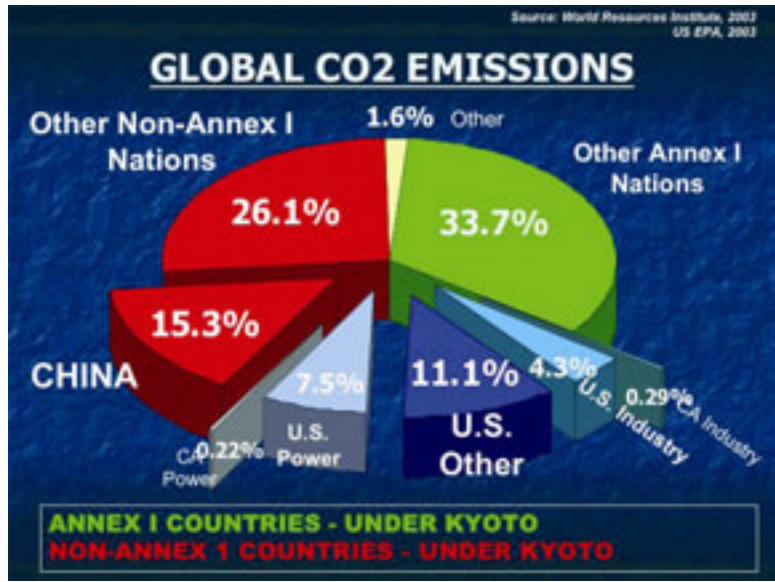




China has 7 of the 10 world's most polluted cities and is building the equivalent of two 600 megawatt coal fired power plants a week to support their burgeoning economy.

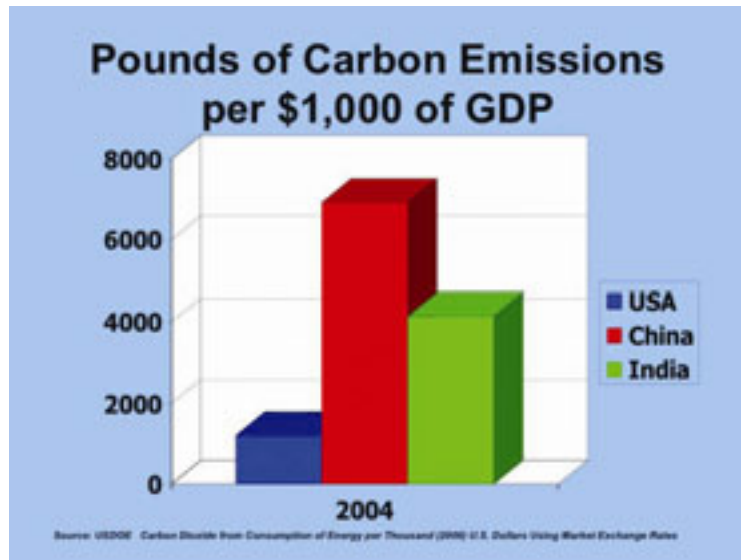


Increasing reports of global climate change are spurring action. Some states, such as California, have decided to take unilateral action. Unfortunately, such action promises little reduction in global greenhouse gas emissions.



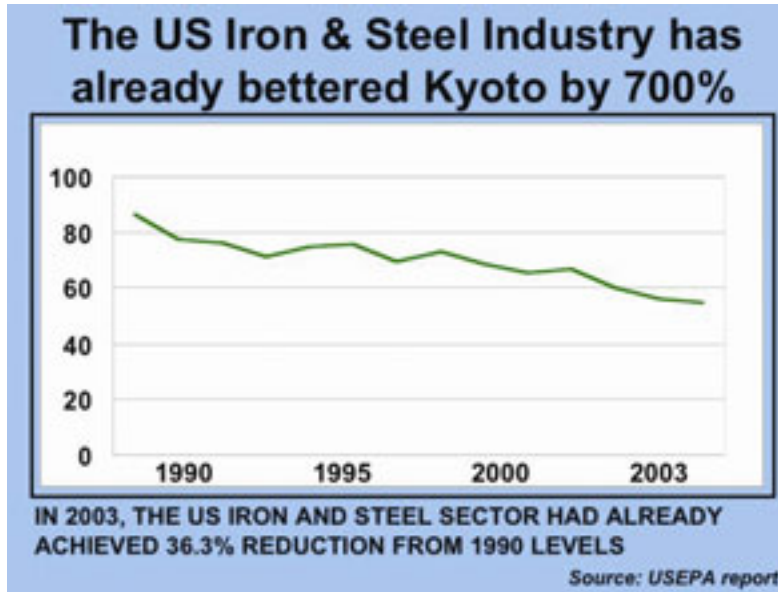
Even if California managed to reach its stated goal of reducing its industrial and power utility emissions by 25% by 2020, it would account for only a 0.13% reduction in global emissions; and that's assuming that these reductions did not lead to an increase in emissions as industry and utilities moved to other states or nations with less stringent emissions standards.

Environmental regulations, such as cap-and-trade, that further drive manufacturing to countries without equivalent regulations threaten an environmental “backfire” by increasing overall greenhouse gas emissions.



Every \$1,000 of production shifted overseas can lead to up to five times the amount of carbon dioxide being emitted into the atmosphere.

Cap-and-trade regulations also threaten to punish U.S. industry that have been environmentally proactive. For instance, the U.S. steel industry has already reduced its emissions 37% below 1990 levels.

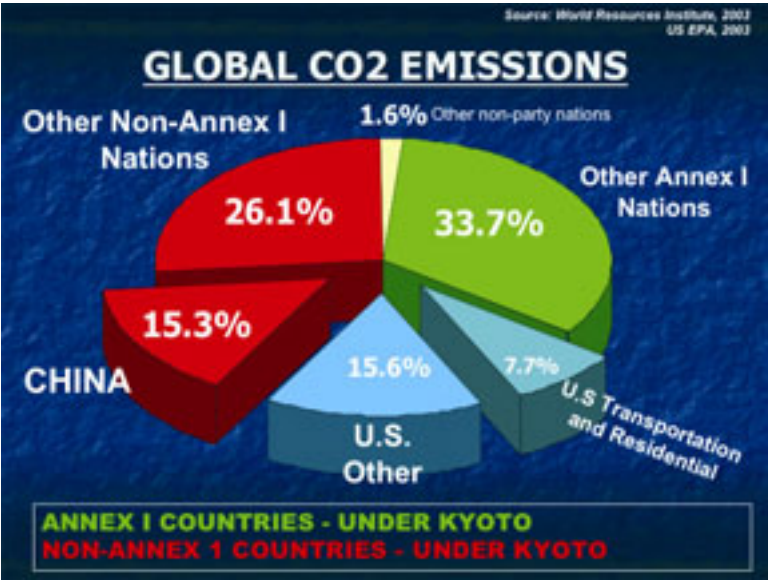


Responsible solutions to climate change must provide total accountability.



A “carbon tax” would require comparable reductions in GHGs by other nations and would limit the “migration” of emissions.

Greenhouse gas emissions don't just come from industrial sources. We must also encourage improvements in the energy efficiency of the American economy across all sectors.



We must promote the green industry through tax incentives and investment in research and development.



Clean and renewable technologies, such as nuclear, wind, solar, and recycling provide ways to address climate change through economic stimulus.



Visiting countries such as Namibia reveals the dangers posed by climate change. Namibia is ranked among countries likely to be the most vulnerable to climate change and is expected to face a water scarcity by 2020.





The U.S. should take an active roll in developing countries like Namibia to assist them develop in an environmentally responsible manner.

