

DON'T GO IT ALONE: America's Interest in International Cooperation

U.S. Global Leadership to Safeguard our Climate, Security, and Economy



By Nigel Purvis



The **Better World Campaign** works to strengthen the relationship between the United States and the United Nations through outreach, communications, and advocacy. We encourage U.S. leadership to enhance the UN's ability to carry out its invaluable international work on behalf of peace, progress, freedom, and justice. In these efforts, we engage policy makers, the media, and the American public to increase awareness of and support for the United Nations. To learn more, visit www.betterworldcampaign.org.

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*Executive Summary***U.S. Global Leadership to Safeguard our Climate, Security, and Economy**

Global climate change is a serious and growing threat to the United States and the world. The adverse impacts are already harming our economy and our communities, and those costs will rise significantly with time. Importantly, climate change also jeopardizes critical U.S. international affairs and security interests. By placing new stresses on vulnerable societies, weak governments, and degraded environments, climate change increases the risk of severe humanitarian crises, mass migration, and armed conflict over scarce natural resources, as well as contributing to the economic malaise that can breed despair, violence, and terrorism.

“Climate change poses a greater threat to humanity and the planet than war.”

**–Ban Ki-moon,
UN Secretary General**

America faces the challenge of galvanizing international cooperation to both manage inevitable climate change and stabilize the Earth’s climate in time to avert catastrophic impacts. We stand a good chance of success, by means that create economic opportunities, improve U.S. security, and advance other societal goals. But our success depends on urgent action at home and far-sighted U.S. leadership internationally. To safeguard our country and the world, we must act in concert with other nations to marshal an effective global response to the climate crisis. Meeting this challenge must become a defining objective of U.S. foreign policy.

Specifically, we must:

- Set the right example by committing to substantially reduce U.S. greenhouse gas emissions without delay, and by backing that commitment with domestic emissions regulation;
- Negotiate international agreements pursuant to new ‘Climate Protection Authority,’ which would authorize the President to conclude congressional-executive agreements (not treaties) and would create a credible path for U.S. participation in agreements that ensured equitable action by all major emitting nations;
- Spur international cooperation to research, develop, and pilot advanced clean energy technologies;
- Work with the international community to offer economic incentives to developing nations to speed their adoption of climate-friendly technologies; and
- Minimize security threats, instability, and humanitarian crises by catalyzing international cooperation to help vulnerable developing nations adapt to the consequences of climate change.

Basic Science

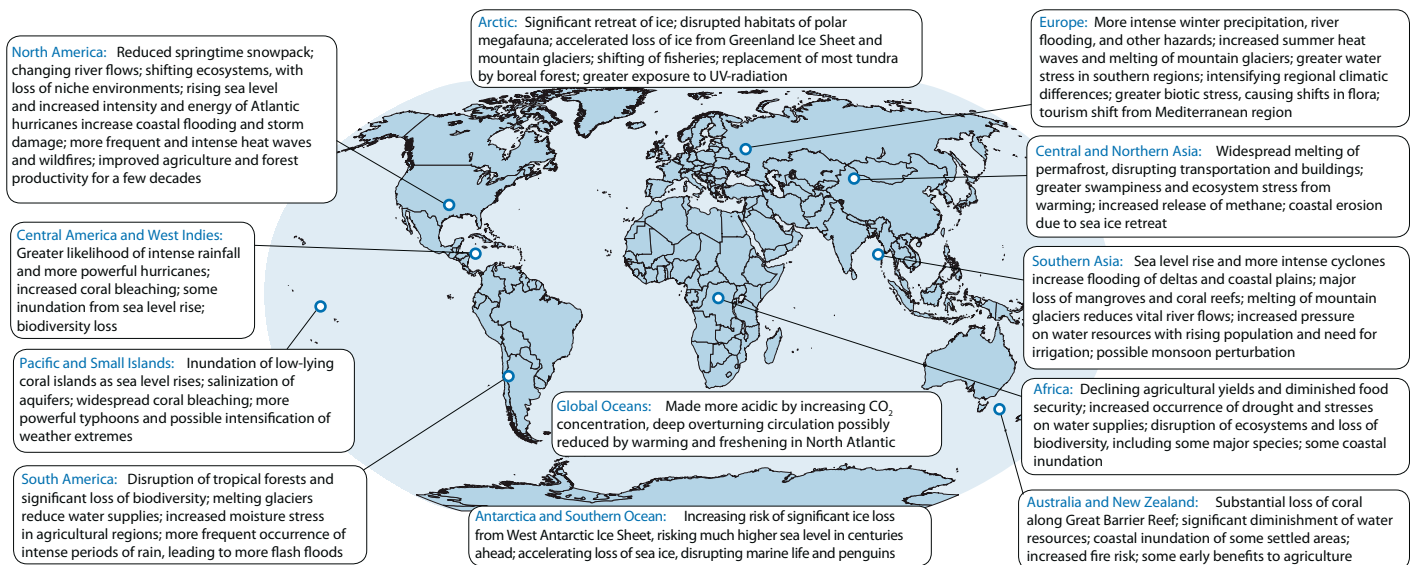
Every national policy-maker needs to understand the following ten scientific facts about climate change. The majority of the facts below come from the Intergovernmental Panel on Climate Change, the 2007 recipient of the Nobel Peace Prize.

- The Earth is warming; temperatures have increased about 1.4 °F (1 °C) in the last 200 years.
- Human activity is the primary cause; principally the combustion of fossil fuels (particularly coal and oil) and global deforestation (particularly in the tropics).
- Serious adverse impacts of global warming are already being felt in the United States and around the world, including significant increases in the incidence of floods, droughts, heat waves, and wildfires, particularly since 1970.¹
- Global temperature increases must be held to approximately 3.5 to 4.5 °F (approximately 2.0 to 2.5 °C) over pre-industrial levels to hedge against potentially catastrophic climate change-massive sea level rise, major changes in the Gulf Stream current, unacceptable risks to human health and security, and destabilizing human migration.
- Absent decisive action, global temperatures will increase by twice this amount by the end of this century alone, with no end in sight to further warming. This would take humankind into unknown territory and represent a temperature change equal to that since the last ice age.
- Meeting the 3.5 to 4.5 °F temperature goal cost-effectively requires an approximately 50 to 60% decrease in global emissions by 2050 from 1990 levels.
- Emissions from developing nations inevitably will rise significantly in the coming decades as developing economies industrialize.
- To stay on a path toward temperature stabilization within this range, the United States and other industrialized nations must reduce their emissions by 60 to 80% from 1990 levels by 2050, while rapidly developing nations reduce their rate of growth in emissions substantially.
- Following this pathway implies that the United States and other industrialized countries must decrease emissions by approximately 20 to 30% by 2020 while rapidly developing nations reduce their ‘emissions intensity’ (emissions per unit of gross domestic product) by approximately 4% per year.²
- Absent changes in policy and behavior, U.S. carbon dioxide (CO₂) emissions will grow by about 33% by 2030, while emissions from rapidly industrializing nations will double as their per capita emissions begin to rival ours.³

Global Impacts

Climate change is one of the greatest global threats to the United States. The consequences of climate change will be felt at home and abroad in ways that undermine a broad range of national interests and societal values. The costs of taking early action to mitigate climate change are low compared to the risks of inaction because climate change threatens the building blocks of life for people around the world—access to water, food production, health, land use, and the environment (see Figure 1).

Figure 1. Significant impacts of climate change that will likely occur across the globe in the 21st century.⁴



The most comprehensive economic estimate so far predicts that solving the climate crisis would reduce the rate of global economic growth by only 1% by 2050, provided we start taking strong action now. By comparison, the costs of climate change itself are predicted to be far greater—1.0 to 3.0% of global gross domestic product (GDP) by 2050 and at least 5.0% over the next two centuries, in each case with even larger impacts in developing nations. Alone, the adverse economic impact of extreme weather attributable to climate change will be 0.5 to 1.0% of global economic growth by mid-century. If emissions and temperatures rise further, as projected, the United States and other industrialized economies face a growing risk of large-scale economic shocks. Abrupt climate change (such as the collapse of the North Atlantic current from melting ice in the Arctic and Greenland), although unlikely, could trigger a 20% decline in global GDP over several centuries. Severe warming and glacial melting could lead to six feet of sea level rise, which would inundate large portions of Florida, for example. Scientists also perceive a growing threat that global warming could become self-reinforcing, spiraling out of control to make the planet uninhabitable.

Climate change will make already unstable parts of the world even more so, thereby increasing security threats to our country. General Anthony Zinni, former Commander-in-Chief of U.S. Central Command, and a panel of retired three- and four-star U.S. generals and admirals recently concluded, “Projected climate change poses a serious threat to America’s national security. Climate change acts as a threat multiplier for instability in some of the most volatile regions of the world”.⁵ By placing new stresses on vulnerable societies, weak governments, and degraded environments, climate change increases the risk of major food and water insecurity, severe humanitarian crises, mass migration, armed conflict over scarce natural resources, and economic malaise that breeds despair, violence, and terrorism.

Worldwide, climate change will harm the poor most of all. They have the least capacity to absorb the ravages of extreme weather and major shifts in water supply and agricultural productivity, and they have the least capacity to manage increased threats to human health from climate-related diseases, such as malaria. In addition, the poor tend to live in regions of the world (particularly Africa and South Asia) where water scarcity and food insecurity are already acute and will most likely to intensify with global warming. Rising seas could displace as many as 120 million people in Bangladesh alone.

The world does not need to choose between prosperity and climate protection. On the contrary, stabilizing the Earth’s climate will contribute strongly to economic growth, human well-being, and international security.

International Cooperation is Key

Protecting the United States and the world from the threat of climate change requires real international cooperation. Greenhouse gases warm the entire planet, no matter which country emitted. Economic, security, and humanitarian impacts of climate change in any region of the world can threaten vital U.S. national interests and those of our allies. Climate change, in short, is a global problem that requires international cooperation and U.S. leadership is imperative.

Stronger international partnerships, mechanisms, and institutions are needed to ensure that the world’s major economies reduce their climate-damaging emissions at a rate that is both environmentally effective and fair to other countries. New institutions and instruments are needed, for example, to ensure that major emitters take comparable action and that their climate commitments are enforceable. Absent international cooperation, the projected growth in emissions from China and India alone will swamp emission reductions achieved by advanced economies. In addition, stronger mechanisms are needed to help developing nations grow cleanly. Without real incentives for climate action, developing nations will choose the traditional path toward industrialization over continued poverty.

“Climate change, in short, is a global problem that requires international cooperation.”

“Projected climate change poses a serious threat to America’s national security. Climate change acts as a threat multiplier for instability in some of the most volatile regions of the world.”

– Gen. Anthony Zinni



The international community also needs to work cooperatively to ensure that nations that are most vulnerable to the adverse impacts of climate change can adapt in ways that protect U.S. security, economic, and humanitarian objectives. New resources and policy instruments will be needed at national and global levels to prevent even more costly humanitarian and security crises. An ounce of prevention (emissions mitigation) and readiness (disaster preparedness and adaptation) will be worth a pound of cure (disaster response).

Recommendations for a New Administration

Solving the climate crisis will require global leadership from the United States on several different fronts. A comprehensive climate policy will have many components. Nonetheless, the following five principles should form the nucleus of the next President's climate strategy.

1. Substantially reduce U.S. greenhouse gas emissions without delay.

Given our role in the world, our historical responsibility for the climate problem, and our current contributions, the United States must act decisively to reduce its emissions. Not only is this the right thing to do, it is also a precondition for U.S. credibility and global leadership. Until we reduce our own emissions, other nations will hide behind our inaction. To move the world onto an emissions path that will avert potentially catastrophic warming, the United States must reduce its emissions 20 to 30% by 2020 from the current trajectory, which would correspond roughly to returning U.S. emissions to 1990 to 2000 levels by that date.

The politics of climate change in the United States have evolved rapidly in recent years. A decade ago, Americans questioned the science and were ambivalent about policy solutions. Today, 74% of Americans are more convinced from events over the past two years that global warming is happening and 85% of Americans consider climate change an important or critical threat.⁷ Climate change and U.S. dependence on foreign oil are among the top security threats perceived by Americans.⁸ These findings provide national leaders with a clear mandate from the American people to solve the climate crisis.

There is also a growing consensus for action within the business community. Corporate leaders increasingly understand that reducing emissions and supporting climate-friendly policies help manage regulatory risks, win consumer confidence, and create new business opportunities. The U.S. Climate Action Partnership, a growing coalition of the world's largest companies and environmental groups, has called on the Congress to quickly enact comprehensive federal legislation to address climate change, including mandatory emission limits that would reduce emissions by 10 to 30% from today's levels within fifteen years. The coalition includes Alcoa, Caterpillar, Chrysler, ConocoPhillips, Duke Energy, DuPont, General Electric, General Motors, PepsiCo, and Xerox. Opposition to federal climate regulation is diminishing. For example, the electric utility trade association has now joined the call for mandatory federal greenhouse gas regulation, albeit in a more qualified manner.

In the absence of strong federal action, state and local governments have taken the lead on climate policy in the United States (see text box). The rapid proliferation of sub-national policies is also helping to increase support for a national standard.

Growing U.S. Domestic Action

Regions. The Regional Greenhouse Gas Initiative (RGGI) is the first mandatory U.S. cap-and-trade program for carbon dioxide. It covers ten northeastern and mid-Atlantic states: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. The program will begin by capping emissions from power plants at current levels in 2009, and then reducing emissions 10% by 2019. In February 2007, five western States (Arizona, California, Oregon, New Mexico, and Washington) agreed to jointly set a regional emissions target and establish a unified western regional carbon market by August 2008.

States. In September 2006, California Governor Schwarzenegger signed into law the Global Warming Solutions Act (known as AB 32). The law caps the state's emissions at 1990 levels by 2020. The legislation represents the first statewide cap on emissions from major industries enforced with substantial penalties. A number of other states, including Florida, Illinois, Minnesota, New Jersey, and New Mexico, have also set statewide greenhouse gas emission targets.

Cities. In July 2007, 600 U.S. mayors signed the U.S. Conference of Mayors' climate protection agreement, which indicates their support for reducing U.S. emissions by 7% below 1990 levels by 2012. America's cities are reducing their global warming pollution in creative ways.



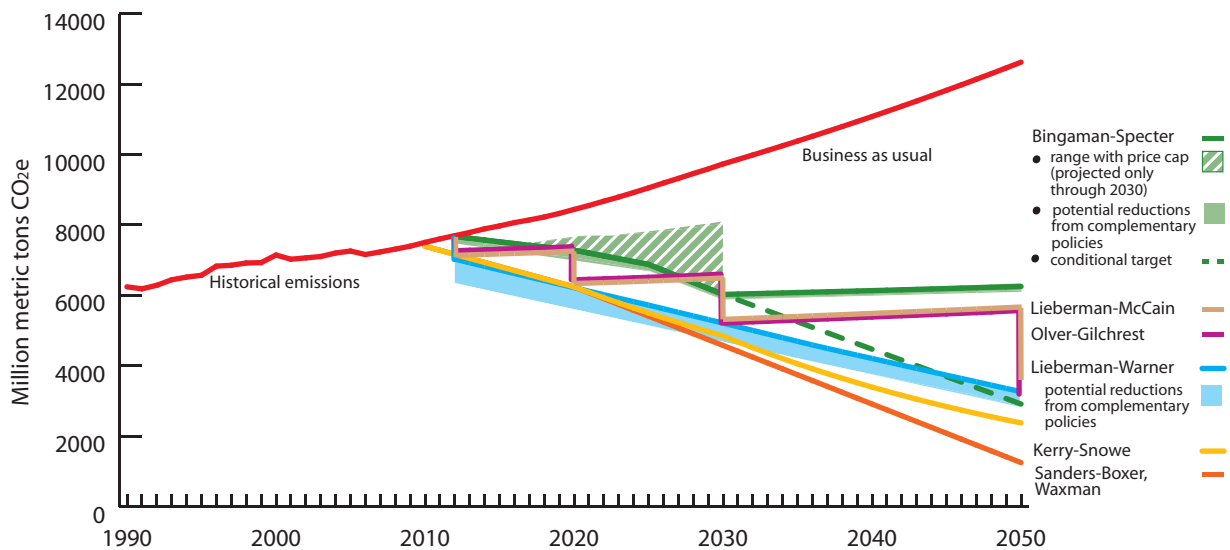
Map 1: States with mandatory climate emission targets⁹

Map 2: States with comprehensive climate plans¹⁰

Map 3: Cities in the U.S. Conference of Mayors' Climate Protection Agreement¹¹

After more than a decade of relative inaction, Congress is now actively considering roughly a dozen bipartisan climate change bills that would cap U.S. emissions through enforceable federal regulation (see Figure 2). Modeled on federal laws to reduce ordinary air pollution, most of these proposals would control costs by allowing companies to trade emission rights in financial markets. These ‘cap-and-trade’ programs would take effect around 2012 and would reduce U.S. emissions approximately 50 to 80% by 2050.

Figure 2: Comparison of Legislative Climate Change Targets in the 110th Congress, 1990-2050¹²



2. Negotiate new international agreements and partnerships that ensure timely but fair action by all major emitting nations.

Until recently, climate diplomacy has been stuck in a rut. Large, rapidly developing nations (such as Brazil, China, and India) have sought to lock in normative principles that place the burden of action on developed nations while shielding themselves from responsibility. The European Union and countries that are particularly vulnerable to climate change (primarily small island states) have pressed for industrialized nations to take on legally binding national emission targets. Consistently, at least one political branch of the U.S. government has rejected binding emission targets (as long as they apply to developed nations only) as economically unworkable and scientifically unjustified. Together, industrialized nations have failed to honor their rhetorical and treaty promises to reduce emissions. Many oil-producing countries, most notably Saudi Arabia, have sought to delay international action or receive compensation for any global shift away from petroleum.

In December 2007, the international community agreed to negotiate by the end of 2009 a new global climate agreement under the United Nations (see text box). Countries intend the agreement to start achieving ‘deep cuts’ in global emissions beginning no later than 2012. While the contributions of specific countries and types of countries is unresolved at present, the official roadmap for the negotiations calls on developed nations to consider “quantifiable emission limitations and reductions” and for developing nations to consider “nationally appropriate mitigation actions” consistent with “sustainable development, supported and enabled by technology, financing and capacity building” assistance. The pace of these international negotiations will intensify next year as the deadline approaches. When a new U.S. President takes office in January 2009, international pressure for American climate leadership will become intense. The new administration will have to hit the ground running.

Climate Diplomacy 101

Science. Created in 1988, the Intergovernmental Panel on Climate Change (IPCC) summarizes every five years the state of scientific knowledge for policy makers. Its principle findings are presented above and have been validated at various points by the U.S. National Academies of Science.

First Principles. Concluded at the 1992 Rio Earth Summit, the UN Framework Convention on Climate Change outlines basic normative principles for tackling climate change. Nations agreed to stabilize “greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous man-made interference with the climate system.” The Convention also established the principle of “common but differentiated responsibilities,” which assigns the burden of climate action among nations based on their historical contribution to the problem and their capacity to act. Industrialized countries agreed to ‘lead’ international efforts and, toward that end, they offered a non-binding political pledge to reduce their emissions to 1990 levels by the year 2000, which almost every nation failed to meet. In 1993, the United States became one of the first nations to ratify the Convention and shortly thereafter almost all UN member states followed suit.

Kyoto Protocol. Under the controversial 1997 agreement, industrialized nations accepted legally binding obligations to reduce their collective emissions 5% below 1990 levels by the period 2008–2012. The United States refused to ratify the Kyoto treaty, viewing it as an unwise constraint on the American economy and environmentally ineffective. Nevertheless, most other nations ratified the agreement and it entered into force in 2005. At present, only a few industrialized nations are on track to meet their Kyoto targets, however greenhouse gases have been lowered compared by BAU.

Post-2012. In December 2007, the international community agreed to negotiate by the end of 2009 a new global climate agreement for the period beyond 2012. Nations noted that ‘deep cuts’ in global emissions are necessary. Developed nations agreed to consider new “quantified emission limitation and reduction objectives” (i.e. national and sector-specific emission targets) whereas developing nations agreed to consider new (as yet undefined) “nationally appropriate mitigation actions.”

The next U.S. President should seize this opportunity for U.S. global leadership and set forth a compelling vision for global climate cooperation under the United Nations and elsewhere. Specifically, the new President should work with Congress to ensure bipartisan support for the following:

- **Linking American carbon markets with those in Europe and other industrialized nations to reduce costs and increase liquidity.** This linkage should be worked out directly by the transatlantic partners but done in a manner that feeds into and supports the larger global effort. Congress should give the President the authority to link U.S. carbon markets with other compatible markets at the time it enacts a national cap-and-trade program, rather than require ratification of a new international treaty for this purpose.

- **Speedy U.S. approval of any new international agreement(s) that ensures adequate and fair action by all leading emitting nations and major U.S. trade partners.** The United States should accept an *international* legal obligation to reduce its emissions if other major emitters commit to equitable emissions mitigation action. Developed nations should have comparable legal obligations to reduce emissions. Given their growing responsibility for the climate problem, however, rapidly developing nations (including but not limited to China and India) should be expected to make different but no less meaningful climate commitments. These could include commitments to improve automobile and power plant efficiency, as well as to reduce emissions from tropical deforestation. These agreements must create strong incentives for compliance and safeguards against unfair economic competition.

In addition, the next President should ask the Congress for ‘Climate Protection Authority,’ which would designate climate agreements as congressional-executive agreements rather than treaties and provide for a straight up-or-down vote in the Congress, just as is done for trade agreements. Congressional-executive agreements are approved by a simple majority of both houses of Congress; whereas treaties require approval from two-thirds of the Senate. As a matter of domestic and international law, the two types of international agreements are virtually interchangeable. Climate Protection Authority would help the President and Congress find common ground on climate change before a new UN climate agreement is concluded. It would also help U.S. negotiators bring home better climate agreements. With a clear path to securing U.S. participation, other nations would be more likely to make the concessions America requires.

3. Spur international cooperation to research and develop clean energy technologies.

Safeguarding the climate will require significant greenhouse gas reductions from almost all sectors of the global economy. In the United States, transportation and electricity generation are the two largest sources. In most poor or tropical nations, deforestation and other changes in land use are major causes. In emerging economies, like China, power generation, manufacturing, and transportation are the fastest growing emission sources. Solving the climate crisis will require nothing less than a fundamental transformation of the global economy and energy systems.

Given the numerous sources of emissions, addressing the climate crisis demands a portfolio of solutions; there is no silver bullet. Fortunately, we already have many options, such as more energy efficient cars and appliances, low emission power generation (geothermal, nuclear, wind, and solar), sustainable biofuels, and more.

However, existing technologies alone will not be enough. A new generation of clean, climate-friendly technologies will be needed to reduce emissions quickly and at low cost.

The United States must lead this technological revolution, but it cannot do it alone. Domestic government programs and international cooperation each must play a role in spurring this technological transformation, encouraging rapid adoption of available solutions and promoting research and development (R&D) of future technologies. Specifically, the United States should:

- Increase domestic energy R&D spending.** Both public and private R&D for low- and zero-carbon technologies have declined precipitously in the last two decades. Federal spending in this area fell 85% in real terms between 1978 and 2005, even as oil prices spiked to historic highs in the 21st Century (see Figure 3). The U.S. should increase energy R&D 5- to 10-fold, or up to \$15 to \$30 billion per year, commensurate with historical levels of funding for visionary endeavors such as the Apollo moon project (see Figure 4). In doing so, our government should partner with private industry to stimulate innovation and to promote rapid commercialization of new technologies.

Figure 3: Declining energy R&D investment by both public and private sectors¹³

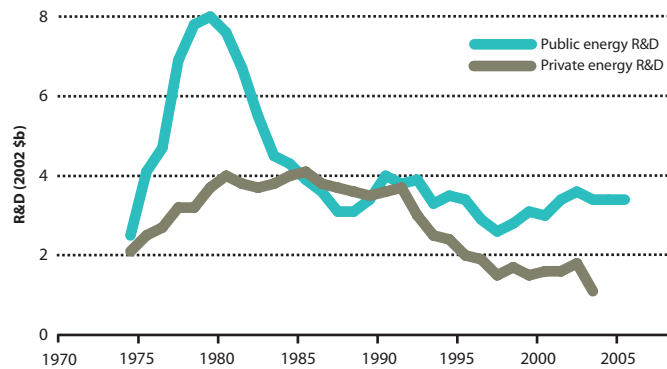
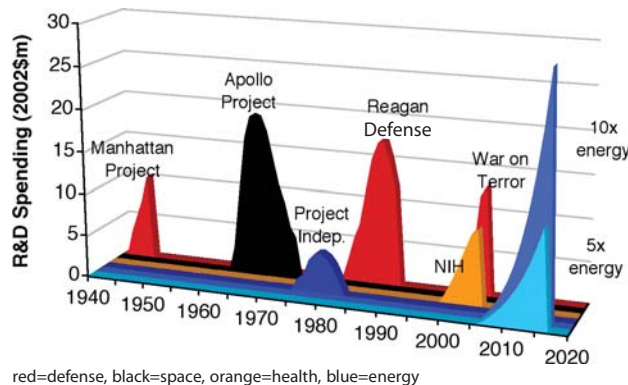


Figure 4: Major U.S. Public R&D programs¹⁴



- **Form international research partnerships.** Developing and testing ‘game changing’ technologies will require the resources and expertise of many advanced countries. In the spirit of the international space station and the International Thermonuclear Experimental Reactor (ITER, an international consortium of the United States and other major powers to develop a revolutionary fusion reactor), advanced industrialized countries should commit to jointly fund R&D for revolutionary climate-saving technologies, such as ‘carbon capture and storage’ for coal-fired power plants.
- **Create a Consultative Group on Clean Energy Research (CGCER).** The United States should press for the creation of CGCER, a new initiative to coordinate the development of low-cost clean energy technologies for the global poor. Modeled after the Consultative Group on International Agricultural Research (CGIAR), an alliance that includes the United Nations, national governments, and private foundations, which helps deliver modern agricultural techniques to poor nations, CGCER research programs would help poor nations leapfrog over climate-damaging technologies. Because technologies developed under the program would be owned collectively by the international community, they could be made available to poor nations and communities at affordable costs without patent infringement.
- **Promote energy efficiency.** The cheapest and cleanest energy is the energy that does not have to be generated. Through improvements in energy technology and infrastructure, energy efficiency investments can lower greenhouse gas emissions and save money. Economic studies demonstrate that investments in energy efficiency more than pay for themselves in many instances. A global race to adopt energy efficient technologies would create well-paid jobs in the United States, which is well-positioned to compete with other economies in this sector. If the world doubled the rate of global energy efficiency improvement to 2.5% annually, it would avoid emissions equivalent to those from 2,000 power plants by 2030. To promote energy efficiency, the United States should advocate for the development of international energy efficiency programs and standards, supported by technical assistance for poor nations. As U.S. energy efficiency standards are not up to Japanese and European levels, adoption of high standards in many cases would increase U.S. economic growth.

4. Offer economic incentives to developing nations to speed their adoption of these clean technologies.

Absent new policy frameworks, economic growth in China, India, and other rapidly developing nations will increase global CO₂ emissions 60% by 2030. In China alone, as many as 500 million people will join the middle class, gaining access to electricity and motorized transportation, in the next 20 years. China now builds a climate-damaging coal-fired power plant approximately every week. The International Energy Agency estimates that globally the energy sector will require over \$20 trillion in cumulative investments between 2005 and 2030 to meet economic demand and human needs. More than half of this investment, or about \$400 billion per year, will be in developing countries. Getting rapidly developing countries to grow cleanly, therefore, is absolutely essential to climate stabilization. Unfortunately, climate-friendly technologies are often more expensive than older dirtier ones. Because poverty alleviation and economic growth are the top priorities for developing nations, these countries will choose clean growth only if more benign technologies are affordable.

Given our role in the world, our capacity to make a difference, and our historical responsibility for climate change, the next President should commit the United States to work with other industrialized nations to help make clean technologies affordable for the developing world. According to the World Bank, energy investments in developing nations would need to be augmented by less than 10% (\$34 billion per year) to support rapid adoption of technologically feasible but financially uncompetitive climate-friendly technologies. The Stern Review, released by the U.K. government in 2006, also estimates that only an incremental \$20 to \$30 billion per year is required to ensure clean growth in poorer countries. Since increased investments at this level would need to be phased in, a major first step would be to double global energy-related foreign assistance to around \$15 billion per year. With an equitable division of contributions among industrialized nations, the United States' share would be an additional \$2.5 billion per year. Recently, the Bush administration, joined by Japan and the United Kingdom, proposed the creation of a new

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multibillion-dollar global technology fund to partially offset the cost of clean energy solutions in fast-growing developing nations. This fund may be managed by the World Bank. While important matters need to be worked out regarding the contributions of other donor nations, eligibility criteria, and fund management, the core idea of a global partnership to make climate-friendly technologies affordable for developing nations makes good sense.

While some increases in direct government-to-government foreign aid would be appropriate, much of the new U.S. contribution could come from private financial markets under a well-designed cap-and-trade program. Specifically, once the United States enacts domestic emission limits, regulated companies should receive credit for investing in lower-cost emission abatement projects and programs in the developing world. The United States and other nations should grant preferential access to potentially profitable carbon markets to developing nations that are taking appropriate domestic action. Market participation by developing nations would lower emissions in those countries, reduce costs for businesses in industrialized countries, and minimize unintended competitiveness impacts across major economies.

5. Protect U.S. security and other national interests by helping vulnerable developing nations adapt to the consequences of climate change.

We have no choice but to adapt to climate change, even as we act simultaneously to reduce emissions. Regardless of what we do now, climate change will continue for decades. Helping the American people and economy adapt to it will be no small task. Local, state, and federal governments will need to work together to protect cities, rural communities, businesses, and the natural environment.

The greater challenge, however, will be minimizing on a global scale the humanitarian crises, political

instability, and international security threats to the United States caused by the adverse impacts of climate change beyond our borders. As noted earlier, rising sea levels, increased severe weather, threats to agricultural production, and enhanced health risks will create significant risks of regional or global upheavals. To minimize these security threats, it is in our interest to help vulnerable nations adapt.

The next President should propose a new global compact to help poor nations plan for and manage the impacts of climate change. Under this compact, which could be negotiated as part of a new UN climate agreement, developing nations would agree to make adapting to climate change a top domestic priority, and in response, developed nations would agree to strengthen global scientific programs that better assess national and regional climate vulnerability. These programs would create a reliable ‘early warning’ system to predict and manage climate-related famine, drought, migration, social unrest, and other risks. In addition, as part of this climate adaptation compact, developed countries would provide substantially higher levels of technical and financial assistance to the most vulnerable nations to help them implement comprehensive national climate adaptation plans that enhance the resilience of local societies and economies to climate change.

Creating early warning systems and implementing national adaptation plans for poor countries will require significant new resources. The costs are difficult to estimate because nations have yet to agree on what needs to be done to successfully adapt to climate change or how financial burdens should be allocated among private polluters, poor nations, and industrialized countries. A portion of the costs, of course, should be met by integrating climate adaptation into existing bilateral and multilateral anti-poverty programs. Even so, substantial new resources will be needed. These resources could be mobilized by increasing official development assistance, taxing dirty energy, and/or giving climate-polluting companies regulatory credit for investing in adaptation programs in developing nations. The UN Development Program, World Bank, and other international organizations will have important roles to play in integrating any new adaptation assistance with existing multilateral development programs. Ultimately, however, each nation must take responsibility for developing and implementing climate-conscious economic development plans that are appropriately tailored to national circumstances.

U.S. Action is Needed Now

Climate change is a critical global problem—the challenge now is to manage the unavoidable and avoid the unmanageable. The costs of inaction greatly exceed the costs of action. The threats from climate change to our people, our economy, our security, and our humanitarian interests abroad justify immediate action.

Managing the climate crisis requires new forms of international cooperation to both reduce global emissions and assist vulnerable societies to adapt. The United States must lead this global effort on both fronts by reducing sharply its emissions at home, encouraging bold mitigation policies by other nations, spurring technological innovation at home and abroad, speeding adoption of clean energy technologies by rapidly developing nations, and assisting poor nations to adapt. These efforts will require political resolve, new international agreements, innovative policy mechanisms, stronger global institutions (including enhanced roles for the United Nations and World Bank), and additional financial resources. The United States can protect its national interests and help the world solve the climate crisis, but we must act now and do so in concert with the international community.

References

- ¹ Pew Center on Global Climate Change. *Regional Impacts of Climate Change* (Arlington, VA: Pew Center on Global Climate Change, 2007).
- ² Global Leadership for Climate Action. *Framework for a Post-2012 Agreement on Climate Change* (Washington, DC: Global Leadership for Climate Action, 2007).
- ³ International Energy Agency. *International Energy Outlook 2007* (Paris: International Energy Agency, 2007).
- ⁴ Scientific Expert Group on Climate Change (SEG). *Confronting Climate Change: Avoiding the Unmanageable and Managing the Unavoidable* (Research Triangle Park, NC: Sigma Xi and Washington, DC: United Nations Foundation, 2007).
- ⁵ Military Advisory Board. *National Security and the Threat of Climate Change* (Alexandria, VA: The CNA Corporation, 2007).
- ⁶ Zogby International/National Wildlife Federation Survey, August 2006.
- ⁷ Chicago Council on World Affairs poll, July 2006.
- ⁸ UN Foundation/Better World Campaign poll, November 2007.
- ⁹ Pew Center on Global Climate Change. *Learning from State Action on Climate Change: December 2007 Update* (Arlington, VA: Pew Center on Global Climate Change, 2007).
- ¹⁰ Ibid
- ¹¹ U.S. Conference of Mayors. *U.S. Conference of Mayors Climate Protection Agreement* (Washington, DC: U.S. Conference of Mayors, 2005). <http://usmayors.org/climateprotection/ClimateChange.asp>
- ¹² World Resources Institute. *Comparison of Legislative Climate Change Targets in the 110th Congress, 1990 – 2050*. (Washington, DC: World Resources Institute, December 7, 2007). For a full discussion of underlying methodology, assumptions, and references please see <http://www.wri.org/usclimatetargets>.
- ¹³ Kammen, Daniel M. and Gregory F. Nemet. *U.S. Energy R&D: Declining Investment, Increasing Need, and the Feasibility of Expansion* (Berkeley, CA: Energy and Resources Group, University of California, September 26, 2006).
- ¹⁴ R. M. Wolfe. *Research and Development in Industry*. (National Science Foundation, Division of Science Resources Statistics, 2004); M. Jefferson, et al. *Energy Technologies for the 21st Century* (World Energy Council, 2001); R. L. Meeks. *Federal R&D Funding by Budget Function: Fiscal Years 2003-05, NSF 05-303* (National Science Foundation, Division of Science Resources Statistics, 2004); R. Margolis, and D. M. Kammen. *Underinvestment: The energy technology and R&D policy challenge*. *Science*, (1999): 690 – 692.
- Photos from the United Nations Photo Library.



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