

Chapter 4: NATIONAL SECURITY

BACKGROUND

- The United States currently imports 66 percent of its petroleum, this is more than twice the import level at the time of the first Arab oil embargo in 1973-74. [Sixteen percent of our imports come from the Persian Gulf; nearly 45 percent of our imports come from members of the Organization of Petroleum Exporting Countries \(OPEC\).](#)
- Due to oil importing, the United States has transferred \$1 trillion to petroleum-producing nations over the past five years, including nations that support terrorist organizations.
- In 2003, the United States spent an estimated \$26.7 billion protecting Persian Gulf shipping lanes.¹ By [one estimate](#), U.S. costs for protecting Middle Eastern oil amount to \$4-5 per barrel.
- Our thirst for foreign oil subverts our aspiration to see democracy spread around the world. [As the Aspen Institute has noted](#), “Many countries that are rich in energy resources are prone to corruption, are autocratic and repress political dissent in the name of stability. If the United States associates with these countries to obtain energy supplies, it risks alienating the oppressed population and undermining its credibility on other foreign policy goals, such as the promotion of democracy and human rights.”
- In April 2007, the [Center for Naval Analyses](#) issued a report in which 11 retired admirals, generals and other military officers established the climate-security connection. They concluded that “climate change can act as a threat multiplier for instability in some of the most volatile regions of the world and it presents significant national security challenges for the United States...The increasing risks from climate change should be addressed now because they will almost certainly get worse if we delay.”²
- In November 2007, the [Center for Strategic and International Studies and the Center for a New American Security](#)³ issued a scenarios analysis that concluded, “Left unaddressed, climate change may come to represent as great or a greater foreign policy and national security challenge” than the wars in Iraq and Afghanistan, and many other challenges facing America in foreign and domestic affairs.⁴
- In June 2008, the National Intelligence Council (NIC) confirmed that climate change is a threat to national security. In [briefing Congress on the classified findings](#), the chair of the Council, Dr. Tom Fingar, said, “Logic suggests the conditions exacerbated by climate change would increase the pool of potential recruits for terrorism.”
- Despite these determinations that global warming is a threat to national security, the United States spends only \$1 on climate security for every \$88 spent on military security. We spend 50 times as much money arming the rest of the world as we do helping it fight climate change.⁵
- The climate impacts expected to create national security threats have begun. There are already water shortages in some volatile areas of the world, such as eastern Africa and the Middle East. Additionally, scientists estimate that for every 1.8°C increase in global temperature, crop productivity will drop 10 percent,⁶ exacerbating global tensions based on food shortages.
- [Al Qaeda leaders have urged attacks](#) on the oil infrastructure in nations from which the United States obtains petroleum imports.⁷ In a videotape released in December 2005, al Qaeda leader Ayman al-Zawahiri encouraged followers to attack America’s energy infrastructure. That infrastructure serves not only oil, but all of America’s energy resources. It includes: 10,400 power plants; 95,000 miles of crude oil pipeline; 4,000 offshore oil platforms; 160,000 miles of transmission lines; nuclear power plants; unsecured nuclear waste; rail lines that transport coal; oil refineries and LNG terminals.

FRAMEWORK FOR FEDERAL POLICY

- United States defense strategy should emphasize conflict prevention by drawing down the nation's dependence on foreign oil and investing in international efforts to mitigate and adapt to global climate change.
- The United States should help build the capacity of developing countries and regions to respond to the effects of climate change and to minimize crises and instability.
- The vulnerability of America's brittle energy infrastructure should help shape national energy strategy. For example, distributed electric generation is less vulnerable to sabotage than central-station power plants and transmission lines.
- The United States must redouble its efforts to prevent the availability and proliferation of nuclear materials. Terrorists do not need to know how to make traditional nuclear weapons in order to use "dirty bombs." U.S. technology transfer programs, as well as international development assistance, should give priority to non-nuclear renewable energy technologies to meet the power needs of developing nations.

EXECUTIVE ACTIONS

1. Adopt the recommendations of the [Center for Naval Analyses](#) study⁸ to address the **security implications of climate change**. These include: a) full integration of the national security implications of climate change into security and defense strategies; b) a stronger commitment to stabilize climate change at levels that avoid significant disruption to global stability; c) a commitment to global partnerships that helps less-developed nations build the capacity to better manage climate impacts; d) improvements in the Department of Defense's (DOD) combat power through energy efficiency; and, e) an assessment by the DOD of climate impacts on U.S. military installations worldwide.
2. Assign the National Energy and Climate Council to develop a strategy to **reduce domestic oil consumption** 50 percent by 2020, and completely eliminate oil imports by mid century. The U.S. Department of Energy sponsored a [study](#) in 2005 to discover what might happen when world oil production peaks, a milestone that [some say has already occurred](#). The authors concluded, "The peaking of world oil production presents the U.S. and the world with an unprecedented risk management problem. As peaking is approached, liquid fuel prices and price volatility will increase dramatically, and, without timely mitigation, the economic, social, and political costs will be unprecedented." In 2007, the [Government Accountability Office](#) recommended that the Secretary of Energy "work with other agencies to establish a strategy to coordinate agency efforts to reduce uncertainty about the likely timing of (peak oil) and to advise Congress on how to best mitigate the consequences."
3. Direct the NIC to continue **monitoring and assessing the national security implications of climate change** as climate science matures and climate impacts continue to manifest worldwide. The NIC should update its assessments each time a major new scientific study is released on climate change, including the reports of the Intergovernmental Panel on Climate Change.
4. **Support the new Army doctrine that nation building and safeguarding populations in fragile states, including those affected by energy conflicts and climate change, are likely to become more important than conventional war-fighting in coming years.** The new doctrine, which will drive Army training and resource allocation in coming years, was issued in a new "Stability Operations Field Manual" in October 2008. The President should

direct all branches of the military to adopt this doctrine, stress the importance of including the eventualities of resource conflict and climate disruption in anticipating where stability operations should be undertaken and direct agencies involved in the federal Climate Change Science Program to assist the military in determining the likely locations of climate-related instability.

5. **Propose the creation of an international Organization of Petroleum Importing Countries (OPIC)** to collaborate on energy policies, best practices, technology transfer and subsidy reform to reduce global dependence on oil. As a buffer against future oil shocks, OPIC members should increase the global network of strategic petroleum reserves.
6. Support efforts by **the DOD to reduce its dependence on oil** and other finite sources of energy. The DOD is [the single largest consumer of fossil energy in the world](#), making national defense vulnerable to fuel shortages and energy price spikes. In addition, supplying fossil fuels to military units in the field is costly and dangerous. Military purchase contracts should be awarded partly based on projected fully-burdened fuel costs and on lifecycle greenhouse gas performance of proposed weapons platforms. (See the Federal Energy and Carbon Management chapter and [“More Fight, Less Fuel”](#)¹⁰ – the report of the Defense Science Board Task Force – for more information.)
7. **Ensure that the protection of oil shipments is a collaborative responsibility.** The President should direct the DOD to assess whether the cost of protecting oil supplies from the Middle East is being fairly shared among oil-importing nations. If not, the President should seek greater international burden-sharing.
8. In light of al Qaeda’s threats against U.S. domestic energy systems, direct the Secretary of Energy to **make security against attack and disruption a key factor in homeland security and in prioritizing the nation’s investments in fuels and infrastructure.**
9. **Direct DOD to work with the U.S. Department of Energy, the Agency for International Development and other relevant federal agencies to determine how energy efficiency and renewable energy technologies can be better integrated into defense planning.** In developing nations where little or no electric transmission infrastructure exists, distributed technologies such as wind and solar power are the least expensive ways to provide power to the population. Renewable energy resources will help developing nations avoid resource conflicts and price/supply instabilities, and according to recent research by the United Nations, investments in renewables produce more jobs than comparable investments in fossil fuels.
10. Direct the National Security Council to assess how **U.S. investments can better simultaneously address climate mitigation and adaptation and international security** issues.
11. **Shift humanitarian aid from focusing on disaster response to disaster prevention.** Much of the world’s population lives in coastal areas vulnerable to extreme weather and inundation. As the United States increases its emphasis on preserving and restoring natural systems that protect vulnerable domestic areas from flooding, storm surges and other weather-related events, it should work closely with the United Nations Environment Programme to share best practices with developing nations.
12. **Direct the Secretary of Energy to develop and regularly update an evaluation of energy resources and technologies** based on a performance standard that includes their ability to reduce the nation’s greenhouse gas emissions while simultaneously improving national security, reducing vulnerability to domestic terrorism or sabotage, securing stable, long-term energy supplies and reducing the nation’s import of fossil fuels. Direct the Secretary to provide these evaluations to the White House and Congress to assist them in setting the nation’s energy priorities.

- 13. Restore funding for research on the societal impacts of climate change in the developing world.** The President should urge Congress to restore full funding to the [Center for Capacity Building](#), a program that studies the societal impact of global warming in the developing world. In 2008, the program was cut by the National Center for Atmospheric Research because of a lack of funding. It now has been transferred to the University of Colorado-Boulder, supported by a foundation grant.
- 14. Increase funding for climate related international aid** to defuse resource conflicts before they start. In Somalia in the 1990s, drought led to crop failure, which led to the failure of the state.⁹ Improved access to water and the use of more drought-tolerant crops are adaptation measures that can prevent similar instabilities.

¹ Doug Koplow, "Memorandum to the National Commission on Energy Policy," July 30, 2004. *Koplow is founder of Earth Track, a private international organization dedicated to "comprehensive and accurate information on government interventions in energy markets."*

² CNA Corporation, [National Security and the Threat of Climate Change](#), Alexandria, VA: CNA Corporation, 2007, September 17, 2008, <http://securityandclimate.cna.org>.

³ See 103-109 for a summary of the security implications of climate change.

⁴ The full passage: "In the course of writing this study we found inescapable, overriding conclusions. In the coming decade the United States faces an ominous set of challenges for this and the next generation of foreign policy and national security practitioners. These include reversing the decline in America's global standing, rebuilding the nation's armed forces, finding a responsible way out from Iraq while maintaining American influence in the wider region, persevering in Afghanistan, working toward greater energy security, re-conceptualizing the struggle against violent extremists, restoring public trust in all manner of government functions, preparing to cope with either naturally occurring or manmade pathogens, and quelling the fear that threatens to cripple our foreign policy—just to name a few. Regrettably, to this already daunting list we absolutely must add dealing responsibly with global climate change. Our group found that, left unaddressed, climate change may come to represent as great or a greater foreign policy and national security challenge than any problem from the preceding list. And, almost certainly, overarching global climate change will complicate many of these other issues. This report makes clear that we are already living in an age of consequences when it comes to climate change and its impact on national security, both broadly and narrowly defined...While more work clearly needs to be done on the overall science of carbon loading and its impact on climate change, we already know enough to appreciate that the cascading consequences of unchecked climate change are to include a range of security problems that will have dire global consequences."

⁵ Miriam Pemberton, "Military vs. Climate Security," [Foreign Policy in Focus](#), January 2008, <http://www.ips-dc.org/getfile.php?id=131> (accessed October 1, 2008).

⁶ Lester R. Brown, 2006, "World Grain Stocks Fall to 57 Days of Consumption," Earth Policy Institute, <http://www.earth-policy.org/Indicators/Grain/2006.htm>.

⁷ Osama Bin Laden has been quoted as saying his strategy to defeat the United States includes drawing America into international conflicts and "bleeding" the United States into bankruptcy. According to an [analysis by the Congressional Research Service](#), "Bin Laden's statements reveal sophisticated consideration of the economic and military vulnerabilities of the United States and its allies, particularly with regard to the role of Middle Eastern oil as 'the basis of industry' in the global economy."

⁸ See pp. 46-48 for a full description of CNA's recommendations.

⁹ Joshua Busby and Neil Purvis, "The Security Implications of Climate Change for the UN system."

¹⁰ Department of Defense, Defense Science Board. 2001. Task Force on Improving Fuel Efficiency of Weapons Platforms. More Capable Warfighting Through Reduced Fuel Burden. January 2001