## Senate Committee on Foreign Relations Senator Richard G. Lugar Opening Statement for Hearing on National Security Implications of Climate Change May 9, 2007

I join the Chairman in welcoming our distinguished panel. During the last Congress, the Foreign Relations Committee held a series of eight hearings addressing the geopolitical consequences of energy imbalances and U.S. reliance on energy imports. In these hearings we focused on quantifying the costs of U.S. energy dependence and examining options for improving our energy security. We also explored in detail how energy is shaping our relationships with other nations, including India, China, Russia, Latin America, and the Persian Gulf states.

During these hearings, I identified six fundamental threats to U.S. national security associated with our overdependence on imported oil and other fossil fuels. Each of these six threats is becoming more acute as time passes. Any of them could be a source of catastrophe for the United States and the world.

First, oil supplies are vulnerable to natural disasters, wars, and terrorist attacks that can disrupt the lifeblood of the international economy. Second, as large industrializing nations such as China and India seek new energy supplies, oil and natural gas will become more expensive. In the long run we will face the prospect that the world's supply of oil may not be abundant and accessible enough to support continued economic growth in both the industrialized West and in large rapidly growing economies. As we approach the point where the world's oil-hungry economies are competing for insufficient supplies of energy, oil will become an even stronger magnet for conflict. Third, adversarial regimes are using energy supplies as leverage against their neighbors. We are used to thinking in terms of conventional warfare between nations, but energy is becoming a weapon of choice for those who possess it. Nations experiencing a cutoff of energy supplies, or even the threat of a cutoff, may become desperate, increasing the chances of armed conflict, terrorism, and economic collapse. Fourth, the revenues flowing to authoritarian regimes often increase corruption in those countries and allow them to insulate themselves from international pressure and the democratic aspirations of their own peoples. We are transferring hundreds of billions of dollars each year to some of the least accountable regimes in the world. Fifth, much of the developing world is being hit hard by rising energy costs, which often cancel the benefits of our foreign assistance. Without a diversification of energy supplies that emphasizes environmentally friendly energy sources that are abundant in most developing countries, the national incomes of energy poor nations will remain depressed, with negative consequences for stability, development, disease eradication, and terrorism.

The sixth threat is the risk of climate change, made worse by inefficient use of non-renewable energy. Our scientific understanding of climate change has advanced significantly. We have better computer models, more measurements and more evidence -- from the shrinking polar caps to expanding tropical disease zones for plants and humans -- that the problem is real and is exacerbated by man-made emissions of greenhouse gases. In the long run this could bring drought, famine, disease, and mass migration, all of which could lead to conflict.

Given these potential outcomes, the study by the Military Advisory Board is particularly relevant and timely. To adequately prepare our security and diplomatic forces for future threats, we need to understand how climate change might be a source of war and instability. We also must ensure that our military infrastructure can adapt to new circumstances, a component of which is developing secure alternative sources of fuel.

The American military is at the forefront of those working to develop energy resources that do not depend on the good will of unpredictable and sometimes hostile regimes from volatile regions. As our 2006

hearings underscored, at just \$60 a barrel, the annual oil import cost to the U.S. economy is well over \$300 billion. This revenue stream emboldens oil-rich governments and enables them to entrench corruption and authoritarianism, fund anti-Western demagogic appeals, and support terrorism. As global oil demand increases and the world becomes more reliant on reserves concentrated in unstable regions, the likelihood of conflict over energy supplies will dramatically increase, and energy exporting countries will have more opportunity to use their reserves as leverage against energy poor nations.

America is rich in coal, as are large developing nations like China, India, and Ukraine. Coal remains a big part of the energy plans of many countries. The United States and the world are unlikely to be able to deal with climate change without progress on clean coal technologies. The Pentagon is experimenting with coal-to-gas and coal-to-liquid technologies to fuel America's military. As the Pentagon moves to expand the use of coal fuels, it should simultaneously work to develop cost-effective carbon sequestration methods and cooperate with other agencies and entities engaged in this endeavor.

I have urged the Bush Administration and my colleagues in Congress to return to an international leadership role on the issue of climate change. Along with Senator Biden, I have co-sponsored S. Res. 30, a resolution that advocates U.S. participation in multi-lateral forums that attempt to achieve global solutions to the problem of greenhouse gases. The resolution is intended to find common ground in a debate that, too often, has been divisive and politicized.

S. Res. 30 is not an endorsement of the Kyoto Protocol, nor does it support a negotiated outcome that is not in the national security and economic interests of the United States. Supporting the resolution does not require one to suspend reasonable skepticism regarding the pace, severity, or causes of climate change. It does not advocate a one-size fits all policy. It acknowledges that greenhouse gas emissions of developing countries will soon surpass those of developed countries and that a successful agreement will only occur if both developed and developing nations are involved.

Even those who are skeptical of prevailing climate change science should recognize that absenting ourselves from climate change discussions is counterproductive. Many nations and businesses across the globe are moving to respond to climate change in innovative ways. How the United States participates in these efforts will profoundly affect our diplomatic standing, our economic potential, and our national security.

We also should recognize that many of the most important steps that could be taken by the United States to address climate change would yield benefits for *other* U.S. priorities, especially, bolstering energy security, generating export markets for high technology industries, strengthening our rural economy, and improving air quality.

Safeguarding the environment should not be viewed as a zero-sum decision, in which limited resources must be diverted away from programs that more directly impact our immediate well-being. To the contrary, the environment and energy security are interlinked priorities, the advancement of which increases the welfare of all Americans.

I thank Senator Biden for holding this hearing and look forward to the testimony of our panel.

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