Hon. Eileen Claussen, President, Center for Climate and Energy Solutions (C2ES); President, Strategies for the Global Environment

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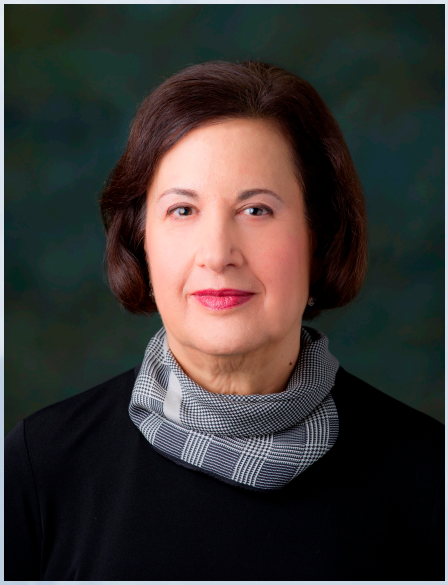

What event most shaped the course of the global environment?

Ms. CLAUSSEN: The present course of our global environment can be traced to the confluence of factors that spawned the industrial revolution. A steady progression of technological advances, coupled with the emergence of the free enterprise system, has bestowed enormous benefits on a growing global population. Yet many of society's material advances have come at the expense of the environment, from the accelerating loss of biodiversity to the disruption of our global climate.

Much of the growth achieved since the start of the industrial revolution has been powered by fossil fuels. From a climate perspective, the carbon dioxide released when these fuels are burned has been steadily accumulating in our atmosphere, driving up global temperatures, and setting in motion changes that we are seeing now in the rise of sea levels, the migration of species, and the increasing frequency and intensity of extreme weather events.

But just as we can see how we are changing the climate, we can also see how we can counter a global environmental threat. The 1987 Montreal Protocol on Substances that Deplete the Ozone Layer is a key example of translating a dire warning from the scientific community—that continued use of chlorofluorocarbons (CFCs) as refrigerants and aerosol propellants would threaten the earth's protective ozone layer—into an effective global response.

The treaty is the first in the United Nations' system to have been ratified by all states (currently 197 with South Sudan). And it is working. With the global phase-out of CFCs and other ozone-depleting substances, the ozone layer is expected to fully recover by the middle of this century.

In addition to harming the ozone layer, CFCs are powerful greenhouse gases, so the Montreal Protocol has also made a significant, indirect contribution to reducing the risks of global climate change. The United Nations Environment Programme estimates that the phase-out of CFCs has reduced greenhouse gas emissions by 11 billion tons of CO_2 equivalent.

And the Montreal Protocol is still being put to work. China has just agreed to cooperate with the United States and most other nations in phasing down use of hydrofluorocarbons (HFCs), a potent family of greenhouse gases, under the Montreal Protocol. HFCs, which are used in refrigeration and air conditioning, currently contribute about 1 percent of total global warming, but with expanded use worldwide, they could account for as much as 20 percent by 2050. With China's cooperation, the prospects for adding a new chapter in climate protection under the Montreal Protocol have considerably improved.

If we are to meet environmental challenges on a global scale, what one policy initiative do you think would have the most significant impact?

Ms. CLAUSSEN: The policy approach that can most effectively and most efficiently reduce the greenhouse gas emissions causing global climate change is to put a price on carbon.

The full costs of fossil fuel use are not currently reflected in the prices businesses and consumers pay. Extreme weather—growing in frequency and intensity as a result of climate change—is costing the economy billions in business and personal losses. Economic damages from weather-related disasters climbed to near record levels in 2012, with 900 major events worldwide causing an estimated $160 billion in losses. In coming years, the public and private sectors will spend billions more to make our critical infrastructure—transportation, power distribution, water supplies—more resilient to the impacts of climate change.

A market-based approach that puts a price on carbon is efficient and effective because it spurs investment in innovative technologies and gives businesses flexibility to cut emissions at the lowest possible cost.

One form of carbon pricing is cap-and-trade—setting a cap on emissions and allowing emitters to buy and sell emission allowances. The European Union has led the way with its EU-wide emissions trading system. California now operates the world's second largest carbon trading system, and a growing number of other jurisdictions, including several provinces in China and the cities of Rio de Janeiro and Sao Paulo, are now developing or implementing similar programs. Over time, these individual efforts can coalesce into a linked global carbon market.

Other jurisdictions are pricing carbon through carbon taxes, which don't provide as much environmental certainty as cap-and-trade, but are also very efficient from an economic standpoint. A well-designed carbon tax can benefit the economy as a whole by taxing something harmful, carbon emissions, and using some of the revenue to lower taxes on things we want, such as jobs and investment.

Given that the public and governmental debates on environmental issues are mired in indecisiveness, what do you think is the most constructive path to achieving active working relationships with all members of society?

MS. CLAUSSEN: Addressing the challenges of a changing climate will require action at all levels—from individuals, business, and governments. In all three cases, the key is to understand the risks, the opportunities, and the solutions.

For individuals, increasingly intense and frequent extreme weather events and rising sea level can endanger personal property, livelihoods, and lives. One person alone may feel powerless to affect global climate change, but individuals can make a difference every day in the choices they make at home and at work. Simple steps, such as installing a programmable thermostat, taking fewer car trips, and buying products with the Energy Star or WaterSense label, can save energy, which reduces carbon emissions. Being a smart energy consumer is also an opportunity to save money. Individuals can also support and invest in companies that are leading the way in providing low-carbon solutions.

Businesses also face increasing risks from extreme weather, which can disrupt supply and distribution chains and power supplies, increase expenses, and damage facilities. For example, extensive flooding in Thailand in 2011 caused up to $20 billion in losses for automotive and electronics companies. Some companies are taking steps to address these risks through strategic planning, investing in infrastructure, and diversifying the supply chain, although past experience isn't necessarily a good predictor of future risk given a rapidly changing climate. Most importantly, companies have a key role to play in solutions to climate change by increasing energy efficiency, reducing greenhouse gas emissions, and developing and launching low-carbon technologies. Innovation in low-carbon technologies not only will protect the climate, but also will contribute to our energy security and national security, and drive U.S. competitiveness and economic growth. With world energy consumption expected to grow by 40 percent in the next two decades alone, low-carbon innovation is a growth opportunity that is good for a company's bottom line, and for the climate.

Although individuals and businesses can take meaningful action, governments must set the goals and provide the incentives needed to successfully transition to a low-carbon economy. At the national level, market-based policies can drive demand for clean energy while allowing the private sector the flexibility to choose the technologies and practices that meet it most cost-effectively. Additional policies, such as research and development support, are needed to advance critical technologies such as advanced biofuels, batteries that can store more energy for longer times, and carbon capture and storage. At the global level, governments are now working toward a 2015 deadline for a new U.N. climate agreement. With this new round, they have the opportunity to construct a more practical and durable international framework—one that is unlikely to deliver to a quick, sweeping solution but hopefully will encourage and facilitate progressively stronger national efforts.

BIOGRAPHY

Eileen Claussen is the president of the Center for Climate and Energy Solutions and Strategies for the Global Environment. Ms. Claussen is the former assistant secretary of state for oceans and international environmental and scientific affairs.

Prior to joining the Department of State, Ms. Claussen served for three years as a special assistant to the president and senior director for global environmental affairs at the National Security Council. She has also served as chairman of the United Nations Multilateral Montreal Protocol Fund.

Ms. Claussen was director of atmospheric programs at the U.S. Environmental Protection Agency, where she was responsible for activities related to the depletion of the ozone layer; Title IV of the Clean Air Act; and the EPA's energy efficiency programs, including the Green Lights program and the Energy Star program.

Ms. Claussen is a member of the Council on Foreign Relations, the Ecomagination Advisory Board, The National Petroleum Council, the Singapore International Advisory Committee, and the U.S. Commodity Future Trading Commission's Advisory Committee. She received an Honorary Doctor of Science degree from Loughborough University. She is the recipient of the Department of State's Career Achievement Award and the Distinguished Executive Award for Sustained Extraordinary Accomplishment. She also served as the Timothy Atkeson scholar in residence at Yale University.