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Kerry's Clarion Call on Climate Change

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Last month, the day before the start of the fourth annual U.S. - India Strategic Dialogue in New Delhi, Secretary of State John Kerry delivered a speech on the global challenges facing the United States and India in the 21st century. His principal focus was on a subject he has long championed -- in his words "the irreversible climate change that is speeding toward us, crying out for a global solution." Only days before his arrival, the northern Indian state of Uttarakhand experienced devastating floods, which led to the death or disappearance of over 5,500 people. Sadly, the flood was not an isolated incident – it shone a bright light on the fact that India is projected to experience severe repercussions from climate change (see accompanying article), when compared to countries with equal or greater emissions of carbon dioxide.

Kerry called attention to India as one of the most severely affected nations. With the floods in Uttarakhand in mind he said: "in many ways, in many places, Mother Nature is telling us to heed some warnings." He also acknowledged "that India's paramount commitment to development and eradicating poverty is essential." But, he said, "we have to recognize that a collective failure to meet our collective climate challenge would inhibit all countries' dreams of growth and development." He then made the case that the U.S. and India (in the course of 20+ official dialogues, including the Energy Dialogue and its now six working groups) stand on firm ground to collaborate on advancing clean energy and reducing carbon emissions.

Enter the SGWG

The latest of the U.S. – India energy working groups to be established is the Sustainable Growth Working Group, or SGWG. In their joint statement issued at the conclusion of the Strategic Dialogue, Kerry and his counterpart, External Affairs Minister Salman Khurshid, called attention to the creation of the SGWG, the growth of U.S. investment in India's energy sector, and additional efforts aimed at developing smart grid and off-grid technologies, energy efficient buildings, solar power and efficient air conditioning and space cooling. That is a very big and ambitious agenda but, in Kerry's words, "If anyone can succeed at this, it is us."

Climate Change and Global Warnings

South Asia stands to face extreme consequences due to climate change in the coming century. A recent <u>World Bank Report</u>, *Turn Down the Heat*, warns that increased global warming will impact food security, spread of disease, and economic development.

With an extensive coastline and intricate river system, India will be impacted mainly by climate change's destabilization of weather patterns. Already, rainfall during monsoon season has on average decreased in the past 50 years, causing droughts. At the same time, periods of heavy, erratic rainfall have increased, causing floods. Groundwater supplies, glaciers, and consistent river flows will all be impacted by changing weather patterns and will cause further food and water insecurity.

India will also see a significant rise of the sea level on its border due to its geographical location, close to the equator. In particular, Mumbai and Kolkata, two major economic centers, are projected to lose hundreds of millions of dollars in damages in the coming decades.

India is also on track for an increased strain on energy and electricity. India felt the strain last summer when the nation set the record for the largest blackout in history (and the 2nd largest the next day). A convergence of factors including an extreme heat wave, millions of air conditioner units turned on to avert the heat, irrigation pumps running 24/7 (free electricity for farmers) and the ability of the national electricity grid to balance power-surplus and power-deficient states all facilitated the event.

Ultimately, India is not ready for the impacts of climate change, which have only been previewed. The 2012 *World Risk Report*, published by an alliance of German development and relief agencies, ranked India 73 of 183 countries for the effects of climate change.

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Outside Experts Weigh-in

Since the U.S. and India already engage on a host of fronts to tackle energy and climate change issues, prioritizing matters for the SGWG is important, if only to ensure that overall goals do not get lost in a maze of good intentions. We asked noted experts in the field what the SGWG might focus on in order to drive the climate change agenda forward.

R.K. Pachauri, Nobel Laureate and Director-General of The Energy and Resources Institute in New Delhi proposed that the group focus on clean technologies and the sharing of American expertise in adapting to the impacts of climate change. Pachauri noted that "even if we were to hold or reduce global greenhouse gas emissions to current levels, adaptation would be a must", and that the U.S. can provide valuable experience and advice, particularly in respect to extreme events and disasters. Such a program, he added, would be most useful if it went down to the grassroots level. In the U.S., weather alert systems and extreme weather warnings have been put into place in an attempt to do just this. As a near-term goal for the working group, Pachauri suggested that the ease of sharing technologies that are already commercially available must be prioritized, and that joint research and development activities should be undertaken, with "carefully defined benefit-sharing related to the intellectual property that would be generated". In other words, teams of American and Indian experts should jointly develop new clean technologies in a way that can be scaled up, and be both profitable and equitable.

Veerabhadran Ramanathan of the University of California at San Diego's Scripps Institution of Oceanography struck a similar chord. He has noted in numerous articles and essays the near-term effects of climate change and the importance of taking small, practical steps to solve seemingly overwhelming challenges. According to Ramanathan, it is vital to balance the discussion of global warming to include two prongs — carbon dioxide in the long-term and dangerous pollutants in the short-term that account for about 40% of global warming.

Ramanathan points out that while global efforts to reduce carbon dioxide emissions from fossil fuels are vital because they are the major culprits, even if emissions are dramatically reduced tomorrow the effects will not be seen for 50 years. Hence he argues that "a fresh start" to climate diplomacy should entail a focus on pollutants like black carbon (soot), methane, ozone and hydro fluorocarbons (HFCs). These pollutants have a much shorter life span (a few weeks to a decade) so a significant cut in these would see results much faster, making an equally important impact on the environment. Soot is the second largest global warmer after carbon dioxide, and responsible for over 500,000 deaths per year in India, mostly indoor from cookstoves women and children (affecting disproportionately) and diesel-run trucks. HFCs are found in air conditioners and refrigerators, two of the most sought-after consumer items of a growing middle class. If the working group can find solutions to these more surmountable problems, which in Ramanathan's view are the 'low-hanging fruit', it will make a huge contribution.

While the report noted that India is at "high risk" in the categories of Vulnerability, Susceptibility, and Coping, it marked India at "very high risk" in the category of Adaption, which the Report defines as "capacities for long-term strategies for societal change." These warnings serve as a useful reminder that the country can only expand its economy with an eye towards the impact of climate change on the local environment.

While these warnings pertain to India, comparable warnings indicate the U.S. will feel profound impacts of climate change. Coastal cities, in particular, New York City, Newark, and Miami will see an increase in number and intensity of hurricanes, storms, and flooding. Landlocked areas have already experienced an increased number of wildfires, droughts, and heat waves. The economic impact will be significant - Hurricane Sandy alone incurred over \$50 billion in damages.

The grave risks posed by climate change are global in nature. The U.S. and India share many things in common, not the least of which are the devastating consequences of global warming if they fail to act.

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The Director of the Natural Resources Defense Council's India Initiative, Anjali Jaiswal, believes that in the larger, long-term scheme of U.S. – India relations, prioritizing climate change is critical. She sees three main areas that the two countries can work closely on: 1) Deepening cooperation on solar energy markets. Solar energy can play a significant role in a secure, clean and diversified energy future – the need now is to bring it to scale; 2) Energy efficiency - it is the single largest opportunity to save energy in India, and will continue to be in the future since 80 percent of India's infrastructure for 2030 has yet to be built; and 3) In the short term, phasing down HFCs used as refrigerants in car and room air conditioning is a must. Some India-based businesses are already ahead of government in this regard with the use of superefficient coolers. Jaiswal also notes that if India and the U.S. can use their bilateral collaboration to develop solutions to these surmountable challenges, it will serve as a useful model for multilateral solutions.

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From Bilateral to Global Action

Jaiswal's final point is an important one. The stars may be slowly aligning in order to tackle some of the most urgent challenges posed by carbon dioxide and other pollutants in the atmosphere. The U.S. and India appear determined to do so. Just recently the U.S. and China announced <u>agreement</u> on a number of steps to curb greenhouse gas emissions – a welcome development for the world's top two polluting countries.

This bilateral engagement bodes well for laying the groundwork for closer and more constructive multilateral action. Secretary Kerry is counting on it: "Because we are all in this together, we should work constructively side-by-side in the United Nations climate negotiations. I'm convinced that we can move toward a global agreement that puts us on track to avert the most dangerous climate change; that is sensitive to and respectful of the diversity of national circumstances and capabilities; and that is fair, pragmatic, and can actually evolve with changing circumstances."

A tall order, but to paraphrase John Kerry, Mother Nature is telling us to get on with it.

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