



The Greening of U.S.-Indian Relations: A Review of Cooperation between the United States and India on Climate Change and Energy

During his November 2009 state visit to Washington, D.C., Prime Minister Dr. Manmohan Singh joined President Barack Obama in launching a Green Partnership between India and the United States to address climate change and clean energy.¹ In just one year, the Partnership has made remarkable progress. The two governments have created new relationships, structures, programs, and projects which will, in the coming years, provide a solid foundation for increased cooperation and commerce between the two nations. There has already been a sharp increase in funding for climate change and clean tech collaboration and investment. The two governments have made initial commitments of \$100 million for clean energy research and deployment in India, through the Partnership to Advance Clean Energy (PACE). The United States' Overseas Private Investment Corporation (OPIC) has announced plans to invest another \$100 million for clean energy projects in India over the next five years. There have even been indications of much larger investment funds involving the private sector and through public-private partnerships. Civil society has also been active in encouraging and supporting this Partnership.

During his visit to New Delhi in November 2010, President Obama reaffirmed with Prime Minister Singh the importance of their cooperation on climate change. They launched a Joint Clean Energy Research and Development Center and a new energy cooperation program in India. The leaders called the Green Partnership between the two democracies "indispensable."²

This Partnership is important not only for the security of our two nations, but also for assuring a sustainable future for the world. The U.S. and India have already shown that they can provide critically-needed leadership at the international climate change negotiations.³ At Copenhagen and Cancun, Indian and U.S. officials worked together to bring the developed

and developing world together.⁴ Together, the two nations are fashioning new global structures that will encourage and facilitate real action on climate change.

Findings

Over the last several months, NRDC has engaged in research on the development of the Green Partnership including extensive discussions with U.S. and Indian officials. Our key findings on the status of the Partnership are as follows:

1. The United States and India are building a strategic partnership on climate change and clean energy, with rapidly increased and broadened cooperation. Top leaders, such as U.S. Secretary of State Hillary Clinton, U.S.

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For more information, please contact:

Anjali Jaiswal
ajaiswal@nrdc.org
(415) 875-6100

Shravya Reddy
sreddy@nrdc.org
(212) 727-2700

Department of Energy Secretary Steven Chu, India's Deputy Chairperson of the Planning Commission Montek Singh Ahluwalia, and Minister of Environment and Forests Jairam Ramesh, have deepened their relationship through regular high-level meetings throughout the year. The countries have opened dialogues and created working groups on pressing issues, such as climate change negotiations, green technology innovation, and growing clean energy markets. Through these dialogues the countries have embarked on various cooperative programs on clean energy and climate change.

2. The United States and India have moved ahead with the creation of the Partnership to Advance Clean Energy (PACE), which is at the heart of the Green Partnership. Both the United States and India have committed \$100 million over five years for PACE. The new PACE program launched two major efforts on research and deployment of clean technologies. First, the program has created the Clean Energy Research and Development Center, a jointly funded research center that drives collaboration among government labs, universities, and businesses to stimulate innovation in efficient buildings, solar panel technology, and second-generation biofuels. Second, the U.S. Agency for International Development (USAID) will lead a bilateral effort with U.S. and Indian partners to accelerate deployment of renewable and energy efficiency products in the Indian market, with a funding pool of nearly \$54 million.

3. The United States has ramped up trade missions to India on renewable and clean energy. Both the trade missions led by the U.S. Department of Commerce and the efforts of the U.S.-India CEO Forum have connected U.S. businesses and investors with Indian entrepreneurs in the areas of energy efficiency, solar energy, and other renewable technology. The United States remains the largest investor in India. Direct U.S. investment in India's emerging markets totaled \$16 billion in 2008 and is expected to grow in the coming decade, especially in the clean energy and technologies sector.⁵

4. Several public and private investment groups are creating funds targeting energy efficiency and renewable energy growth. The Overseas Private Investment Corporation is contributing \$100 million to the Global Environmental Fund's \$400 million South Asia Clean Energy Fund, 80-90 percent of which will be directed toward investments in India over a five-year period, including projects such as solar photovoltaic projects, battery innovation, and green buildings.⁶ The U.S. Trade and Development Agency announced the establishment of an Energy Cooperation Program with India, similar to its existing program with China, to promote the development of the clean energy market. These

expanded financing efforts are expected to further catalyze U.S.-built renewable energy projects in India, such as solar power plants and installed wind farms. Ex-Im Bank is directing major resources to renewable energy investments in India (currently evaluating \$135 million in solar projects with a projected solar deal flow worth approximately \$2 billion).

5. The United States and India are leading multigovernmental efforts on clean energy. In July 2010, at the first-ever Clean Energy Ministerial, the U.S. and India announced their joint leadership of the Super-efficient Equipment and Appliance Deployment (SEAD) initiative. SEAD is a five-year multicountry market transformation project focused on galvanizing more efficient consumer appliances, such as televisions, lights, and air conditioners, with over \$25 million in U.S. funding.⁷ The United States and India are also involved in other multicountry programs to develop best practices for smart-grids, efficient buildings, and on-line platforms to share information across partner countries.

Recommendations

Based on our analysis of U.S.-India cooperation on climate and clean energy under the Green Partnership, we make the following recommendations:

1. The United States and India should reaffirm that climate change poses a threat to the economic security of both nations and the international community.
2. The United States and India should recognize the need to continue to build U.S.-India cooperation on climate change and energy. Both should agree to refocus government efforts to ensure that the new set of interrelated projects now underway makes measurable progress over the next two years and beyond.
3. The United States and India should agree to use state-of-the-art, cutting edge information and social media technologies available in both countries to make the Green Partnership a smart, responsive, efficient, and productive partnership.
4. The United States and India should reaffirm the importance of climate adaptation measures and collaboratively build both countries' capacity to adapt to climate change.
5. The United States and India should expand the existing dialogues to create specific working groups to tackle controversial finance, trade, technology transfer, and transparency issues.
6. The United States and India should discuss what additional steps our governments can take together to create a new approach to stimulate national actions and global cooperation on climate change.

¹ The White House, "Factsheet on U.S.-India Partnership on Clean Energy, Energy Security and Climate Change," November 8, 2010, http://www.whitehouse.gov/sites/default/files/india-factsheets/Fact_Sheet_on_U.S.-India_Partnership_on_Clean_Energy_Energy_Security.pdf

² The White House, "Remarks by President Obama and Prime Minister Singh in Joint Press Conference in New Delhi, India," November 8, 2010, <http://www.whitehouse.gov/the-press-office/2010/11/08/remarks-president-obama-and-prime-minister-singh-joint-press-conference>

³ The Times of India, "U.S. lauds Ramesh for helping broker climate deal," December 18, 2010, <http://timesofindia.indiatimes.com/india/US-lauds-Ramesh-for-helping-broker-climate-deal/articleshow/7119623.cms>

⁴ United Nations Framework Convention on Climate Change, "Outcome of the work of the ad-hoc working group on long-term cooperative action under the Convention," December 10, 2010, http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf

⁵ U.S. Department of State, "Background Note: India," <http://www.state.gov/r/pa/ei/bgn/3454.htm>

⁶ Overseas Private Investment Corporation, "Full List of Funds," <http://www.opic.gov/investment-funds/full-list>

⁷ Clean Energy Ministerial, "Fact Sheet: Super-efficient Equipment and Appliance Deployment Initiative," <http://energy.gov/news/documents/SEAD-Fact-Sheet.pdf>