

07

India's Climate Engagement with the United States: Factors and Ways Forward

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Abstract

In 2021, the United States (US) and India renewed their commitment to shared energy and climate priorities in the US–India Climate and Clean Energy Agenda 2030 Partnership which has set the tone for cooperation in recent years. The Agenda 2030 Partnership builds on nearly two decades of cooperation between the US and India on energy and climate issues. To understand the factors driving India's engagement with the US in this current and previous initiatives, this brief uses joint statements from the American and Indian governments to trace the achievements of US–India energy and climate cooperation across multiple US presidential administrations. It finds that the factors driving India's engagement with the US are largely oriented towards the areas of development, technology, and commercial affairs in the energy sector. The Agenda 2030 Partnership continues these themes. Such bilateral engagement has advanced technological and commercial ties that support India's energy transition, but this partnership fails to clearly articulate how its numerous activities connect with each other and to India's ambitious 2030 goals regarding its nationally determined contribution (NDC) under the Paris Agreement. Moreover, engagement with the US under the Agenda 2030 Partnership has failed to yield appreciable finance or investment for India's energy transition. Despite these limitations, energy and climate remain a high priority for the bilateral relationship, on par with topics such as defence and security. We recommend that India (i) clearly determines how the multitude of technical assistance achievements under the Agenda 2030 Partnership advance the needs of India's energy transition and (ii) emphasises bilateral cooperation in clean energy with the US in more explicit commercial, trade, and financial terms beyond technology and development.

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1. Introduction

The US is the world's largest historical emitter of greenhouse gases and plays a significant role in the global energy scenario. It is one of the largest consumers and producers of energy, and an important source of technological innovation. Likewise, as one of the largest developing economies, India's emissions and energy consumption, while dwarfed by that of the US, still constitute a considerable share of global totals, especially as the country grows to meet its economic aspirations. India's relations with the US are vital to understanding how the country will navigate a challenge not faced by any other country of its size: how to grow and develop at scale in a carbon-constrained world (IEA, 2021). In 2021, both countries renewed their commitment to shared energy and climate priorities in the Agenda 2030 Partnership, which has set the tone for cooperation in recent years (US Department of State, 2021b).

The Agenda 2030 Partnership builds on nearly two decades of cooperation between India and the US on energy and climate issues (US Department of Energy, 2022). To understand the factors driving India's engagement with the US in this current and previous initiatives, this brief first uses joint statements from the American and Indian governments to trace the goals achieved through the US–India cooperation across multiple US presidential administrations. It then finds that India's engagement with the US is largely driven by factors such as development, technology, and commercial affairs in the energy sector. The Agenda 2030 Partnership continues these themes. Such bilateral engagement has advanced technological and commercial ties for India's energy transition, but this partnership fails to clearly articulate how its numerous activities connect with each other and to India's ambitious 2030 NDC goals under the Paris Agreement. The partnership has also failed to yield appreciable finance or investment for India's energy transition. However, despite these limitations, energy and climate remain a high priority for the bilateral relationship, on par with topics such

as defence and security. We recommend that India (i) clarifies how the multitude of technical assistance achievements under the Agenda 2030 Partnership translate to advances in India's energy transition and (ii) emphasises bilateral cooperation in clean energy with the US, in more explicit commercial, trade, and financial terms beyond technology and development.

2. Achievements of US–India Energy and Climate Ties

During the Clinton administration, energy and climate had a nascent role to play in the bilateral relationship, but these efforts culminated in regular ministerial-level dialogues on a variety of energy issues during the Bush administration. Notable achievements during this period were the launch of the US–India energy dialogue, which established regular ministerial discussions on energy security, access, and markets in India and commitments to the environment in the form of cleaner, diversified technologies (The White House, 2005). Engagement during the Bush administration included all the above approaches to energy issues, focusing on both fossil fuels and renewable energy, with increasing alignment of energy policy with strategic policy in the bilateral relationship. This was motivated in part by the US–India civilian nuclear deal, which emphasised nuclear energy as a tool for both energy security and environmental sustainability (The White House, 2006, 2008).

Energy and climate cooperation with the US intensified between 2009 and 2017, with two notable changes: there was a greater emphasis on climate cooperation in addition to energy cooperation, and energy cooperation further emphasised clean energy. This period coincided with successive Obama administrations, the first Modi government, and the signing of the Paris Agreement. The countries established the Partnership to Advance Clean Energy (PACE) initiative between 2009 and 2011. This flagship framework started a range of initiatives to

encourage the use of clean energy in India, including technical assistance agreements and joint research and development initiatives geared towards clean energy (The White House, 2009, 2010; US Department of State, 2010, 2011). By 2016, PACE grew to incorporate further initiatives that addressed more and more energy subsectors. Its notable achievements included USD 125 million devoted to joint research and development activities, USD 20 million in technical assistance programmes to deploy renewable energy in India, and about USD 2 billion of public and private investment in clean energy projects in India. In addition to financial gains, there were other positive outcomes from PACE, including increased clean energy capacity and emissions reductions (The White House, 2016; US Agency for International Development, 2016; US Department of Energy, 2012; US Department of State, 2014).

In recent years, after the Paris Agreement and the end of the Obama administration, climate and energy achievements in the bilateral relationship have been limited due to swings in US political leadership. The Trump era saw a significant shift in bilateral energy and climate cooperation between the US and India, where climate received little to no high-level attention, but energy access, security, and fossil fuel exports from the US to India gained prominence. Achievements during the Trump years included the US–India Strategic Energy Partnership (SEP) in 2018, which reorganised and continued existing energy cooperation across several areas. The SEP occurred during the first major fossil fuel exports from the US to India. By 2019, US crude oil exports to India increased tenfold, and India became a major destination for US liquefied natural gas exports and the largest destination for US coal exports (The White House, 2019; US Department of Energy, 2020). Despite the lack of head-of-state-level attention, collaboration on climate and energy continued at the ministerial and working levels.

The current Biden administration has brought about another swing in bilateral energy and

climate cooperation between the US and India. This is due to this administration's heavy focus on clean energy and climate action to reassert US leadership in these areas globally. However, new achievements have been limited, especially in climate finance. The two countries reorganised their cooperation through the U.S.-India Climate and Clean Energy Agenda 2030 Partnership with two tracks: a technology track, which is a continuation of the US SEP, renamed the US Strategic Clean Energy Partnership (SCEP), and a finance track, the Climate Action and Finance Mobilization Dialogue (CAFMD) (US Department of State, 2021b).

Within the SCEP technology track led by the US Department of Energy and the Ministry of Petroleum and Natural Gas, habits of cooperation have continued despite changes in political leadership due to relationships at the working level. The Biden administration has expanded the partnership and reverted focus to clean energy, while retaining some energy security themes from the Trump administration. The SCEP includes five pillars: power and energy efficiency, covering grid modernisation; renewable energy capacity; “responsible” oil and gas, focusing on ways to increase natural gas use in India and oil security; sustainable growth in long-term energy modelling and planning; and emerging fuels and technologies, such as electric vehicles and hydrogen. The SCEP's numerous achievements outlined at its latest ministerial meeting in July 2023 have largely focused on technical assistance, consisting of pilot projects and knowledge exchanges between the US and India (US Department of Energy, 2023).

3. Development, Technology, and Energy Sector Commercial Ties

The factors that drive India's engagement with the US in climate are development, technology, and commercial affairs in the energy sector, rather than climate ambition alone. This is true across successive US administrations. During the Bush administration, both countries signed the landmark civil nuclear

deal, but cooperation was not limited to nuclear energy. Rather, the dialogue covered research and development for clean energy, “clean-coal” technologies, energy efficiency, oil and gas, renewable energy, and broader energy sector strengthening through markets and data management. Collaboration on clean and renewable energy expanded further during the Obama administration, explicitly connecting concern for climate change to economic ties and development. While high-level attention to clean energy suffered under the Trump administration, engagement during this period saw greater emphasis on private-sector cooperation, with an increase in fossil fuel exports to India. These commercial ties again underscore India’s climate engagement with the US through economic needs and development.

The Agenda 2030 Partnership under the current administration continues these themes under the SCEP. This technology track of the partnership has illustrated the driving factors through its technical assistance activities involving multiple pillars. While SCEP builds on nearly two decades of growing collaboration and each of its pillars articulates priorities, it is difficult to ascertain an overarching strategy or objective for India through its numerous technical assistance activities.

Although the goal of the Agenda 2030 Partnership is to ostensibly help India meet its 2030 climate and energy goals and each pillar, to varying degrees, has articulated its priorities, they fail to describe how the numerous activities and outcomes fit together cohesively to advance progress towards these goals. In this latest iteration of the partnership, a coherent action plan is lacking, and the actual flows of capital and technology towards clean energy projects, beyond technical exchanges and feasibility studies, remain unclear. There is a risk that SCEP undertakes too many activities without specific, measurable, or time-bound goals.

Moreover, an ongoing theme in bilateral ties during the current US administration has been the joint industrial policy on clean energy between the two countries. This could make India a manufacturing hub for future clean energy supply chains, with cooperation in areas that China dominates, such as clean hydrogen, solar energy manufacturing, and critical minerals (The White House, 2023a, 2023b). SCEP has yet to address this theme beyond a public-private task force on hydrogen, but the recent announcement of a US-India Renewable Energy Technology Action Platform (RETAP), as a follow-up to the June 2023 state visit from India (Anand, 2023), touches upon these topics. With the US’s own push for clean energy subsidies through the Inflation Reduction Act and India’s Production-Linked Incentives, there is uncertainty about concrete outcomes.

4. Missing Energy Transition Finance Despite Increased Technological Cooperation and Commerce

India’s bilateral engagement with the US has advanced technological and commercial ties for India’s energy transition because these factors have driven much of the engagement. However, it has failed to yield appreciable energy transition finance.

In 2021, the Biden administration launched the CAFMD led by the US Department of State and the US Department of the Treasury. CAFMD’s vaguely articulated commitments include “Mobilize major capital flows to help India achieve its target of 450 GW of renewable energy capacity, demonstrate and scale innovative clean energy technologies, and promote bilateral clean energy investment and trade in the clean transition” (US Department of State, 2021a). As of 2023, the CAFMD has produced few achievements beyond a payment guarantee scheme for electric buses in India

and an agreement for a joint platform for clean energy finance, which is under development. Both countries started negotiations for a Just Energy Transition Partnership (JET-P) agreement to phase down coal-fired assets under CAFMD. However, it has become clear that such an agreement is not suitable for the country and unlikely to come to fruition. India is reticent to accept terms that would imply any phase-down of its coal electricity, which it considers vital to its energy security and growing electricity demand. Moreover, JET-P agreements with South Africa, Indonesia, and Vietnam have been loan-based deals, so imposing more debt on a sector that has just decreased its contribution to stressed assets in the Indian banking sector is imprudent (Srivastava, 2023).

Despite no dollar amounts for energy transition finance under the Agenda 2030 Partnership, during the Obama administration, there was some public funding amounting to around a billion dollars sourced through various agencies and instruments between 2009 and 2017 (The White House, 2016; US Agency for International Development, 2016; US Department of Energy, 2012; US Department of State, 2014). US public funding has remained scant and will likely continue to be so. The money flowing to India from the US to support the former's energy transition is difficult to quantify. Joint statements allude to various dollar amounts (to the tune of USD 2 billion during the Obama administration) mobilised by public money, but it is difficult to distinguish between public and private money, and whether this private money is additional or whether such investments would have occurred without any public resources. Climate finance accounting by mapping specific dollar flows will yield a clearer picture of the paradigm adopted by both countries: limited public money used to mobilise or incentivise bilateral private-sector investment. However, even if we assume large multipliers of private capital mobilised through public funding, it is important to manage expectations and set clear and achievable goals. Private funding

mobilised by public US funding will likely never completely meet the needs for India's energy transition (IEA, 2021).

5. Conclusions and Recommendations

Energy and climate have remained a top priority for both countries in the bilateral relationship, on par with other areas of cooperation such as security. Through successive US administrations, energy and climate, in one form or the other, have consistently garnered head-of-state and ministerial-level attention. Moreover, given the continued emphasis on energy and climate across Democratic and Republican administrations in the US, and different majority and coalition governments in India, engagement and cooperation have remained consistent across a range of topics at the working level despite different tones at the leader level. This suggests that channels of bilateral cooperation have endured changes in political leadership and that they will likely continue to do so. However, advancing strategic cooperation on a larger scale and on new topics in the future will require a high-level focus at the leadership level, as shown by new initiatives launched in the past 15 years.

In recent years, under the Agenda 2030 Partnership during the Biden administration, India has deepened its partnership with the US to cover technical cooperation in new clean energy sectors. However, the country must reorient its bilateral relationship with the US in the energy and climate by taking the following measures:

- Clarifying how the multitude of technical assistance achievements under the SCEP advance the needs of India's energy transition. While Agenda 2030 is oriented to meet India's 2030 goals, the pillars outline the countries' respective priorities, and numerous activities have been conducted to exchange knowledge and technical

expertise, the efforts taken lack overarching goals that are specific, measurable, and time-bound. While the technological and commercial ties from this cooperation may have positive spill-over effects, it is unclear whether the outcomes of these activities are coordinated or complement each other.

- Emphasising bilateral cooperation in clean energy with the US in more explicit commercial, trade, and financial terms beyond technology and development. Agencies such as the US Trade and Development Agency, US Export–Import Bank, US Development Finance Corporation, and US Department of Commerce offer a more diverse toolkit to advance economic development to achieve

India’s energy and climate goals. During the Obama administration, these agencies successfully played a larger role in the bilateral relationship by mobilising finance. Greater private sector and commercial ties will be necessary, especially if India hopes to play a role in future global clean energy manufacturing supply chains. Private-sector investment is especially important because the US alone will not provide sufficient public climate investments to India and other developing countries. However, we also caution against over-dependence on the idea of “de-risking private investment”. Despite being a popular paradigm to deliver climate finance within the US–India relationship, it has only been proven at small scales.

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