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TRACKS TO TRANSITION

INDIA'S GLOBAL CLIMATE STRATEGY

EDITED BY
CONSTANTINO XAVIER
KARTHIK NACHIAPPAN

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Tracks to Transition: India's Global Climate Strategy

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Designed by Mukesh Rawat

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Report Summary

An increasingly competitive geopolitical context is fragmenting global climate governance and traditional modes of multilateral cooperation. Increasingly less centred on the United Nations Framework Convention on Climate Change (UNFCCC), India's climate diplomacy has responded by proactively joining and creating new mechanisms to negotiate its low-carbon transition and accelerate climate action. Featuring seven case studies by Indian and international experts, the report assesses India's posture across four principal tracks: i) *multilateral adaptation,* by working within the UNFCCC regime and existing institutions; ii) *minilateral innovation,* by tailoring climate and geopolitical cooperation; iii) *trilateral bridging,* by positioning India as a "triangular" South-South-North climate hub; and iv) *bilateral expansion,* by connecting climate to economic cooperation through new green partnerships. The report examines how this policy diversification and innovation is throwing up new opportunities and challenges, especially the need for a comprehensive strategy to balance multiple and often also overlapping international tracks towards a low-carbon transition. It maps both what has been done in the past as well as the avenues towards a comprehensive climate strategy built on greater policy coordination and expanded state capacity for India to engage externally. The report offers research-based, actionable foreign policy options to accelerate India's green transition and facilitate the road towards its 2030 commitments and its 2070 net zero target.

Contents

Abbreviations

AAGC	Asia–Africa Growth Corridor
AfD	Agence Française de Développement
AIIB	Asian Infrastructure Investment Bank
AIPA	Apex Committee for Implementation of Paris Agreement
AUKUS	Australia, the United Kingdom and the United States
APS	Announced Pledges Scenario
BAPA	Buenos Aires Plan of Action
BE	Blue economy
BEE	Bureau of Energy Efficiency
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BRI	Belt and Road Initiative
BRICS	Brazil, Russia, India, China, South Africa
BTR	Biennial Transparency Reports
BUR	Biennial Update Report
CAFMD	Climate Action and Finance Mobilization Dialogue
CBAM	Carbon Border Adjustment Mechanism
CBDR	Common but differentiated responsibilities
CBIT	Capacity-building Initiative for Transparency
CCUS	Carbon Capture Usage and Storage
CDRI	Coalition for Disaster Resilient Infrastructure
CEA	Central Electricity Authority
CEEW	Council on Energy, Environment and Water
CEF	Centre of Energy Finance
CEM	Clean Energy Ministerial
CETP	Clean Energy Transitions Programme
CGE	Consultative Group of Experts
CII	Confederation on Indian Industry
COP	Conference of Parties
CWG	Climate Working Group
DFC	Development Financial Corporation
ECerts	Energy Saving Certificates
EIB	European Investment Bank
ETF	Enhanced Transparency Framework
ETF-CBT	Enhanced Transparency Framework – Capacity Building Tool
FAME India	Faster Adoption and Manufacturing of (Hybrid and) Electric Vehicles in India
GBA	Global Biofuels Alliance
GFANZ	Glasgow Financial Alliance for Net Zero
GGI	Green Grids Initiative

GHG	Greenhouse Gas
GIFCT	Global Internet Forum to Counter Terrorism
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IBSA	India, Brazil, South Africa
IEA	International Energy Agency
IEP	International Energy Program
IFIs	International financing institutions
IORA	Indian Ocean Rim Association
IPCC	Intergovernmental Panel on Climate Change
IREDA	Indian Renewable Energy Development Agency
IRENA	International Renewable Energy Agency
ISA	International Solar Alliance
JBIC	Japan Bank for International Cooperation
JET-P	Just Energy Transition Partnership
KABIL	Khanij Bidesh India Ltd.
LDCs	Least Developed Countries
LeadIT	Leadership Group for Industry Transition
MCS	Monitoring, Control, and Surveillance
MDBs	Multilateral development banks
MEA	Ministry of External Affairs
MERIT	Merit order despatch of electricity for rejuvenation of income and transparency
MI	Mission Innovation
MNRE	Ministry of New and Renewable Energy
MoEFCC	Ministry of Environment, Forest and Climate Change
MRV	Monitoring, Reporting, and Verification
MSP	Mineral Security Partnership
NC	National Communications
NDB	New Development Bank
NDCs	Nationally Determined Contributions
NGFS	Network of Central Banks and Supervisors for Greening the Financial System
NSC	National Steering Committee
OAPEC	Organization of Arab Petroleum Exporting Countries
OECD	Organisation for Economic Cooperation and Development
OPEC	Organization of the Petroleum Exporting Countries
OSOWOG	One Sun, One World, One Grid
PA	Paris Agreement
PACE	Partnership to Advance Clean Energy
PAT	Perform, Achieve, and Trade
PIB	Press Information Bureau
PMO	Prime Minister's Office

PTI	Press Trust of India
Q-CHAMP	Quad Climate Change Adaptation and Mitigation Package
RETAP	Renewable Energy Technology Action Platform
RINGOs	Research and Independent Non-Governmental Organisations
SCEP	Strategic Clean Energy Partnership
SECI	Solar Energy Corporation of India
SEP	Strategic Energy Partnership
SIDS	Small Island Developing States
TERI	The Energy and Resources Institute
TrC	Triangular Cooperation
TriDeP	Triangular Development Partnership
TTC	Trade and Technology Council
UNES	United Nations Economic and Social
UNFCCC	United Nations Framework Convention on Climate Change
UNOSSC	United Nations Office of South-South Cooperation
USAID	United States Agency for International Development
WHO	World Health Organization
WRI	World Resources Institute
WTO	World Trade Organization

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This report is the product of a year-long research project, including engagements and discussions with multiple policy stakeholders about India's evolving climate diplomacy and how it has changed through the last two decades. It took an immense amount of dedication and hard work and would not have been possible without the contribution of some very thoughtful and supportive people, both at CSEP and beyond.

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Preface

LAVEESH BHANDARI

As the catastrophic consequences of climate change loom large, the world stands at a crossroads, facing challenges of unprecedented complexity and urgency. The need for a holistic approach to address this global crisis is now increasingly clear. At the Centre for Social and Economic Progress (CSEP) we are undertaking the task of understanding India's climate transition and its global implications from various angles, methodologies and disciplines. This report and our other work on global climate cooperation, reflects our commitment to exploring different perspectives that can accelerate India's green transition and facilitate the road towards its 2030 commitments and 2070 net zero targets.

India's journey towards climate resilience and sustainability is undeniably intertwined with international cooperation. Especially since the global landscape is fraught with fragmentation amidst geopolitical conflicts and divergent interests. Climate change, more than ever, underscores the need for collaborative efforts, even as it tests the limits of international diplomacy and governance. The United Nations system, traditionally a cornerstone of global cooperation, faces fragmentation, while multilateral development banks grapple with the need for reforms. In this evolving landscape, the path towards effective climate action becomes increasingly challenging for India and its partners, especially in the Global South.

This report is a culmination of a year-long research project co-led by our CSEP fellow Constantino Xavier and our non-resident fellow, Karthik Nachiappan, from the National University of Singapore. It is built around the contributions from Indian and international experts with seven case studies that offer a comprehensive view of India's evolving global climate strategy. Benefitting also from consultations with policymakers and experts, through workshops and roundtables, this report reflects the growing intersection between Indian foreign policy and critical global challenges such as climate change.

The report emphasises that India has been more than a mere participant in the global climate discourse; it has been an innovator, contributing to novel solutions beyond the United Nations Framework Convention on Climate Change (UNFCCC) and the Conference of the Parties (COP) negotiations. The seven case studies, serve as a testament to India's adaptability and innovation in pushing the boundaries of climate action. India's progress in addressing the need for climate mitigation and adaptation has been both commendable and swift.

However, in the rush to embrace change and explore new tracks, it is imperative to pause and take stock of the achievements, challenges, and the path ahead. This report not only maps India's journey in the climate arena but also contributes to a pressing and strategic debate on how to further accelerate its efforts. It offers both a reflection on what Indian diplomacy has accomplished and a blueprint for where it could go further.

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01

Introduction: Tracks to Transition: India's Global Climate Strategy

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Abstract

A fraught geopolitical context is affecting and fragmenting global climate governance. Increasingly less focused on the United Nations Framework Convention on Climate Change after the 2015 Paris Agreement, India's climate diplomacy has focused on proactively joining, engaging, and, occasionally, creating new cooperative mechanisms to negotiate pathways towards its 2030 targets and its goal of achieving net zero emissions by 2070. This chapter reviews the multiple—and sometimes also overlapping—tracks towards transition that shape India's global climate strategy at the multilateral, minilateral, trilateral, and bilateral levels. We place India's diplomatic behaviour in the context of fragmenting global governance regimes and proliferating international cooperation frameworks. Based on the seven case studies in this report, we describe the drivers and objectives of India's engagement with four principal tracks. Finally, we conclude by discussing the limitations of continued engagement and proliferation and examine policy and institutional options that may help India draft a viable climate strategy that is aligned with its developmental priorities at home as well as its interests in the Global South.

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Once a reluctant climate actor, India has now emerged as an indispensable player in global climate politics. Historically, New Delhi has resisted and rebuffed calls to erode the differentiation between developed and developing countries. Today, to some extent, it continues to centre climate actions around the principle of common but differentiated responsibilities (CBDR), which its diplomats negotiated and institutionalised in 1992 at the Earth Conference in Rio de Janeiro.

At the same time, India's climate persona has evolved, especially after the 2015 Paris Agreement (PA). New Delhi works with and leverages existing and emerging international regimes and frameworks to advance widening climate interests. Concurrently, international climate politics has fragmented beyond Conference of Parties (COP) settings, as countries seek new ways to drive climate mitigation and adaptation. As noted by one of India's foremost climate experts, Nitin Desai, "climate diplomacy has become a major feature of international relations" (2019, p. xiii). Climate and energy issues—concerning both mitigation and adaptation—are becoming a core foreign policy interest, as countries now realise the importance of domestic climate action to minimise and offset the pernicious effects of climate change. International policy on climate is also changing, and India is adapting to and with it (Nachiappan & Xavier, 2023).

India has thus been a proactive player in the "transnationalist" climate camp, engaging beyond the COP-centric climate regime traditionally advocated by the "multilateralist" approach. Responding to the growing need to identify "different types of [international] initiatives", New Delhi's evolving behaviour indicates a growing intent to "reconceptualize the UNFCCC[1] less as an authority that attempts to govern climate change in its entirety and more as a coordinating node in a diverse landscape of initiatives" (Betsill et al., 2015, p. 2-3). By engaging and innovating across four external tracks—multilateral, minilateral, triangular, and bilateral—India has embraced the strategic vision that "greater experimentation, which is possible through more diverse configurations and multiple agreements, might suggest new ways to achieve robust global action, as well as verification of those actions" (Bell et al., 2012, p. 61).

What we see now is an India that is diplomatically agile, working across multilateral, minilateral, trilateral, and bilateral tracks to secure financing, technology, and capacity to drive domestic decarbonisation. The case studies in this report show that moving along these four tracks simultaneously will facilitate India's climate transition to achieve half of its electricity requirements from renewable energy by 2030 and net zero emissions by 2070 (Ahluwalia & Patel, 2022).

But merely engaging and exploring different tracks does not necessarily add up to a strategy. For now, it appears as though tactical engagements may not entirely sync with the long-term institutional engagement with COPs, which has changed since Paris. As India took a bold political position to shift—and approximate—goalposts, it will now have to ensure that these commitments are realised through strategic choices and commensurate institutional capacity to accelerate its pathways to transition.

We argue that New Delhi's current pace and adaptive posture(s) across these various tracks is not sustainable, warranting a strategic reassessment of diplomatic resources, internal-external policy coordination, and institutional reforms. Rather than taking a presentist approach, one needs to start with 2030 and 2070 targets and work backwards to assess gaps in India's climate diplomacy.

This introduction reviews the multiple, and often overlapping, tracks to transition that shape India's global climate strategy at the multilateral, minilateral, trilateral, and bilateral

[1] United Nations Framework Convention on Climate Change

levels. We begin by placing India's behaviour in the context of fragmenting global governance regimes and proliferating cooperation frameworks amidst rising geopolitical tensions. This power shift affects trade and other global commons issues, such as health, but also has a particularly pernicious effect on climate, given the urgency of scalable action before 2030.

The second section covers how India has responded to increasing climate fragmentation, putting India's climate diplomacy in the context of its changing, more opportunistic, and risk-embracing foreign policy towards new frameworks of cooperation, beyond traditional multilateral institutions.

With reference to the seven case studies in this report, section three then describes the drivers and objectives of India's engagement with four tracks, including challenges faced by i) multilateral adaptation, ii) minilateral innovation, iii) trilateral bridging, and iv) bilateral expansion.

The fourth section discusses how together, these four policy tracks are coalescing as the foundation pillars of India's embryonic and still evolving global climate strategy. Finally, we discuss the limitations of continued engagement and proliferation and examine policy and institutional options that may help India develop a more effective strategy to accelerate climate action keeping in mind the 2030 and 2070 targets.

1. Beyond a COP-centric System

International climate politics has irrevocably changed. Climate discussions no longer occur only through the United Nations (UN). Like other issues, climate is now being discussed, negotiated, and addressed across a patchwork of institutions and frameworks, which include different constituencies (public and private), are spatially distinct (bilateral, regional, and global), and have varied focus (specific issues or broader economic and security concerns). Surveying the climate landscape, we can map the proliferation of different arrangements—especially, regional and minilateral initiatives—as well as partnerships connecting public and private actors. These arrangements have challenged the authority, legitimacy, and prominence of the United Nations' Framework Convention on Climate Change (FCCC) activities, which is, ostensibly, the bedrock of global climate politics. While these shifts have not provoked uncertainty and anxiety over the role and relevance of the FCCC and COPs, they have complicated the process of how countries decarbonise as well as the international context facilitating or obstructing their transition goals.

To be sure, the effects of fragmentation and pluralism transcend the climate issue. In trade, the increased use of regional and plurilateral trade agreements—beyond the World Trade Organization's (WTO) ambit—is changing global trade (Hoekman & Mavroidis, 2015). Multi-stakeholder initiatives—combining state and non-state stakeholders such as civil society, academia, and businesses—now discuss cyber and digital issues (Savage & McConnell, 2015). One example is the Paris Call for Trust and Security in Cyberspace, which sets principles for how states should behave online (Paris Call, n.d.). Similarly, the Global Internet Forum to Counter Terrorism (GIFCT) unites the technology industry, government, civil society organisations, and academics to prevent terrorist activity online (GIFCT, n.d.). The Bill and Melinda Gates Foundation has transformed global health governance and funding and oversees several initiatives for infectious and chronic diseases (Youde, 2013). Security-focused minilaterals, both trilaterals and quadrilaterals—wherein countries engage on issues such as maritime security, supply chains, infrastructure, and climate change—are sprawling (Patrick, 2015).

What is causing this fragmentation? Strategic factors are of significance. The ongoing shift in the global balance of power and rising tensions over the international order are creating fissures. Rising and middle powers are showing signs of growing frustration with global institutions as well as the apathy of the

United States (US) towards the World Health Organization (WHO) and the WTO, which allegedly do not advance American interests or perform credibly. As a response, these powers are resorting to create and back new mechanisms that they can control and wield (Hoekman & Mavroidis, 2021). Washington has also leveraged minilaterals to transcend its existing alliances inherited from the Cold War, particularly in Asia, that could fail, given the prevailing China-focused deterrence demands. What has followed has been a US preference for networks such as the Quad, Australia, United Kingdom and the US (Aukus), and related trilaterals to shape regional order (Tow, 2019).

Also important is the dissatisfaction of rising powers with the existing system and its fallow appetite for reform, which is precipitating new institutions. For instance, the Brazil, Russia, India, China and South Africa (BRICS) grouping, the New Development Bank (NDB), and the Asian Infrastructure Investment Bank (AIIB), which is dominated by Brazil, China, India, and Russia (Qobo & Soko, 2015). International organisations can be captured by a state, or a group of states, making that institution immune to change. Dissatisfaction with certain countries could lead to a situation where either an attempt to reform occurs or a push to withdraw altogether. A few dissatisfied states may create a new institution having realised that it appears to be the best option. Fragmentation is also the product of the democratisation of global governance. This has meant more non-state actors—both non-governmental organisations (NGOs) and businesses—participating openly with authority and knowledge to shape international rules and norms. All these trends have consequently affected climate governance (Florini, 2013).

Global climate governance in the 1990s was characterised by the UNFCCC's centrality. That process still exists, but it is no longer the only game in town. The US' 2002 exit from the Kyoto Protocol presaged an era of climate being dealt over arrangements beyond the UN (Lisowski, 2002). Three types of climate fragmentation matter. First, climate has become prominent in other international organisations, like the World Bank or WTO, which are incorporating climate considerations into their work (World Bank, 2022). Climate issues are entering remits like trade, security, and finance to resolve other sector-specific issues. For instance, trade rules can support or thwart the climate strategies of countries by prioritising trade interests over climate concerns. As per WTO rules, countries have an obligation not to discriminate against foreign products or goods made with higher carbon emissions, but doing so spurs decarbonisation (Epps & Green, 2010).

Second, countries that share specific interests and values are forming new climate clubs or using existing institutions—Group of 7 (G7) or Group of 20 (G20)—to address climate issues (Falkner, 2016). The 2007 major economies process on energy security and climate launched by the US was an early initiative to discuss climate between leading economies (U.S. State Department, n.d.). That process continued under US presidents Obama and now, Biden to catalyse climate action. Frameworks like India, Brazil, South Africa (IBSA), BRICS, and the Quad are also addressing climate change now (Paik & Park, 2021). Such clubs or minilateral initiatives provide countries with a more amenable, less contentious, and highly informal atmosphere to drive climate progress (Falkner, 2016).

Third, new forms of governance arrangements formed through partnerships, bringing governments, corporations, and civil society organisations together. These initiatives generally have a narrow focus such as climate financing (for example, the Investors Group on Climate Change) or technologies (for example, the Carbon Sequestration Forum and the Global Methane Initiative). Some frameworks, especially those led by non-state actors, focus on climate justice and accountability, raising awareness of the carbon footprint of countries and firms (for example, the Carbon Disclosure Project). Some initiatives and mechanisms

form and operate autonomously, without connecting to the FCCC process, while others derive direct support. Nonetheless, all these institutional innovations—and more—point to an increasingly fragmented global climate landscape.

2. India's Approach to Climate Fragmentation

India has been central to international climate politics since 1992. Arguably, no other developing country has had more direct influence on FCCC negotiations. India's position—that developing countries have different responsibilities given historic carbon pathways—laid the foundations for a strategy that lasted nearly three decades: to prioritise equity and deflect climate commitments without adequate support (Nachiappan, 2019). That approach has changed as the FCCC changed, over time moving toward a regime that placed the onus on how all countries can reduce emissions individually and without constraint. The move to accept some voluntary targets at the 2009 Copenhagen Summit to reduce emissions is an important marker not just because of India's policy shift but also because India would have likely had to engage with different actors to meet its climate pledge—to reduce the emissions intensity of its GDP by 20%–25% against 2005 levels by 2020 (Dubash, 2013). India has since gradually aligned to a regime that prioritises global climate action, not just in developed countries, since Paris in 2015.

Between 2010 and 2015, a new form of climate politics surfaced, one that did not emphasise legally binding commitments or strict differentiation between Annex I and II countries (Youdon & Bajaj, 2022). Instead, the discourse moved to finalise commitments that would be more voluntary, less-differentiated, and bottom-up, which places the onus to set and achieve their emissions reduction goals on countries themselves (Youdon & Bajaj, 2022). These moves coincided with a time when India acknowledged the perils of climate change to its economic growth and development. At the COP17, held in Durban in 2011, India's environment minister Jayanthi Natarajan agreed that climate change amounted to a pressing and serious challenge for India but one that had to be tackled without compromising poverty reduction (2011).

Rhetorically, Indian officials reinforced equity and CBDR but sought ways to concurrently reduce emissions and advance development. Subsequent COPs from 2011–2015 saw developing countries trying to ensure the FCCC refrains from eroding CBDR while overriding pressures to contribute regardless of historic positioning. At the same time, equity considerations gained urgency. This culminated in the 2015 COP21 in Paris, where all countries signed an agreement that provided space and flexibility to shape and determine their climate contributions to reduce global emissions (Sengupta, 2019).

India's climate diplomacy post-2015 is also shaped by geopolitical fissures, specifically US climate intransigence during the Trump administration's utter disregard for the PA that created a vacuum in countries like China and India could fill. After 2015, China intensified climate interactions with the European Union (EU), the Association of Southeast Asian Nations (ASEAN), African nations, BRICS member states, Japan, and the Republic of Korea through the Second Forum on Carbon Neutrality Goals of China (Yangling, 2023). Like China, India's climate diplomacy accelerated after Paris. FCCC efforts aside, India has discussed climate bilaterally with the US, United Kingdom, EU, Denmark, France, and Norway, among other partners, and through multilateral frameworks like the Brazil, South Africa, India and China (BASIC) Ministerial Meeting on Climate Change, G20, BRICS, and the International Maritime Organisation.

Going further, Delhi has also driven the cooperation of new climate institutions. For instance, the International Solar Alliance (ISA) with France, to accelerate global solar adoption, and the Coalition for Disaster

Resilient Infrastructure (CDRI), to reduce the damage to critical infrastructures (Jayaram, 2018). Besides geopolitics, Indian officials have realised that engaging on climate multilaterally remains an indispensable track to mobilise requisite political, technical, and financial support for accelerating domestic climate action. With the PA, India's national interests vis-à-vis climate widened—it began to accept some commitments that would yield 'co-benefits' or reduce emissions as well as advance economic growth. This approach opened the door to discussing climate across frameworks as other institutions and new frameworks spawned to address climate change.

India's climate diplomacy has largely been shaped by geopolitics and institutional changes within the FCCC architecture. Strategic considerations have intervened from 2020 onwards. The worsening of great power tensions, particularly between the US and China, has compelled New Delhi to engage strategically on climate with partners like the US and France. The US-India climate partnership has been developing bilaterally and through mechanisms like the Quad, where both countries discuss climate with Japan and Australia. All Quad member states have pledged to focus their efforts on achieving COP targets, covering national emissions, and clean energy deployment (Roy, 2021). There is optimism that the Quad, given its loose informal structure, can gradually include other issues on climate resilience, preparedness, or adaptation, not just mitigation.

Similarly, India and France have established a Roadmap on the Blue Economy to conserve and sustainably use the oceans, seas, and maritime resources through greater scientific research, infrastructural cooperation, coastal zone management, and development of new technologies. Paris and Delhi have also established the ISA, which advances solar energy access, particularly in developing countries (Shidore & Busby, 2019). That US-China and India-China ties have deteriorated in the last few years has given both Washington and New Delhi—and others—opportunities to leverage climate to acquire geopolitical and geoeconomic influence over China. Decarbonisation will likely be inflected by geopolitical pressures as countries vie with one another for resources, capital, and talent. Climate diplomacy is one key terrain where such struggles, or *climate realpolitik*, will occur.

3. India's Engagements Across Four Tracks

With reference to the seven case studies in this report, this section describes the drivers and objectives of India's growing engagements with four cooperation tracks, including respective challenges faced: i) multilateral adaptation, ii) minilateral innovation, iii) trilateral bridging, and iv) bilateral expansion. Together, these four tracks reveal how India is navigating, shaping, and exploiting the fragmenting global climate architecture.

3.1 Multilateral Adaptation: Working Within the Existing Regime and Institutions

India's first strategic track can be defined as multilateral adaptation or seeking opportunities to work within the UNFCCC regime and also through closer engagement with existing multilateral institutions, for example, the International Energy Agency (IEA). Even as India's climate diplomacy engages proactively and enthusiastically in what is called "forum shopping and institutional proliferation," it continues to respond to the "centripetal pull" of existing governance arrangements under the UNFCCC (Draguljić, 2019, p. 476).

As a developing country and rising economy, India may not always have been comfortable with the principles and drivers of the existing climate regime as incarnated in the UN-centric, multilateral, inter-governmental, and top-down approach to climate action. So far, India has contributed to the ongoing fragmentation of climate governance by establishing new frameworks around the FCCC, for example, by founding new climate institutions and joining minilateral

and bilateral climate partnerships. Yet this should not be confused with India neglecting, ignoring, or undermining the FCCC regime. On the contrary, evidence points to India's renewed climate activism and contributions that have strengthened the FCCC regime and other international institutions that remain central to climate politics.

The first policy brief, by Jhalak Aggarwal and Sumit Prasad, illustrates India's multilateral adaptation track with a case study on how India has developed more than adequate capacity to comply with its FCCC commitments to the enhanced transparency framework (ETF). The authors review India's largely positive track record on reporting as well as domestic policy innovations and the potential to develop an ETF that could be shared under the FCCC mandate with other developing countries. By developing this South-South climate track for ETF capacity-building focused on reporting, verifying, and reviewing performance, India could contribute to the growing urgency of a climate regime information system that has the ability "to respond directly to the information needs of developing countries" (Ghosh & Woods, 2009, p. 24).

The second policy brief refers to another form of multilateral adaptation: India engaging to partner with existing inter-governmental organisations that are developing a new climate-centric profile. This is the case of the IEA, whose growing partnership with India is analysed by Lydia Jayakumar, Hana Chambers, and Siddharth Singh in the second policy brief. Here, we see India keen to cooperate with an international organisation that was founded in 1974 by the Organisation for Economic Cooperation and Development (OECD) states to insure their energy security. Today, India's climate diplomacy shows growing comfort in engaging with such traditionally exclusive institutions as they expand both their policy and geographic mandates to renewable energies and climate-centric partnerships, making it imperative to bring India on board. Five years after having joined as an associate member in 2017, India is now exploring full membership of the IEA. Beyond its interest in research, analysis, and information-sharing mechanisms, India is particularly interested in an energy security- and climate action–oriented partnership with the IEA.

3.2 Minilateral Innovation: Tailoring Climate and Geopolitical Cooperation

Alongside multilateral engagement, India has pivoted to create alternative climate frameworks. India's institutional entrepreneurship—for example, in the form of the ISA or the CDRI—is based on the understanding that these initiatives accelerate the transition to a low-carbon economy by enabling clusters of states to focus efforts on specific sectors and geographies. Rather than competing or conflicting, these minilaterals largely complement, and even reinforce, multilateral climate frameworks. India thus presents its minilateral innovations, such as the ISA or CDRI, as its contribution to the global public good, especially for the Global South, while advancing its geopolitical and economic interests. They are seen to increase options for states to engage in à la carte cooperation, depending on their transition interests and requirements.

This is not an entirely new track in India's global climate engagement. In 2005, it co-founded the Asia-Pacific Partnership on Clean Development and Climate together with Australia, China, Japan, South Korea, and the US; Canada joined at a later stage. Looking back at that embryonic climate club's prescient—and controversial—policy mandate, one recognises several key interests that drive India's minilateral climate track today: "create a voluntary, non-legally binding framework for international cooperation to facilitate the development, diffusion, deployment, and transfer of existing, emerging and longer term cost-effective, cleaner, more efficient technologies and practices" (Lawrence, 2007, p. 200).

Recent examples indicate that these principles, along with the innovative track, have been

excavated and expanded in India's global climate strategy. Set up in 2019, the CDRI is one such example where India has taken the initiative to develop new frameworks beyond—but still aligned with—the FCCC that bridge the climate adaptation interests of developing countries to their growing demands for infrastructure modernisation. India is also pushing for more informal minilaterals, which are evolving as climate-centric clubs for policy coordination. This includes the Leadership Group for Industry Transition (LeadIT), which India co-founded with Sweden, and, more recently, the Global Biofuels Alliance (GBA), which was co-developed with Brazil and the US.

The third policy brief, by Vyoma Jha, analyses the most prominent outcome of India's minilateral innovation track, the International Solar Alliance (ISA), which was announced as part of India's Paris commitments. Set up in 2017 as a treaty-based international intergovernmental organisation, it focuses on harnessing the potential of solar rich countries to accelerate climate action. While it could technically also be considered a multilateral or triangular initiative, even in its terminology as an alliance, the ISA reflects a sector-focused, single-country–led, hybrid nature in sharp contrast with the archetype of a regional organisation anchored in international law. Jha describes the ISA as a "deliberate instrument of India's economic statecraft that syncs its economic priorities (finance and technology for clean energy transition) and national security (energy security) ones." Yet, she argues, five years on, the ISA's immense potential for global reach and transition impact remains hobbled by legal, institutional, and financial challenges.

The second minilateral trend in India's global climate strategy is marked by a realisation that growing geopolitical fissures, marked principally by US-China rivalry, are raising the costs and risks for global governance and climate action. Whether trade, health, or technology, states are increasingly making choices based on geopolitical interests and balance of power calculations. India's minilateral penchant has consequently grown to address increasingly complex policy sectors and narrowing time horizons for decision-making. For India's external affairs minister S. Jaishankar, these small and sector-oriented cooperation frameworks are now an increasingly central track in what he calls India's "strategies for an uncertain world" (2020). Nowhere is this more apparent than with regard to its climate engagements. Unlike in the past, when Indian diplomacy was often reluctant to link sectoral policy areas in global governance—trade, health, education, or even human rights—to geopolitical currents and constellations, New Delhi now appears comfortable and even keen to align and embed its climate interests with different geostrategic frameworks.

Critical mineral supply chains that are essential to the development of green technology are being weaponised with export restrictions and strategic reserves. Energy security remains a key factor shaping climate transition pathways and, consequently, the shape of the future world order. This explains why India has been increasingly comfortable engaging with a small cluster of partners to strategise and coordinate policies on climate, energy, green technology, or critical minerals. Most recently, this was once again apparent as India became the first developing economy to join the US-led Minerals Security Partnership (MSP).

In a similar vein, new minilaterals and cooperation frameworks, such as the Quad, are playing a growing role as climate action becomes a strategically competitive terrain driven by great power politics. The fourth policy brief, by Aparna Roy and Charmi Mehta, illustrates this track with reference to India's engagement in the Quad's working groups on climate, critical technologies, and infrastructure. While the authors conclude that the Quad has "not been able to generate a climate narrative so far," their survey highlights India's growing comfort with expanding the Quad's ambit to consultation and coordination on various transition-related priorities, including the development of green

technologies, assessment of critical minerals, establishment of clean energy supply chains, and fostering green shipping. The Quad Climate Change Adaptation and Mitigation Package (Q-CHAMP), announced by the four countries, is perhaps the best example of how India tethers climate interests to specific geopolitically driven minilaterals.

3.3 Trilateral Bridging: Positioning India as a South-South-North Climate Hub

India is reviving "triangular" development partnerships with a particular focus on climate in the Global South. This position was communicated well during the G20 presidency and the Voice of the Global South summit, both of which India hosted in 2023 (Press Information Bureau, 2023). New Delhi utilised these platforms to articulate and promote the image of an India willing to serve as a bridge between the Global North mitigation-focused agenda and the Global South's particularised interests in adaptation. By expanding the South-South agenda of the 1960s and 1970s, India seeks to forge a new climate identity, presenting itself as a hub to co-develop green technologies and attract and deploy finance to accelerate global climate action.

India's objective in these triangular South-South-North climate partnerships is two-fold, on two fronts. On the one hand, South-South climate partnerships are expected to i) generate better alignment of transition tracks among developing countries, especially with Brazil, Indonesia, and other rising economies; and ii) increase political and diplomatic support to enhance India's legitimacy and leverage at multilateral institutions and global climate negotiations. On the other hand, South-North partnerships with India at the centre are expected to i) attract climate finance, technology transfer, and investors to use India as a hub for co-development and innovation; and ii) position India as a springboard for international climate finance for developing countries for access to emerging markets in India and the Global South.

The fifth policy brief, by Pooja Ramamurthi, explores India's recent attempts at reviving triangular development platforms with moderate success and the opportunities to refocus these frameworks to generate affordable, sustainable, and scalable climate action solutions for developing countries. This track of trilateral bridging offers New Delhi opportunities to partner with the US, the EU, and some of its member states, as well as with Japan. The challenge in these trilateral tracks will now be whether India can go beyond its current focus on one-off projects in low-emission least developed countries and island states and generate partnerships that can accelerate decarbonisation policies in larger, middle-income countries in Asia and Africa.

3.4 Bilateral Issue Linkage: Connecting Climate to the Economy

The final two policy briefs in this report cover the fourth track in India's global climate strategy: bilateral climate partnerships. As the 2030 targets loom large, India has developed and deepened a series of bilateral climate partnerships. In tandem with its push for reform at multilateral development banks (MDBs), and other international institutions to finance its transition, India is pursuing new green partnerships with select industrialised economies including the US, the EU, Germany, and Japan. More recently, the Gulf economies have emerged as India's privileged climate partners: in 2023, the joint statement with the United Arab Emirates (UAE) on climate change as well as the Memorandum of Understanding (MoU) with Saudi Arabia on energy cooperation feature a growing emphasis on renewables, including hydrogen, and broader steps to accelerate the climate transition (Ministry of External Affairs, 2023).

These bilateral frameworks have seen India strategically link climate transition targets to other issue areas, including cooperation to generate investments for the energy, technology, infrastructure, and transportation sectors. At home, before domestic audiences, this track allows India to package climate change mitigation and adaptation as part

of a larger economic agenda in line with its developmental imperatives for 1.4 billion people. Across the larger South and Southeast Asian regions, which house almost one-third of humanity, bilateral green partnerships with Global North countries offer India the possibility to assume the lead role of a regional hub for climate transition as a public goods provider. This also creates the potential to lift neighbouring countries such as Pakistan, Bangladesh, and Indonesia along with itself. Globally, these bilateral climate partnerships create a playing field where India feels more comfortable negotiating and setting the agenda transactionally. This reflects the still exploratory and inchoate nature of bilateral climate partnerships, which also indicates that India is in search of clearer quid pro quos regarding finance or market access as well as shorter policy implementation horizons.

However, with respect to the US-India Climate and Clean Energy Agenda 2030 Partnership, the sixth policy brief by Shayak Sengupta, Medha Prasanna and Peter Jarka-Sellers shows that it is not always distinguishable how India aligns these bilateral partnerships with climate targets. Having evolved over two decades in multiple phases, the US-India Agenda 2030 Partnership now focuses largely on clean energy cooperation with a dual technology and finance track. Yet it remains unclear if and how American technical assistance has spurred India's energy transition as well as why beyond commercial exchanges there is still a "missing energy transition finance." The authors recommend India adopt a more strategic approach "underscoring commercial, trade, and financial terms rather than focusing only on technology and development." The renewed focus on hydrogen and nuclear energy cooperation holds promise in this regard.

The seventh and final policy brief by Axel Nordenstam further illustrates India's limited strategic clarity and capacity to realise bilateral climate partnerships with the EU. Signed in 2016, the EU-India Clean Energy and Climate Partnership reflects New Delhi's growing intent to let climate seep into various EU-India cooperation domains. Focusing on green and clean energy technologies, the 2023 establishment of the EU-India Trade and Technology Council (EU-India TTC) at the ministerial level is the most recent example of this climate convergence between Brussels and New Delhi (Delegation of the European Union to India and Bhutan, 2023).

The European Investment Bank's growing profile in India also reflects how New Delhi is refocusing its bilateral track to look specifically at lending and financing institutions, including the US' International Development Financial Corporation (DFC), France's Agence Française de Développement (AfD), and Japan's Japan Bank for International Cooperation (JBIC). Nonetheless, as Nordenstam cautions, it remains unclear how the EU-India partnership aligns with the growing number of green partnerships that India has been signing with individual EU member states, including France, Germany, Sweden, and Denmark. While both levels are not incompatible, there are growing areas of overlap and redundancy, which New Delhi must avoid.

4. Deepening Tracks: Priority Areas, Policy Coordination, and Institutional Capacity

The seven policy briefs in this report reflect four transition tracks in India's global climate strategy. These parallel climate diplomacy dimensions include i) multilateral adaptation by working within the UNFCCC regime and existing institutions, ii) minilateral innovation by tailoring climate and geopolitical cooperation, iii) trilateral bridging by positioning India as a 'triangular' South-South-North climate hub, and iv) bilateral expansion by connecting climate to economic cooperation through new green partnerships. The authors examine specific challenges and opportunities and propose recommendations for India to pursue a more effective international engagement strategy across these four tracks.

This section takes a step back to i) take a holistic view of these recommendations, ii) draw lessons from our year-long exercise and consultations with the contributing authors, policy stakeholders, and experts in India's climate diplomacy, and iii) propose policy options for India to increase foreign policy coordination and institutional capacity to better align domestic and external priorities towards its 2030 and 2070 targets. There are two broad takeaways from our exercise which warrant more attention from policymakers. Both of these are only marginally covered in our report but will be the focus of a specific research agenda at the Centre for Social and Economic Progress.

4.1 The Growing Centrality of Climate Finance and Private Sector Networks

Our first takeaway relates to the growing centrality that climate finance must play across all four tracks of India's climate diplomacy, especially through MDBs and emerging private capital, asset owners, and industry networks. Achieving the Paris goal of 1.5°C will require at least USD 4 trillion for the development and deployment of clean technology by 2030 (Bordoff & O'Sullivan, 2022). Our report uncovers how India engages on climate with existing and emerging institutions. It is illustrative, but not exhaustive, of India's efforts and campaign to work with other countries toward decarbonisation. India's activities also extend across other organisations and frameworks tackling climate, focusing specifically on finance and investment.

MDBs, such as the World Bank and AIIB, are driving intergovernmental and global conversations to generate and deploy capital for climate purposes. Both the MDBs and other new climate finance cooperation frameworks are critical as they perform a range of different functions that may help India accelerate its climate transition and achieve its targets. They can mobilise and deploy more finance to India, reduce the cost of capital necessary to finance projects, enhance the creditworthiness of climate projects which will reduce risks and bring additional sources of capital to the table, and drive regulatory change by forcing domestic climate agencies to adhere to higher standards and rules vis-à-vis climate risk and transparency.

India will matter greatly to these discussions given its economic size, its growing contribution to carbon emissions, and its potential to absorb financing to accelerate the development of low-carbon energy through technologies as well as public and private investments. Financing aside, getting MDBs to transform their lending operations to focus more on climate will also require institutional change, which India will have to shape and influence (Ahluwalia & Patel, 2022). Beyond MDBs, India will also have to do more to engage the International Monetary Fund and other related green banking and green finance cooperation frameworks. For example, compared to China, Malaysia, Singapore, and other Asian countries, India remains largely absent from the work streams and task forces of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS).

India's climate diplomacy must also engage the private-sector– and industry-led climate finance networks from which it is currently largely absent. The Singapore-based Asia Investors Group on Climate Change (AIGCC), for example, which is part of the Paris Aligned Asset Owners initiative, has worked closely with Chinese and Japanese stakeholders to build benchmarks for green transition but its Indian engagements remain limited. Other such private frameworks warranting greater attention from India include Climate Action 100+, the Leadership Group for Industry Transition, and the Glasgow Financial Alliance for Net Zero (GFANZ).

4.2 The Growing Centrality of the Global South

The second takeaway from this exercise relates to the growing centrality that the Global South must play across all four tracks of India's climate diplomacy, especially large developing as well as least-developed economies in Latin

America, Africa, and Southeast Asia. The case studies in this report reflect that the majority of India's long-term climate diplomacy has involved engagement with larger, wealthier industrialised countries, focusing on access to foreign technology innovation and financial investments. This track is in line with India's traditional stance that countries historically responsible for emissions must invest more in the low-carbon transitions of emerging countries. More recently, India has begun to realise that to emerge as a climate leader, it must reposition itself and rethink its engagements to deepen partnerships in the Global South.

The motivations for this are twofold. First, there is a need for countries in the Global South to emerge as a singular voice to demand concrete financial and technical assistance from wealthier countries. India could play a critical role in enabling a united voice for the Global South if it follows through on its recent initiatives at the G20 summit in New Delhi. Second, India strategically wants to improve its influence across countries both in terms of market access as well as soft power. New Delhi's current engagements with the Global South tend to be projects that are one-off, small-scale, and in least developed countries or small island nations. However, through its rapid deployment of renewable energy, energy efficiency, and smart agriculture initiatives, India has demonstrated how a large emerging economy can move to vigorously tackle climate change. It is now time for India to showcase these policies, technologies, and financing innovations as models for other large economies to emulate. This would mean engaging more broadly with the Global South, towards more ambitious and scalable projects that require building institutional capacity and active civil society networks and private sector investments. Second, India is one of the countries that are most vulnerable to the calamities of climate change. This means that India can build collaborative platforms to champion more funding for climate adaptation research and development through a shared sense of purpose with other vulnerable countries.

4.3 Policy Coordination and Institutional Capacity

The two takeaways above are examples of what India could use as benchmarks to regulate the level and focus of its engagements across the four tracks. However, such strategic assessments will be ineffectual unless accompanied by investment to strengthen institutional capacity at home.

India's climate diplomacy has a long history of being obstructed by organisational differences and a lack of top-down decision-making processes. Aditya Pillai and Navroz Dubash thus argue that India's climate policy is now defined as "climate nodes spread across government, stitched together by relatively weak and unstable cross-ministerial coordination and strategy bodies" (2021, p. 94). This is one of the characteristics of developments in recent years where international engagements have often informed and set domestic priorities with a lack of obverse capacity to set interests at home and then pursue them abroad. We thus have a "centralised but thinly institutionalised decision-making structure in the PMO[2] harvesting ideas for domestic action as part of a concerted effort to re-make India's image on the world stage" (Pillai & Navroz, 2021, p. 103). The inter-ministerial Apex Committee for Implementation of Paris Agreement (AIPA), which was announced in 2020 under the chairmanship of the secretary of the Ministry of Environment, Forest and Climate Change (MoEFCC), seeks to address these gaps internally. But this will not solve the growing gap between India's domestic policy priorities and the rapidly fragmenting and increasingly complex global climate governance landscape.

Bridging this gap requires designated officials with the mandate and expertise on global climate issues who can draft, manage, and coordinate India's international policies on

[2] Prime Minister's Office

climate change. Other competencies could include tracking India's progress vis-à-vis Paris commitments and giving sufficient attention to climate adaptation, not just mitigation. Working with international financing institutions (IFIs) and MDBs as well as the private sector to unlock climate financial flows, supporting clean energy innovation efforts bilaterally with key partners and through IFIs like the World Bank, and understanding the climate dimensions of sectors like aviation, biodiversity, health, and trade are other key competencies.

As evidenced in this report, the climate terrain is fragmenting. Advancing both bilateral and minilateral agendas requires close consideration of where bilateral interests intersect with those of other countries such as Japan, the European Union or developing countries in the Global South. Therefore, countries are now engaging strategically on climate matters and discussing various issues in climate clubs. Moreover, how India negotiates at COPs will increasingly have to comport with its climate-related activities within mechanisms like the Quad, the issues it focuses on through bilateral climate partnerships with the US, EU, and Japan, and its engagements with other developing countries on issues like renewable energy or infrastructure financing. Increasing coordination and building capacity will become crucial.

From playing a leading role in India's climate diplomacy in the late 2000s, the Ministry of External Affairs (MEA) is now one of the few foreign ministries among major economic powers without a dedicated department focused on climate. The ministry's United Nations Economic and Social (UNES) division only has a limited role that is mostly restricted to the UNFCCC. While the MoEFCC remains the lead ministry on all climate-related matters, it would benefit from closer policy coordination and greater delegation of responsibilities to the MEA. As per one assessment, in 2020, the MEA only had two personnel with listed climate responsibilities (out of a total of 62 across the Government of India) (Pillai & Navroz, 2021, p. 109).

We propose four measures to bolster India's climate diplomacy and support the strategic reassessments proposed in this report across the four international tracks towards transition. These measures could expand institutional capacity to ensure that India's international climate interests and priorities are safeguarded by organisational, financial, and expert human resources.

- Appoint a prime minister's special envoy for climate cooperation. This position was in existence between 2007 and 2010, held by former Foreign Secretary Shyam Saran. He played a central role in preparing India's international negotiation stances and coordinating between actors at the domestic and international levels. Whether in a similar dual, international and domestic, substantive (maximalist) role or a limited external and mostly representational (minimalist) role, such a high-level, senior expert, and cabinet ministerial–ranked position would help India voice its climate interests internationally. This is in line with what is already done by other special envoys representing the top-most leaders of China or the US. While other countries have opted for a foreign-ministry level representative (in the case of Brazil and, until recently, the UK), the envoy's direct link to the prime minister would confer greater standing abroad and legitimacy at home.
- Institute a new division on climate cooperation at the MEA. In line with other divisions created in recent years for new policy arenas (for example, Indo-Pacific and new emerging and strategic technologies), the MEA could institute a new climate division focused on international climate cooperation, headed by a joint secretary and with dedicated staff from the Indian Foreign Services, and on deputation from other ministries and civil services.
- Create a secretary-level position dedicated to climate diplomacy in the MEA. This

position would be at par with the four existing secretary-level positions instituted in the MEA (besides the foreign secretary) focusing on east, west, economic relations, and consular/diaspora affairs. This secretary-ranked position would also help its holder to define, coordinate, and implement India's climate diplomacy in coordination with the MoEFCC—and at par with other secretary-ranked officials from the other nodal ministries involved in India's climate transition efforts—from multiple policy angles that all require international engagements.

- Establish a 'climate wing' at India's principal diplomatic missions abroad to track and accelerate key bilateral climate partnerships. India's missions traditionally have diverse sectoral wings to define, propose, and implement policy to strengthen bilateral relations. India's missions in Washington DC, Brussels, and Tokyo, among its largest, have a variety of specialised wings including political, economic, defence and military, trade and commerce, and science and technology affairs. The MEA could institute a specialised climate wing at these missions to track and facilitate progress in implementing the growing number and mandate of bilateral green partnerships. These climate wings in key capitals could also lead outreach to MDBs and other multilateral climate institutions where India is often thinly represented if not absent. These wings should be staffed by both generalist officials from the Indian Foreign Service as well as other experts on deputation from different civil services and ministries, especially with training in international law, science, economics, and other disciplines that can bolster India's analytical and negotiation power abroad.

5. Conclusion

India has spent the last few years expanding engagements and diversifying and decentralising its climate diplomacy. These moves reflect New Delhi's adaptability and sophistication, straddling and balancing different institutional burdens. However, the focus now must turn toward taking stock and assessing how these multiple climate tracks add up to a coherent low-carbon strategy toward 2030 and 2070. This report reveals the drivers, activities, and implications of India's behaviour across the globally splintering climate landscape. Some engagements like the Quad, US-India, and EU-India are tactical, driven by strategic considerations and interests, whereas others are political and developmental like FCCC, ISA, IEA, and various triangular efforts shaped by India's positioning as a developing country keen to do its part on mitigation without sacrificing development concerns.

To achieve its 2030 targets with long-term strategic commitments that move toward the 2070 net zero objectives, India will have to emphasise both development concerns and politics at COPs, reform IFIs and MDBs to support developing countries as they decarbonise, and urge developed countries to not craft and execute climate transitions at the expense of all other countries who will lack the capital and technologies to undertake that effort. The international politics of climate change is increasingly moving toward key jurisdictions—the US, EU, and China—that are deploying large amounts of capital and instituting unprecedented industrial policies to decarbonise their economies and societies. The distortionary effects of these transitions for the rest of the world are immense. New Delhi must raise political awareness regarding the prohibitive costs of such transitions and urge these countries to collectively move toward a greener future while concurrently working with 'like-minded partners' through specific frameworks on issues like climate technologies and financing.

As the climate crisis unfolds, India has little choice but to engage across these four tracks and multiple frameworks. As mentioned above, India will have to continue emphasising annual COPs, which remain the political anchor underpinning global climate action. Bilateral climate partnerships, like with the US and EU, could become subject to political winds, with

progress hinging on the pace and scope of the larger relationship and how they view India, either strategically or instrumentally. Such relationships are driven by interests, which means that they are vulnerable to domestic political shifts and changes that could reorient core interests. Thus, India must remain vigilant to protect its interests. These political currents also inflect specific minilateral partnerships, like the Quad, which are centred on mutual interests, so their importance might wane over time.

For bilateral green partnerships to triumph and sustain, India might have to reform its domestic climate sector and market to allow greater climate trade and engagement with the US and EU private sectors. Regulatory reform might have to flow from progressive bilateral climate engagements. Opportunities, however, abound on the triangular front and for India to link and connect developed and developing countries. Saddled by domestic political constraints, neither the US nor the EU can help craft an ambitious climate agenda for the Global South. India appears to be the natural partner that could support liberal, mostly Western, groups—like the Quad—as well as illiberal, mostly non-Western, coalitions—like the BRICS—to undertake climate-focused initiatives. Moreover, demands to build cost-effective and competitive climate-focused infrastructure will only increase across the developing world even though we currently lack the coalitions and arrangements that could drive that transition.

Our report, and the seven case studies herein, are a small contribution to a strategic ends-and-means exercise that will have to be expanded across the government. This exercise will generate granular insights on where India should expand, refocus, engage, or disengage and, at the same time, help decision-makers to set specific policy targets across an increasingly large and complex landscape of multilateral, minilateral, trilateral, and bilateral climate initiatives. The last two policy briefs, which illustrate the rising number of bilateral tracks with reference to the US and EU, are perhaps the best reflection of a growing urgency to differentiate between tracks conducive to short- and long-term targets.

On the one hand, bilateral climate partnerships are, in principle, easier to reach and faster to implement, offering a tempting tactical track for India to achieve its immediate 2030 targets. On the other hand, both old and new multilateral institutions offer a strategic track towards accelerating net-zero in the long run, the latest by or ideally before 2070. These large frameworks are generally more difficult to sustain; they require large political, diplomatic, and technocratic investments in complex negotiations based on consensus and compromise. Minilateral and trilateral frameworks further add to this challenge of prioritising between multiple and often contending tracks. India's climate future will likely be shaped by the diplomatic capacity and choices it makes on these international trade-offs between short- and long-term policy horizons, leading to a series of layered engagements.

References

Ahluwalia, M.S., & Patel, U. (2022). *Financing Climate Change Mitigation and Adaptation in Developing Countries* (CSEP Working Paper 40). Centre for Social and Economic Progress. Retrieved from https://csep.org/wp-content/uploads/2022/10/Financing-Climate-Change-Mitigation_UPDATED.pdf

Ahluwalia, M.S., & Patel, U. (2022). *Managing climate change: A strategy for India* (CSEP Working Paper 31). Centre for Social and Economic Progress. Retrieved from https://csep.org/working-paper/managing-climate-change-a-strategy-for-india/

Bell, R. G., Ziegler, M. S., Blechman, B., Finlay, B., & Cottier, T. (2012). *Building international climate cooperation: Lessons from the weapons and trade regimes for achieving international climate goals*. World Resources Institute. Retrieved from https://files.wri.org/d8/s3fs-public/pdf/building_international_climate_cooperation.pdf.

Betsill, M., Dubash, N.K., Paterson, M., Asselt, H., Vihma, A., & Winkler, H. (2015). Building productive links between the UNFCCC and the broader global climate governance landscape. *Global Environmental Politics*, *15*(2), 1–10.

Bordoff, J., & O'Sullivan, M. L. (2022, June 7). The New Energy Order. *Foreign Affairs, July/August 2022*. https://www.foreignaffairs.com/articles/energy/2022-06-07/markets-new-energy-order

Delegation of the European Union to India and Bhutan. (2023, May 17). First EU-India Trade and Technology Council focused on deepening strategic engagement on trade and technology [Press release]. Retrieved from https://www.eeas.europa.eu/delegations/india/first-eu-india-trade-and-technology-council-focused-deepening-strategic_en.

Desai, N. (2019). Foreword. In N. Dubash (Ed.), *India in a Warming World: Integrating Climate Change and Development* (p. xiii). Oxford University Press.

Dragulјić, G. (2019). The climate change regime complex: Path dependence amidst institutional change. *Global Governance 25*(3), 476–98.

Dubash, N.K. (2013). The politics of climate change in India: Narratives of equity and cobenefits. *Wiley Interdisciplinary Reviews: Climate Change*, *4*(3), 191–201.

Epps, T., & Green, A.J. (2010). *Reconciling trade and climate: How the WTO can help address climate change*. Edward Elgar Publishing.

Falkner, R. (2016). A minilateral solution for global climate change? On bargaining efficiency, club benefits, and international legitimacy. *Perspectives on Politics*, *14*(1), 87–101.

Florini, A. (2013). *The coming democracy: New rules for running a new world*. Island Press.

Ghosh, A., & Woods, N. (2009). *Governing climate change: lessons from other governance regimes* (GEG Working Paper No. 2009/51, p. 24). University of Oxford. Retrieved from https://www.econstor.eu/handle/10419/196312

Greenspan, R.B., Ziegler, M., Blechman, B., Finlay, B., & Cottier, T. (2012). *Building international climate cooperation*. The World Resources Institute. Retrieved from https://policycommons.net/artifacts/1360496/building-international-climate-cooperation/1974025/

Hoekman, B.M., & Mavroidis, P.C. (2015). Embracing diversity: Plurilateral agreements and the trading system. *World Trade Review*, *14*(1), 101–116.

Hoekman, B.M., & Mavroidis, P.C. (2021). Preventing the bad from getting worse: The end of the world (trade organization) as we know it? *European Journal of International Law*, *32*(3), 743–770.

Jaishankar, S. (2020). *The India way: Strategies for an uncertain world*. HarperCollins Publishers India.

Jayaram, D. (2018). From "spoiler" to "bridging nation": The reshaping of India's climate diplomacy. *Revue Internationale et Stratégique*, *109*(1), 181–190.

Lawrence, P. (2007). The Asia Pacific Partnership on Clean Development and Climate (AP6): A Distraction to the Kyoto Process or a Viable Alternative?. *Asia Pacific Journal of Environmental Law, 10*(3-4), 183 – 210.

Lisowski, M. (2002). Playing the two-level game: US President Bush's decision to repudiate the Kyoto Protocol. *Environmental Politics*, *11*(4), 101–119.

Ministry of External Affairs. (2023, July 15). *India-UAE: Joint statement on climate change* [Media release]. Retrieved from https://www.mea.gov.in/bilateral-documents.htm?dtl/36812/IndiaUAE_Joint_Statement_on_Climate_Change

Nachiappan, K. (2019). Agenda-setting from behind: India and the framework convention on climate change. *India* Review, *18*(5), 552–567.

Nachiappan, K. & Xavier, C. (2023, June 26). India is adapting to a shifting climate terrain. *Hindustan*

Times. Retrieved from https://www.hindustantimes.com/opinion/india-is-adapting-to-the-shifting-climate-terrain-101687792613103.html.

Natarajan, J. (2011, December 10). Centre for Science and Environment, Indian Environment Minister Jayanthi Natarajan gives hard hitting speech, receives standing ovation [Speech transcript]. Retrieved from https://www.cseindia.org/-indian-environment-minister-jayanthi-natarajan-gives-hard-hitting-speech-receives-standing-ovation-3556

Paik, W., & Park, J.J. (2021). The Quad's search for non-military roles and China's strategic response: Minilateralism, infrastructure investment, and regional balancing. *Journal of Contemporary China*, *30*(127), 36–52.

Patrick, S. (2015). The new "new multilateralism": Minilateral cooperation, but at what cost? *Global Summitry*, *1*(2), 115–134.

Pillai, A.V., & Dubash, N.K. (2021). The limits of opportunism: The uneven emergence of climate institutions in India. *Environmental Politics*, *30*(1), 93–117.

Press Information Bureau. (2023, January 13). *Voice of Global South Summit* [Press release]. Retrieved from https://pib.gov.in/PressReleasePage.aspx?PRID=1891153#:~:text=Hardeep%20S%20Puri%20addressed%20the,is%20affordable%2C%20accessible%20and%20sustainable

Qobo, M., & Soko, M. (2015). The rise of emerging powers in the global development finance architecture: The case of the BRICS and the New Development Bank. *South African Journal of International Affairs*, *22*(3), 277–288.

Roy, A. (2021, September 23). On the climate crisis, a four-point agenda for the Quad meeting. *Hindustan Times*. Retrieved from https://www.hindustantimes.com/opinion/on-the-climate-crisis-a-four-point-agenda-for-quad-meeting-101632407757940.html#lnegi3pf4wk9r73zuot

Savage, J.E., & McConnell, B.W. (2015). Exploring multi-stakeholder internet governance. *EastWest Institute*, January.

Sengupta, S. (2019). India's engagement in global climate negotiations from Rio to Paris. In N. Dubash (Ed.), *India in a Warming World: Integrating Climate Change and Development (pp.* 114–141). Oxford University Press.

Shidore, S., & Busby, J.W. (2019). One more try: The International Solar Alliance and India's search for geopolitical influence. *Energy Strategy Reviews*, *26*, 100385.

The Global Internet Forum to Counter Terrorism. (n.d.). *Homepage*. Retrieved from https://gifct.org/

The Paris Call for Trust and Security in Cyberspace. (n.d.). *Homepage*. Retrieved from https://pariscall.international/en/

Tow, W.T. (2019). Minilateral security's relevance to US strategy in the Indo-Pacific: Challenges and prospects. *The Pacific Review*, *32*(2), 232–244.

U.S. State Department. (n.d.). *Major economies process on energy security and climate change*. Retrieved from https://2001-2009.state.gov/g/oes/climate/mem/

World Bank. (2022). *Driving revolutionary ideas into practice: Infrastructure for climate change, poverty reduction 2.0, human development on mobile government, disrupted*. World Bank.

Yangling, L. (2023, June 6). China's climate diplomacy in a turbulent world. *China Dialogue*. Retrieved from https://chinadialogue.net/en/climate/chinas-climate-diplomacy-in-a-turbulent-world/

Youde, J. (2013). The Rockefeller and Gates Foundations in global health governance. *Global Society*, *27*(2), 139–158.

Youdon, C., & Bajaj, P. (2022, November 19). India's approach and position on climate change governance. *National Maritime Foundation*. Retrieved from https://maritimeindia.org/indias-approach-and-position-on-climate-change-governance/

02

Climate Transparency and India's Leadership

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Abstract

The enhanced transparency framework (ETF), a crucial part of the rulebook of the Paris Agreement, was agreed upon and adopted at the 26th Conference of Parties (COP26). The ETF aims to help better understand countries' progress on their commitments and build mutual trust among participating countries by tracking their progress on commitments. This will create a learning process between nations and establish a platform where their challenges are discussed and addressed. To achieve such multilateral climate governance, transparency of climate actions is pivotal. However, nations are at different starting points with respect to their capabilities and capacities. The newly agreed upon ETF demands more granular information than before, which suggests that member states—especially India and other developing countries—would need more enhanced support than before to adhere to these obligations.

This policy brief explores the evolution and significance of the ETF in the multilateral process. So far, India has participated in the transparency negotiations and complied with the associated obligations. However, given India's vast landscape and complex governance structure, it would need more financial and technical support to effectively report and build sustainable institutional and technical capacity to regularly communicate, share, and review its climate efforts. The brief further maps India's efforts to enhance reporting under the monitoring, reporting, and verification (MRV) arrangement, discusses existing challenges, India's role, and offers recommendations for India to build capacity to fulfil these obligations.

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1. Introduction

The Paris Agreement (PA) necessitates all countries to continuously enhance their climate targets in the form of nationally determined contributions (NDC) to limit the rise in temperature to less than 2°C while pursuing efforts to limit it to 1.5°C above pre-industrial levels. Regular monitoring and reporting are crucial to ensure that efforts by all countries are adding up and their challenges are discussed and addressed. Therefore, the enhanced transparency framework (ETF) was established under Article 13 of the PA under the United Nations Framework Convention on Climate Change (UNFCCC) to track countries' progress, build mutual trust, and create a learning process among countries. Transparency is vital to keep countries informed about each other's climate intentions and actions, enhance confidence and cooperation, and ultimately inspire more ambitious climate actions from all, given the complexity and breadth of the challenges within climate change negotiations (Appunn, 2018).

As a signatory to the PA, India is obligated to adhere to the ETF and submit biennial transparency reports (BTR) every two years (UNFCCC, 2021). The BTR demands information on greenhouse gas (GHG) emissions and domestic climate actions and supports the monitoring of the execution of their NDCs by providing necessary data. It serves the purpose of showcasing India's progress internationally but also enables the country to make informed climate policy decisions, learn from its experience, and attract international financial, technological, and capacity-building support.

However, adhering to the reporting obligations poses multiple challenges not only for India but also for other developing and least-developed countries due to significant institutional, technical, and financial capacity deficits in undertaking this exercise (UNFCCC Secretariat, 2022). With the first set of reports to be submitted by 2024, the expectation is that India will enter a new era of transparency (Initiative for Climate Action Transparency, 2019). However, the question is: How will India comply with the more stringent transparency requirements of the PA, given the challenges in adhering to the previous simpler transparency arrangements?

2. How Have the Transparency Negotiations Evolved?

For decades, countries have been engaged in the debate for transparency in climate action and support under the UNFCCC. At the 16th Conference of Parties (COP16) held in 2010, the monitoring, reporting, and verification (MRV) framework was established under the Cancun Agreements (UNFCCC, 2011)[1] and subsequently operationalised through the modalities adopted in Durban[2] at COP17 in 2011 (UNFCCC, 2012). Following these arrangements, developed countries followed rigorous reporting and review obligations and were subjected to detailed disclosure of sectoral GHG emissions. On the other hand, developing countries, such as India and others, were not subjected to detailed sectoral emissions and, consequently, had relatively simpler reporting obligations and facilitative sharing of views instead of stringent reviews (Prasad & Gupta, 2019).

It is critical to acknowledge that India and other developing countries are at different starting points in terms of their MRV capabilities. Their lack of capacity is evident from the fact that only 27 non-annex parties, mainly developing countries, out of 154 have submitted their third biennial update report (BUR)—a pre-2020 reporting obligation for developing countries—to date (Table 1) (UNFCCC, 2023).

[1] Decision 1/CP.16 (UNFCCC, 2011).
[2] Decision 2/CP.17 (UNFCCC, 2012).

Table 1: Submission of Biennial Update Reports (BURs) by Non-Annex I Parties (Developing Nations)

First BUR	Second BUR	Third BUR	Fourth BUR
92	39	27	12

Source: UNFCCC, 2023.

The differences in MRV capacities have influenced how countries have approached negotiations on transparency. Between 2011 and 2015, developed countries continued to push for a common transparency framework for climate change actions, while India, along with developing countries, was inclined towards a differentiated approach owing to varying capacity constraints (Third World Network, 2016).

Eventually, in 2015, the PA established an enhanced transparency framework whereby all signatory countries to the PA—developed and developing—are subject to common enhanced reporting and review obligations. Therefore, all countries are now obligated to submit the BTRs that not only cover reporting on detailed sectoral emissions, NDC progress, projections, mitigation, and adaptation but also delineate flows of support received and provided on finance, technology transfer, and capacity-building. Additionally, it also encourages countries to report on measures to tackle loss and damage. However, it allows India and other developing countries to avail built-in flexibility in adhering to these obligations considering their capacity constraints (UNFCCC, 2019). These flexibilities can be "self-determined", where countries indicate where flexibility is availed, elucidate constraints, and offer self-determined time frames for improvement on reported constraints.[3] However, this flexibility is not granted automatically. The country requesting flexibility needs to identify, update, and include areas of improvement, called plans, for the flexibilities availed in the BTRs (UNFCCC, 2019). To ensure continuous progress, these plans should be based on a comprehensive mapping of the country's current capacity constraints, set clear objectives, and assess the progress in the defined time frame in light of the support—knowledge and financial—received.

With this being said, it becomes important for India to define a pathway for adhering to the reporting obligations, thus increasing its capacity as well as accountability while shaping the direction of climate transparency. As the newer reporting requirements demand more detailed information, India should see this as an opportunity to attract additional international support and increase accountability, given that complying with the new requirements under ETF requires further investments in resources and commitment.

3. How Has India Performed Under the MRV Arrangement So Far?

India has adhered to the international climate reporting obligations with utmost sincerity and dedication. Thus far, India has submitted two national communications (NC) and three BURs. These reports were acknowledged and applauded for their depth, clarity, and integrity by the negotiators at the conference during the facilitative sharing of views.[4] The preparation of the BUR is a comprehensive and resource-intensive process and is conducted by specialised institutions with sector-specific expertise, along with inputs from diverse ministries, government departments, and public sector undertakings. All this is challenging to accomplish when the past is marred by inaction, unfulfilled climate commitments, and poor flow of finance and technology—the two pillars of collaborative climate action—from developed countries.

[3] Decision 18/CMA.1 (UNFCCC, 2019).

[4] One of the two steps defined under the international consultation and analysis process for non-annex I parties is a brief presentation on the BUR by the party or parties concerned, followed by oral questions and answers among parties.

In India, the reporting process is overseen by the National Steering Committee (NSC), chaired by the secretary of the Ministry of Environment, Forests, and Climate Change (MoEFCC). A technical advisory committee, consisting of members from the government, academia, and civil society, provides essential technical guidance to undertake this mammoth exercise (MOEFCC, 2021). To monitor its domestic climate actions, India's policies are designed with an inbuilt evaluation or MRV process. The MRV for operational designs is implemented in a decentralised manner, with responsibilities allocated at multiple levels of governance (MOEFCC, 2021). The core elements of the MRV framework aim to track the effectiveness of domestic sustainable development programmes and schemes and monitor energy efficiency and emissions-related indicators in addition to other climate co-benefits. For example, the perform, achieve, and trade (PAT) regulatory instrument sets energy efficiency targets for key industrial sectors and firms that are then permitted to trade energy savings certificates (ECerts). The Bureau of Energy Efficiency (BEE) has developed stringent reporting procedures and guidelines, ensuring a reliable MRV framework to track the effectiveness of PAT and has been one of the most successful schemes (Express News Service, 2022).

In its third BUR, India also reported other efforts and the extensive work undertaken on updating and creating technical data repositories and dashboards and improving their access to the public (MoEFCC, 2021). Further, the Government of India (GoI) has developed several web portals and digital dashboards—especially in energy-related sectors, which impact emissions reduction, such as power, renewables, industry, and transport—for effective tracking of performance across all states on a single platform. Creating these web portals reiterates GoI's intention of moving towards a digital India while simultaneously showcasing successful examples of transitioning towards transparency in governance (MoEFCC, 2021). Here are some examples:

- In the energy sector, the National Power Portal developed by the Central Electricity Authority (CEA) provides information on installed renewable capacity and its generation.
- In the transport sector, the Faster Adoption and Manufacturing of (Hybrid and) Electric Vehicles in India (FAME India) scheme is monitored by the FAME dashboard, displaying the key outcomes and associated indicators (Ministry of Heavy Industries, n.d.).
- Within the agricultural sector, a farmers' portal has been developed for estimating baseline emissions[5] (Ministry of Agriculture and Farmers Welfare, n.d.).
- In the forestry sector, the Bhuvan geospatial portal provides services and applications related to satellite remote sensing data for public use.
- In the waste sector, the Swachh Bharat-Urban and Gramin dashboards track progress towards achieving their programme targets (Ministry of Housing and Urban Affairs, n.d.; Ministry of Jal Shakti, n.d.).
- To track India's progress on sustainable developmental goals (SDGs), the NITI Aayog launched the SDG India Index, which monitors at the level of states and union territories the outcomes of government interventions and schemes related to the SDGs (NITI Aayog, 2022).

In addition to these initiatives, several mobile applications—such as BEE Star Label,[6]

[5] The portal includes details on livestock census, fertiliser use, crop varieties grown, total area, yield, and other necessary information.

[6] BEE Star Label is a programme run by the Indian government's Bureau of Energy Efficiency, under Ministry of Power, that promotes energy efficiency.

MERIT,[7] and Meghdoot[8]—are used to widen the reach of government initiatives and monitor their implementation. Further, there are several initiatives by non-governmental stakeholders such as the GHG Platform India (GHG Platform India, n.d.), the Renewable Energy Data Portal by Prayas (Kulkarni, Sahasrabudhe, Chunekar, & Dixit, 2019), Centre for Energy Finance (CEF) by Council on Energy, Environment and Water (CEEW) (CEEW, n.d.), and the India GHG Program led by World Resources India (WRI) India, Confederation of Indian Industry (CII), and The Energy and Resources Institute (TERI) amongst others to support India's domestic capacity to manage and measure GHG emissions in Indian businesses (GHG Platform India, n.d.).

The range of such efforts demonstrates India's leadership and commitment to its transparency obligations. While these efforts are laudable, India still requires support to further enhance its institutional capacity to report accurate data on time and address existing MRV challenges. Drawing on the experiences of diverse MRV systems established under various policies, India should plan for an integrated system that will be on par with international standards. To achieve this, India must address the existing MRV gaps, including some of the following key areas of action:

- **Lack of data and data management systems:** The availability of quantifiable information is critical for policymakers to analyse and draw useful interpretations. However, the information provided by ministries and departments represents merely a portion of the data that is available across the plethora of publications. Further, it is in a form that makes it difficult to be used seamlessly in conjunction with other data sources, especially in alignment with the ETF guidelines. Poor or non-availability of data and lack of regular updates often lead to imprecise estimates of emissions for the unorganised industrial sector and various sections of the formal manufacturing sector.
- **Limited collaborative institutional arrangements:** The lack of the necessary mandate to share data in easy-to-use formats within and across departments and ministries precludes a comprehensive evaluation of all efforts and inputs. While India already has an established network of institutions at almost every level of governance, closer coordination between them is necessary to address information gaps in the context of climate change mitigation actions and GHG inventories.

4. Implications of the Enhanced Transparency Framework for India

Though India has sound arrangements and processes in place to report on climate actions (Prasad & Gupta, 2019), it requires more formal and institutionalised arrangements focused on interdepartmental synergy and capacity retention. This is especially relevant in the context of ETF, which obligates reporting on areas where India has no prior experience. Table 2 provides a brief overview of the newer elements expected under the ETF.

Table 2 highlights the newer and enhanced reporting obligations for countries to adopt and adhere to, some of which signal fresh MRV challenges. For instance, India's capacity to report on the 59 common reporting tables is varied. Thus far, India has reported through summary tables related to national GHG inventories across sectors for all gases and emission factors and tiers. In addition, substantial capacity exists for reporting on the energy sector. However, India may have to avail the flexibility option for reporting on certain sub-sectors of energy due to little clarity on emissions from the informal sector, lack of data for all sub-sectors at the desired

[7] MERIT: Merit order despatch of electricity for rejuvenation of income and transparency.
[8] Meghdoot is a joint initiative of India Meteorological Department, Indian Institute of Tropical Meteorology, and Indian Council of Agricultural Research. It aims to provide important information to farmers through a simple and easy-to-use mobile application.

Table 2: New Elements Under the Enhanced Transparency Framework

Aspects	New Elements or Modifications
Nationally determined contributions (NDCs)	Information is required in the form of **structured summaries and tables** to track progress in implementing and reaching its NDCs under Article 4 of the PA
Common reporting tables	Reporting is required in 59 tables that can be broadly categorised into sectoral, summary, recalculation and completeness, and trends aspects. Out of these, **sectoral, recalculation, and trend tables** are completely new, and India has no prior experience with them
Guidelines	Adherence to the modified guidelines. Use the **2019 Refinement to the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories**
Gases	Reporting requirement on nitrogen trifluoride (NF3), which has been included as an **additional gas** in addition to the six gases (CO2, CH4, N2O, HFCs, PFCs, SF6, and NF3)
Time series	Requirement of consistent annual **time series emission from 1990**, with the flexibility to report from reference year for its NDC, and a consistent annual time series from at least 2020 onwards
Projections	Projections to be reported under the following categories: (i) with measures, (ii) with additional measures, and (iii) without measures, from the most recent year in the inventory to **at least 15 years** beyond the next year ending in zero or five and done on a sectoral basis and by gas
Adaptation	Information related to climate change impacts and adaptation is to be reported separately as "adaptation communication"
Loss and damage	Consider providing information regarding loss and damage as part of the BTR

Source: Author's compilation based on various sources.

frequency, mismatch in sectoral details across different published documents, and the technology advancement required to measure emission factors at regular intervals across industries (Prasad & Gupta, 2019). An overview of the sectoral tables shows that India can report on industrial processes and product use; agriculture; land use, land-use change and forestry; and waste with some degree of flexibility. However, India would be required (with flexibility) to report consistent time series from 1990 and develop projections on GHG emissions of fifteen years for which it has no prior experience and would have to build capacity.

Due to the extensive reporting obligations required under the ETF and the lack of domestic MRV capacity, India will need more financial and technical support as compared to other countries to meet the reporting requirements. Moreover, given its vast landscape and three-tier governance structure, it would be challenging for India to cover a larger area for reporting without adequate resources. Consequently, India will need dedicated technical and financial support to invest in the development of the requisite expertise and capacity to report on these elements.

5. Recommendations

Despite decades of cooperation under the UNFCCC, India and most developing countries are yet to build sustainable institutional and technical capacity to regularly communicate, share, and review their climate efforts. With their first BTRs due in 2024, the window to prepare for the transition from the current MRV requirements to the ETF is narrow. In this context, the following are key:

- First, developed countries need to provide targeted financial, technical, and capacity-building support for establishing a sustainable ETF mechanism in India. They should help in designing and implementing programmes that are scaled to meet reporting obligations by addressing acute MRV gaps between existing domestic arrangements and required capacities. On the other hand, India, along with other developing and least-developed countries, should develop a platform for wider stakeholder engagement for South-South cooperation to learn from each other's experiences as the experiences of the Global North may not be replicable to the domestic realities and capacities in the Global South. The focus should be to put institutional and knowledge capacities in place to allow seamless operationalisation of the ETF.

- Second, the Consultative Group of Experts (CGE)—the UNFCCC's official mandated body—also has a crucial role in supporting the transition. This includes the continuous provision of technical advice and support to India to fulfil its obligations. India should make use of existing tools to help the CGE understand its capacity constraints. For example, an enhanced transparency framework-capacity building tool (ETF-CBT) is currently being developed by the CEEW in partnership with the UNFCCC (CGE) to aid developing countries in reporting on climate change. This tool helps identify critical capacity needs and challenges, enabling the provision of commensurate resources (CEEW, 2022).

- Third, partnerships between different stakeholders, such as multilateral organisations, civil society, academia, and the private sector, must be explored to develop lasting practices and processes to enhance the capacity of individuals and institutions regularly to support India's efforts toward transparency and accountability. While multiple research institutions function in this policy landscape, there is little to no provision to ensure knowledge transfer between them. Hence, inclusive mechanisms should be designed, across all levels of governance, that proactively engage all stakeholders and facilitate learning and knowledge transfer among them to standardise tasks and identify priorities for future improvement.

- Fourth, encourage non-party stakeholders to supplement India's efforts toward transparency and accountability. Non-governmental organisations could do so by improving data for reporting; conducting independent assessments for reviews; informing the global stocktake; and assessing the collaborative platforms and initiatives that were launched in parallel to the PA (Ghosh & Prasad, 2017). States should make the participation of non-party stakeholders a more formal and legitimate part of the new transparency mechanism. For their part, research and independent non-governmental organisations (RINGOs) should form a task force with the mandate to share practices, develop common standards, and support capacity building. Philanthropic foundations, the Capacity-building Initiative for Transparency (CBIT) Trust Fund, and host governments should provide financial assistance for this exercise, along with support from developed and developing countries (Ghosh, 2018).

Transparency is the backbone of the Paris Agreement that builds confidence in the multilateral process. The evidence-based knowledge that all countries are equally committed and working hard towards a common goal infuses the much-needed trust in the international system. These are some suggestions that can possibly play a meaningful role in supporting India and other developing countries in their transparency-related capacity-building journeys. Given the limited time left to reduce global emissions and achieve climate-resilient societies, efforts must be towards smarter, effective, and sustainable implementation of the ETF and related capacity building. This must be done through integrated efforts and with regular support from the developed countries.

References

Appunn, K. (2018). *Germany wants transparent global climate reporting to ensure trust.* Retrieved from Clean Energy Wire: https://www.cleanenergywire.org/news/germany-wants-transparent-global-climate-reporting-ensure-trust

CEEW. (2022, March 24). *UNFCCC and CEEW join hands to develop capacity-building tools for developing countries [Press release].* Retrieved from https://unfccc.int/news/unfccc-and-ceew-join-hands-to-develop-capacity-building-tools-for-developing-countries

Council on Energy, Environment and Water (CEEW). (n.d.). *Centre for Energy Finance*. Retrieved from https://www.ceew.in/cef/

Express News Service. (2022, December 3). *PAT success to boost energy conservation across industrial sector*. Retrieved from The New Indian Express: https://www.newindianexpress.com/states/andhra-pradesh/2022/dec/03/pat-success-to-boost-energy-conservation-across-industrial-sector-2524638.html

GHG Platform India. (n.d.). *GHG Platform India*. Retrieved from https://www.ghgplatform-india.org

Ghosh, A. (2018, December 3). *Living up to the deal: Expectations from COP-24.* Retrieved from Council on Energy, Environment and Water: https://www.ceew.in/sites/all/themes/ceew/images/CEEW_Press_Briefing_Living_up_to_the_deal_Expectations_from_COP_2403Dec18.pdf

Ghosh, A., & Prasad, S. (2017). *Shining the Light on Climate Action: The Role of Non-party Institutions.* Waterloo, Canada: Centre for International Governance Innovation.

Ministry of Environment, Forest and Climate Change. (2021). *India: Third biennial update report to the United Nations Framework Convention on Climate Change.* Retrieved from https://unfccc.int/sites/default/files/resource/INDIA_%20BUR-3_20.02.2021_High.pdf

Kulkarni, S., Sahasrabudhe, A., Chunekar, A., & Dixit, S. (2019). *About the Electricity Supply Monitoring Initiative (ESMI)*. Retrieved from https://energy.prayaspune.org/our-work/article-and-blog/about-the-initiative

Ministry of Agriculture and Farmers Welfare. (2021). *Farmer's portal: One stop shop for farmers*. Retrieved from https://farmer.gov.in/

Ministry of Heavy Industries. (2022). *FAME India Scheme Phase II*. Retrieved from https://fame2.heavyindustries.gov.in

Ministry of Housing and Urban Affairs. (n.d.). *Swachh Bharat Mission Urban*. Retrieved from http://sbmurban.org

Ministry of Jal Shakti. (n.d.). *Swachh Bharat Mission - Gramin*. Retrieved from https://swachhbharatmission.gov.in/sbmcms/index.htm

NITI Aayog. (2022). *SDG India: Index and dashboard*. Retrieved from https://sdgindiaindex.niti.gov.in/#/

Prasad, S., & Gupta, V. (2019). *A capacity building assessment matrix for enhanced transparency in climate reporting.* Retrieved from https://www.ceew.in/publications/capacity-building-assessment-matrix-enhanced-transparency-climate-reporting

Third World Network. (2016, May 25). *North-south divide over transparency framework in the Paris Agreement[News update].* Retrieved from https://www.twn.my/title2/climate/news/Bonn18/TWN_update11.pdf

Initiative for Climate Action Transparency. (2019). *Unfolding the reporting requirements for developing countries under the Paris Agreement's Enhanced Transparency Framework.* Copenhagen: UNEP DTU Partnerships. Retrieved from https://climateactiontransparency.org/wp-content/uploads/2019/11/ICAT-MPGs-publication-final.pdf

United Nations Framework Convention on Climate Change (UNFCCC). (2011). *Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010.* Retrieved from https://unfccc.int/sites/default/files/resource/docs/2010/cop16/eng/07a01.pdf

UNFCCC. (2012). *Report of the Conference of the Parties on its seventeenth session, held in Durban from 28 November to 11 December 2011.* Retrieved from https://unfccc.int/sites/default/files/resource/docs/2011/cop17/eng/09a01.pdf

UNFCCC. (2016). *Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015.* Retrieved from https://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf

UNFCCC. (2019). *Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on the third part of*

its first session, held in Katowice from 2 to 15 December 2018. Retrieved from https://unfccc.int/documents/193407

UNFCCC. (2021). *Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on its on its third session, held in Glasgow from 31 October to 13 November 2021.* Retrieved from https://unfccc.int/sites/default/files/resource/cma2021_10_add1_adv.pdf

UNFCCC. (2023). *Biennial update report submissions from non-annex I parties.* Retrieved from https://unfccc.int/BURs

UNFCCC Secretariat. (2022). *Sharm el-Sheikh Climate Change Conference - November 2022.* Retrieved from https://unfccc.int/cop27

03

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India and the International Energy Agency

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Abstract

The International Energy Agency (IEA) was set up in 1974 as a collective response to major disruptions resulting from the 1970s oil crisis when an embargo by major oil producers pushed prices to record-high levels and exposed the vulnerability of the global energy system. While energy security is still central to the IEA's work, the institution has evolved to have a greater focus on clean energy transitions in response to the current global energy landscape and climate crisis. Today, while taking an all-fuels, all-technologies approach, the IEA provides analysis, data, and practical solutions to countries and advocates policies that make energy more reliable, affordable, and sustainable.

IEA's founding members included the major economies of that time, including the United States, United Kingdom, Japan, and Germany. As the global energy market evolved, India assumed a greater role in global energy affairs, leading to the IEA redefining its relationship with India. In 2015, the IEA introduced an "open door" policy to deepen collaboration with many emerging economies through the special status of "Association". This was in line with their new focus on engaging with the emerging world, as well as their commitment to clean energy transitions, which were supported by activities under IEA's flagship Clean Energy Transitions Programme. India officially joined the IEA in 2017 as an association country, and this bilateral cooperation now constitutes one of the IEA's largest programmes, covering a broad range of work on energy, including energy efficiency, critical minerals, renewable energy, energy data, power-sector reform, and clean-energy technologies.

In the next 30 years, India will have the largest energy demand growth in the world. Its critical challenge will be to ensure secure and affordable energy for growth while advancing its energy transition. Today, India's increasing influence in global energy affairs makes it a vital partner in the IEA's work and efforts to continue to be a leading actor in the global energy dialogue. This brief looks at the progressive deepening and broadening of the relationship between India and the IEA and aims to provide insight into the future of this relationship.

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1. Introduction

India became the world's most populous country in 2023 and is poised to emerge as the world's third-largest economy by 2027. There is no doubt that India is playing an increasingly prominent role on the international stage, which is of strategic importance for the global energy and climate conversation. This brief will set out the origins of the International Energy Agency (IEA) and the timeline of its engagement with India. Even as the institutional relationship between India and the IEA continues to evolve, it is pertinent to review the emerging importance of the IEA and India in recent years to provide vital insight into the future of this critical collaboration.

The IEA, the rationale for its initial structure, and its focus are a result of the 1973–74 oil crisis. In 1973, a few members of the Organization of Arab Petroleum Exporting Countries (OAPEC) collectively imposed an oil embargo on the United States and several other countries in response to their support of Israel during the 1973 Arab-Israel War. The embargo banned petroleum exports and introduced cuts in oil production. These actions led to a dramatic increase in global oil prices, with some spot transactions increasing by up to six times the original value. The impact of these market disruptions was massive. Oil-consuming countries were caught unprepared, consumer costs skyrocketed, and countries experienced economy-wide impacts. Without adequate information or means for coordinated action, the vulnerability of many countries to the oil shocks was evident.

As a result of the 1973–74 oil crisis, industrialised countries joined together to establish the IEA to take rapid, decisive, and remedial action through organised international cooperation. Some of the largest economies of that era, primarily major energy importers that were already working together through the Organisation for Economic Cooperation and Development (OECD), came together to cooperate on energy policies and ensure energy security through a shared emergency response system. The first constituent document of the IEA, adopted on November 15, 1974, was a *Decision of the [OECD] Council Establishing an International Energy Agency of the Organisation* (OECD, 1974a). The second was a treaty in the form of the *Agreement on an International Energy Program* (referred to as the IEP Agreement), which was signed on November 18, 1974 (OECD, 1974b).

2. From Oil Security to New Energy Imperatives and Emerging Economies

Oil and energy security at large were at the centre of the IEA's mission and continue to remain at the core of its activities even today. The IEP Agreement established provisions for an oil emergency response system, including a stockholding system, and provided the framework for cooperation on a range of energy issues. Currently, each IEA member country is required to hold oil stocks equivalent to at least 90 days of their net oil imports. These stocks can be released to global oil markets through coordinated IEA collective actions in the event of a major supply disruption to mitigate the negative impact of such disruptions on the global economy. The mandate and vision of the Agency have enabled members to respond to energy crises that could not have been anticipated in 1974. It has also provided the basis for a focus on technology, innovation, and global collaboration to ensure members' energy systems are sustainable, secure, and resilient. This proved to be useful in the Agency's response to oil supply disruptions and, in more recent years, it has allowed the IEA to consider new energy imperatives, such as the need to transition to clean energy and energy efficiency to meet the needs of climate crises and increase access to energy.

As global energy markets have evolved, emerging and developing economies have begun to play a stronger role in the global energy debate. In 2015, the IEA established the Association framework and adopted an "open

door" policy to deepen collaboration with key emerging economies such as India (IEA, 2015b). Enhancing collaboration with key countries within the Association framework has been a concerted step towards making the IEA a truly global agency. To signal the new course embarked on by the IEA, the newly elected executive director at that time, Dr Fatih Birol, made his first official visit to Beijing and New Delhi in 2015. Currently, IEA members, along with accession and association countries, together account for 80% of global energy consumption.

The IEA has worked with India since 1998. In 2015, it published a special report, *India Energy Outlook 2015,* which focused on how Indian policies such as the "24x7 Power for All" or the "Make in India" campaign have impacted India's energy outlook (IEA, 2015a). This relationship became deeper and was formalised with the IEA welcoming India as an association country in 2017, thereby beginning a new era in the IEA-India relationship (IEA, 2017a).

3. India's New Energy Initiatives

India's energy trajectory has been remarkable in recent years, moving from a focus on energy for development to quickly becoming a clean energy leader at the centre of global energy affairs. Since its independence, energy has played a crucial role in India's developmental journey. From providing access to electricity, fuel for transport, and clean cooking fuels such as liquefied petroleum gas (LPG), India has leveraged energy to further the country's growth. India's robust economic growth has also been fuelled by the scaling up of power generation, coal mining and oil refining capacity, and the strengthening of energy infrastructure and distribution networks. Most notably, in 2018, India achieved universal village electrification, which involved bringing electricity to over 500 million Indians during the preceding decade (Dutta, 2018). The IEA called this feat "one of the greatest achievements in the history of energy" (Murphy & Daly, 2018). The ambition and complexity of India's energy policies and their potential global consequences have made India an indispensable partner for the IEA.

India has the world's fastest-growing energy demand. The share of Indians living in urban areas will rise from 35% in 2021 to over 50% by 2050 (IEA, 2022b). This rapid pace of urbanisation will also add to the robust growth in demand for energy and materials. According to the IEA's Announced Pledges Scenario (APS)—which assumes all targets announced by governments are met on time—this growth in energy demand will increasingly be met by clean energy. Meanwhile, India is also greatly exposed to climate shocks. This combination of circumstances informs India's energy and climate diplomacy priorities. Alongside its focus on clean energy technology and finance, India has spearheaded several international initiatives supporting climate action worldwide. For instance, the International Solar Alliance (ISA), which India co-founded with France, is one of the leading agencies on solar power, with a special focus on promoting energy access and transitions. In addition, the Coalition for Disaster Resilient Infrastructure (CDRI), a global partnership that was first proposed by Prime Minister Modi, aims to promote disaster-resilient infrastructure and has been hosted by India and has over 30 member countries. India has also been an active partner in other international initiatives, including Mission Innovation (MI) and the Clean Energy Ministerial (CEM), advocating for the interests of emerging and developing countries in international fora. At COP27, India succeeded in its historic proposal for the creation of a global loss and damage fund.

At COP26 in Glasgow, India laid out its bold ambition of achieving net-zero emissions by 2070. This was underpinned by a host of policies focused on achieving the clean energy transition. India is already the third-largest national market globally for renewables and has recently seen the growth of consumer-centric solutions, such as the spike in the distribution of solar photovoltaic (PV) cells, with rooftop solar growing 30 times in less

than a decade (IEA, 2023). As part of its policy vision, India is pioneering a new development model, one where robust economic expansion is wholly compatible with emissions reductions. This is uncharted territory, one that developing countries and emerging economies around the world can use as a blueprint for the development of their own countries. Challenges remain for India on this front, including tackling air pollution, reducing fossil fuel imports, and ensuring reliable electricity supply, among others.

4. An Evolving IEA–India Partnership

Since becoming an association country in 2017, India and the IEA have increased their collaboration on a range of energy issues, the focus of which has been informed by India's own energy and climate goals. The collaboration serves not only to support India's domestic energy priorities but also to boost India's greater role in global energy governance and international cooperation to address climate change. To this end, the IEA has developed knowledge partnerships, collaborative frameworks, and joint work programmes with Indian ministries, government agencies, industries, think tanks, and other international agencies in India, including the ISA and CDRI. Several IEA reports have a special focus on India, covering topics such as clean energy investment, renewables integration, rooftop solar, transport decarbonisation and climate policy.

As a sign of the significance of the relationship between the IEA and India, the IEA undertook two major analytical deep dives into India's energy policies in recent years to support India prioritise its future energy policies. In 2019–20, the IEA conducted an in-depth review of India's energy policy in partnership with NITI Aayog, following the same process as the in-depth energy policy reviews that the IEA regularly conducts of its member countries. The ensuing report, *India 2020: Energy Policy Review*, examined the entire energy sector of the country and offered recommendations for strengthening India's energy policies (IEA, 2020). These recommendations have served as the foundation for joint work programmes between the IEA and the Government of India in subsequent years. The report also welcomed India's efforts to progressively build dedicated emergency oil stocks as part of India's strategic petroleum reserve to supplement the commercial storage available at refineries. Secondly, as part of the IEA's flagship *World Energy Outlook* report series, the IEA published *India Energy Outlook 2021*, which explores the opportunities and challenges ahead for India's energy sector, pathways out of the crisis following the COVID-19 pandemic, and other longer-term energy trends until 2040 (IEA, 2021b).

Table 1. India's evolving engagements with the IEA

Year	India's Engagements with the IEA
2015	*India Energy Outlook 2015* is released as part of IEA's flagship World Energy Outlook series
2017	India becomes an IEA association country; Clean Energy Transitions Programme established
2019–2020	IEA conducts an in-depth review of India's energy policy
2021	*India Energy Outlook 2021*
2022	IEA ministers agree to a path to IEA membership for like-minded countries such as India
2023	IEA supports India's G20 presidency

Source: Authors' compilation based on various sources

One of the main channels for IEA–India cooperation is the Clean Energy Transitions Programme (CETP), which was established in 2017 and is funded primarily by IEA member countries (IEA, 2017b). Through the CETP, the IEA works closely with Indian stakeholders to support India in achieving its ambitious clean energy transition goals. As highlighted earlier, India's energy and development trajectory has shaped the focus of its climate and energy strategy on technology and innovation,

investment, renewables, and climate resilience. The IEA provides support to India through CETP funding in various areas, including policy issues that will support India in the new phase of its energy transition, such as clean energy technology manufacturing, hydrogen and other low-emission fuels, and critical minerals.

Some recent examples of the ongoing cooperation between the IEA and India include the following:

- Accelerating clean energy transitions through workshops, analysis, and capacity-building on distributed solar PV, hydropower, biofuels, power-market reforms, clean energy investments, and hydrogen. This involves collaboration with the Ministry of New and Renewable Energy to expand knowledge on policy solutions that accelerate renewable energy deployment, including critical emerging technologies that will support India in attaining its goal of achieving net-zero emissions by 2070.
- Supporting energy security by working with the Ministry of Petroleum and Natural Gas to improve the country's energy resilience in terms of emergency response measures and improved oil and gas data quality. In addition, under the new statement of intent with India's Petroleum Planning and Analysis Cell, the IEA has been providing policy advice on natural gas, biofuels, and other alternative fuels in India's energy economy.
- Strengthening data through exchanges and data validation exercises, supporting the implementation of recommendations from India's cross-ministerial data working groups and training key stakeholders, including future energy leaders and state-level officials.
- Improving energy efficiency by providing comprehensive support, including regular policy training for officials on efficiency in buildings, cooling, industry, electric vehicle charging infrastructure, energy services, and smart grids.
- Encouraging a people-centred transition by sharing insights from international best practices with the Indian government and stakeholders from civil society.
- Supporting innovation in clean energy technologies, particularly energy storage, batteries, biofuels, hydrogen, and road transport. The IEA tracks spending on energy research, development, and demonstration. It also analyses India's innovation policy framework and provides policy advice on specific technologies, including hydrogen, carbon capture usage and storage (CCUS), and energy storage. India also participates in 11 technology collaboration programmes hosted by the IEA that work to advance the research, development, and commercialisation of a wide range of energy technologies.

In 2023, a major focus of the IEA has been supporting India in its presidencies of the G20, the Clean Energy Ministerial (CEM), and Mission Innovation (MI), drawing on the IEA's long-running experience in these fora. The IEA has been involved in every G20 process since the Pittsburgh Leaders' Summit in 2009, particularly the creation of dedicated energy and climate working groups and the G20 Energy Ministerial; the IEA has contributed to all energy work streams of the G20. Further, the IEA hosts the CEM Secretariat and is a contributor to multiple CEM initiatives ranging from e-mobility to hydrogen to people-centred transitions.

During India's first G20 presidency, the IEA contributed to each of the six energy policy priorities of the Energy Transition Working Group. It also supported two further areas in the Sherpa Track. The first was the Development Working Group, where the IEA provided insights on green development and analysis of the potential global benefits of India's "Lifestyle for Environment" initiative. The second was the Disaster Risk Reduction Working Group, a new G20 group established by India as a global leader in disaster and climate resilience, to which the IEA contributed its expertise, emphasising the importance of energy infrastructure in climate and disaster

risk reduction. Further, the IEA has made significant contributions to the Finance Track of the Indian G20 presidency, in particular, the Framework and Sustainable Finance Working Groups, by providing insights on the macroeconomic impact of energy security and energy transition pathways and finance for clean energy transitions, respectively.

These examples establish that the relationship between the IEA and India is continuously evolving. Even as the IEA responds to India's priorities, India is emerging as an ever more powerful global energy player. In tandem, the institutional relationship between the IEA and India has equally developed. It took a new direction in 2021 when they signed the Framework for a Strategic Partnership, committing to strengthening their collaboration across a range of areas, including energy security and clean energy transitions (IEA, 2021a). This collaboration was further endorsed by IEA member countries at the 2022 IEA Ministerial Meeting, where IEA ministers agreed on the need for a pathway for opening up IEA membership to likeminded countries willing to commit to the mission and objectives of the IEA (IEA, 2022).

The development of the relationship between the IEA and India over nearly a decade illustrates a progressive deepening and broadening in strategic engagement. For both sides to reap the full benefits of this relationship, the current partnership with the IEA should be further deepened. As outlined in this policy brief, India faces formidable challenges to its ambitious energy transition. It is extremely vulnerable to the risks of climate change; it remains heavily dependent on imported energy; and it is the world's most populous country, with a significant proportion of its population increasing its energy demands to support a higher standard of living. These challenges cannot be solved without a positive global environment of innovation, technology, finance, and cooperation. The collaborative international forum and the expert policy advice that the IEA offers can support India in its important energy transition. Equally, for the IEA, a growing partnership with India will be crucial to achieving its mandate to lead the global energy sector's fight against climate change and to ensure energy security during the energy transition.

References

Dutta, S. (2018, April 29). Mission accomplished: PM Narendra Modi gives power to all 19,000 unelectrified villages. *The Times of India*. Retrieved from https://timesofindia.indiatimes.com/india/mission-accomplished-pm-narendra-modi-gives-power-to-all-19000-unelectrified-villages/articleshow/63963826.cms.

IEA. (2015a). *India energy outlook 2015*. International Energy Agency. Retrieved from https://www.iea.org/reports/india-energy-outlook-2015.

IEA. (2015b). Joint ministerial declaration on the occasion of the 2015 IEA ministerial meeting expressing the activation of association [press release]. International Energy Agency. Retrieved from https://iea.blob.core.windows.net/assets/9e4b932e-b553-4f2c-86c3-d677eddbae72/IEA_Association.pdf.

IEA. (2017a, March 30). India joins IEA family, a major milestone for global energy governance [Press release]. International Energy Agency. Retrieved from https://www.iea.org/news/india-joins-iea-family-a-major-milestone-for-global-energy-governance.

IEA. (2017b, November 8). World's energy leaders gather for the IEA's 2017 ministerial meeting [Press release]. International Energy Agency. Retrieved from https://www.iea.org/news/worlds-energy-leaders-gather-for-the-ieas-2017-ministerial-meeting.

IEA. (2020). *India 2020: Energy policy review*. International Energy Agency. Retrieved from https://iea.blob.core.windows.net/assets/2571ae38-c895-430e-8b62-bc19019c6807/India_2020_Energy_Policy_Review.pdf.

IEA. (2021a, January 27). India and the IEA enter new phase of closer collaboration with signing of Strategic Partnership Framework [Press release]. International Energy Agency. Retrieved from https://www.iea.org/news/india-and-the-iea-enter-new-phase-of-closer-collaboration-with-signing-of-strategic-partnership-framework.

IEA. (2021b). *India energy outlook 2021*. International Energy Agency. Retrieved from https://www.iea.org/reports/india-energy-outlook-2021.

IEA. (2022a, March 24). 2022 IEA ministerial communiqué [Press release]. International Energy Agency. Retrieved from https://www.iea.org/news/2022-iea-ministerial-communique.

IEA. (2022b). *Global energy and climate model*. International Energy Agency. Retrieved from https://www.iea.org/reports/global-energy-and-climate-model.

IEA. (2023). LiFE lessons from India: The benefits of advancing the Lifestyle for Environment (LiFE) initiative through the G20. International Energy Agency. Retrieved from https://iea.blob.core.windows.net/assets/9b6305e3-c2d6-470d-b9b4-f85b67c9598f/LiFElessonsfromIndia.pdf.

Murphy, B., & Daly, H. (2018, June 1). Electricity in every village in India. *International Energy Association*. Retrieved from https://www.iea.org/commentaries/electricity-in-every-village-in-india.

OECD. (1974a). Decision of the Council: Establishing an International Energy Agency of the Organisation. Organisation for Economic Co-operation and Development. Retrieved from https://iea.blob.core.windows.net/assets/ba8c3ef8-f5b3-45db-86d2-719502e8d4ef/decesionofthecouncil.pdf.

OECD. (1974b). Agreement on an International Energy Program. Organisation for Economic Co-operation and Development. Retrieved from https://iea.blob.core.windows.net/assets/c6be6d60-1ca8-4b99-b8c7-7ac508ec157c/IEP.pdf.

04

International Solar Alliance: Bridging the Gap

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Abstract

This policy brief explores India's engagement with a new, bespoke climate framework that focuses on solar energy—the International Solar Alliance (ISA). The ISA was envisaged as an alliance of "sunshine states"—a brand-new grouping of solar resource–rich countries that lie between the tropics. India's role in the launch and operationalisation of the ISA is an indicator of how local interests and concerns—scaling up domestic renewable energy targets—get intertwined with international, transnational, and regional interests. This brief presents the ISA as a deliberate instrument of Indian economic statecraft that syncs its economic priorities (finance and technology for clean energy transition) with those of national security (energy security). It then goes on to highlight the gaps in the stated objectives of the new international organisation as well as implementation challenges. Based on the lessons emerging from the form and functioning of the ISA, this brief emphasises the need for India to refocus and deepen its engagement with this climate framework. Finally, it offers policy recommendations for India to leverage the ISA's platform to secure its core negotiation interests of mobilising greater finance for climate action and, in turn, furthering its grand strategy of becoming a bigger power on the global stage.

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1. Introduction

On November 30, 2015, the first day of the Paris Climate Conference, India and France jointly launched the International Solar Alliance (ISA) to boost solar energy in developing countries (UNFCCC, 2015). India had been under intense scrutiny over its potential role in either securing or scuttling a global climate deal in Paris, and this announcement signalled a willingness on the part of India to be an active player in global climate cooperation. The ISA was initially conceived by India as a coalition of "solar-rich" countries that would work towards addressing their energy needs and collaborate on addressing the identified gaps in solar energy deployment (ISA, 2015). The solar-rich or prospective ISA member countries were identified as those located between the Tropic of Cancer and the Tropic of Capricorn—that is, countries that were ideally located geographically for optimal absorption of radiation from the sun. Crucially, most of these countries are developing countries with poor or no energy access, and the underlying motivation for the formation of the ISA was to address the gap in solar energy deployment in such countries. On December 6, 2017, a little over two years since its launch, the ISA—led by India and backed primarily by developing countries in Asia and Africa—became a legal entity. At present, 116 countries have signed the main legal text of the ISA—the Framework Agreement—and among them, 94 countries have ratified the treaty text to become full members.

India's leadership role in the creation and operationalisation of the ISA cannot be viewed independently of the rapid rise in solar photovoltaic (PV) installations in India. Today, India ranks fifth in the world in terms of total installed renewable energy power capacity after China, the United States (US), Brazil, and Canada. It also ranks fifth in total installed solar energy power capacity after China, the US, Japan, and Germany (IRENA, 2023). The National Solar Mission—India's flagship solar policy—was launched in 2010 to create an enabling policy framework for the deployment of 22 GW of solar power by 2022. Leading up to the Paris climate talks in 2015, India ramped up its renewable energy targets and set a goal of achieving 175 GW of installed renewable energy capacity by 2022. Of this, the solar power capacity target was revised by almost five times to 100 GW of solar power by 2022 (PIB, 2015). India's Nationally Determined Contributions (NDCs) submitted under the Paris Agreement underscore its renewable energy ambition, as it has set a goal of securing 50% of its total power capacity from non-fossil-fuel sources by 2030 (UNFCCC, 2022). Given the exponential rise of solar energy in India's energy mix, this policy brief will explain India's foreign policy motivation for the creation of the ISA. The first section details the strategic thinking behind leveraging a new geography of "sunshine states". The next section goes on to analyse the functioning of the new international organisation, and brings out the gaps between the stated objectives and implementation of activities. Ultimately, it offers policy recommendations for India to refocus its engagement with this platform for global climate cooperation, and further its strategic interests of unlocking greater climate finance and becoming a global power.

2. Leveraging a New Geography

The creation of the ISA reflects an important shift in India's foreign policy, wherein climate change was used to further India's strategic interests: one, to take a leadership role in a climate-adjacent space—solar energy—and reinforce its commitment to climate action, and two, to assert its global power by creating a new treaty-based international organisation (Jha, in press). By 2015, under the stewardship of Prime Minister (PM) Narendra Modi, there was a marked shift in the country's foreign policy agenda as India started aiming for a leadership role in global governance and began staking its claim among other major powers in global politics (Narlikar, 2017). Its role in the global climate deal came under intense scrutiny, and the Paris climate talks provided an opportune moment for India to become an important player in the next international climate

agreement. India's diplomatic positioning in Paris marked a complete departure from its previously defensive, nay-saying outings at multilateral climate negotiations because it intended to advance its strategic interest of becoming a global leader. As a result of the change in political leadership, the negotiators came empowered to strike a deal and went on to quickly ratify the Paris Agreement, allaying concerns that India would insist on developed countries first fulfilling their pre-2020 commitments under the second phase of the Kyoto Protocol (Mohan, 2017). At the same time, the launch of the ISA was a diplomatic success for India as it aimed to capture an issue-specific governance area (Ghosh, 2019) and straddle the G77 and G20 blocs in enabling the formation of a new intergovernmental organisation (Mathur, 2019).

PM Modi's leadership on climate change–related issues, particularly with regard to solar energy, is the first instance of an Indian PM actively shaping India's position in multilateral climate negotiations. As the chief minister of Gujarat, he was an early proponent of solar energy and first expressed his vision for a new grouping of nations with high solar power potential: "There are different League of Nations like OPEC[1] and others. A league should be formed among the nations which get more sun rays. India should play a prominent role in the formation of such a league and step up its R&D[2] to lead those nations" (PTI, 2012). This early idea to bring such sunshine states together as a new bloc eventually took shape as the ISA. Buoyed by the falling prices of solar energy globally, India also witnessed great success with a new business model based on the aggregation of demand coupled with bulk procurement in two sectors: light-emitting diode (LED) bulbs and PV solar electricity. There was a realisation that the large Indian market could be leveraged to enhance the adoption of low-carbon technologies, while simultaneously reducing their prices and strengthening the markets for these technologies in other developing countries. Therefore, the ISA was conceived as a "market-making" mechanism that could direct the flow of finance and technology towards solar-rich countries with enormous market potential for solar power deployment (Jha, 2021). India's steering of the ISA is an indicator of how local interests and concerns—the scaling up of its domestic renewable energy targets—get intertwined with international, transnational, and regional interests to make solar energy affordable for the poor in *all* ISA member countries.

At the first assembly of the ISA in October 2018, PM Modi laid down the vision for "One Sun, One World, One Grid" (OSOWOG), which will be a transnational electricity grid supplying solar power across the globe (PIB, 2018). As per a draft plan prepared by the Ministry of New and Renewable Energy (MNRE), OSOWOG will connect 140 countries through a common grid that will be used to transfer solar power and will be divided into three phases: the first phase will connect the Indian grid with the Middle East, South Asia, and South-East Asia grids to share solar and other renewable energy resources; the second phase will connect the countries in the first phase with the African pool of renewable sources; and finally, the third, concluding, phase will be one of global interconnection (Jai, 2020). At the Glasgow Climate Conference, India, the United Kingdom, and the ISA officially announced the Green Grids Initiative (GGI) to create an interconnected global grid for trading energy from the sun (UN Climate Change Conference, 2021).

The ISA's theory of change follows a three-pronged approach: first, facilitating energy access at the local level; second, ensuring energy security at the national level; and third, achieving an energy transition at a global level (ISA, 2022). Based on the geographies that the OSOWOG plan targets, the ISA clearly

[1] Organization of the Petroleum Exporting Countries.
[2] Research & Development

appears to be a first step in India dominating the global conversation around solar energy. But the question remains as to whether the ISA is merely indicative of India's soft power or whether it will be successful in its ambitious efforts to promote the global diffusion of solar energy and consequently secure India's energy future. The next section will highlight some of the lessons emerging from the form and functioning of the ISA and presents the policy brief's main argument for a deeper and more strategic engagement by India with the climate cooperation framework under the ISA.

3. ISA, India, and Global Climate Cooperation

As a new international organisation that brings together states and non-state actors, the ISA is intricately connected to the energy transition not only in India, but also in other parts of Asia and Africa, which form the bulk of its membership. The making of the ISA illustrates how solar power became central to India's strategies for a clean energy future and the geoeconomic strategy underlying India's decision to take on a leadership role at the global level. I argue that the ISA is a deliberate instrument of Indian economic statecraft that syncs its economic (finance and technology for a clean energy transition) and national security (energy security) priorities. The treaty-making process—led primarily by India—illustrates a new kind of economic diplomacy, wherein India not only reached out to solar-rich developing countries with shared interests, but also actively sought to bring on board developed countries and other non-state actors with keen financial interests in these untapped markets.

3.1 Legal Form

The ISA's legal form and structure, heavily influenced by the hybrid architecture of the Paris Agreement, is best described as "soft law in a hard shell"—that is, it uses the legal infrastructure of a treaty while relying on the social structure of participating actors for its future implementation (Jha, 2021). India was motivated by the twin concerns of ensuring legitimacy through legal status and flexibility by way of the legal terms used, which explains the design of the ISA: firstly, the "hard" legal form of a treaty and, secondly, the "soft" legal terms with opt-in and non–legally binding obligations. India also made a conscious effort to differentiate the ISA from other similarly situated organisations in the clean energy landscape, particularly the International Renewable Energy Agency (IRENA) and the International Energy Agency (IEA), by focusing solely on solar energy. The ISA emphasised its action-oriented profile as an important distinction from IRENA, which has a research-oriented profile and produces annual statistics on the state of renewable energy around the world.

Despite its characterisation as an action-oriented organisation, the ISA's functioning since becoming a legal entity has been limited to research-oriented activities, which are focused on three priority areas: advocacy and analysis, capacity-building, and programmatic support to least-developed countries (LDCs) and small island developing states (SIDS). It has developed nine comprehensive programmes, each focusing on a distinct application that could help scale the deployment of solar energy solutions: solar applications for agricultural use, affordable finance, solar minigrids, rooftop solar, solar e-mobility and storage, solar parks, solarising heating and cooling systems, solar PV battery and waste management, and solar power for green hydrogen (ISA, 2023a).

With varying levels of member country participation, ISA's programmes provide support on policy, regulatory and technical issues, and project preparation. In 2019, the ISA Secretariat conducted country missions to eight African countries—Benin, Guinea, Malawi, Congo, Mali, Togo, Uganda, and Niger—to carry out feasibility studies and prepare assessment reports for the deployment of various solar technologies in these countries (ISA, 2023b). Since 2019, the ISA's flagship publication has been a yearly report on the "Ease of Doing Solar in ISA Member

Countries" (ISA, 2023c). So far, it has been unable to fully exploit the flexibilities built into the treaty structure to rely on non-state actors for extensive solar energy deployment. The overall scope and implementation of ISA's programmes are focused on off-grid solar applications rather than grid-connected solar power projects, which as I argue later, will be a big stumbling block to India's strategic ambition of OSOWOG.

3.2 The Missing Finance Link

One of the stated goals of the ISA is to mobilise USD 1 trillion till 2030 for a large-scale deployment of affordable solar energy in the developing world, especially in the poorest regions of the world that still lack energy access. Despite highlighting the tremendous potential for market growth in solar-rich member countries, the ISA's efforts to coalesce global finance and technologies in areas that need it the most have not yielded any significant results. Since its creation, India and France are the only two countries that have made financial contributions to the ISA: India has committed to extending nearly USD 1.4 billion worth of lines of credit, and the French Agency for Development has committed approximately EUR 1 billion for solar projects (France in India, 2018). In addition, the budget and financial resources of the ISA are dependent on voluntary contributions from member countries and partner organisations. India is the only country extending financial support for ISA's corpus and recurring expenses—an initial corpus of USD 27 million was provided by India for a five-year period, with additional contributions of USD 1 million each by the Solar Energy Corporation of India (SECI) and Indian Renewable Energy Development Agency (IREDA). However, with membership fees being voluntary, the future of ISA's functioning appears to be uncertain as the initial five-year period of the ISA corpus draws to a close.

At multilateral climate negotiations, India has maintained its long-standing position on the "differentiated responsibility" of developing and developed countries, and particularly that climate action in the developing world hinges on adequate funding and technology transfer. In Glasgow, PM Modi called out the hollow promises of the developed world to provide climate finance, insisting that the global ambition on climate finance cannot remain the same as it was in Paris (PIB, 2021). Given the already fractured nature of multilateral climate negotiations on finance, the ISA provides a new, alternative venue to mobilise finance and technology for solar energy deployment in the developing world.

I argue that this ties back into India's historic stance on differentiated responsibility and provides an opportunity to demand greater accountability from the developed world with regard to finance and technology transfer commitments. Mobilisation of funds, including from the private sector, will be key to the successful implementation of the ISA in the coming years, and Indian climate negotiators should draw a clear, explicit link between the ISA and India's core strategic interest during climate negotiations—finance for climate action. At the same time, India should leverage its own innovation and research landscape, as well as the enormous market potential in ISA member countries, to drive more private and philanthropic investment in solar energy deployment.

3.3 A Grand Climate Strategy?

In recent years, India has sought geostrategic gains from climate change issues and is choosing to highlight its responsibility through diplomacy and sustainable energy investments (Hakala, 2019). The creation of the ISA as a new international organisation demonstrates India's willingness to be a more responsible power on the global public good—the sun. The expansion of the ISA with the OSOWOG plan could be of high strategic importance for India's energy security. However, the ambitious plan is not immune to splintered implementation.

The MNRE is currently tasked with preparing the road map and implementation plan for OSOWOG (Bhaskar, 2020) and is the

nodal ministry for all ISA-related activities. The Ministry of Environment, Forests and Climate Change (MoEFCC) remains the nodal ministry for all multilateral climate negotiations. Given the cross-border energy trade and connection of electricity grids under the proposed plan, any bilateral or minilateral engagement between countries is expected to fall within the ambit of several ministries, such as the Ministry of External Affairs (MEA), Ministry of Power, and Ministry of Commerce and Industry. Until the ISA is able to demonstrate actual gains from extensive solar energy deployment in the energy-poor regions of the world, shifting the focus towards the OSOWOG plan will merely obfuscate the organisational vision of mobilising investments for solar energy solutions.

The OSOWOG plan, touted as a counter to China's Belt and Road Initiative, leaves many questions unanswered—for example, the mechanism for cost sharing, the high transmission losses that would occur when connecting grids between countries, issues concerning grid stability in different regions, and incompatible laws and policies on renewable electricity (Jhawar, 2020). Moreover, the ISA's overwhelming focus on off-grid solar applications raises concerns regarding the ability of the organisation to shoulder the weight of connecting electricity grids across borders. For India, the OSOWOG plan will have significant implications for future climate and energy partnerships as it would necessitate better strategic planning and coordination, not only between the relevant ministries in India, but also between Indian diplomats and their counterparts in other countries. Going forward, India should refocus its engagement with the ISA and leverage the in-built flexibilities to meet the primary goal of promoting extensive deployment of solar energy in the developing world. Unmet promises on that front will only dent India's grand strategy of using the ISA to supply solar energy across borders.

References

Bhaskar, U. (2020, May 28). India invites bid for One Sun One World One Grid to take on China's Belt and Road Initiative. *Mint*. Retrieved from https://www.livemint.com/industry/energy/india-answer-to-china-belt-and-road-initiative-one-sun-one-world-one-grid-11590634870755.html

France in India. (2018, March 16). International Solar Alliance. Retrieved from https://in.ambafrance.org/International-Solar-Alliance-15319

Ghosh, A. (2019). Making sense on its own terms: India in the HFC and aviation negotiations. In N.K. Dubash (Ed.), *India in a warming world: Integrating climate change and development* (pp. 230-249). New Delhi, India: Oxford University Press.

Hakala, E. (2019). *India and the global geoeconomics of climate change: Gains from cooperation?* [ORF Issue Brief No. 291]. New Delhi, India: Observer Research Foundation.

IRENA. (2023). Country rankings. International Renewable Energy Agency. Retrieved from https://www.irena.org/Data/View-data-by-topic/Capacity-and-Generation/Country-Rankings

ISA. (2015). Working paper on International Solar Alliance and list of prospective members [Press release]. International Solar Alliance. Retrieved from https://isolaralliance.org/media/press-release

ISA. (2022). Newsletter, February 2022, volume 1. International Solar Alliance. Retrieved from https://isolaralliance.org/publications/news-letter

ISA. (2023a). Scaling solar application for agricultural use. Retrieved from https://isolaralliance.org/work/scaling-solar-application-agricultural-use

ISA. (2023b). Expert team mission reports. Retrieved from https://isolaralliance.org/publications/team-mission-reports

ISA. (2023c). Publications. Retrieved from https://isolaralliance.org/publications/publication

Jai, S. (2020, August 15). One Sun, One World, One Grid: All you need to know about mega solar plan. *Business Standard*. Retrieved from https://www.business-standard.com/article/current-affairs/one-sun-one-world-one-grid-all-you-need-to-know-about-solar-strategy-120081500417_1.html

Jha, V. (2021). "Soft Law in a Hard Shell": India, international rulemaking and the International Solar Alliance. *Transnational Environmental Law, 10*(3), 517-541.

Jha, V. (in press). *The making of the International Solar Alliance: India's moment in the sun*. Oxford, England: Oxford University Press.

Jhawar, P. (2020, June 17). One Sun One World One Grid: A journey of ironies? *Down to Earth*. Retrieved from https://www.downtoearth.org.in/blog/energy/one-sun-one-world-one-grid-a-journey-of-ironies--71815

Mathur, A. (2019). India and Paris: A pragmatic way forward. In N.K. Dubash (Ed.), *India in a warming world: Integrating climate change and development* (pp. 222-229). New Delhi, India: Oxford University Press.

Mohan, A. (2017). From Rio to Paris: India in global climate politics. *Rising Powers Quarterly, 2*(3), 39-61.

Narlikar, A. (2017). India's role in global governance: A modification? *International Affairs, 93*(1), 93-111.

PIB. (2015, June 17). Revision of cumulative targets under National Solar Mission from 20,000 MW by 2021-22 to 1,00,000 MW [Press release]. Press Information Bureau. Retrieved from https://pib.gov.in/newsite/PrintRelease.aspx?relid=122567

PIB. (2018, October 2). PM inaugurates first assembly of the International Solar Alliance [Press release]. Press Information Bureau. Retrieved from https://pib.gov.in/Pressreleaseshare.aspx?PRID=1548295#:~:text=The%20first%20Assembly%2C%20in%20a,energy%20access%20at%20affordable%20rates

PIB. (2021, November 1). National statement by Prime Minister Shri Narendra Modi at COP26 Summit in Glasgow [Press release]. Press Information Bureau. Retrieved from https://pib.gov.in/PressReleasePage.aspx?PRID=1768712

PTI. (2012, April 19). India should take initiatives to form league like OPEC: Modi. *Firstpost*. Press Trust of India. Retrieved from https://www.firstpost.com/fwire/india-should-take-initiatives-to-form-league-like-opec-modi-281550.html

UN Climate Change Conference. (2021, November 2). Green grids initiative—One Sun One World One Grid: One sun declaration. Retrieved from https://webarchive.nationalarchives.gov.uk/ukgwa/20230105153200/https://ukcop26.org/one-sun-declaration-green-grids-initiative-one-sun-one-world-one-grid/

UNFCCC. (2015, November 30). International Solar Energy Alliance launched at COP21. United Nations Framework Convention on Climate Change. Retrieved from https://unfccc.int/news/international-solar-energy-alliance-launched-at-cop21

UNFCCC. (2022, August 26). *India updated first nationally determined contribution*. United Nations Framework Convention on Climate Change. Retrieved from https://unfccc.int/documents/611411?gclid=EAIaIQobChMImbDmxOmbgQMV2gatBh3tHAnPEAAYASAAEgIWRfD_BwE

05

Leveraging the Quad for India's climate ambitions

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Abstract

Recognising the need for cooperation to address broader global challenges, the Quad—comprising Australia, Japan, India, and the US—established a Climate Working Group (CWG) in 2021 to broaden the scope and extent of the mini-lateral's engagement. While it is too early to evaluate the CWG's performance, the Quad has yet to put together a coherent climate agenda. The Quad's identity as a counterbalance to China has exposed it to a policy see-saw in the past; however, Quad 3.0 holds greater promise with member states, especially India, demonstrating renewed enthusiasm. India has been credited with solidifying and reshaping the Quad's position and is deemed the Quad's driving force, spearheading climate-related strategies and environmental resilience. While specialised multilateral forums dedicated to discussing climate policy exist, the Quad should be mobilised for matters that might not find a place on the global stage due to anticipated counter-activism from China. This paper recommends the construction of a new narrative for the Quad based on a shared commitment towards a rules-based order to further climate action, which includes (i) expanding collaboration and partnerships on critical minerals to liberalise global supply chains pertinent to electric and green technologies and (ii) advancing action on the Indo-Pacific's shared marine resources through the development of regional energy and economic infrastructure. These recommendations underscore the interlinkages between geopolitics, climate action, and economic policy, further highlighting the case for positioning climate action as a tangible agenda for future deliberations.

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1. Introduction

The Quad, a burgeoning mini-lateral forum that emerged in the wake of the 2004 Indian Ocean tsunami, is now at the forefront of global cooperation. It was originally formed to provide humanitarian assistance and enforce a rules-based maritime security order in the Indo-Pacific region (Mehra, 2022). However, recognising the urgent need for cooperation to address broader global challenges in addition to its original objectives, the Quad established working groups in 2021, broadening its scope to encompass climate change and resilient infrastructure.

Today, it is imperative to strengthen and streamline climate actions on a global scale. The Quad countries, which include the United States in the Pacific, India and Japan in South and East Asia, and Australia, encompass critical regions experiencing the multifaceted impacts of cascading climate crises. In March 2023, the members established the Climate Working Group (CWG) to foster cooperation on climate mitigation, adaptation, resilience, new technologies, capacity-building, and climate finance and to align actions with targets set under the Paris Agreement on Climate Change at the domestic, regional, and global levels. While it is too early to evaluate the CWG's performance or that of its individual members, it has been observed that the Quad's commitments in terms of climate action are generally broad, reflecting a recognition of the differing priorities of the four powers. Regrettably, the Quad has yet to articulate a coherent climate narrative.

Nevertheless, the Quad's shift in focus to climate action raises crucial questions. Can a select group of like-minded nations truly wield meaningful influence over immense global challenges? Considering that the CWG is still in its early stages, and existing forums already address a wide spectrum of climate-related issues, is the Quad well-positioned to drive the climate agenda in the Indo-Pacific region? Furthermore, which specific aspects of climate action offer the most promise for successful collaboration within the Quad? Given the varying levels of commitment to climate action among Quad member countries, who will step up to provide the necessary leadership for advancing the climate agenda?

The battle against global warming is already underway in the Indo-Pacific, a that region frequently experiences devastating weather events that result in numerous casualties. This demands resolute leadership and a readiness to confront challenges head-on. The leaders within the Quad must convince others that maintaining the status quo is no longer an option. As one of the key players in the Indo-Pacific region committed to achieving net-zero emissions, India stands poised to assume a leadership role in navigating these complex waters. However, the question remains: will the Quad enhance India's climate interests? This policy brief examines the motivations for the Quad's engagement with climate action, explores why India should collaborate with the Quad to advance its climate agenda in the Indo-Pacific, and offers an analysis along with recommendations for an actionable climate agenda that can yield tangible results.

2. Quad's Climate Focus: A Path to Common Ground

To address the urgent global challenge of climate change, the Quadrilateral Security Dialogue, commonly known as the Quad, has emerged as a significant player on the international stage. The Quad has shifted its focus from primarily security matters to climate change and environmental concerns, mirroring a growing trend of minilateral cooperation among smaller groups of nations.

Since its inception, while the Quad has not played an active role in promoting defence and security with respect to counterbalancing China, it has, on various occasions, provided strategic support and presented a unified face on policy matters. This transformation began in March 2021 when the Quad held its inaugural leader-level summit. During this gathering, the members declared climate

change a top priority for the Quad and the broader Indo-Pacific region. The group's mission on climate was clear: strengthen the implementation of the Paris Agreement while fostering cooperation on climate mitigation, adaptation, resilience, technology, capacity-building, and finance.

In September 2021, the group expanded its objectives by adding the creation of a green-shipping network and the formation of a clean-hydrogen partnership to its agenda. The momentum continued in May 2022 with the launch of the Quad Climate Change Adaptation and Mitigation Package (Q-CHAMP). Despite this, the Quad is yet to generate a climate narrative for itself. The heads of the Quad countries' development-financing agencies also convened to explore solutions for bridging the infrastructure–financing gap in the region (Mehra, 2022). At the 2023 leaders' summit, the Quad issued a "Statement of Principles on Clean Energy Supply Chains in the Indo-Pacific", and the leaders also announced a Clean Energy Supply Chains Initiative to fast-track the region's transition to clean energy (Quad Climate Working Group, 2023). Additionally, the Quad initiated a shipping task force, bringing together prominent ports such as Los Angeles, Mumbai, Sydney, and Yokohama to establish two or three low-emission or zero-emission shipping corridors by 2030. The task force also facilitates meetings among Quad transportation and energy ministers to further enhance cooperation (Mohan & Govella, 2022).

Therefore, what prompted the Quad countries to make climate change a central focus? Their shared apprehension about the severe threats posed by climate change to their nations and the entire Indo-Pacific region was a driving force. Moreover, climate change has gained prominence on the domestic political agendas of these four partners in recent years, making coordination and cooperation a logical step (Govella, 2022).

The move towards minilateral initiatives like the Quad can be seen as a response to the perceived slowness and ineffectiveness of international institutions in addressing urgent global challenges. By concentrating on climate change and other non-traditional security issues, Quad members aim to showcase their ability to cooperate effectively and provide tangible benefits.

The inclusion of climate change in the Quad's agenda marks a strategic shift towards improving the quality of public goods in the Indo-Pacific and the global community at large. Originally seen as a security-focused group, the Quad faced perceptions of being an anti-China coalition and of excluding smaller Indo-Pacific nations from important regional decisions. By broadening the scope of its engagements to include broader global agendas such as climate action, the Quad aims to foreground the "like-minded" nature of the partnership toward addressing key global challenges.

3. Climate Diplomacy: India's Quad-Climate Nexus

China's rise to superpower status through economic expansion has led to a perceived need for an appropriate strategy to challenge its economic dominance. Many of the member countries have felt the impact of Chinese aggression. Japan is concerned about China's activities in the East China Sea; Australia faces trade disputes due to its call for an investigation into the origins of COVID-19; and the United States keeps a watch on China's bullying of littoral countries in the South China Sea (Chatterji, 2021). China's emergence was made possible by the global dependence on China for critical minerals (such as lithium, nickel, and graphite), global green supply chains, and technology licenses.

Though the Quad comprises four member countries, its remit also includes numerous nations situated along Indo-Pacific sea lanes that are key economic, political, and geographic partners to Quad members. While India has traditionally been cautious about entangling itself in alliance politics, several crucial sensitivities underscore its current

stance. At this point, inaction and the absence of proactive climate efforts could lead to dire consequences.

The group's uniting principles of fostering democratic and rules-based orders, free trade, and openness make it a forum with relatively less friction in addressing matters of global relevance, such as climate change. The newly formed working groups, including the CWG, help promote shared agendas and outlooks and highlight the group's shift towards undertaking tangible action on all fronts, including climate-related resilience, as a crucial component of regional and global stability.

India has consistently advocated for the Quad to evolve into an open, constructive forum that addresses regional security and stability comprehensively, encompassing more than just security matters such as climate action. To counter China's expanding footprint in the Indo-Pacific, India must invest in building regional energy architectures and a resilient green technology supply chain to boost its production prowess.

That being said, India's strategy within the Quad extends beyond countering China's influence. It seeks to strengthen ties with a wider group of countries and regions through non-military means, including climate change mitigation, supply chain strengthening, and infrastructure support. This multi-dimensional approach covers environmental, economic, and security aspects. India is the world's largest market for a green growth model, considering its huge development needs and the green mandate being at the heart of growth pathways. Ventures such as renewable energy capacity expansion require liberal supply chains, access to raw materials, and technology transfers.

While the Quad has had a shaky start (The White House, 2021; Biden et al., 2021), the perception that the US is overreaching in a non-juridical region, in addition to the economic and geographic relationships between the members of the Quad and China, has remained the grouping's Achilles heel, resulting in members downgrading the mandate of the initial Quad (Buchan & Rimland, 2020). Nonetheless, climate change and the need for resilient global supply chains and infrastructures have emerged as common threads. Under Quad 3.0, India has been credited with solidifying and reshaping the Quad's position and is deemed as the Quad's driving force, spearheading climate-related strategies and environmental resilience (Press Trust of India, 2022). This newfound prominence led to the group's elevation to a leaders-level forum, reshaping perceptions resulting from China's initial dismissal of it as mere "froth in the ocean" to a potential "ASEAN-NATO" (Rej, 2020; Roy, 2021).

While it might be premature to evaluate the CWG's intent and effectiveness, it is imperative to examine how the climate issue serves the Quad's purpose. While there are more specialised multilateral forums dedicated to discussing the broader climate agenda, the Quad should be mobilised for matters that might not find a place on the global stage due to anticipated counter-activism from China. Establishing the CWG is the first step, but its success hinges on members finding common ground with regard to this agenda. This common ground should not only provide a purpose for this working group but also accommodate individual perspectives on climate action and varying paces of action (Roy, 2021).

The Quad can offer a respite by focusing on specific actionable sub-agendas, particularly in areas where broad global consensus exists, such as climate action. In this context, the narrative should position China not as the central determinant but as a distinguishing factor in the equation. Mobilising a forum such as the Quad, which includes like-minded countries with similar outlooks and anxieties regarding countries holding dominance over resources, raw materials, and supply chains, is essential and imperative to secure the future of

growth and development pathways in India.

4. Expanding the Rules-Based Order to Include Climate Action

The Quad's third iteration, starting in 2020, marks a departure from its earlier institutional approach. The establishment of working groups, US President Biden hosting a landmark Quad Summit soon after assuming office, and the increasing frequency of high-level meetings indicate a growing inclination among member nations to leverage the Quad as a platform to further a broader global agenda.

Incorporating climate policy into this expanded institutional framework has numerous advantages for member nations. They can effectively address specific climate policy issues within a coalition of like-minded countries. This is particularly beneficial for India, which aspires to assume a leadership role in climate action within the Global South. While India's development trajectory necessitates the use of carbon-based power for the foreseeable future, it has reframed its climate agenda to prioritise low-carbon development over the West's decarbonisation framework. India has also steered the global climate discourse towards sustainable lifestyles (Mission Lifestyle for Environment—LiFE) and the use of per capita emissions as a robust metric for assessing climate action commitment rather than relying solely on aggregate national emissions. Further, India has consistently emphasised its domestic interests during the annual Conference of Parties (Roy and Mehta, 2023).

However, India's future development will increasingly rely on the growing adoption of electric vehicles, emerging green technologies, and renewable energy sources such as offshore wind energy. At present, China controls critical aspects of the clean energy transition supply chain, including offshore wind energy infrastructure, vital mineral reserves, marine resources, and global battery manufacturing capacity. The recommendations for shaping a Quad climate narrative cover (i) expansion of collaborations and supply chain economics for critical minerals and EVs, and (ii) advancing shared economic resource Infrastructure in the Indo-Pacific which includes regional renewable energy infrastructure, for example - offshore wind technologies.

Minilateral cooperation has the potential to lay the foundation for broader regional and global initiatives. While climate change cannot be entirely resolved by the efforts of just four countries acting in isolation, minilateral endeavours can play a crucial role in aligning national interests and policies, preparing the ground for expanded initiatives involving additional nations. The sharing of knowledge and best practices among minilateral members can bolster policy effectiveness, spur innovation, and foster harmonisation.

It is essential to recognise the interconnectedness of climate change with other economic and security challenges. Consequently, climate considerations must be integrated into a comprehensive strategic approach; it cannot be tackled effectively in isolation from other pressing global concerns.

The Quad's focus on climate change is currently limited to a working group, and it is not a topic for assigned leaders' deliberation, limiting its potential impact when compared to a United Nations Framework Convention on Climate Change Conference of Parties. Keeping this in mind, fostering cooperation for mutually beneficial outcomes will require India's strategic leadership within the Quad, where it will have to work toward narrowing fields of advocacy to tangible and actionable agendas.

4.1 Collaboration and Partnerships on Critical Minerals

Transitioning to a low-carbon future is an essential component of global climate action. Within this, clean energy and transport play vital roles in supporting a transition towards a more sustainable future. Thanks to technological advancements, renewables-based electricity generation has become cheaper and

more accessible. However, currently, China influences each step of lithium-ion battery production, from mining raw materials, and engineering advanced battery technologies, to making electric vehicles (EVs). For example, China produces 60% of the world's rare earth elements (REEs) and 34% of its supply of molybdenum. Approximately 69% of cobalt is mined in the Democratic Republic of Congo, with China accounting for the majority share in processing (65%) the mineral globally. Australia produces 52% of the world's lithium, with China being a major importer and processor of 58% of the global supply. South Africa mines 72% of the world's platinum output (Chadha et al., 2023). Though China has a limited national resource base, it has pursued a long-term strategy of building resilience and self-sufficiency in global resources through the ownership of mines in Congo and other African countries. China has steadily invested in Indonesia's nickel production, which will make the country the largest controller of nickel, manganese, and graphite by 2027 (Chang & Bradsher, 2023).

If countries are to take firm steps towards transitioning to low-carbon growth models, the supply and trade of raw materials for battery manufacturing must be liberalised. The present Chinese hold over critical minerals does not end at extraction and production; the world is also heavily reliant on China for processing these minerals. Currently, China refines 95% of the global manganese supply, 73% of cobalt, 70% of graphite, 67% of lithium, and 63% of nickel, largely on account of Western economies possessing near-zero processing capabilities (Chang and Bradsher, 2023). For example, Australia's first lithium refinery, which has some Chinese ownership, was approved in 2016 but failed to produce battery-grade lithium until last year (Fernyhough, 2022). Over the years, China has spent more than USD 130 billion on research incentives, government contracts, and consumer subsidies, due to which nearly 54% of all EVs manufactured globally originate from China (IEA, 2023). That being said, the recent slowdown of the Chinese economy presents a domestic consumption challenge, bolstering global interest in India on the EV front.

The growing domestic market for EVs gives India an edge over others, making it an opportune time to expand capacity and capability in the sector. The Indian transport sector is responsible for 13.5% of India's energy-related CO2 emissions, with road transport accounting for 90% of the sector's total final energy consumption, making the electrification of public and private transport an essential pathway for climate action (Climate Action Tracker, 2020). On account of India's dependence on critical minerals to realise its climate and development goals, and the related potential threats to its sovereignty, advocacy to protect global supply chains is of vital significance to India and other countries—developed and developing. Securing a steady supply of lithium, cobalt, and other minerals from a diverse set of sources is in India's interest and supports the call for a rules-based international order.

4.1.1 Leveraging the Multilateral Security Partnership

The multilateral Minerals Security Partnership (MSP) was announced in June 2022, with the goal of bringing together countries to build robust critical minerals supply chains needed for realising global climate objectives (US Department of State, 2022). This partnership includes the US, Canada, Australia, the Republic of Korea, Japan, and various European countries. India joined the group in June 2023, as its membership was crucial for India's national security. The Quad presents itself as a useful platform for India to advance its agenda on this front, considering that all four countries are members of the MSP. The mandate of the MSP is to advance public and private investment in the critical minerals supply chain, which the Indian industry stands to greatly benefit from.

4.1.2 Diversifying the Critical Minerals Supply Chain for Liberalising Climate Action

The onus of ensuring critical minerals security in India is currently vested in Khanij Bidesh

India Ltd. (KABIL)—a joint venture of three central public sector enterprises—which works towards facilitating supply chains, mine asset acquisitions, and government-to-government collaborations (Chadha & Sivamani, 2022). A notable achievement of KABIL was the signing of a Memorandum of Understanding (MoU) (a three-year Critical Minerals Investment Partnership) between the Indian and Australian governments for cooperation in the fields of mining and processing critical minerals. However, India must also build similar bilateral partnerships with the US and Japan (Gupta, 2023) to leverage the recent discovery of lithium mines in Kashmir and changes in domestic policy, such as the release of a critical minerals list and the amendment to the Mines and Minerals (Development and Regulation) Act, 1957, which opened up the sector for explorations (PRS, 2023).

4.2 Advancing shared economic resource Infrastructure in the Indo-Pacific

The Indian Ocean is among the largest tracts of open seas across the planet, encompassing the exclusive economic zones of 38 countries from the region. Its coastal countries are home to 2.7 billion people (Baruah, 2021). The Quad's ultimate mandate of furthering a rules-based international order is more pertinent to this arena of marine and maritime resources and freedom than any other. Several fora already exist that focus on the preservation of rights and freedoms attached to the high seas, such as the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and the Indian Ocean Rim Association (IORA). However, the Quad remains unique in the dynamic of its membership, and the hegemony held by each of its members is unparalleled.

The term "blue economy" (BE) conceptualises oceans as "shared development spaces", encompassing all economic activity relating to oceans, seas, and coasts, from fishing to renewable marine energy to coastal tourism. It is defined by the World Bank as the "sustainable use of ocean resources for economic growth, improved livelihood and jobs, and ocean ecosystem health" (The World Bank, 2017). Oceans will benefit immensely through emissions reduction, as a slower rate of ocean change provides greater adaptation opportunities to the communities dependent on it. But oceans are also a channel through which climate action can be enhanced by effectively mobilising ocean resources.

While the role of marine biotic resources in preserving global food security through a seafoods-driven global protein supply and commercial resources (navigation, aviation, and transport) has received adequate attention, the ocean's role as a storehouse of abiotic resources (minerals, metals, and renewable energy in the form of offshore wind energy) has not been discussed enough in international relations and climate policy. There has also been significant deliberation on global platforms regarding the definition of a 'blue economy' and what it constitutes. While that may be ambiguous, working towards some well-defined and mutually beneficial outcomes can help advance the agenda in the interim.

The region is certainly resource-rich, but it requires a regional management strategy for sustainable development (Steinberg, 1999). There has been a significant rise in the number of preferential trade agreements in the past two decades (World Trade Organisation, 2011); yet, Indian Ocean countries lag behind the rest of the world, especially the United States and Europe, on the volume of free-trade agreements in place. In the absence of a regional approach to sustainable economic growth, bilateral arrangements and a Quad-driven mobilisation agenda on this front can help further mutual interests in the region and on the subject (Roy, 2019).

4.2.1 Demonstrating a Low-Carbon Growth Model Through Regional Renewable Energy Infrastructure

Offshore wind farms generate electricity that eliminates the single costliest resource involved in renewable energy generation—land. India plans to auction seabed mining licenses for 4GW of offshore capacity off the coast of Tamil

Nadu in 2023 and has identified 14 sites in the state to which to expand this auction (Ramesh, 2023). Currently, constraints on account of the exclusive economic zone (EEZ), disruptions to marine life, and the lack of deep-sea construction technologies hinder the full realisation of this energy source as the future of renewable energy generation.

The US and Australia have made significant advances in this field, and India can benefit from knowledge sharing on this front and possibly even technology transfers. This will help the Quad effectively cooperate for the sustainable development of assets and showcase exemplary practices in establishing regional energy infrastructure in oceans and coastal regions. It will help boost energy security by diversifying sources of energy generation while fostering equity, inclusion, innovation, and modern technologies. Quad members hold significant stakes in the decarbonisation and climate agenda; hence, this point of action benefits each of their narratives. It can also open the gateway to cross-border investments in offshore wind energy capacity, opening up the world's oceans for offshore wind energy capture.

4.2.2 Comprehensive and Effective Monitoring, Control, and Surveillance (MCS) Systems for Research & Development (R&D) in Oceans

To achieve the goals of reducing non-sustainable fishing practices and realising sustainable development in the Indian Ocean, it is imperative to efficiently use monitoring and enforcement mechanisms. This would increase the commitment of state and non-state actors to the blue economy and its oceanic dimensions. Data concerning the Indian Ocean and its scientific scrutiny is usually limited and poorly shared. To monitor and improve cooperation and governance across the Indian Ocean, it is necessary to develop integrated systems that can identify and deter non-compliance through independent verification and auditing. This can be achieved by collecting additional data, improving data sharing, and conducting scientific analyses on marine resources, activities, and their environmental impacts in the region (Roy, 2019). Additionally, there are constraints associated with maritime boundaries on the high seas. For instance, even though seabed exploration in the Indian Ocean has already started, there are major constraints in the commercialisation of these resources. These stem from limited public data on the resources available in the exclusive economic zone (EEZ) and are compounded by a lack of capacity beyond the public sector for the exploration, mining, and processing of these minerals. In this context, a collective effort by the CWG to build time series databases on marine resources will not only help enhance the region's economic prowess but will also benefit each of the four member countries in identifying avenues for investments and climate finance that can further the achievement of their climate ambitions and goals.

5. Being a Force for the Global Good

If the Quad wishes to define global narratives for decades to come, synergies and confluences will need to be identified and even engineered. In this case, the horizontal expansion of the group across members and working groups will prove effective in increasing areas of collaboration.

Fostering linkages between working groups such as the Climate Working Group, the Critical and Emerging Technology Working Group, and the Infrastructure Working Group will advance the intersectional nature of climate action, which necessitates an interdisciplinary and cross-cutting approach to problem-solving. These three working groups embody natural synergies for collaborative agendas that benefit all four member states.

These collective attempts to shift the Quad's narrative from being an anti-China group to a more holistic grouping in favour of a free and rules-based international order makes it more palatable to member countries and across the political spectrum in each of the

countries. The wide-ranging nature of climate action and its global ramifications makes it a suitable subject for active cooperation amongst Quad countries, which are also part of various multilateral forums and in broad consensus on the subject. The recently increased engagement of the Quad, supported by all four members, also signals the potential of the group to go beyond its past achievements by developing focused agenda items that capture the aspirations of Quad members on the global stage. India, in particular, has championed the voice of the Global South, as demonstrated by its recent successes under the 2023 G20 Presidency. This shift in global narratives must be channelled to establish and cement the Quad's agenda on climate action, and India is well-positioned to play the role of an orchestrator.

References

Baruah, D. M. (2021). What is happening in the Indian Ocean? *Q&A*. Carnegie Endowment for International Peace. Retrieved from https://carnegieendowment.org/2021/03/03/what-is-happening-in-indian-ocean-pub-83948

Biden, J., Modi, N., Morrison, S., & Suga, Y. (2021, March 13). Our four nations are committed to a free, open, secure and prosperous Indo-Pacific region. *The Washington Post*. Retrieved from https://www.washingtonpost.com/opinions/2021/03/13/biden-modi-morrison-suga-quad-nations-indo-pacific/

Buchan, P. G., & Rimland, B. (2020). Defining the diamond: The past, present, and future of the quadrilateral security dialogue. *CSIS Briefs*, Center for Strategic and International Studies. Retrieved from https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/200312_BuchanRimland_QuadReport_v2%5B6%5D.pdf

Chadha, R., & Sivamani, G. 2022. Why India needs to secure its critical minerals supply chains. *Hindustan Times*. Retrieved from https://www.hindustantimes.com/ht-insight/economy/why-india-needs-to-secure-its-critical-minerals-supply-chains-101662724450621.html

Chadha, R., Sivamani, G., & Bansal, K. (2023). Assessing the criticality of minerals for India. *Working Paper,* Centre for Social and Economic Progress. Retrieved from https://csep.org/working-paper/critical-minerals-for-india-2023/

Chang, A., & Bradsher, K. (2023, May 16). Can the world make an electric car battery without China? *The New York Times*. Retrieved from https://www.nytimes.com/interactive/2023/05/16/business/china-ev-battery.html

Chatterji, R. (2021). China's relationship with ASEAN: An explainer. *ORF Issue Brief*, 459, Observer Research Foundation. Retrieved from https://www.orfonline.org/research/china-relationship-asean-explainer/

Climate Action Tracker. (2020). *Decarbonising the Indian transport sector pathways and policies*. Retrieved from https://climateactiontracker.org/documents/832/CAT_2020-12-09_Report_DecarbonisingIndianTransportSector_Dec2020.pdf

Fernyhough, J. (2022). Australian refinery close to producing country's first lithium hydroxide for batteries. *Financial Times*. Retrieved from https://www.ft.com/content/302e7a9f-6693-415c-88ef-f9f6da13dca7

Govella, K. (2022). "Introduction". In *Building a Quad-South Korea Partnership for Climate Action*, edited by Kristi Govella, 3-5. German Marshal Fund of the United States. Retrieved from https://www.gmfus.org/sites/default/files/2022-07/Building%20a%20Quad-South%20Korea%20Partnership%20for%20Climate%20Action.pdf.

Gupta, M. D. (2023, July 1). How joining the Minerals Security Partnership can help India harness critical minerals potential. *The Print*. Retrieved from https://theprint.in/india/governance/how-joining-minerals-security-partnership-can-help-india-harness-critical-minerals-potential/1650810/

IEA. (2023). Government Energy Spending Tracker. International Energy Agency. Retrieved from https://www.iea.org/reports/government-energy-spending-tracker-2

Mehra, J. (2022). An evolving agenda for the Quad. *Stimson Centre Policy Memo*. Retrieved from https://www.stimson.org/2022/an-evolving-agenda-for-the-quad/

Mohan, G., & Govella, K. (2022). The future of the Quad and the emerging architecture in the Indo-Pacific. *GMF Policy Paper*, The German Marshall Fund for the US. Retrieved from https://www.gmfus.org/sites/default/files/2022-06/The%20Future%20of%20the%20Quad%20and%20the%20Emerging%20Architecture%20in%20the%20Indo-Pacific.pdf

Press Trust of India. (2022, February 15). India driving force of Quad, says White House. *The Hindu*. Retrieved from https://www.thehindu.com/news/international/india-driving-force-of-quad-says-white-house/article65051307.ece

PRS Legislative Research. (2023). The Mines and Minerals (Development and Regulation) Amendment Bill, 2023. Bill Summary. Retrieved from https://prsindia.org/billtrack/prs-products/prs-bill-summary-4140

Quad Climate Working Group. (2023, May 20). Quad statement of principles on clean energy supply chains in the Indo-Pacific. Retrieved from https://www.pmc.gov.au/resources/quad-statement-principles-clean-energy-supply-chains-indo-pacific

Ramesh, M. (2023, June 2). Stumbling blocks delay India's first offshore wind tender. *Business Line*. Retrieved from https://www.thehindubusinessline.com/markets/commodities/indias-first-offshore-wind-tender-stuck-on-two-counts/article66923782.ece

Roy, A. (2019). Blue economy in the Indian Ocean: Governance perspectives for sustainable development in the region. *ORF Occasional Paper*, 181, Observer Research Foundation. Retrieved from https://www.orfonline.org/research/blue-economy-in-the-indian-ocean-governance-perspectives-for-sustainable-development-in-the-region-47449/

Roy, A. (2021). Climate action and the Quad. Observer Research Foundation. Retrieved from https://www.orfonline.org/expert-speak/climate-action-and-the-quad/

Roy, A., & Mehta, C. (2023). Driving the G20's Climate Agenda: Priorities for India's Presidency, *ORF Issue Brief No. 637*, Observer Research Foundation. Retrieved from https://www.orfonline.org/research/driving-the-g20s-climate-agenda/

Rej, A. (2020). China and the Quad: From sea foam to Indo-Pacific NATO. *The Diplomat*. Retrieved from https://thediplomat.com/2020/10/china-and-the-quad-from-sea-foam-to-asian-nato/

Steinberg, P. E. (1999). The maritime mystique: sustainable development, capital mobility, and nostalgia in the world ocean. *Environment and Planning D: Society and Space*, *17*(4), 403-426. Retrieved from https://doi.org/10.1068/d170403

The White House. (2021, March 12). Quad leaders' joint statement: The spirit of the Quad. Retrieved from https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/12/quad-leaders-joint-statement-the-spirit-of-the-quad/

The US Department of State. Minerals Security Partnership. Retrieved from https://www.state.gov/minerals-security-partnership/

The World Bank. (2017). What is the blue economy? Retrieved from https://www.worldbank.org/en/news/infographic/2017/06/06/blue-economy

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06

Alternate Paradigms: India's Role in Triangular Climate Cooperation

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Abstract

Changing global economic landscapes and power structures have led to India augmenting its climate persona and engaging with other countries through various platforms to accelerate decarbonisation. Yet, despite global power shifts, international finance and technology transfer continue to revolve around Global North-South channels. Differing social, cultural, and institutional landscapes between the North and South as well as impasses within traditional donor-recipient hierarchies have caused bottlenecks to accelerated climate action.

This calls for alternative modes of cooperation between countries that share similarities in climate vulnerabilities, market mechanisms, physical infrastructure, and institutional capabilities. One such cooperative model, which remains understudied within the context of increased climate action, is triangular cooperation (TrC) wherein two or more developing countries implement projects with the support of a multilateral institution or a developed country. Under TrC, countries with similar developmental experiences can exchange and transfer the most effective strategies towards low-carbon transitions. TrC creates a platform that allows for shared learning within a horizontal mode of cooperation.

India has made significant strides in climate action through innovative local technological, policy, and financing options that are also well-suited for implementation in Africa, Asia, and the Indo-Pacific region through a TrC model. This policy brief highlights the agreements through which India currently promotes TrC and the challenges and opportunities within these engagements. Though India is actively engaged in TrC, projects tend to be fragmented and one-off, with little systemic evidence for scale-up. For India to be seen as an important partner, capable of providing solutions to tackle climate change, it needs to improve its institutional capacity for systematic, evidence-based technology and knowledge exchange. India can spearhead TrC by creating a knowledge hub where countries come together to understand and match technological needs and implementation mechanisms required to achieve their climate goals.

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1. Introduction

India's climate persona has undergone a significant evolution in response to changing global economic landscapes and power structures, allowing it to confidently and adeptly navigate the global arena more nimbly to drive decarbonisation (Nachiappan, 2023). Currently, India is part of various multilateral, minilateral, and bilateral agreements with countries such as the United States (US), France, the United Kingdom (UK), and Japan, where addressing climate change is often a top priority. At the same time, by leveraging domestic innovations and know-how, India increasingly provides policy, technology, and capacity-building assistance to countries in the Global South (Chaturvedi & Piefer-Söyler, 2021). Despite shifting power dynamics and emerging powers exerting themselves in the global order, international finance and technology-transfer mechanisms continue to revolve around North-South channels (Urban, 2018). Relying on North-South channels alone to facilitate climate action will probably not be sufficient for developing countries to meet their climate goals.

Emerging economies might face similar climate vulnerabilities as their Southern counterparts, which could make their technology more effective in similar socio-economic contexts. An example is the transfer of sustainable agricultural technology from India to Kenya, highlighting the potential for successful technology exchange and adaptation in these regions (Hosono, 2013; United States Agency for International Development [USAID], n.d.). Additionally, technologies tend to function within a specific social and cultural context, with market mechanisms, physical infrastructure, and local technical capabilities having to complement climate solutions (De Coninck & Bhasin, 2015) for successful implementation. For instance, individualistic cultures prefer formal contracts, while those in developing countries prefer solutions that rely more on arrangements arising from trusted community members and social networks (Intergovernmental Panel on Climate Change, 2014). Countries also tend to have different institutional capacities to absorb technology, and, hence, most transfers go to middle-income countries rather than the poorest countries as they are ill-equipped to deal with the vulnerabilities of climate adaptation (Kirschherr & Urban, 2018).

Triangular cooperation (TrC) is a form of cooperation for increased climate action that is relatively understudied. The United Nations (UN) defines TrC as "Southern-driven partnerships between two or more developing countries, supported by a developed global country(ies) or multilateral organization(s), to implement development cooperation programmes and projects" (United Nations Development Programme, n.d.). TrC for climate action came into global focus during the Buenos Aires Plan of Action for Promoting and Implementing Technical Cooperation among Developing Countries (BAPA) in 1978. However, subsequent negotiations continued to focus primarily on channels between historic emitters and emerging economies. More recently, with power shifts in the global economic order, the United Nations Office of South-South Cooperation (UNOSSC) has revived the importance of TrC, arguing that it can close the technology gap by mobilising expertise, resources, and different stakeholders to achieve climate goals (UNOSSC, 2023). This arrangement does not delink the responsibility of developed countries to help developing countries but rather allows cooperation to happen horizontally, with a greater emphasis on the needs of the recipient countries.

India's experience with climate and energy innovations makes it a pivotal partner, particularly for countries in Asia, the Indo-Pacific, and Africa, where Indian technologies can be adapted locally (Mittal, 2020). Further, India can also benefit from TrC arrangements by engaging in multi-directional exchanges that are beneficial to all partner countries (Haug, Cheng, & Waisbich, 2023). TrC can play a critical role in allowing India and countries in the developing world to accelerate their climate transitions by easing bottlenecks in technology and knowledge transfer for

appropriate and cost-effective solutions. TrC melds two different but complementary forms of cooperation—North-South and South-South—and tries to harmonise different actors to reach one common goal (Farias, 2015). It is not possible to achieve TrC goals with only South-South or North-South cooperation. This is because Southern countries often lack the financial and institutional capacity to scale up their assistance efforts, which makes it difficult for them to match their technical expertise with countries that have similar needs (Hosono, 2013).

Essentially, cheaper and more suited technology gets transferred between developing countries using well-established administrative, institutional, monitoring, and financial capabilities of the developed world. TrC brings a horizontal mode of cooperation by adding a third actor who changes the dynamics to one of reciprocity and provides an improved possibility for actors to pursue strategies that form better alliances and generate competition and mediation (Abdenur, 2007). This arrangement allows partners to utilise localised knowledge and sources of innovation that are often overlooked in traditional technical assistance. It also allows countries who have had similar development experiences to pass their knowledge to countries making the same low-carbon transition without resource and financial constraints. Further, such cooperation allows the creation of long-term institutional capacity, knowledge networks, and innovation hubs within the recipient countries. TrC generally offers greater flexibility for recipient countries to set the agenda for technical assistance, as they have Southern partners. Therefore, expanding climate cooperation beyond North-South channels to increase TrC could be the key to improved and accelerated climate mitigation and adaptation.

In this context, this brief explores the role that India can play in facilitating TrC for climate action. The first section reviews the status of ongoing TrC arrangements in India, identifying the varying success of different agreements and provides an indepth analysis of two case studies. The second section offers future policy options for India to be more proactive in TrC arragements to emerge as a leader in global climate cooperation.

2. India and Triangular Cooperation for Climate Change

Traditionally, India has been reticent to partake in TrC because it felt that its principles of developmental aid were different from those of Western donors. India's assistance philosophy has been in line with Southern solidarity; it aims to provide demand-driven, non-conditional, non-colonial support for countries in the Global South. However, as it has begun to grow from an aid recipient to a donor, its political ambitions have changed. A desire for international recognition as a growing climate leader—combined with motivations to emerge as an alternative to the growing power of China's influence in the developing world, particularly with the Belt and Road Initiative (BRI)—has prompted India and its industrialised partners to actively participate in TrC arrangements (Paulo, 2021).

India has been engaged with a number of countries, such as Switzerland, Norway, and Canada, over one-off triangular projects. Over the years, India has signed more long-term formalised triangular arrangements, which often include a climate and energy focus, with donor countries and multilateral organisations. However, these partnerships have not been equally successful (Mittal, 2020; Taniguchi, 2020; Wagner, Lemke, & Scholz, 2022). Table 1 lists a few crucial long-term agreements that were announced and the climate and energy projects that were developed under them. In the next section, two cases have been discussed when India's TrC on climate and energy technologies has been successful.

Table 1: Triangular Agreements with India and Partner Countries and Organisations

Partner	Partnership	Projects carried out	Status
US	Triangular Development Partnership (TriDeP)	Climate-smart agriculture, disaster risk management, renewable energy, and grid integration in Africa and Asia	The first amendment was signed in 2014; the second amendment was signed in 2021 and extended up to 2026
UK	Statement of intent on partnership for cooperation in third countries	Clean energy and modern energy access in Africa	Signed in 2015, valid up to 2020; subsumed under India-UK Global Innovation Partnership 2022–2036
Japan	Asia–Africa Growth Corridor (AAGC)	None so far	Initiated in 2010; AAGC declaration in 2016
Germany	Joint declaration of intent on partnership for triangular cooperation	None so far	Signed in 2022; valid up to 2025
France	Indo–Pacific Triangular Cooperation Fund	None so far	Announced in 2023
UN	India–UN Development Partnership Fund	Renewable energy and agriculture	Established in 2017

Source: Author's compilation based on various sources.

Besides specific long-term triangular agreements, India has also initiated the creation of triangular platforms such as the International Solar Alliance (ISA) and the Coalition for Disaster Resilient Infrastructure (CDRI). These initiatives have moved beyond North-South cooperation, allowing for diverse actors from developed and developing countries to engage outside the usual bilateral and multilateral channels. These large global initiatives create institutional frameworks within which the possibility of triangular cooperation projects and paradigms can be explored (Paulo, 2021; Chaturvedi & Piefer-Söyler, 2021).

2.1 Case 1: India–US

In recent years, India's relationship with the US has evolved from that of donor–recipient to the US seeing India as a strategic partner whose expertise and indigenous technologies can be used to address development challenges (Chaturvedi & Piefer-Söyler, 2021). The US recognises that India has policy expertise and technical knowledge that are suitable for other countries, particularly in renewable energy and climate-smart agriculture. This led to the Triangular Development Partnership (TriDeP), which was signed by the two countries in 2014. Ever since the agreement, the countries have carried out a slew of successful projects in vulnerable countries in Asia and Africa. One of the agreement's key policies was to choose up to 30 innovations from India and try their effectiveness in a third country. Further, the partners signed a second amendment in 2021, extending the TriDeP between the US and India up to 2026 (AIR News, 2021). Amongst other sectors, clean energy and climate-smart agriculture have been at the forefront. Other areas include drip irrigation systems, integrated pest management, seed dribblers, food processors, and weather-resistant hybrid seeds in Kenya. The South Asia Regional Initiative for Energy Integration is yet another measure designed by USAID to promote cross-border electricity trade between Bangladesh, Nepal, and India by facilitating transmission lines between the countries (USAID, n.d.).

The ambitions of the US–India partnership continue to grow. Two recently published reports advocate expanding the presence of India and the US in the Indo-Pacific region and Southeast Asia (The Energy Research Institute, 2022). However, several projects and the objectives of the India–US agreements are incomprehensive and limited in scale and diversity (The Asia Foundation, 2022). While there are a few success stories, TrC is not widespread, with projects being niche, lacking large-scale or long-lasting impacts, and having limited funding. Further, the vision document is extremely ambitious compared to the actual level of implementation of the projects (Mittal, 2020).

2.2 Case 2: India–UN

India has taken a leadership role in UN projects, choosing to actively participate in various TrC arrangements. This is because TrC arrangements do not follow the typical North-South donor-recipient relationship, and the UN is seen as a neutral organisation (Paulo, 2021). This partnership resulted in the creation of the India–UN Development Partnership Fund in 2017, where India donated USD 150 million to help other developing countries achieve their development goals (UNOSSC, n.d.). The projects support Southern-led and demand-driven projects that help countries achieve global sustainable development goals (SDGs). These projects are spread across Africa (23%), Asia and the Pacific (32%), and Latin America and the Caribbean (42%) (UNOSSC, n.d.).

The arrangements tend to focus on small island and least-developed nations. Many of the projects target SDG 7 (affordable and clean energy) and SDG 13 (climate mitigation and adaptation). India has leveraged its experience with renewable energies and installed a 1.22 MW solar power plant in rural areas of Tuvalu, providing electricity to 20% of the population. It has also given USD 1.1 million to Kiribati for solar lighting and provided Haiti with solar pumps for agriculture (Sebastian, 2023). In Cameroon, India undertook projects to improve rural housing energy and promote energy efficiency, while in Dominica, it promoted sustainable agriculture and eco-tourism. India has expertise in handling extreme weather events as seen from its cyclone-resistant building, early warning systems, and evacuation protocols in Odisha. It used these experiences to install early warning systems in seven Pacific countries, design post-flood management using technology in Gambia, and help Gabon with its climate adaptation and resilience policy. In all these projects, India's role has gone beyond being a facilitator, as it was deeply engaged in conceptualising appropriate fund structures and approaches and sharing feasible financial models (Paulo, 2021). These arrangements will help India have long-lasting and impactful engagement with the Global South.

3. Challenges and the Way Forward

3.1 Need for Standardisation of Technological and Financial Models

Quantifying India's engagement in TrC is difficult, as India does not specifically report projects under this label (Paulo, 2021). Climate and energy projects that India has undertaken remain small scale and fragmented and occur on a case-by-case basis among countries that already have a history of collaboration with India. For effective scale-up of TrC projects, there needs to be technical matching of demand for development solutions and supply for practical experiences as well as matching for financial services and models, which would be effective in country-specific contexts (Rhee, 2011).

The report of a recent roundtable meeting between Indian and German officials, aimed at promoting triangular projects for sustainability, revealed that participants shared many examples of successful triangular projects (GIZ, 2022). Chaturvedi and Piefer-Söyler (2021) documented key triangular projects that have been carried out by India and its partners. However, learnings and takeaways from projects that allow standardisation and scaling-up remain scarce. Without institutional mechanisms to standardise implementation,

projects have high transaction costs, as stakeholders must understand each other's needs, settle on formal mechanisms for the arrangement, and align their agendas. Other countries involved in triangular arrangements should also assess specific requirements regarding mitigation, adaptation, and loss and damage in the recipient country. There needs to be better monitoring and evaluation of implemented projects to understand which models have worked or failed, the reasons for the project trajectories, and the potential to replicate these projects in different contexts. Standardised mechanisms ensure that donor countries are more assured that their financing will be used credibly. India should have an inventory of successful projects and learnings that can be easily adopted in countries which need those technologies. Such initiatives can be spearheaded by the Ministry of External Affairs in collaboration with think tanks and civil society organisations that can provide the required research support.

3.2 Creation of a Knowledge Hub Among the Global South

The Asia Foundation report on triangular development (2022) highlights that the identification of an effective collaborator in host and pivotal countries is key for the effective implementation of a project. While being facilitated by state actors, anchoring the projects in local organisations can be essential for mobilising resources and accelerating the rate of technology transfer. Further, the identification of multi-stakeholder engagement allows better exchange of ideas and innovation. Anchoring the project within a local organisation also promotes the project to have more local ownership. Indian civil society is vibrant, dynamic, and responsible for many grassroots innovations for climate and energy solutions, particularly in rural areas. However, the focus of civil society has primarily been domestic rather than focusing on solutions for countries outside of India. Yet, civil society organisations have played a crucial role in enabling the execution of TrC projects. Successful examples include the setting up of solar villages and training of villagers in many African and South Asian countries by the Barefoot College in Rajasthan and SELCO Enterprises (Chaturvedi & Piefer-Söyler, 2021). These organisations do not merely seek to replicate the successful models from India in the recipient country but build regional centres to understand what models will work given the regional context.

At the 2023 Voice of the Global South summit, the prime minister announced the intention to build a Global South Centre of Excellence. This centre is intended to bring together the best practices and solutions from all countries in the Global South so that they can exchange, collaborate, and learn from each other to promote developmental solutions (Roy, 2023). Such knowledge hubs will be imperative to promote better TrC, as the recipient and pivotal countries will need to identify organisations that can house and implement the projects. These centres should include private, public, and civil society organisations. Establishing such forums, which allow a transnational exchange of ideas, innovations, and practices, will also make it easy to facilitate partnerships between civil society across countries. These established relationships will guarantee the success of such projects.

3.3 Creation of Centres of Excellence

Once sector-specific expertise has been identified, pivotal countries must learn how to innovate their local knowledge and transfer it to recipient countries. Instead of India undertaking one-off projects in other countries, donor countries should foster long-term partnerships with recipient countries where they already have ongoing engagements in Africa, Southeast Asia, and the Pacific Islands. Hosono (2013) argues that an effective way to foster TrC is for donors to help pivotal countries build centres of excellence. For instance, Japan assisted Brazil's agricultural institute in developing a new strain of soya beans that could be grown in the tropical savanna regions of the country. This project was considered a great success, and Brazil's agricultural institute, in turn, began to help other countries, such as Mozambique, in

developing similar crops for their climates. Similarly, Japan helped Chile develop premier domestic aquaculture institutes, after which Chile went on to assist other Latin American countries, including Peru, Ecuador, Brazil, Colombia, Venezuela, and El Salvador, in developing their aquaculture projects.

These centres of excellence can become institutions that offer a deep understanding of the challenges of partner countries and establish a strong network between India and recipient countries that can lead to long-term collaborations. These centres can be designed based on existing expert institutions in India, such as the Centre for Excellence in Climate Change at the Department of Science and Technology, Indian Institute of Technology, Madras, which focuses on effective ways to address coastal adaptation and resilience (Press Information Bureau, 2021). This centre is part of a multi-country research initiative between Germany, Thailand, and India, specifically looking at how climate adaptation tools and technology can be scaled up and transferred across regions.

3.4 Leverage Existing Frameworks to Narrow Down on Climate Focus

Agreements such as the Asia–Africa Growth Corridor (AAGC) with Japan and the TrC Framework with Germany attract global attention and signal to the world the existing cooperation between India's engagement with its allies. However, projects envisaged within these frameworks have not taken off and largely remain unused. If such plans fail to produce tangible results, it will reflect poorly on India's institutional capacity and could adversely affect its diplomatic relations with other countries. Taniguchi (2020) argues that the reason such frameworks fail to materialise into actionable projects is that the pivotal and donor countries have shared goals, values, and geopolitical interests but no concrete plans of action. These agreements tend to be broad, covering a range of sectors from healthcare, education, infrastructure, agriculture and so on. Private players and non-state actors are reluctant to invest in these schemes, as they do not see a clear method of investment nor have access to local organisations within the donor countries.

This provides an excellent opportunity for India to assume global climate and sustainability leadership and prioritise increased climate development in the Global South within these agreements. India and the donor countries can focus on climate and energy policies within these frameworks, which are much needed in many parts of the developing world. They can establish networks that share information among the pivotal, donor, and recipient countries on how to participate in mutually beneficial engagements.

4. Conclusion

With the current shift in global power dynamics, it is possible to explore different modes of cooperation to enhance climate action. Triangular cooperation is a reasonable alternative cooperative model that facilitates the transfer of well-suited and inexpensive technology to developing countries while using established administrative, institutional, monitoring, and financial capabilities of developing countries. India has made significant strides in climate action, including technological, policy, and financing innovations, that are well-suited for implementation in other developing countries in Africa, Asia, and the Indo-Pacific region.

India has increasingly started signing triangular cooperation agreements; however, many of these agreements do not result in project implementation. Further, the projects that are carried out tend to be fragmented and one-off, with little documentation of success stories, standards of implementation, and learnings that can be replicated in other contexts.

For India to be acknowledged as a pivotal partner that offers innovative solutions to tackle the challenges of climate change, it needs to improve its institutional capacity for technology and knowledge transfer. There

needs to be a more systematic monitoring and evaluation of projects and standardisation of documentation, technology, and financial models. India should aim to design long-standing developmental assistance projects by establishing centres of excellence with long-term technology assistance. Finally, to enable the best technology and knowledge matching, a knowledge hub is required where organisations from the recipient and pivotal countries come together to understand their requirements on climate action and the best way that India can help these countries achieve their climate goals.

India aspires to be the voice of the Global South and promote the bloc's interests. Helping nations effectively tackle one of the world's most pressing problems and demonstrating the effectiveness of alternate modes of cooperation, such as the triangular arrangements, can be a step towards India's realising its ambitions.

References

Abdenur, A. (2007, November). *The strategic triad: Form and content in Brazil's triangular cooperation practices* (International Affairs Working Paper 2007–06). Retrieved from https://www.files.ethz.ch/isn/46819/2007-06.pdf

AIR News. (2021, July 30). India, US sign second amendment to statement of guiding principles on triangular cooperation for global development. *News on Air*. Retrieved from https://newsonair.com/2021/07/30/india-us-sign-second-amendment-to-statement-of-guiding-principles-on-triangular-cooperation-for-global-development/

Chaturvedi, S., & Piefer-Söyler, N. (2021). *Triangular co-operation with India: Working with civil society organizations* (OECD Development Co-operation Working Papers 89). Retrieved from https://doi.org/10.1787/285b1a9a-en

De Coninck, H., & Bhasin, S. (2015). Meaningful technology development and transfer: A necessary condition for a viable climate regime. In S. Barrett, C. Carraro, & J. Melo (Eds.), *Towards a workable and effective climate regime* (pp. 451–467). London: Centre for Economic Policy Research Press.

Farias, D.B.L. (2015). Triangular cooperation and the global governance of development assistance: Canada and Brazil as "co-donors". *Canadian Foreign Policy Journal*, *21* (1), 1–14. Retrieved from https://doi.org/10.1080/11926422.2013.845583

GIZ. (2022, May 25). *Promoting dialogue on triangular cooperation*. Retrieved from the Fund for Triangular Cooperation with Asia at https://tricofundasia.org/promoting-dialogue-on-triangular-cooperation/

Haug, S., Cheng, H., & Waisbich, L.T. (2023, July). *Accelerating SDG implementation through triangular cooperation: A roadmap for the G20* (T20 Policy Briefs). Retrieved from https://www.orfonline.org/wp-content/uploads/2023/07/T20_PB_TF6_654_SDG-Through-Triangular-Cooperation.pdf

Hosono, A. (2013). Scaling up South-South cooperation through triangular cooperation: The Japanese experience. In C. Laurence, A. Hosono, H. Kharas, & J. Linn (Eds.), *Getting to scale: How to bring development solutions to millions of poor people* (pp. 236–261). Washington, D.C.: Brookings Institution Press.

Intergovernmental Panel on Climate Change. (2014). Integrated risk and uncertainty assessment of climate change response policies. In O. Edenhofer, R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel, & J. C. Minx (Eds.), *Climate change 2014: Mitigation of climate change. Contribution of working group III to the fifth assessment report of the intergovernmental panel on climate change* (pp. 151–205). New York and Cambridge: Cambridge University Press.

Kirschherr, J., & Urban, F. (2018). Technology transfer and cooperation for low carbon energy technology: Analysing 30 years of scholarship and proposing a research agenda, *Energy Policy*, 119, pp. 600–609. Retrieved from https://doi.org/10.1016/j.enpol.2018.05.001

Mittal, P. (2020, January). *India's triangular cooperation with the US, UK and Japan in Africa: A comparative analysis*. (ORF Issue Brief 337). Retrieved from https://www.orfonline.org/wp-content/uploads/2020/01/ORF_IssueBrief_337_TriangularCooperation.pdf

Nachiappan, K. (2023, May). *India's sprawling climate diplomacy* (ISAS Brief No. 1016). Retrieved from https://www.isas.nus.edu.sg/papers/indias-sprawling-climate-diplomacy/

Paulo, S. (2021). India as a partner in triangular development cooperation. In S. Chaturvedi, H. Janus, S. Klingebiel, X. Li, A. D. E. Souza, E. Sidiropoulos, & D Wehrmann (Eds.), *The Palgrave handbook of development cooperation for achieving the 2030 agenda* (pp. 625–645). Cham: Palgrave Macmillan.

Press Information Bureau. (2021, June 4). *DST supported climate change research being strengthened to prepare country for future* [Press release]. Retrieved from https://pib.gov.in/PressReleasePage.aspx?PRID=1724469

Rhee, H. (2011). Promoting South-South cooperation through knowledge exchange. In H. Kharas, K. Makino, & W. Jung (Eds.), *Catalyzing development: A new vision for aid* (pp. 260–280). Washington, D.C.: Brookings Institution Press.

Roy, S. (2023, January 14). India to set up global south center of excellence, says PM Narendra Modi. *The Indian Express*. Retrieved from https://indianexpress.com/article/india/india-to-set-up-global-south-center-of-excellence-says-pm-modi-8380761/

Sebastian, A. (2023, June 13). India and the South Pacific in climate cooperation. *Hindustan Times*. Retrieved from https://www.hindustantimes.com/ht-insight/international-

affairs/india-and-the-south-pacific-in-climate-cooperation-101686653625659.html

Taniguchi, T. (2020, October). *Should we forget about the Asia-Africa growth corridor?* (Lettre du Centre Asie 87). Retrieved from https://www.ifri.org/en/publications/editoriaux-de-lifri/lettre-centre-asie/should-we-forget-about-asia-africa-growth#:~:text=This%20paper%20provides%20an%20assessment,the%20Japan%2DIndia%20expanding%20cooperation

The Asia Foundation. (2022). *India's experience with climate smart agriculture: Opportunities for triangular cooperation in the Indo-Pacific*. New Delhi: The Asia Foundation.

The Energy Research Institute. (2022, November 25). *The Asia Foundation's India-US triangular development partnership (TriDeP)*. Retrieved from https://www.teriin.org/project/asia-foundations-india-us-triangular-development-partnership-tridep#:~:text=The%20Asia%20Foundation%20through%20its,in%20the%20region%20and%20beyond

United Nations Development Programme. (n.d.). *Frequently asked questions: South-South and triangular cooperation*. Retrieved from https://www.undp.org/sites/g/files/zskgke326/files/publications/SSC_FAQ%20v1.pdf

United Nations Office of South-South Cooperation [UNOSSC]. (2023, May 22). *South-South and triangular cooperation can address the science, technology and innovation gap* [Press release]. Retrieved from https://unsouthsouth.org/2023/05/22/south-south-and-triangular-cooperation-can-address-the-science-technology-and-innovation-gap/

UNOSSC. (n.d.). *The India-UN development partnership fund*. Retrieved from https://indiaunfund.unsouthsouth.org/#projects

Urban, F. (2018). China's rise: Challenging the North-South technology transfer paradigm for climate change mitigation and low carbon energy. *Energy Policy*, 113, pp. 320–330. Retrieved from https://doi.org/10.1016/j.enpol.2017.11.007

United States Agency for International Development. (n.d.) *US-India triangular cooperation*. Retrieved from https://2017-2020.usaid.gov/india/us-india-triangular-cooperation

Wagner, C., Lemke, J., & Scholz, T. (2022). Expanding Germany's relations with India: triangular cooperation as the next step in the strategic partnership. *SWP Comment*, 19/2022. Retrieved from https://doi.org/10.18449/2022C19

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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.

References

Anand, S. (2023, August 30). US and India join forces to launch renewable energy technology action platform. *Mint*. Retrieved from https://www.livemint.com/news/india/us-and-india-join-forces-to-launch-renewable-energy-technology-action-platform-11693408975833.html

IEA. (2021). India energy outlook 2021. In *World energy outlook special report* (pp. 1-191). Paris, France: International Energy Agency. Retrieved from https://www.iea.org/reports/india-energy-outlook-2021

Srivastava, S. (2023, August 2). Repowering assets: NPAs in the Indian power sector and strategies for resolving them. *Power Line Magazine*. Retrieved from https://powerline.net.in/2023/08/02/repowering-assets-npas-in-the-indian-power-sector-and-strategies-for-resolving-them-shantanu-srivastava-sustainable-finance-and-climate-risk-lead-south-asia-ieefa/

The White House. (2005, July 18). Joint statement between President George W. Bush and Prime Minister Manmohan Singh [Press release]. Retrieved from https://georgewbush-whitehouse.archives.gov/news/releases/2005/07/20050718-6.html

The White House. (2006, March 2). U.S.-India joint statement [Press release]. Retrieved from https://georgewbush-whitehouse.archives.gov/news/releases/2006/03/20060302-5.html

The White House. (2008, September 26). Fact sheet: The U.S.-India relationship: A strategic partnership [Press release]. Retrieved from https://georgewbush-whitehouse.archives.gov/news/releases/2008/09/20080926-10.html

The White House. (2009, November 24). Fact sheets: U.S.-Indian cooperation [Press release]. Retrieved from https://obamawhitehouse.archives.gov/the-press-office/fact-sheets-us-indian-cooperation

The White House. (2010, November 8). Joint statement by President Obama and Prime Minister Singh of India [Press release]. Retrieved from https://obamawhitehouse.archives.gov/the-press-office/2010/11/08/joint-statement-president-obama-and-prime-minister-singh-india

The White House. (2016, June 7). Joint statement: The United States and India: Enduring global partners in the 21st century [Press release]. Retrieved from https://obamawhitehouse.archives.gov/the-press-office/2016/06/07/joint-statement-united-states-and-india-enduring-global-partners-21st

The White House. (2019, September 22). Remarks by President Trump and Prime Minister Modi of India at "Howdy, Modi: Shared Dreams, Bright Futures" event [Press release]. Retrieved from https://trumpwhitehouse.archives.gov/briefings-statements/remarks-president-trump-prime-minister-modi-india-howdy-modi-shared-dreams-bright-futures-event/

The White House. (2023a, June 22). Fact sheet: Republic of India official state visit to the United States [Press release]. Retrieved from https://www.whitehouse.gov/briefing-room/statements-releases/2023/06/22/fact-sheet-republic-of-india-official-state-visit-to-the-united-states/

The White House. (2023b, June 22). Joint statement from the United States and India [Press release]. Retrieved from https://www.whitehouse.gov/briefing-room/statements-releases/2023/06/22/joint-statement-from-the-united-states-and-india/

US Agency for International Development. (2016). *Partnership to Advance Clean Energy-Deployment (PACE-D) technical assistance program*. Retrieved from https://www.usaid.gov/sites/default/files/2022-05/PACE-D-Brochure-Feb-2016-1.pdf.

US Department of Energy. (2012). *U.S.-India Partnership to Advance Clean Energy (PACE): A progress report*. Retrieved from https://www.energy.gov/sites/prod/files/PACEProgressReport_Final.pdf

US Department of Energy. (2020, July 17). Secretary Dan Brouillette and Minister Dharmendra Pradhan release joint statement on the virtual U.S.–India Strategic Energy Partnership ministerial [Press release]. Retrieved from https://www.energy.gov/articles/secretary-dan-brouillette-and-minister-dharmendra-pradhan-release-joint-statement-virtual

US Department of Energy. (2022). U.S.-India energy cooperation. Retrieved from https://www.energy.gov/ia/us-india-energy-cooperation

US Department of Energy. (2023, July 18). U.S. and India advance partnership on clean energy [Press release]. Retrieved from https://www.energy.gov/articles/us-and-india-advance-partnership-clean-energy

US Department of State. (2010, June 3). U.S.-India strategic dialogue joint statement [Press release]. Retrieved from https://2009-2017.state.gov/r/pa/prs/ps/2010/06/142645.htm

US Department of State. (2011, July 19). U.S.-India strategic dialogue joint statement [Press release]. Retrieved from https://2009-2017.state.gov/r/pa/prs/ps/2011/07/168745.htm

US Department of State. (2014). U.S.-India energy and climate cooperation [Press release]. Retrieved from https://2009-2017.state.gov/r/pa/prs/ps/2014/07/230050.htm

US Department of State. (2021a). Special presidential envoy for climate John Kerry's trip to India [Press release]. Retrieved from https://www.state.gov/special-presidential-envoy-for-climate-john-kerrys-trip-to-india/

US Department of State. (2021b). U.S.-India joint statement on launching the "U.S.-India Climate and Clean Energy Agenda 2030 Partnership" [Press release]. Retrieved from https://www.state.gov/u-s-india-joint-statement-on-launching-the-u-s-india-climate-and-clean-energy-agenda-2030-partnership/

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08

India–EU Climate Relations: Mapping Diplomatic Engagements

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Abstract

How does India collaborate with European partners on climate action? This policy brief examines the 2016 India–EU Clean Energy and Climate Partnership and various climate-related partnerships that New Delhi has entered with member states of the European Union (EU). Having established a set of partnerships with the European Commission, the European Investment Bank, and several EU member states, India has attempted to engage European partners comprehensively in recent years. Some, but not all, member states have decided to join India-led climate institutions, such as the International Solar Alliance. The brief argues that Indian diplomacy should evaluate the balance between engaging at the EU level and at the bilateral level with EU member states and reflect on the resources allocated to implement these partnerships. It concludes with offering a few options for India's future climate diplomacy with Europe.

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Nordenstam, A. (2023). India–EU Climate Relations: Mapping Diplomatic Engagements In Xavier, C. & Nachiappan, K. (Eds). *Tracks to Transition: India's Global Climate Strategy.* (pp. 75-85). Centre for Social and Economic Progress. Retrieved from https://csep.org/olktHJJ

1. Introduction

As the third- and fourth-largest emitters of greenhouse gases, the European Union (EU) and India are increasingly seeking ways to scale up joint climate action amidst the global climate crisis. With a shared priority to lead global climate action, the green transitions the two actors are targeting have emerged as pivotal areas of cooperation. Although the leaders at the virtual 15th India–EU Summit in July 2020 committed to "prepare and implement a new work programme" under the India–EU Clean Energy and Climate Partnership (India & EU, 2020), India entered a green strategic partnership with Denmark just two months after the summit. In light of India co-chairing the International Solar Alliance (ISA) with France, co-leading the Leadership Group on Industry Transition (LeadIT) with Sweden, and discussing an upgrade of the 2016 India–EU Clean Energy and Climate Partnership, New Delhi's decision to proceed with Denmark as a green strategic partner made sense to some extent. India had fresh institutional memory of building partnerships around climate action and identified an opportunity to engage the Nordic wind power leader through a novel format. At the same time, the decision was perplexing, since India has limited institutional capacity to implement its existing partnerships. However, the new Indo–Danish green strategic partnership did not stop New Delhi and Brussels from agreeing on a new work programme at the India–EU Leaders Meeting in 2021. Yet, these diplomatic developments raise a core question: How does India collaborate with European partners on climate action?

This policy brief depicts India's diplomatic engagements with the EU-wide institutions and bilateral relationships with EU member states as a balancing act between the bilateral level and the EU level. India collaborates not only with member states but also directly with the European Commission and the European Investment Bank (EIB) on climate action. While India and the EU have historically been on separate sides in formal climate negotiations under the United Nations Convention Framework on Climate Change (UNFCCC), their bilateral relationship significantly addresses climate action. The different levels of engagement reflect a broader trend in India–EU relations, where Indians and Europeans have been cooperating at the bilateral and EU levels. Previous research underlines that India prefers the bilateral level, whereas small and medium-sized EU member states prefer the EU level (Aspengren, Lidén, & Nordenstam, 2021). However, with numerous new climate partnerships inked in recent years, it is time for India to take a step back and reassess their impact, evaluate the balance between engaging at the EU level and the bilateral level with EU member states, and reflect on the allocation of resources to implement these partnerships. First, this brief offers an overview of India's climate-related engagements with the European Commission and other EU institutions. Second, the brief discusses India's engagements with EU member states and maps EU member states' involvement with India-led climate institutions. Finally, the brief proposes options for India's future climate diplomacy with the EU.

2. India's Engagement with EU Institutions

India and the European Economic Community entered diplomatic relations in the early 1960s, and both continents have undergone vibrant societal and political transformations. After more than a century under British rule, independent India emerged and sought to make its voice heard in world affairs. The Europeans, in turn, sought closer market and political integration to build conditions for peace between countries that had been at war earlier. At this time, neither environment, climate, nor energy were priority issues for the bilateral relationship. As the decades passed, however, climate-related issues became a diplomatic concern in light of climate change. Over time, the European Economic Community transformed into the European

Union. After two decades of being on separate sides of delicate climate negotiations under the UNFCCC, India and the EU agreed on bilateral initiatives and climate partnerships.

The first joint initiative India and the EU agreed upon was the India–EU Initiative on Clean Development and Climate Change in 2005. In the following years, a Joint Working Group was established on energy, clean energy, and climate change. Additionally, an Energy Panel emerged as an institutional dialogue platform for the partners. Simultaneously, India adopted a national action plan on climate change and national solar energy and energy efficiency missions. In 2012, the partners agreed on a joint declaration for enhanced cooperation on energy at the 12th India–EU Summit in New Delhi.

After a few years of a frosty India–EU relationship and scant climate cooperation, they entered into a Clean Energy and Climate Partnership at the 13th India–EU Summit in 2016. Agreed upon six months after the Paris Agreement at COP21, the partnership illustrated the constructiveness of finding new ways of realising concrete cooperation. Since 2016, the leaders have reiterated the importance of the partnership in joint statements at various India–EU summits. Even as the EU unilaterally adopted a Strategy on India in 2018, the Indian Ministry of External Affairs underlined the importance of cooperating on sustainable development while welcoming the strategy (MEA, 2018). Two years later, at the 15th India–EU Summit, India and the EU agreed on a Roadmap to 2025 with 20 paragraphs referring to either climate change, clean energy, or the environment (India & EU, 2020). Against this backdrop, it is not surprising that Indian and European officials convened a Climate Change Dialogue for the first time in 2021 and also added a working group dealing with clean and green technologies to their newly established Trade and Technology Council (TTC). Besides, the TTC also has a working group on resilient value chains (European Commission, 2023). However, it should be noted that the TTC working group on climate and green technologies does not replace the Energy Panel or the Climate Change Dialogue since different interlocutors are involved on the European side.[1]

The climate partnership with European actors has resulted in concrete action across Indian states. According to the India–EU Clean Energy and Climate Partnership dashboard, the EU-wide partnership has implemented at least 82 projects across 26 states and union territories. For instance, through EU Solar Park projects, 16 states received technical assistance, including the Kurnool Solar Park in Andhra Pradesh, the Pavagada Solar Park in Karnataka, and the Bhadla Solar Park Phase II in Rajasthan.[2] However, since the dashboard has not been updated, it is not possible to get a comprehensive overview of India–European cooperation, and further research is required to estimate the economic value of these projects.

The European Investment Bank (EIB) has several projects that include financial support to Indian states and cities. Between its inception in 1959 and 2013, the EIB had allocated 700 million euros to projects in India. However, since 2014, it has substantially increased its funding to sectors and projects in India. For instance, the EIB invested EUR 3.9 billion in India between 2014 and 2023, of which EUR 3.5 billion was meant for the transport and energy sectors (European Investment Bank, n.d.). The transport projects support the construction of metro rail infrastructure in Agra (EUR 250 million), Bangalore (EUR 500 million), Bhopal (EUR 400 million), Kanpur (EUR 350 million), and Pune (EUR 500 million). An example of the support allocated to energy-sector projects includes funding allocated to two photovoltaic power plants in Tamil Nadu (EUR 47 million).

[1] Author's interview with an EU official, European Commission, August 4, 2023.

[2] A complete list of the solar parks is available online at https://www.cecp-eu.in/resource-center/post/solar-parks-38/solar-parks/solar-parks.

It is noteworthy that the EIB is also planning to invest in the Indian green hydrogen market. In February 2023, the EIB joined the industry coalition, India Hydrogen Alliance, and announced the availability of EUR 1 billion for concrete projects on green hydrogen in India (Koundal, 2023).

Besides the EU-wide EIB, India has engaged with German and French developmental agencies for decades. For instance, the *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) has supported projects in India since the 1960s, and the *Agence Francaise de Développement* (AFD) began partnering with India in 2008. To provide an example of the range and depth of engagement, GIZ currently runs 81 projects in India at a value of EUR 436 million (GIZ, n.d.).[3] Such support should be considered against the strong nexus of development and Indian climate policy, although some projects constitute development instead of climate cooperation.

2.1 Climate-Related Friction in the Trade Talks and the European Green Deal

In light of the economic angle of the partnership, it is unsurprising that climate-related issues feature in the current ongoing trade negotiations relating to a free trade agreement (FTA), an investment protection agreement, and a geographical indications agreement between India and the EU. The main reason for this is that the EU prioritises sustainability and environmental standards in its trade deals; in the past, sustainability and environmental standards have been challenging issues in the trade negotiations between India and the EU.[4] A decade ago, stalled trade talks between the EU and India had a negative impact on bilateral climate cooperation (Torney, 2019). Given that sustainability and environmental issues have become quite pressing, finding compromises may be critical to reaching common ground before proceeding with the implementation phase of a trade deal. While there is immense untapped potential in the economic relationship between the EU and India, there is also an urgent need to sort out some of the misunderstandings (Observer Research Foundation & Jacques Delors Institute, 2023).

Friction has also appeared pertaining to the European Green Deal. India has expressed scepticism about the Carbon Border Adjustment Mechanism (CBAM), which imposes taxes on carbon-intensive goods, as Europe transforms into a climate-neutral green economy. Since the carbon intensity of Indian steel plants is higher than the global average, steel exported from India to Europe could be affected by CBAM (Law, 2023). In response to the opposition to CBAM, India endorsed the Brazil, Russia, India, China and South Africa (BRICS) statements expressing their "grave concern" in 2021. And in 2022, the CBAM was highlighted as "incompatible with multilateral rules under the World Trade Organization" (BRICS, 2022). In response to Indian opposition, EU Climate Commissioner Frans Timmermans claimed that CBAM would be WTO-compliant and clarified to the Indian press that "if CBAM has undesired results, then we can correct it" (Kumar, 2023).

At the same time, the European Green Deal offers a major market opportunity for Indian industry since the EU seeks to decrease its dependency on China (Oertel, Tollmann, & Tsang, 2020). In 2021, 89% of the EU's solar panel imports and 64% of wind turbine imports originated from China (Eurostat, 2022). As the implementation of the European Green Deal continues, Europe will need solar panels and wind turbines originating from elsewhere to de-risk the EU–China relationship. India could become a major beneficiary, with Europe diversifying its solar panel imports. However, to what extent India's opposition to CBAM affected European interest in purchasing Indian-made solar panels remains to be seen.

[3] As of July 4, 2023.
[4] For a history of the trade talks, see Köhler-Suzuki (2021).

Meanwhile, the preliminary design for the implementation of CBAM has triggered new proposals in the European policy debate. A proposal that India could potentially benefit from is a co-innovation fund for projects with priority partners based on incomes from CBAM and the EU Emissions Trading System (Engström, 2022). Since CBAM is expected to be fully operational by 2034, India and the EU still have time to discuss ways to address CBAM-related frictions.

3. India's Engagements with EU Member States

India has entered into different kinds of partnerships with EU member states to foster cooperation. Interestingly, most of these partnerships were publicly announced in the presence of Prime Minister Modi at bilateral summits and, sometimes, during multilateral conferences. In short, India enters these climate partnerships on deliberately chosen occasions. As summits come with visibility and image-building opportunities for leaders, such temporal occurrences suggest that the prime minister has used these opportunities to underscore his reputation as a friend of the environment in his interactions with European leaders. Another reason could be that India and its partners see business opportunities in the green transition, which serve as a catalyst in fostering climate-related partnerships between them. While future research could examine how and why these partnerships came about, it is also likely that partners worry about the prospects of India becoming a new giant emitter such as China.

A few of the partnerships that India has chosen to formalise are quite attractive. For instance, the ISA that India co-chairs with France has evolved into a treaty-based institution after its inception in 2015. The Leadership Group on Industry Transition that India co-chairs with Sweden continuously attracts new members, including the United States in 2021 and Tata Steel in 2023. In September 2020, India entered into a Green Strategic Partnership with Denmark. A year later, India signed the Strategic Partnership on Water with the Netherlands. However, the list of climate-related partnerships that India has entered goes beyond these novel partnerships (see Table 1).

Besides climate-related partnerships, India has aimed to establish institutional frameworks by signing more than 30 Memorandum (s) of Understanding (MoUs) with 14 EU member states. Interestingly, every member state that currently has a climate-related partnership with India had, at some point, signed MoUs with India, indicating a gradual progression in the relationship—partnerships follow the MoUs. However, this progression could be construed as institutional upgrades, where investing in institutional capacity serves as a reminder of the importance of the relationships. Conversely, the partnerships could also be considered diplomatic expectation management, where institutional capacity is required to operationalise political instructions relating to the implementation of the already existing institutional frameworks.

In the past 15 years, the largest number of MoUs have been signed between India and Denmark. However, only three out of the six MoUs between Copenhagen and New Delhi were signed under the Modi government. In fact, with four different MoUs, it is France that has signed the most climate-related MoUs amongst EU member states during the Modi government.[5] Furthermore, several Indian ministries have finalised MoUs with EU member states. These include the Ministry of New and Renewable Energy; the Ministry of Environment, Forests, and Climate Change; the Ministry of Rural Development; the Ministry of Jal Shakti; and the Ministry of Urban Development.

[5] Author's calculation based on online dashboard of the India-EU Clean Energy and Climate Partnership. It is very likely that there are many more MoUs signed between India and EU member states, but have not been showcased on the online dashboard. The list of MoUs discussed here should not be seen as exhaustive. For further details, see: https://cecpdashboard-eu.in/

Table 1. India's Bilateral Climate-related Partnerships with EU Member States and the European Commission

Year	Countries	Partnership	Launch occasion
2015	India and Germany	Solar Energy Partnership	3rd Indo–German Government Consultations, New Delhi, in the presence of PM Modi and Chancellor Merkel
2015	India and France	International Solar Alliance	21st Session of the Conference of the Parties (COP21), Paris, in the presence of PM Modi and President Hollande
2016	India and the European Union	Clean Energy and Climate Partnership	13th India–EU Summit, Brussels, in the presence of PM Modi, European Council President Tusk, and European Commission President Juncker
2018	India and Sweden	Innovation Partnership for a Sustainable Planet	Visit of PM Modi to Sweden, Stockholm, in the presence of PM Modi and PM Löfven
2019	India and Sweden	Leadership Group on Industry Transition	UN Climate Action Summit, New York, in the presence of PM Modi
2020	India and Denmark	Green Strategic Partnership	India–Denmark Virtual Summit, in the presence of PM Modi and PM Frederiksen
2021	India and Netherlands	Strategic Partnership on Water	India–Netherlands Virtual Summit, in the presence of PM Modi and PM Rutte
2022	India and Sweden	Green Transition Partnership	India–Sweden Sustainability and Green Transition Day, Mumbai, in the virtual presence of Deputy Chief Minister Fadnavis and Swedish Minister Pourmokhtari
2022	India and Germany	Partnership for Green and Sustainable Development	6th Indo–German Government Consultations, Berlin, in the presence of PM Modi and Chancellor Scholz
2022	India and France	Indo-Pacific Parks Partnership	Ahead of India's External Affairs Minister Jaishankar's participation in the EU's Indo-Pacific Ministerial Forum, Paris

Source: Author's compilation based on official documents and press releases. Not exhaustive.

An overview of the various MoUs paints a mixed picture of India's climate diplomacy with EU member states. The optimistic interpretation is that India has successfully engaged half of the EU member states with these MoUs. The pessimistic view is that the other half remains unengaged despite widespread Indian diplomatic presence across Europe. For instance, the Baltic states do not have any MoUs with India on climate-related issues despite seeking closer partnership with India. Yet another interpretation is that EU member states prefer concrete joint projects rather than MoUs. Another view is that some EU member states simply do not need new MoUs since their partnerships are

already functioning. Before inviting more EU member states to sign new MoUs as part of its climate diplomacy, India could benefit from formulating a policy on how to boost its current climate diplomacy with EU member states further.

EU member states have already been coordinating among themselves in New Delhi regularly. For instance, most European embassies have diplomats assigned to the climate change and energy portfolio since it is a priority issue. Amongst them, a group of 10–15 EU member states meet 6–8 times a year for internal coordination on concrete topics related to climate, energy, and environment,[6] convened by the EU Delegation in New Delhi. This is in stark contrast to the early 2010s, when the European diplomatic community in New Delhi lacked climate expertise (Torney, 2015).

In light of increasing European diplomatic capacity and coordination on climate change and energy in India, New Delhi should ask itself how well India is represented across Europe—in Brussels, small, medium-sized, and large capitals—to identify climate cooperation opportunities. To what extent does India's current diplomatic presence in Europe assist New Delhi in acting proactively on climate-related issues and opportunities?

3.1 EU Member States in Climate Institutions Co-led by India

Following new collaborative frameworks that have emerged in recent years, a few EU member states have decided to join climate institutions co-led by India. Besides the support offered by the European Commission and other EU institutions to the ISA and the Coalition for Disaster Resilient Infrastructure, some members have chosen to engage further. For instance, nine EU member states have joined the ISA that India and France co-launched in 2015. Further, eight EU member states have joined LeadIT, which India co-chairs with Sweden since 2019. About four EU member states have joined the Coalition for Disaster Resilient Infrastructure that India launched together with the UN and a group of countries, including Italy, in 2019. Germany and the Netherlands are members of all three climate institutions. While this does not look very encouraging given that the EU is comprised of 27 member states that could have joined, it must be acknowledged that not all EU member states have as ambitious climate agendas as Germany. This explains why Indian diplomacy has had a lukewarm reception in Europe. Further, some EU member states are more eager to participate in climate engagements than others. Therefore, it may not be realistic to expect every EU member state to support new climate institutions.

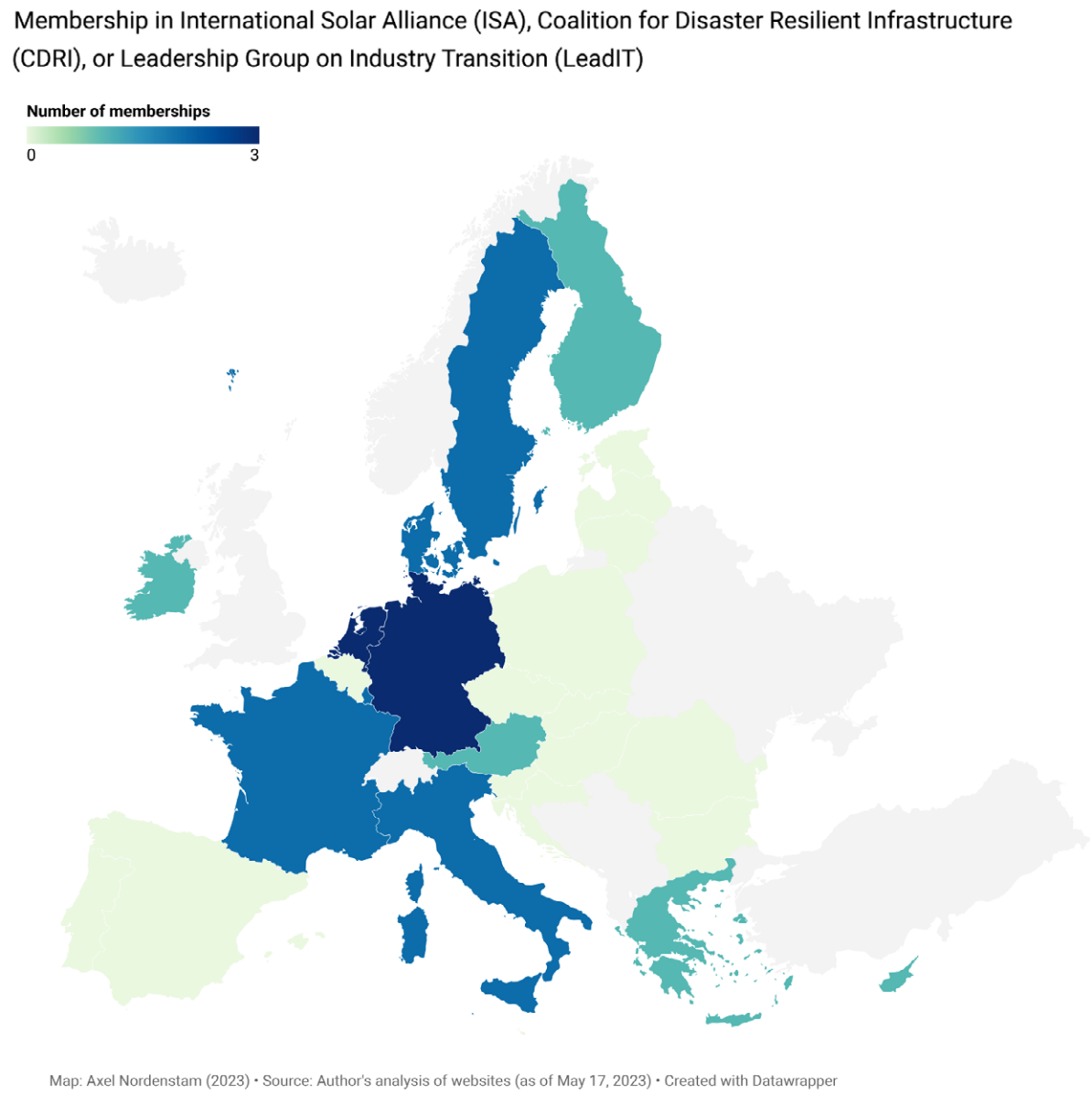
Figure 1 shows the EU member states who are part of the three climate institutions co-led by India, based on calculations by the author.

4. Possibilities for India's Future Climate Diplomacy

India's commitment to tackling climate change is evident through its comprehensive engagement with the EU on climate action, as highlighted in this policy brief. India's diplomatic green partnerships with the EU are marked by a range of bilateral and EU-wide partnerships. As India collaborates with the European Commission, EU institutions, and many EU member states on climate-related issues, India has chosen to pursue climate partnerships both at the EU and bilateral levels. Despite occasionally being on opposite sides in the formal climate negotiations, India and the EU have found ways to collaborate on climate action. Locating their climate partnership within the framework of the India–EU strategic partnership instead of climate negotiations alone seems prudent.

[6] Author's interview with an EU official, July 3, 2023.

Figure 1. EU Member States in Climate Institutions Co-led by India



Note: Member states in yellow are not part of any of the climate institutions co-led by India; member states in grey participate in at least one of the institutions (i.e., Finland); member states in blue participate in at least two institutions (i.e., France); member states in navy blue are part of all three institutions (i.e., Germany and Netherlands).

However, it is time India evaluated the impact and utility of these partnerships. Would New Delhi formulate a strategy or guidelines, as it did with its 2022 Arctic Policy? A few key questions India should consider while reviewing its partnerships and developing new pathways are as follows: How can the existing partnerships be leveraged to further engage with European actors across Europe? Does Indian diplomacy in Europe have the required resources to attract investments to India? How can New Delhi facilitate engagements between Indian states and European actors? What have been the opportunities and challenges in the implementation phase of projects linked to recent climate partnerships? These questions require analysis and reflection as India designs measures to cooperate with Europe on climate action.

On a more concrete level, India could consider the following options:

- In Europe, India could increase its outreach to European partners and invite more EU member states to join climate institutions co-led by India. India could proactively engage with European stakeholders, convincing them to opt for Indian goods and services, such as solar panels, which are needed for the implementation of the European Green Deal. At the same time, India could capacitate its understaffed embassies in EU member states and assign diplomats or climate envoys to Europe who work specifically on climate change and energy.
- New Delhi could encourage state governments to visit European capitals and engage with European counterparts. It should also encourage the private sector to explore ways of boosting Indian exports to the European market. Indian stakeholders interested in showcasing their products and services should be encouraged to do so at biennale large-scale exhibitions and meeting places along with European partners (Aspengren & Nordenstam, 2020). A major advantage of the biennale is that it would help clarify standards and procedures before Indian stakeholders attempt to export products to the European market that might not adhere to European regulations.
- At the next India–EU Summit, India should reiterate the importance of the India–EU Clean Energy and Climate Partnership. Instead of launching new partnerships, Indian and European leaders should encourage their bureaucracies to focus more on implementing existing partnerships. However, to use the EU-wide climate partnership to facilitate export to Europe, India will need to ensure that green products made in India—solar panels, green hydrogen, and green waste management—adhere to European standards. If not, India risks restricting the partnership for concrete projects in India and third countries while missing the opportunity to also treat it as an export-facilitating partnership.
- In the Trade and Technology Council (TTC), India could present forward-looking ideas in the working groups. For instance, in the working group on green technologies, India should push for the co-production of solar energy as a step towards ensuring that solar panels produced in India can be exported to the European market. In the working group on resilient supply chains, India should push for projects in its neighbourhood. Joint projects discussed in the TTC could potentially be funded through the EU Global Gateway project that will mobilise EUR 300 billion for infrastructure projects until 2027. Further, given that the TTC is separate from trade negotiations, it would be counterproductive to raise demanding negotiation issues in the TTC.

References

Aspengren. H. C., & Nordenstam, A. (2020). A proposal for coordinated climate action: A multi-layered Indo-European opportunity. Swedish Institute of International Affairs. Retrieved from https://www.ui.se/globalassets/ui.se-eng/publications/other-publications/a-proposal-for-coordinated-climate-action_-a-multi-layered-indo-european-opportunity.pdf

Aspengren. H. C., Lidén, E., & Nordenstam, A. (2021). Circles of EU-India Engagement: How member states cooperate with India on global issues. Swedish Institute of International Affairs. Retrieved from https://www.ui.se/globalassets/ui.se-eng/publications/ui-publications/2021/ui-paper-no.-1-2021.pdf

BRICS. (2022). Joint Statement issued at the BRICS High-level Meeting on Climate Change. Retrieved from http://brics2022.mfa.gov.cn/eng/hywj/ODMM/202205/t20220529_10694182.html

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). (n.d). Project data [Interactive map]. Retrieved from https://www.giz.de/projektdaten/region/2/countries/IN

Engström, M. (2022). Put co-innovation at the heart of EU green external relations. EURACTIV. Retrieved from https://www.euractiv.com/section/energy-environment/opinion/put-co-innovation-at-the-heart-of-eu-green-external-relations/

European Commission. (2023, February 6). EU-India: New Trade and Technology Council to lead on digital transformation, green technologies, and trade [Press release]. Retrieved from https://ec.europa.eu/commission/presscorner/detail/en/IP_23_596

European Investment Bank (EIB). (n.d). Projects: Global investment map [Interactive map]. https://www.eib.org/en/projects/map.htm#

EU-India Clean Energy and Climate Partnership. (n.d.). Solar parks. Retrieved from https://www.cecp-eu.in/resource-center/post/solar-parks-38/solar-parks/solar-parks

EU-India Clean Energy and Climate Partnership. (n.d.). India-EU Clean Energy and Climate Partnership (CECP) Dashboard. Retrieved from https://cecpdashboard-eu.in

Eurostat. (2022). International trade in products related to green energy. Retrieved from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=International_trade_in_products_related_to_green_energy&oldid=579764#Solar_panels:_China_largest_import_partner.2C_United_States_largest_export_partner

India & EU. (2020). India–EU Strategic Partnership: A Roadmap to 2025. Ministry of External Affairs, Government of India. Retrieved from https://www.mea.gov.in/bilateral-documents.htm?dtl/32828/IndiaEU_Strategic_Partnership_A_Roadmap_to_2025

Köhler-Suzuki, N. (2021). Determinants and impediments of the EU–India bilateral trade and investment agreement: The proof of this old pudding is in the eating. In P. Gieg, T. Lowinger, M. Pietzko, A. Zürn, U.S. Bava, & G. Müller-Brandeck-Bocquet (Eds), *EU–India Relations: The strategic partnership in the light of the European Union global strategy* (pp. 151–184). Springer. Retrieved from https://doi.org/10.1007/978-3-030-65044-5_8

Koundal, A. (2023, February 8). EIB commits 1-bn-euro funding for large-scale green hydrogen projects in India. *The Economic Times.* Retrieved from https://energy.economictimes.indiatimes.com/news/renewable/eib-to-support-green-hydrogen-projects-in-india-with-1-bn-euro-indicative-funding/97728631

Kumar, M. (2023, May 26). European Union will tackle India's concerns on carbon tax, official says. *Reuters*. Retrieved from https://www.reuters.com/world/india/european-union-will-tackle-indias-concerns-carbon-tax-official-says-2023-05-26/

Law, A. (2023, January 27). India to raise at WTO EU's plan to levy carbon tax on imports. *Business Line*. Retrieved from https://www.thehindubusinessline.com/companies/india-may-raise-eus-carbon-tax-issue-at-wto/article66440036.ece/amp/

MEA. (2018, November 26). India welcomes joint communication by the European Commission on India–EU partnership—A partnership for sustainable modernisation and rules-based global order [Press release]. Ministry of External Affairs. Retrieved from https://www.mea.gov.in/press-releases.htm?dtl/30643/India_welcomes_Joint_Communication_by_the_European_Commission_on_IndiaEU_partnership__A_Partnership_for_Sustainable_Modernisation_and_Rulesbased_Globa

Observer Research Foundation & Jacques Delors Institute. (2023). *India and the European Union in 2030: Building a closer economic partnership*. Retrieved from https://www.svensktnaringsliv.se/bilder_och_dokument/rapporter/6mdqoz_india_and_the_european_union_in_2030pdf_1201392.html/India_and_the_European_Union_in_2030.pdf

Oertel, J., Tollmann, J., Tsang, B. (2020). Climate superpowers: How the EU and China can compete and cooperate for a green future. European Council on Foreign Relations. Retrieved from https://ecfr.eu/publication/climate-superpowers-how-the-eu-and-china-can-compete-and-cooperate-for-a-green-future/

Torney, D. (2015). *European climate leadership in question: Policies toward China and India*. The MIT Press. Retrieved from https://doi.org/10.7551/mitpress/9780262029360.001.0001

Torney, D. (2019). India's relations with the European Union on environmental policy. In N. Ciecierska-Holmes, K. Jörgensen, L.L. Ollier, & D. Raghunandan (Eds.), *Environmental Policy in India* (pp. 225–240). Routledge. Retrieved from https://www.routledge.com/Environmental-Policy-in-India/Ciecierska-Holmes-Jorgensen-Ollier-Raghunandan/p/book/9781032084572

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